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Data obtained through Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from Sentinel in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

The following report contains a description of the request, request specifications, and results from the modular program run(s).

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Overview for Request: cder_mpl2p_wp044

Request ID: cder_mpl2p_wp044_nsdv_v01

Request Description: In this report we investigated the comparative risk of thromboembolic stroke, intracranial hemorrhage, gastrointestinal bleeding, and extracranial bleeding outcomes associated with use of rivaroxaban and apixaban in individuals under 65 years of age with non-valvular atrial fibrillation in the Sentinel Distributed Database (SDD).

Sentinel Routine Querying Module: Cohort Identification and Descriptive Analysis (CIDA) module, version 11.3.0, with Propensity Score Analysis module and custom programming.

Data Source: We distributed this request to five Data Partners on March 20, 2023. The study period included data from October 19, 2010 to February 28, 2022. See Appendix A for a list of the latest dates of available data for each DP included in this report.

Study Design: We identified cohorts of incident rivaroxaban and apixaban users among health plan members who were under 65 years of age with atrial fibrillation. We evaluated the occurrence of thromboembolic stroke (stroke), intracranial hemorrhage (ICH), major extracranial bleeding (MEB), and gastrointestinal bleeding (GIB) outcomes among these cohorts. We then conducted a Propensity Score Analysis (PSA) comparing the two treatments using inverse probability of treatment weighting (IPTW) to adjust for confounding. This study used a retrospective new-user cohort design. This is a Type 2 analysis using the Propensity Score Analysis module in the Query Request Package (QRP) documentation.

Exposures: We defined the exposures of interest as new use of standard dose rivaroxaban (20 mg once daily) or apixaban (5 mg twice daily). The exposure drugs were defined using National Drug Codes (NDCs). Please see Appendix B for a list of generic and brand names of medical products used to define exposures in this request.

Outcomes: We defined the following outcomes of interest. For a list of International Classification of Diseases, Ninth and Tenth Revisions, Clinical Modification (ICD-9-CM and ICD-10-CM) diagnosis codes used to define the outcomes, please see Appendix H.

1. We defined stroke and ICH using ICD-9-CM and ICD-10-CM diagnosis codes flagged as a primary diagnosis in an inpatient encounter.
2. We defined MEB¹ as:
 - a) one ICD-9-CM or ICD-10-CM diagnosis code from “Major Extracranial Bleeding - List 1” as primary diagnosis from inpatient encounter AND no code from “Major Extracranial Bleeding - List 3”OR
 - b) one ICD-9-CM or ICD-10-CM diagnosis code from “Major Extracranial Bleeding - List 2” as primary diagnosis from inpatient encounter AND one ICD-9-CM or ICD-10-CM diagnosis code from “Major Extracranial Bleeding - List 1” as secondary or unspecified diagnosis from inpatient encounter on the same day AND no code from “Major Extracranial Bleeding - List 3”).
3. We defined GIB as:
 - a) one ICD-9-CM or ICD-10-CM diagnosis code from “Gastrointestinal Bleeding - List 1” as primary diagnosis from inpatient encounterOR
 - b) one ICD-9-CM or ICD-10-CM diagnosis code from “Gastrointestinal Bleeding - List 2” as primary diagnosis from inpatient encounter AND one ICD-9-CM or ICD-10-CM diagnosis code from “Gastrointestinal Bleeding - List 1” as secondary or unspecified diagnosis from inpatient encounter on the same day.

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Cohort Eligibility Criteria: We required patients included in the cohorts to be enrolled in health plans with both medical and drug coverage for at least 183 days prior to the index exposure, during which gaps in coverage of up to 45 days were allowed and treated as continuous enrollment. Cohorts were further restricted to patients under 65 years of age. New use was defined as no use of apixaban or rivaroxaban at the specified index doses in the 183 days period preceding the index dispensing. We included patients with evidence of atrial fibrillation in the 183 days preceding or on the index date. We excluded patients from the cohort if they had evidence of use of alternative doses of rivaroxaban or apixaban or if they had any use of dabigatran, edoxaban, or warfarin at any dose in the 183 days prior to or on the index date. We also excluded patients from the cohort if they had evidence of dialysis, kidney replacement, deep vein thrombosis, pulmonary embolism, joint replacement, mitral stenosis, valve replacement or valve repair in the 183 days prior to and including the index date. Dialysis was only assessed in outpatient care settings. Additionally, we excluded patients from the analysis if they had evidence of an institutional stay encounter on their index date. Inclusion and exclusion criteria were defined using NDCs, ICD-9-CM, ICD-10-CM, International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS) and Current Procedural Terminology, Fourth Edition (CPT-4) codes. Please see Appendix E for a list of generic and brand names of medical products, and Appendix D for a list of diagnosis and procedure codes used to define inclusion and exclusion criteria in this request.

Follow-up: We determined follow-up time based on the length of the exposure episodes. Specifically, we created exposure episodes using outpatient pharmacy dispensing data. We bridged together exposure episodes less than three days apart and added three days at the end of each exposure episode to create continuous treatment episodes. Overlapping days supply of two dispensings were stockpiled up to 33% of the first dispensings days supply. We censored all exposure episodes upon dispensing of the comparator drug, alternative dose of the index drug, warfarin or edoxaban dispensing, kidney transplant, dialysis, institutional stay encounter, major extracranial bleed, gastrointestinal bleed, intracranial hemorrhage, or ischemic stroke. Follow-up began on the day after exposure initiation and continued until the first occurrence of any of the following: 1) outcome occurrence; 2) requester-defined censoring criteria; 3) disenrollment; 4) recorded death; 5) end of exposure episode; 6) end of query period; or 7) end of available data. Only the first valid exposure episode that occurred during the study period was included per patient. Censoring criteria were defined using NDC, ICD-9-CM, ICD-10-CM, ICD-10-PCS and CPT-4 codes. Please see Appendix F for a list of generic and brand names of medical products, and Appendix C for a list of diagnosis and procedure codes used to define censoring criteria in this request.

Baseline Covariates: Please see Appendix G for a list of generic and brand names of medical products, and Appendix H for a list of ICD-9-CM and ICD-10-CM diagnosis codes used to define baseline covariates in this request. Please see Appendix I for evaluation windows used to define covariates.

Propensity Score Estimation: We fit a logistic regression model to estimate the propensity score (PS) based on the potential confounders outlined in Appendix K. We used the PS to conduct an IPTW analysis. Specifically, after PS estimation and exclusion (i.e. trimming) of patients in non-overlapping regions of the PS distributions, we used the PS to create a stabilized average treatment effect (ATES) weight for each patient.

We initially applied three candidate weight truncation percentile thresholds to deal with potential extreme inverse probability of treatment weights: 0% (no truncation), 1%, and 2.5%. Truncation was operationalized symmetrically, in that weights smaller than the weight at the specified percentile of the weight distribution were re-assigned the value of the weight at the specified percentile of the weight distribution, while weights larger than the weight at the (100 - specified percentile) of the weight distribution were re-assigned the value of the weight at the (100 - specified percentile) of the weight distribution. After a review of the distribution of IPT weights for the three truncation thresholds that was blinded to effect estimates, we decided truncation was not necessary and applied the 0% threshold (no truncation) to all analyses.

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Subgroup analyses for effect estimation included prior antiplatelet use in 183 days, age categories (21-49, 50-64), sex (male, female), CHADSVASC² score (0, 1, 2, 3, 4, 5+), and HASBLED³ score (0, 1, 2, 3+) categories. The CHADSVASC score predicts risk of stroke in patients with atrial fibrillation, while the HASBLED score predicts bleeding risk in patients taking anticoagulants. For IPTW analyses, subgroups were formed out of the post-trimming overall population to ensure only those patients contributing to the overall analysis contributed to a subgroup analysis.

See Appendices J and K for the specifications or parameters used in this request.

Limitations: As with all observational studies, this evaluation was limited in its ability to control for all sources of potential bias. Algorithms used to define exposures, outcomes, inclusion and exclusion criteria, and covariates are imperfect and may be misclassified. Therefore, data should be interpreted with this limitation in mind.

Notes: Please contact the Sentinel Operations Center (info@sentinelssystem.org) for questions and to provide comments/suggestions for future enhancements to this document. For more information on Sentinel's routine querying modules, please refer to the documentation (<https://dev.sentinelssystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tooldocumentation/browse>).

¹Cunningham A, Stein CM, Chung CP, Daugherty JR, Smalley WE, Ray WA. An automated database case definition for serious bleeding related to oral anticoagulant use. *Pharmacoepidemiol Drug Saf.* 2011 Jun;20(6):560-6.

²CHA2DS2-VASc: Lip, G.Y., Nieuwlaat, R., Pisters, R., Lane, D.A. and Crijns, H.J., 2010. Refining clinical risk stratification for predicting stroke and thromboembolism in atrial fibrillation using a novel risk factor-based approach: the euro heart survey on atrial fibrillation. *Chest*, 137(2), pp.263-272.

³HAS-BLED: Pisters, R., Lane, D.A., Nieuwlaat, R., De Vos, C.B., Crijns, H.J. and Lip, G.Y., 2010. A novel user-friendly score (HAS-BLED) to assess 1-year risk of major bleeding in patients with atrial fibrillation: the Euro Heart Survey. *Chest*, 138(5), pp.1093-

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**Glossary of Terms for Analyses Using
Cohort Identification and Descriptive Analysis (CIDA) Module***

Amount Supplied - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing.

Blackout Period - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.

Care Setting - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency Department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). The Care Setting, along with the Principal Diagnosis Indicator (PDX), forms the Care Setting/PDX parameter.

Ambulatory Visit (AV) - includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.

Emergency Department (ED) - includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.

Inpatient Hospital Stay (IP) - includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.

Non-Acute Institutional Stay (IS) - includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.

Other Ambulatory Visit (OA) - includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

Charlson/Elixhauser Combined Comorbidity Score - calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (e.g., in the 183 days prior to index).

Code Days - the minimum number of times the diagnosis must be found during the evaluation period in order to fulfill the algorithm to identify the corresponding patient characteristic.

Cohort Definition (drug/exposure) - indicates how the cohort will be defined: 01: Cohort includes only the first valid treatment episode during the query period; 02: Cohort includes all valid treatment episodes during the query period; 03: Cohort includes all valid treatment episodes during the query period until an event occurs.

Computed Start Marketing Date - represents the first observed dispensing date among all valid users within a GROUP (scenario) within each Data Partner site.

Days Supplied - number of days supplied for all dispensings in qualifying treatment episodes.

Eligible Members - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.

Enrollment Gap - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.

Episodes - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.

Episode Gap - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same treatment episode.

Event Deduplication - specifies how events are counted by the Modular Program (MP) algorithm: 0: Counts all occurrences of a health outcome of interest (HOI) during an exposure episode; 1: de-duplicates occurrences of the same HOI code and code type on the same day; 2: de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).

Exposure Episode Length - number of days after exposure initiation that is considered "exposed time."

Exposure Extension Period - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions are added after any episode gaps have been bridged.

Lookback Period - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

Maximum Episode Duration - truncates exposure episodes after a requester-specified number of exposed days. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

**Glossary of Terms for Analyses Using
Cohort Identification and Descriptive Analysis (CIDA) Module***

Member-Years - sum of all days of enrollment with medical and drug coverage in the query period preceded by an exposure washout period all divided by 365.25.

Minimum Days Supplied - specifies a minimum number of days in length of the days supplied for the episode to be considered.

Minimum Episode Duration - specifies a minimum number of days in length of the episode for it to be considered. Applied after any gaps are bridged and extension days added to the length of the exposure episode.

Monitoring Period - used to define time periods of interest for both sequential analysis and simple cohort characterization

Principal Diagnosis (PDX) - diagnosis or condition established to be chiefly responsible for admission of the patient to the hospital. 'P' = principal diagnosis, 'S' = secondary diagnosis, 'X' = unspecified diagnosis, '.' = blank. Along with the Care Setting values, forms the Caresetting/PDX parameter.

Query Period - period in which the modular program looks for exposures and outcomes of interest.

Switch Evaluation Step Value - value used to differentiate evaluation step. Each switch pattern can support up to 2 evaluation steps (0 = switch pattern evaluation start; 1 = first evaluation; 2 = second evaluation).

Switch Gap Inclusion Indicator - indicator for whether gaps in treatment episodes that are included in a switch episode will be counted as part of the switch episode duration.

Switch Pattern Cohort Inclusion Date - indicates which date to use for inclusion into the switch pattern cohort of interest as well as optionally as the index date of the treatment episode initiating the switch pattern. Valid options are the product approval date, product marketing date, other requester defined date, or computed start marketing date.

Switch Pattern Cohort Inclusion Strategy - indicates how the switch pattern cohort inclusion date will be used: 01: used only as a switch cohort entry date. First treatment episode dispensing date is used as index for computing time to first switch; 02: used as switch cohort entry date and as initial switch step index date for computing time to first switch.

Treatment Episode Truncation Indicator - indicates whether the exposure episode will be truncated at the occurrence of a requester-specified code.

Washout Period (drug/exposure) - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode.

Washout Period (event/outcome) - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode.

Years at Risk - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25.

*all terms may not be used in this report

**Glossary of Terms for Analyses Using
Propensity Score Analysis (PSA) Module***

Covariate - requester defined binary variable to include in the propensity score estimation model (e.g., diabetes, heart failure, etc.) during requester-defined lookback period. Requester may also choose to add any of the following categorical, continuous, or count metrics to the propensity score estimation model:

1. Age (continuous)
2. Sex
3. Time period (i.e., monitoring period for sequential analyses)
4. Year of exposure
5. Comorbidity score
6. Medical utilization – number of inpatient stays
7. Medical utilization – number of institutional stays
8. Medical utilization – number of emergency department visits
9. Medical utilization – number of outpatient visits
10. Health care utilization – number of other ambulatory encounters (e.g., telemedicine, email consults)
11. Drug utilization – number of dispensings
12. Drug utilization – number of unique generics dispensed
13. Drug utilization – number of unique drug classes dispensed

Covariate Evaluation Window - specified number of days relative to index date to evaluate the occurrence of covariates of interest. Note: members are required to have continuous enrollment during the covariate evaluation window, regardless of the value included in the "Continuous enrollment before exposure" field.

Individual Level Data Return - program may return individual-level, de-identified datasets to the Sentinel Operations Center (SOC). While the datasets contain a single row per patient for each specified analysis, patient identifiers such as a patient ID are not included in the output. Individual-level datasets are returned to the SOC, aggregated, and used to calculate effect estimates via Cox (proportional hazards) regression.

Mahalanobis Distance - provides a measure of balance across all variables while accounting for their correlation.

Matching Caliper - maximum allowed difference in propensity scores between treatment and control patients. Requester may select any caliper (e.g., 0.01, 0.025, and 0.05).

Matching Ratio - patients in exposed and comparator groups are nearest neighbor matched by a 1:1 or 1:n (up to 10) matching ratio.

Matched Conditional and Unconditional Analysis - in a conditional matched analysis, a Cox model, stratified by Data Partner site and matched set, is run on the matched population. This can be done for both the both 1:1 and 1:n matched cohorts. In an unconditional analysis, a Cox model, stratified by Data Partner site only, is run on the matched population. This can be done for the 1:1 matched cohort only.

Propensity Score Stratification - option to stratify propensity scores based on requester-defined percentiles in the unmatched population. In a stratified analysis, a Cox model, stratified by Data Partner site, is run on the stratified population. Note that all patients identified in exposure and comparator cohorts are used in the analysis.

PSM Tool - performs effect estimation by comparing exposure propensity-score matched parallel new user cohorts. Propensity score estimation and matching are conducted within each Sentinel Data Partner site via distributed programming code; data are returned to the SOC, aggregated, and used to calculate effect estimates.

Risk-set Level Data Return - alternative to the patient-level data return approach. In this approach, the PSM tool will produce de-identified, risk-set level datasets instead of or in addition to individual-level output. Whereas each observation in the patient-level datasets represents one patient in the cohort, each observation in the risk set dataset represents one event. Risk sets are created at the Data Partner site, returned to the SOC, aggregated, and used to calculate effect estimates via case-centered logistic regression.

Subgroup Analysis - may be conducted using any requester-defined covariates. Subgroup analyses may be performed in the unmatched and the matched population.

**Glossary of Terms for Analyses Using
Propensity Score Analysis (PSA) Module***

Zero Cell Correction - indicator for whether to screen variables with a zero correction added to each cell in the confounder/outcome 2x2 table. Recommended when the number of exposed outcomes is fewer than 150.

*all terms may not be used in this report

Table 1a. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	57,932	100.0%	96,057	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	56.2	7.4	56.9	7.1	-0.654	-0.090
Age						
21-49 years	9,858	17.0%	14,411	15.0%	2.014	0.055
50-64 years	48,074	83.0%	81,646	85.0%	-2.014	-0.055
Sex						
Female	14,858	25.6%	28,332	29.5%	-3.848	-0.086
Male	43,074	74.4%	67,725	70.5%	3.848	0.086
Race ³						
American Indian or Alaska Native	30	0.1%	83	0.1%	-0.035	-0.013
Asian	112	0.2%	196	0.2%	-0.011	-0.002
Black or African American	1,217	2.1%	2,804	2.9%	-0.818	-0.052
Native Hawaiian or Other Pacific Islander	46	0.1%	z	0.1%	-0.009	-0.003
Unknown	48,930	84.5%	77,288	80.5%	4.001	0.105
White	7,384	12.7%	15,216	15.8%	-3.095	-0.089
Hispanic origin						
Yes	289	0.5%	520	0.5%	-0.042	-0.006
No	4,795	8.3%	11,202	11.7%	-3.385	-0.113
Unknown	52,848	91.2%	84,335	87.8%	3.427	0.112
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	50	0.1%	0	0.0%	NaN	NaN
2012	2,775	4.8%	0	0.0%	NaN	NaN
2013	5,913	10.2%	1,397	1.5%	8.752	0.380
2014	7,432	12.8%	3,795	4.0%	8.878	0.324
2015	6,718	11.6%	6,871	7.2%	4.443	0.153
2016	6,456	11.1%	9,459	9.8%	1.297	0.042
2017	6,648	11.5%	11,431	11.9%	-0.425	-0.013
2018	6,296	10.9%	13,114	13.7%	-2.784	-0.085
2019	5,473	9.4%	14,982	15.6%	-6.150	-0.187
2020	4,523	7.8%	15,350	16.0%	-8.173	-0.255
2021	4,821	8.3%	17,399	18.1%	-9.791	-0.292
2022	827	1.4%	2,259	2.4%	-0.924	-0.068
CHADSVASC						
mean, std	1.6	1.2	1.8	1.3	-0.256	-0.210
0	10,767	18.6%	13,941	14.5%	4.072	0.110
1	20,330	35.1%	30,084	31.3%	3.774	0.080
2	15,198	26.2%	25,643	26.7%	-0.461	-0.010
3	7,610	13.1%	15,448	16.1%	-2.946	-0.083

Table 1a. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	3,119	5.4%	8,042	8.4%	-2.988	-0.118
>= 5	908	1.6%	2,899	3.0%	-1.451	-0.097
HASBLED						
mean, std	0.9	0.7	1.1	0.8	-0.142	-0.184
0	15,507	26.8%	21,702	22.6%	4.175	0.097
1	32,498	56.1%	51,359	53.5%	2.630	0.053
2	8,092	14.0%	17,271	18.0%	-4.012	-0.110
>= 3	1,835	3.2%	5,725	6.0%	-2.792	-0.134
Health Characteristics						
Diabetes	15,090	26.0%	28,339	29.5%	-3.454	-0.077
Hypercholesterolemia	14,892	25.7%	26,803	27.9%	-2.197	-0.050
Hypertension	40,690	70.2%	71,267	74.2%	-3.955	-0.088
Kidney failure (chronic)	2,677	4.6%	7,938	8.3%	-3.643	-0.149
Kidney failure (acute)	2,782	4.8%	9,172	9.5%	-4.746	-0.185
Obesity	19,165	33.1%	38,398	40.0%	-6.892	-0.144
Peptic ulcer disease	140	0.2%	404	0.4%	-0.179	-0.031
Nicotine dependency	13,335	23.0%	27,442	28.6%	-5.550	-0.127
Hospitalized AMI (past 0-30 days)	906	1.6%	2,630	2.7%	-1.174	-0.081
Hospitalized AMI (past 31-183 days)	456	0.8%	1,340	1.4%	-0.608	-0.059
Coronary revascularization	3,860	6.7%	9,438	9.8%	-3.162	-0.115
Hospitalized heart failure	7,312	12.6%	16,998	17.7%	-5.074	-0.142
Outpatient heart failure	7,506	13.0%	15,848	16.5%	-3.542	-0.100
Other ischemic heart disease	14,519	25.1%	27,845	29.0%	-3.926	-0.088
Hospitalized stroke (past 0-30 days)	559	1.0%	1,443	1.5%	-0.537	-0.049
Hospitalized stroke (past 31-183 days)	288	0.5%	866	0.9%	-0.404	-0.049
Transient ischemic attack	1,673	2.9%	3,204	3.3%	-0.448	-0.026
Other medical conditions (falls, fractures, syncope, walker use)e, walker use)	14,476	25.0%	25,554	26.6%	-1.615	-0.037
Cardioversion	9,377	16.2%	15,151	15.8%	0.413	0.011
Cardioablation	2,670	4.6%	4,170	4.3%	0.268	0.013
Hospitalized for bleeding	175	0.3%	497	0.5%	-0.215	-0.034
Medical Product Use						
Estrogen replacement	1,324	2.3%	2,361	2.5%	-0.172	-0.011
H2-antagonist	1,252	2.2%	2,785	2.9%	-0.738	-0.047
NSAIDs	9,071	15.7%	15,792	16.4%	-0.782	-0.021
Proton pump inhibitors	10,933	18.9%	20,884	21.7%	-2.869	-0.071
SSRI antidepressants	6,537	11.3%	12,269	12.8%	-1.489	-0.046
Insulin	3,601	6.2%	7,708	8.0%	-1.808	-0.070
Metformin (Biguanide)	9,309	16.1%	17,144	17.8%	-1.779	-0.047
Sulfonylureas	3,106	5.4%	5,172	5.4%	-0.023	-0.001
Other diabetes medications	4,138	7.1%	8,603	9.0%	-1.813	-0.067
ACEI/ARB	28,216	48.7%	49,059	51.1%	-2.367	-0.047
Antiarrhythmics	17,012	29.4%	26,803	27.9%	1.462	0.032

Table 1a. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-coagulant (injectable)	6,089	10.5%	11,768	12.3%	-1.740	-0.055
Anti-platelets	5,675	9.8%	12,825	13.4%	-3.555	-0.111
Beta-blockers	40,265	69.5%	69,488	72.3%	-2.836	-0.062
Calcium channel blockers	19,743	34.1%	34,401	35.8%	-1.734	-0.036
Digoxin	3,955	6.8%	5,126	5.3%	1.491	0.062
Diuretics (loop)	9,203	15.9%	19,232	20.0%	-4.136	-0.108
Diuretics (potassium sparing)	4,106	7.1%	8,471	8.8%	-1.731	-0.064
Diuretics (thiazide)	11,452	19.8%	19,787	20.6%	-0.831	-0.021
Nitrates	2,573	4.4%	5,824	6.1%	-1.622	-0.073
Statins	23,901	41.3%	43,962	45.8%	-4.510	-0.091
Fibrates	2,249	3.9%	3,766	3.9%	-0.038	-0.002
Amiodarone	5,234	9.0%	10,351	10.8%	-1.741	-0.058
Dronedarone	1,784	3.1%	2,119	2.2%	0.873	0.054
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	40,509	69.9%	62,427	65.0%	4.936	0.105
No ED encounters (past 31-183 days)	47,230	81.5%	75,358	78.5%	3.075	0.077
At least 1 ED encounter (past 0-30 days)	17,423	30.1%	33,630	35.0%	-4.936	-0.105
At least 2 ED encounters (past 0-30 days)	3,723	6.4%	8,054	8.4%	-1.958	-0.075
At least 1 ED encounter (past 31-183 days)	10,702	18.5%	20,699	21.5%	-3.075	-0.077
At least 2 ED encounters (past 31-183 days)	3,374	5.8%	7,240	7.5%	-1.713	-0.069

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1b. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	57,965	N/A	96,013	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	56.6	7.2	56.7	7.3	-0.077	-0.011
Age						
21-49 years	9,065	15.6%	15,267	15.9%	-0.263	-0.007
50-64 years	48,900	84.4%	80,746	84.1%	0.263	0.007
Sex						
Female	16,208	28.0%	26,985	28.1%	-0.144	-0.003
Male	41,756	72.0%	69,027	71.9%	0.144	0.003
Race ³						
American Indian or Alaska Native	30	0.1%	81	0.1%	-0.033	-0.012
Asian	105	0.2%	205	0.2%	-0.033	-0.008
Black or African American	1,319	2.3%	2,665	2.8%	-0.500	-0.033
Native Hawaiian or Other Pacific Islander	48	0.1%	z	0.1%	-0.004	-0.001
Unknown	48,580	83.8%	77,609	80.8%	2.978	0.113
White	7,673	13.2%	14,986	15.6%	-2.371	-0.087
Hispanic origin						
Yes	290	0.5%	512	0.5%	-0.034	-0.005
No	5,075	8.8%	10,929	11.4%	-2.628	-0.163
Unknown	52,600	90.7%	84,572	88.1%	2.661	0.155
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	44	0.1%	0	0.0%	NaN	NaN
2012	2,495	4.3%	0	0.0%	NaN	NaN
2013	5,502	9.5%	1,512	1.6%	7.916	0.352
2014	7,059	12.2%	4,042	4.2%	7.968	0.294
2015	6,498	11.2%	7,189	7.5%	3.723	0.128
2016	6,428	11.1%	9,631	10.0%	1.059	0.034
2017	6,838	11.8%	11,530	12.0%	-0.211	-0.007
2018	6,529	11.3%	13,089	13.6%	-2.368	-0.072
2019	5,742	9.9%	14,758	15.4%	-5.464	-0.165
2020	4,810	8.3%	15,070	15.7%	-7.397	-0.229
2021	5,129	8.8%	16,992	17.7%	-8.848	-0.263
2022	890	1.5%	2,202	2.3%	-0.757	-0.055
CHADSVASC						
mean, std	1.7	1.2	1.7	1.2	-0.022	-0.018
0	9,429	16.3%	15,298	15.9%	0.334	0.009
1	19,096	32.9%	31,296	32.6%	0.348	0.007
2	15,367	26.5%	25,477	26.5%	-0.025	-0.001
3	8,581	14.8%	14,474	15.1%	-0.271	-0.008

Table 1b. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	4,093	7.1%	7,058	7.4%	-0.291	-0.011
>= 5	1,400	2.4%	2,410	2.5%	-0.095	-0.006
HASBLED						
mean, std	1.0	0.8	1.0	0.8	-0.012	-0.015
0	14,174	24.5%	23,050	24.0%	0.446	0.010
1	31,558	54.4%	52,273	54.4%	-0.000	-0.000
2	9,448	16.3%	15,920	16.6%	-0.281	-0.008
>= 3	2,785	4.8%	4,770	5.0%	-0.164	-0.008
Health Characteristics						
Diabetes	16,109	27.8%	27,271	28.4%	-0.613	-0.014
Hypercholesterolemia	15,558	26.8%	26,023	27.1%	-0.262	-0.006
Hypertension	41,964	72.4%	69,967	72.9%	-0.476	-0.011
Kidney failure (chronic)	3,926	6.8%	6,726	7.0%	-0.232	-0.009
Kidney failure (acute)	4,452	7.7%	7,529	7.8%	-0.161	-0.006
Obesity	21,546	37.2%	36,056	37.6%	-0.382	-0.008
Peptic ulcer disease	198	0.3%	341	0.4%	-0.012	-0.002
Nicotine dependency	15,227	26.3%	25,624	26.7%	-0.420	-0.010
Hospitalized AMI (past 0-30 days)	1,281	2.2%	2,217	2.3%	-0.100	-0.007
Hospitalized AMI (past 31-183 days)	677	1.2%	1,132	1.2%	-0.011	-0.001
Coronary revascularization	4,916	8.5%	8,362	8.7%	-0.229	-0.008
Hospitalized heart failure	9,004	15.5%	15,287	15.9%	-0.388	-0.011
Outpatient heart failure	8,641	14.9%	14,775	15.4%	-0.481	-0.014
Other ischemic heart disease	15,777	27.2%	26,600	27.7%	-0.487	-0.011
Hospitalized stroke (past 0-30 days)	737	1.3%	1,246	1.3%	-0.027	-0.002
Hospitalized stroke (past 31-183 days)	447	0.8%	724	0.8%	0.017	0.002
Transient ischemic attack	1,843	3.2%	3,051	3.2%	0.002	0.000
Other medical conditions (falls, fractures, syncope, walker use)e, walker use)	15,037	25.9%	25,052	26.1%	-0.152	-0.003
Cardioversion	9,265	16.0%	15,254	15.9%	0.097	0.003
Cardioablation	2,583	4.5%	4,261	4.4%	0.019	0.001
Hospitalized for bleeding	256	0.4%	419	0.4%	0.005	0.001
Medical Product Use						
Estrogen replacement	1,394	2.4%	2,294	2.4%	0.016	0.001
H2-antagonist	1,500	2.6%	2,579	2.7%	-0.098	-0.006
NSAIDs	9,324	16.1%	15,575	16.2%	-0.136	-0.004
Proton pump inhibitors	11,829	20.4%	19,994	20.8%	-0.417	-0.010
SSRI antidepressants	7,023	12.1%	11,855	12.3%	-0.231	-0.007
Insulin	4,128	7.1%	7,119	7.4%	-0.292	-0.011
Metformin (Biguanide)	9,840	17.0%	16,572	17.3%	-0.285	-0.008
Sulfonylureas	3,031	5.2%	5,184	5.4%	-0.170	-0.008
Other diabetes medications	4,715	8.1%	7,954	8.3%	-0.149	-0.005
ACEI/ARB	29,029	50.1%	48,349	50.4%	-0.276	-0.006

Table 1b. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Antiarrhythmics	16,491	28.5%	27,333	28.5%	-0.017	-0.000
Anti-coagulant (injectable)	6,697	11.6%	11,182	11.6%	-0.092	-0.003
Anti-platelets	6,934	12.0%	11,593	12.1%	-0.113	-0.003
Beta-blockers	41,228	71.1%	68,498	71.3%	-0.216	-0.005
Calcium channel blockers	20,300	35.0%	33,804	35.2%	-0.186	-0.004
Digoxin	3,378	5.8%	5,686	5.9%	-0.095	-0.004
Diuretics (loop)	10,510	18.1%	17,932	18.7%	-0.544	-0.014
Diuretics (potassium sparing)	4,684	8.1%	7,907	8.2%	-0.155	-0.006
Diuretics (thiazide)	11,705	20.2%	19,516	20.3%	-0.133	-0.003
Nitrates	3,103	5.4%	5,318	5.5%	-0.186	-0.008
Statins	25,330	43.7%	42,462	44.2%	-0.526	-0.011
Fibrates	2,218	3.8%	3,754	3.9%	-0.084	-0.004
Amiodarone	5,784	10.0%	9,740	10.1%	-0.166	-0.006
Dronedarone	1,483	2.6%	2,426	2.5%	0.031	0.002
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	38,820	67.0%	64,163	66.8%	0.145	0.003
No ED encounters (past 31-183 days)	46,161	79.6%	76,245	79.4%	0.226	0.006
At least 1 ED encounter (past 0-30 days)	19,144	33.0%	31,850	33.2%	-0.145	-0.003
At least 2 ED encounters (past 0-30 days)	4,377	7.6%	7,380	7.7%	-0.135	-0.005
At least 1 ED encounter (past 31-183 days)	11,804	20.4%	19,768	20.6%	-0.226	-0.006
At least 2 ED encounters (past 31-183 days)	3,964	6.8%	6,738	7.0%	-0.180	-0.007

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1c. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Female

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	14,857	100.0%	28,303	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	57.3	6.8	57.8	6.5	-0.498	-0.075
Age						
21-49 years	1,944	13.1%	3,284	11.6%	1.482	0.045
50-64 years	12,913	86.9%	25,019	88.4%	-1.482	-0.045
Sex						
Female	14,857	100.0%	28,303	100.0%	0.000	-
Male	0	0.0%	0	0.0%	-	-
Race ³						
American Indian or Alaska Native	7	0.0%	41	0.1%	-0.098	-0.032
Asian	28	0.2%	56	0.2%	-0.009	-0.002
Black or African American	471	3.2%	1,215	4.3%	-1.123	-0.059
Native Hawaiian or Other Pacific Islander	15	0.1%	z	0.1%	-0.002	-0.000
Unknown	12,159	81.8%	21,877	77.3%	4.545	0.113
White	2,127	14.3%	4,987	17.6%	-3.304	-0.090
Hispanic origin						
Yes	73	0.5%	141	0.5%	-0.007	-0.001
No	1,640	11.0%	4,179	14.8%	-3.727	-0.111
Unknown	13,144	88.5%	23,983	84.7%	3.733	0.110
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	8	0.1%	0	0.0%	NaN	NaN
2012	650	4.4%	0	0.0%	NaN	NaN
2013	1,404	9.5%	352	1.2%	8.206	0.371
2014	1,838	12.4%	1,047	3.7%	8.672	0.323
2015	1,691	11.4%	1,973	7.0%	4.411	0.153
2016	1,633	11.0%	2,813	9.9%	1.053	0.034
2017	1,776	12.0%	3,398	12.0%	-0.052	-0.002
2018	1,720	11.6%	3,962	14.0%	-2.421	-0.073
2019	1,446	9.7%	4,370	15.4%	-5.707	-0.173
2020	1,187	8.0%	4,498	15.9%	-7.903	-0.246
2021	1,278	8.6%	5,227	18.5%	-9.866	-0.291
2022	226	1.5%	663	2.3%	-0.821	-0.060
CHADSVASC						
mean, std	2.3	1.1	2.5	1.2	-0.179	-0.156
0	0	0.0%	0	0.0%	-	-
1	3,463	23.3%	5,866	20.7%	2.583	0.062
2	5,914	39.8%	10,516	37.2%	2.651	0.055
3	3,206	21.6%	5,878	20.8%	0.811	0.020
4	1,618	10.9%	3,886	13.7%	-2.840	-0.087

Table 1c. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Female

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	656	4.4%	2,157	7.6%	-3.206	-0.135
HASBLED						
mean, std	1.0	0.7	1.1	0.8	-0.125	-0.164
0	3,751	25.2%	6,333	22.4%	2.872	0.067
1	8,416	56.6%	14,971	52.9%	3.751	0.075
2	2,205	14.8%	5,314	18.8%	-3.934	-0.105
>= 3	485	3.3%	1,685	6.0%	-2.689	-0.129
Health Characteristics						
Diabetes	4,099	27.6%	8,395	29.7%	-2.071	-0.046
Hypercholesterolemia	3,550	23.9%	7,393	26.1%	-2.226	-0.051
Hypertension	10,591	71.3%	20,925	73.9%	-2.646	-0.059
Kidney failure (chronic)	663	4.5%	2,107	7.4%	-2.982	-0.126
Kidney failure (acute)	626	4.2%	2,260	8.0%	-3.772	-0.158
Obesity	5,729	38.6%	12,635	44.6%	-6.081	-0.124
Peptic ulcer disease	46	0.3%	144	0.5%	-0.199	-0.031
Nicotine dependency	3,233	21.8%	7,743	27.4%	-5.597	-0.130
Hospitalized AMI (past 0-30 days)	206	1.4%	613	2.2%	-0.779	-0.059
Hospitalized AMI (past 31-183 days)	92	0.6%	353	1.2%	-0.628	-0.065
Coronary revascularization	600	4.0%	1,756	6.2%	-2.166	-0.098
Hospitalized heart failure	1,815	12.2%	4,696	16.6%	-4.375	-0.125
Outpatient heart failure	1,842	12.4%	4,342	15.3%	-2.943	-0.085
Other ischemic heart disease	3,038	20.4%	6,612	23.4%	-2.913	-0.070
Hospitalized stroke (past 0-30 days)	146	1.0%	485	1.7%	-0.731	-0.063
Hospitalized stroke (past 31-183 days)	86	0.6%	294	1.0%	-0.460	-0.051
Transient ischemic attack	531	3.6%	1,151	4.1%	-0.493	-0.026
Other medical conditions (falls, fractures, syncope, walker use)	3,616	24.3%	7,329	25.9%	-1.556	-0.036
Cardioversion	1,807	12.2%	3,315	11.7%	0.450	0.014
Cardioablation	672	4.5%	1,153	4.1%	0.449	0.022
Hospitalized for bleeding	42	0.3%	170	0.6%	-0.318	-0.048
Medical Product Use						
Estrogen replacement	1,319	8.9%	2,346	8.3%	0.589	0.021
H2-antagonist	464	3.1%	1,088	3.8%	-0.721	-0.039
NSAIDs	2,807	18.9%	5,580	19.7%	-0.822	-0.021
Proton pump inhibitors	3,511	23.6%	7,474	26.4%	-2.775	-0.064
SSRI antidepressants	2,833	19.1%	5,751	20.3%	-1.251	-0.031
Insulin	1,057	7.1%	2,417	8.5%	-1.425	-0.053
Metformin (Biguanide)	2,486	16.7%	4,878	17.2%	-0.502	-0.013
Sulfonylureas	744	5.0%	1,373	4.9%	0.157	0.007
Other diabetes medications	1,100	7.4%	2,504	8.8%	-1.443	-0.053
ACEI/ARB	6,624	44.6%	13,019	46.0%	-1.414	-0.028
Antiarrhythmics	4,514	30.4%	7,935	28.0%	2.347	0.052
Anti-coagulant (injectable)	1,679	11.3%	3,708	13.1%	-1.800	-0.055

Table 1c. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Female

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	1,211	8.2%	3,056	10.8%	-2.646	-0.090
Beta-blockers	10,412	70.1%	20,291	71.7%	-1.611	-0.035
Calcium channel blockers	5,144	34.6%	10,388	36.7%	-2.079	-0.043
Digoxin	967	6.5%	1,374	4.9%	1.654	0.071
Diuretics (loop)	2,644	17.8%	6,004	21.2%	-3.417	-0.086
Diuretics (potassium sparing)	1,217	8.2%	2,781	9.8%	-1.634	-0.057
Diuretics (thiazide)	3,497	23.5%	6,753	23.9%	-0.322	-0.008
Nitrates	609	4.1%	1,499	5.3%	-1.197	-0.057
Statins	5,382	36.2%	11,429	40.4%	-4.156	-0.086
Fibrates	386	2.6%	745	2.6%	-0.034	-0.002
Amiodarone	1,088	7.3%	2,454	8.7%	-1.347	-0.050
Dronedarone	483	3.3%	626	2.2%	1.039	0.064
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	9,920	66.8%	17,578	62.1%	4.663	0.098
No ED encounters (past 31-183 days)	11,368	76.5%	21,047	74.4%	2.153	0.050
At least 1 ED encounter (past 0-30 days)	4,937	33.2%	10,725	37.9%	-4.663	-0.098
At least 2 ED encounters (past 0-30 days)	1,136	7.6%	2,734	9.7%	-2.014	-0.072
At least 1 ED encounter (past 31-183 days)	3,489	23.5%	7,256	25.6%	-2.153	-0.050
At least 2 ED encounters (past 31-183 days)	1,207	8.1%	2,751	9.7%	-1.596	-0.056

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1d. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Female

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	14,866	N/A	28,247	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	57.5	6.6	57.6	6.6	-0.063	-0.010
Age						
21-49 years	1,778	12.0%	3,431	12.1%	-0.186	-0.006
50-64 years	13,088	88.0%	24,817	87.9%	0.186	0.006
Sex						
Female	14,866	100.0%	28,247	100.0%	0.000	-
Male	0	0.0%	0	0.0%	-	-
Race ³						
American Indian or Alaska Native	7	0.0%	39	0.1%	-0.092	-0.030
Asian	28	0.2%	59	0.2%	-0.021	-0.005
Black or African American	501	3.4%	1,170	4.1%	-0.771	-0.043
Native Hawaiian or Other Pacific Islander	15	0.1%	z	0.1%	-0.003	-0.001
Unknown	12,056	81.1%	21,925	77.6%	3.483	0.132
White	2,210	14.9%	4,927	17.4%	-2.580	-0.091
Hispanic origin						
Yes	70	0.5%	142	0.5%	-0.035	-0.005
No	1,711	11.5%	4,098	14.5%	-2.997	-0.183
Unknown	13,085	88.0%	24,007	85.0%	3.031	0.176
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	7	0.0%	0	0.0%	NaN	NaN
2012	576	3.9%	0	0.0%	NaN	NaN
2013	1,300	8.7%	376	1.3%	7.413	0.344
2014	1,743	11.7%	1,101	3.9%	7.827	0.295
2015	1,630	11.0%	2,065	7.3%	3.652	0.127
2016	1,631	11.0%	2,859	10.1%	0.852	0.028
2017	1,833	12.3%	3,418	12.1%	0.232	0.007
2018	1,761	11.8%	3,952	14.0%	-2.144	-0.064
2019	1,527	10.3%	4,319	15.3%	-5.022	-0.151
2020	1,253	8.4%	4,402	15.6%	-7.157	-0.222
2021	1,361	9.2%	5,111	18.1%	-8.937	-0.263
2022	245	1.6%	644	2.3%	-0.633	-0.046
CHADSVASC						
mean, std	2.4	1.2	2.5	1.2	-0.020	-0.017
0	0	0.0%	0	0.0%	-	-
1	3,266	22.0%	6,074	21.5%	0.467	0.011
2	5,690	38.3%	10,732	38.0%	0.279	0.006

Table 1d. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Female

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
3	3,102	20.9%	5,964	21.1%	-0.249	-0.006
4	1,867	12.6%	3,622	12.8%	-0.264	-0.008
>= 5	942	6.3%	1,855	6.6%	-0.233	-0.010
HASBLED						
mean, std	1.0	0.8	1.0	0.8	-0.013	-0.016
0	3,530	23.7%	6,570	23.3%	0.485	0.012
1	8,058	54.2%	15,313	54.2%	-0.009	-0.000
2	2,555	17.2%	4,939	17.5%	-0.299	-0.008
>= 3	723	4.9%	1,425	5.0%	-0.177	-0.008
Health Characteristics						
Diabetes	4,241	28.5%	8,216	29.1%	-0.560	-0.013
Hypercholesterolemia	3,735	25.1%	7,177	25.4%	-0.284	-0.007
Hypertension	10,796	72.6%	20,660	73.1%	-0.515	-0.012
Kidney failure (chronic)	930	6.3%	1,831	6.5%	-0.224	-0.009
Kidney failure (acute)	965	6.5%	1,894	6.7%	-0.214	-0.009
Obesity	6,302	42.4%	12,064	42.7%	-0.315	-0.006
Peptic ulcer disease	58	0.4%	120	0.4%	-0.035	-0.006
Nicotine dependency	3,750	25.2%	7,223	25.6%	-0.347	-0.008
Hospitalized AMI (past 0-30 days)	272	1.8%	536	1.9%	-0.065	-0.005
Hospitalized AMI (past 31-183 days)	151	1.0%	286	1.0%	0.006	0.001
Coronary revascularization	795	5.3%	1,548	5.5%	-0.132	-0.006
Hospitalized heart failure	2,203	14.8%	4,286	15.2%	-0.353	-0.010
Outpatient heart failure	2,077	14.0%	4,086	14.5%	-0.495	-0.014
Other ischemic heart disease	3,266	22.0%	6,344	22.5%	-0.486	-0.012
Hospitalized stroke (past 0-30 days)	212	1.4%	411	1.5%	-0.025	-0.002
Hospitalized stroke (past 31-183 days)	134	0.9%	246	0.9%	0.027	0.003
Transient ischemic attack	579	3.9%	1,099	3.9%	0.002	0.000
Other medical conditions (falls, fractures, syncope, walker use)	3,742	25.2%	7,186	25.4%	-0.266	-0.006
Cardioversion	1,776	11.9%	3,345	11.8%	0.107	0.003
Cardioablation	627	4.2%	1,194	4.2%	-0.010	-0.001
Hospitalized for bleeding	68	0.5%	122	0.4%	0.026	0.004
Medical Product Use						
Estrogen replacement	1,273	8.6%	2,393	8.5%	0.094	0.003
H2-antagonist	534	3.6%	1,041	3.7%	-0.091	-0.005
NSAIDs	2,870	19.3%	5,506	19.5%	-0.189	-0.005
Proton pump inhibitors	3,743	25.2%	7,234	25.6%	-0.435	-0.010
SSRI antidepressants	2,928	19.7%	5,655	20.0%	-0.324	-0.008
Insulin	1,144	7.7%	2,283	8.1%	-0.384	-0.014
Metformin (Biguanide)	2,513	16.9%	4,835	17.1%	-0.212	-0.006
Sulfonylureas	700	4.7%	1,380	4.9%	-0.182	-0.009
Other diabetes medications	1,227	8.3%	2,360	8.4%	-0.104	-0.004

Table 1d. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Female

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
ACEI/ARB	6,746	45.4%	12,898	45.7%	-0.285	-0.006
Antiarrhythmics	4,302	28.9%	8,146	28.8%	0.103	0.002
Anti-coagulant (injectable)	1,826	12.3%	3,544	12.5%	-0.263	-0.008
Anti-platelets	1,471	9.9%	2,802	9.9%	-0.026	-0.001
Beta-blockers	10,557	71.0%	20,107	71.2%	-0.165	-0.004
Calcium channel blockers	5,311	35.7%	10,185	36.1%	-0.333	-0.007
Digoxin	801	5.4%	1,542	5.5%	-0.067	-0.003
Diuretics (loop)	2,928	19.7%	5,712	20.2%	-0.523	-0.013
Diuretics (potassium sparing)	1,376	9.3%	2,626	9.3%	-0.039	-0.001
Diuretics (thiazide)	3,528	23.7%	6,722	23.8%	-0.065	-0.002
Nitrates	715	4.8%	1,398	4.9%	-0.139	-0.006
Statins	5,699	38.3%	11,038	39.1%	-0.741	-0.015
Fibrates	385	2.6%	744	2.6%	-0.043	-0.003
Amiodarone	1,206	8.1%	2,317	8.2%	-0.091	-0.003
Dronedarone	383	2.6%	721	2.6%	0.024	0.002
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	9,487	63.8%	18,009	63.8%	0.061	0.001
No ED encounters (past 31-183 days)	11,192	75.3%	21,195	75.0%	0.253	0.006
At least 1 ED encounter (past 0-30 days)	5,379	36.2%	10,238	36.2%	-0.061	-0.001
At least 2 ED encounters (past 0-30 days)	1,304	8.8%	2,538	9.0%	-0.214	-0.008
At least 1 ED encounter (past 31-183 days)	3,674	24.7%	7,052	25.0%	-0.253	-0.006
At least 2 ED encounters (past 31-183 days)	1,346	9.1%	2,614	9.3%	-0.201	-0.007

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1e. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Male

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	43,068	100.0%	67,715	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	55.9	7.6	56.5	7.3	-0.644	-0.087
Age						
21-49 years	7,910	18.4%	11,124	16.4%	1.939	0.051
50-64 years	35,158	81.6%	56,591	83.6%	-1.939	-0.051
Sex						
Female	0	0.0%	0	0.0%	-	-
Male	43,068	100.0%	67,715	100.0%	0.000	-
Race ³						
American Indian or Alaska Native	23	0.1%	42	0.1%	-0.009	-0.004
Asian	84	0.2%	140	0.2%	-0.012	-0.003
Black or African American	745	1.7%	1,587	2.3%	-0.614	-0.043
Native Hawaiian or Other Pacific Islander	31	0.1%	z	0.1%	-0.011	-0.004
Unknown	36,765	85.4%	55,395	81.8%	3.559	0.096
White	5,257	12.2%	10,208	15.1%	-2.869	-0.084
Hispanic origin						
Yes	216	0.5%	379	0.6%	-0.058	-0.008
No	3,154	7.3%	7,008	10.3%	-3.026	-0.107
Unknown	39,698	92.2%	60,328	89.1%	3.084	0.106
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	42	0.1%	0	0.0%	NaN	NaN
2012	2,124	4.9%	0	0.0%	NaN	NaN
2013	4,509	10.5%	1,045	1.5%	8.926	0.382
2014	5,593	13.0%	2,747	4.1%	8.930	0.324
2015	5,027	11.7%	4,898	7.2%	4.439	0.152
2016	4,822	11.2%	6,643	9.8%	1.386	0.045
2017	4,869	11.3%	8,032	11.9%	-0.556	-0.017
2018	4,576	10.6%	9,150	13.5%	-2.887	-0.089
2019	4,027	9.4%	10,598	15.7%	-6.301	-0.191
2020	3,336	7.7%	10,842	16.0%	-8.265	-0.258
2021	3,542	8.2%	12,165	18.0%	-9.741	-0.292
2022	601	1.4%	1,595	2.4%	-0.960	-0.071
CHADSVASC mean, std	1.3	1.1	1.5	1.2	-0.230	-0.203
0	10,764	25.0%	13,941	20.6%	4.405	0.105
1	16,867	39.2%	24,218	35.8%	3.399	0.070
2	9,281	21.5%	15,125	22.3%	-0.787	-0.019
3	4,404	10.2%	9,566	14.1%	-3.901	-0.120
4	1,500	3.5%	4,147	6.1%	-2.641	-0.124

Table 1e. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Male

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	252	0.6%	718	1.1%	-0.475	-0.053
HASBLED						
mean, std	0.9	0.7	1.1	0.8	-0.146	-0.190
0	11,753	27.3%	15,368	22.7%	4.594	0.106
1	24,080	55.9%	36,385	53.7%	2.179	0.044
2	5,886	13.7%	11,948	17.6%	-3.978	-0.110
>= 3	1,349	3.1%	4,014	5.9%	-2.796	-0.135
Health Characteristics						
Diabetes	10,989	25.5%	19,912	29.4%	-3.890	-0.087
Hypercholesterolemia	11,342	26.3%	19,396	28.6%	-2.308	-0.052
Hypertension	30,093	69.9%	50,305	74.3%	-4.416	-0.099
Kidney failure (chronic)	2,014	4.7%	5,802	8.6%	-3.892	-0.157
Kidney failure (acute)	2,156	5.0%	6,879	10.2%	-5.153	-0.196
Obesity	13,435	31.2%	25,737	38.0%	-6.813	-0.144
Peptic ulcer disease	94	0.2%	257	0.4%	-0.161	-0.030
Nicotine dependency	10,099	23.4%	19,668	29.0%	-5.596	-0.127
Hospitalized AMI (past 0-30 days)	700	1.6%	2,008	3.0%	-1.340	-0.090
Hospitalized AMI (past 31-183 days)	364	0.8%	974	1.4%	-0.593	-0.056
Coronary revascularization	3,260	7.6%	7,652	11.3%	-3.731	-0.128
Hospitalized heart failure	5,496	12.8%	12,271	18.1%	-5.360	-0.149
Outpatient heart failure	5,662	13.1%	11,483	17.0%	-3.811	-0.107
Other ischemic heart disease	11,478	26.7%	21,202	31.3%	-4.660	-0.103
Hospitalized stroke (past 0-30 days)	413	1.0%	954	1.4%	-0.450	-0.042
Hospitalized stroke (past 31-183 days)	201	0.5%	570	0.8%	-0.375	-0.047
Transient ischemic attack	1,142	2.7%	2,052	3.0%	-0.379	-0.023
Other medical conditions (falls, fractures, syncope, walker use)	10,857	25.2%	18,205	26.9%	-1.676	-0.038
Cardioversion	7,569	17.6%	11,834	17.5%	0.098	0.003
Cardioablation	1,995	4.6%	3,016	4.5%	0.178	0.009
Hospitalized for bleeding	133	0.3%	322	0.5%	-0.167	-0.027
Medical Product Use						
Estrogen replacement	5	0.0%	13	0.0%	-0.008	-0.006
H2-antagonist	788	1.8%	1,689	2.5%	-0.665	-0.046
NSAIDs	6,263	14.5%	10,209	15.1%	-0.534	-0.015
Proton pump inhibitors	7,421	17.2%	13,390	19.8%	-2.543	-0.066
SSRI antidepressants	3,704	8.6%	6,509	9.6%	-1.012	-0.035
Insulin	2,544	5.9%	5,271	7.8%	-1.877	-0.074
Metformin (Biguanide)	6,823	15.8%	12,246	18.1%	-2.242	-0.060
Sulfonylureas	2,361	5.5%	3,795	5.6%	-0.122	-0.005
Other diabetes medications	3,038	7.1%	6,077	9.0%	-1.920	-0.071
ACEI/ARB	21,588	50.1%	36,015	53.2%	-3.061	-0.061
Antiarrhythmics	12,493	29.0%	18,848	27.8%	1.173	0.026
Anti-coagulant (injectable)	4,409	10.2%	8,048	11.9%	-1.648	-0.053

Table 1e. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Male

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	4,464	10.4%	9,744	14.4%	-4.025	-0.122
Beta-blockers	29,848	69.3%	49,159	72.6%	-3.293	-0.073
Calcium channel blockers	14,599	33.9%	23,995	35.4%	-1.538	-0.032
Digoxin	2,983	6.9%	3,752	5.5%	1.385	0.057
Diuretics (loop)	6,558	15.2%	13,197	19.5%	-4.262	-0.113
Diuretics (potassium sparing)	2,889	6.7%	5,681	8.4%	-1.682	-0.064
Diuretics (thiazide)	7,954	18.5%	13,024	19.2%	-0.765	-0.020
Nitrates	1,964	4.6%	4,307	6.4%	-1.800	-0.079
Statins	18,517	43.0%	32,504	48.0%	-5.006	-0.101
Fibrates	1,862	4.3%	3,017	4.5%	-0.132	-0.006
Amiodarone	4,146	9.6%	7,883	11.6%	-2.015	-0.065
Dronedarone	1,299	3.0%	1,489	2.2%	0.817	0.051
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	30,582	71.0%	44,840	66.2%	4.790	0.103
No ED encounters (past 31-183 days)	35,860	83.3%	54,296	80.2%	3.081	0.080
At least 1 ED encounter (past 0-30 days)	12,486	29.0%	22,875	33.8%	-4.790	-0.103
At least 2 ED encounters (past 0-30 days)	2,587	6.0%	5,307	7.8%	-1.830	-0.072
At least 1 ED encounter (past 31-183 days)	7,208	16.7%	13,419	19.8%	-3.081	-0.080
At least 2 ED encounters (past 31-183 days)	2,165	5.0%	4,475	6.6%	-1.582	-0.068

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1f. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Male

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	43,110	N/A	67,675	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	56.2	7.3	56.3	7.5	-0.070	-0.009
Age						
21-49 years	7,347	17.0%	11,756	17.4%	-0.327	-0.009
50-64 years	35,762	83.0%	55,919	82.6%	0.327	0.009
Sex						
Female	0	0.0%	0	0.0%	-	-
Male	43,110	100.0%	67,675	100.0%	0.000	-
Race ³						
American Indian or Alaska Native	23	0.1%	42	0.1%	-0.008	-0.003
Asian	77	0.2%	145	0.2%	-0.034	-0.008
Black or African American	811	1.9%	1,498	2.2%	-0.332	-0.024
Native Hawaiian or Other Pacific Islander	32	0.1%	z	0.1%	-0.006	-0.002
Unknown	36,544	84.8%	55,608	82.2%	2.600	0.099
White	5,460	12.7%	10,044	14.8%	-2.175	-0.081
Hispanic origin						
Yes	223	0.5%	369	0.5%	-0.029	-0.004
No	3,348	7.8%	6,818	10.1%	-2.309	-0.144
Unknown	39,539	91.7%	60,488	89.4%	2.338	0.137
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	37	0.1%	0	0.0%	NaN	NaN
2012	1,919	4.5%	0	0.0%	NaN	NaN
2013	4,200	9.7%	1,135	1.7%	8.066	0.353
2014	5,311	12.3%	2,936	4.3%	7.982	0.292
2015	4,865	11.3%	5,125	7.6%	3.712	0.127
2016	4,810	11.2%	6,768	10.0%	1.156	0.038
2017	5,014	11.6%	8,103	12.0%	-0.344	-0.011
2018	4,768	11.1%	9,126	13.5%	-2.425	-0.074
2019	4,229	9.8%	10,416	15.4%	-5.582	-0.169
2020	3,554	8.2%	10,638	15.7%	-7.474	-0.232
2021	3,756	8.7%	11,874	17.5%	-8.834	-0.264
2022	648	1.5%	1,554	2.3%	-0.794	-0.058
CHADSVASC						
mean, std	1.4	1.1	1.4	1.2	-0.018	-0.015
0	9,714	22.5%	14,996	22.2%	0.375	0.009
1	16,030	37.2%	25,022	37.0%	0.210	0.004
2	9,471	22.0%	14,949	22.1%	-0.121	-0.003
3	5,378	12.5%	8,596	12.7%	-0.228	-0.007

Table 1f. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Male

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	2,142	5.0%	3,510	5.2%	-0.217	-0.010
>= 5	375	0.9%	602	0.9%	-0.020	-0.002
HASBLED						
mean, std	1.0	0.8	1.0	0.8	-0.010	-0.013
0	10,653	24.7%	16,468	24.3%	0.378	0.009
1	23,516	54.5%	36,932	54.6%	-0.023	-0.000
2	6,886	16.0%	10,971	16.2%	-0.238	-0.006
>= 3	2,054	4.8%	3,304	4.9%	-0.117	-0.006
Health Characteristics						
Diabetes	11,861	27.5%	19,006	28.1%	-0.571	-0.013
Hypercholesterolemia	11,871	27.5%	18,782	27.8%	-0.216	-0.005
Hypertension	31,185	72.3%	49,221	72.7%	-0.392	-0.009
Kidney failure (chronic)	2,997	7.0%	4,839	7.2%	-0.198	-0.008
Kidney failure (acute)	3,501	8.1%	5,564	8.2%	-0.101	-0.004
Obesity	15,163	35.2%	24,032	35.5%	-0.339	-0.007
Peptic ulcer disease	138	0.3%	216	0.3%	0.001	0.000
Nicotine dependency	11,508	26.7%	18,330	27.1%	-0.392	-0.009
Hospitalized AMI (past 0-30 days)	1,016	2.4%	1,658	2.5%	-0.094	-0.006
Hospitalized AMI (past 31-183 days)	524	1.2%	829	1.2%	-0.011	-0.001
Coronary revascularization	4,191	9.7%	6,729	9.9%	-0.222	-0.007
Hospitalized heart failure	6,836	15.9%	10,943	16.2%	-0.313	-0.009
Outpatient heart failure	6,591	15.3%	10,626	15.7%	-0.413	-0.012
Other ischemic heart disease	12,628	29.3%	20,103	29.7%	-0.413	-0.009
Hospitalized stroke (past 0-30 days)	530	1.2%	835	1.2%	-0.004	-0.000
Hospitalized stroke (past 31-183 days)	307	0.7%	473	0.7%	0.014	0.002
Transient ischemic attack	1,252	2.9%	1,960	2.9%	0.008	0.000
Other medical conditions (falls, fractures, syncope, walker use)	11,316	26.3%	17,820	26.3%	-0.081	-0.002
Cardioversion	7,576	17.6%	11,831	17.5%	0.091	0.002
Cardioablation	1,968	4.6%	3,065	4.5%	0.035	0.002
Hospitalized for bleeding	187	0.4%	280	0.4%	0.021	0.003
Medical Product Use						
Estrogen replacement	6	0.0%	11	0.0%	-0.001	-0.001
H2-antagonist	960	2.2%	1,551	2.3%	-0.065	-0.004
NSAIDs	6,398	14.8%	10,101	14.9%	-0.085	-0.002
Proton pump inhibitors	7,994	18.5%	12,802	18.9%	-0.374	-0.010
SSRI antidepressants	3,954	9.2%	6,313	9.3%	-0.155	-0.005
Insulin	2,971	6.9%	4,822	7.1%	-0.234	-0.009
Metformin (Biguanide)	7,335	17.0%	11,706	17.3%	-0.281	-0.007
Sulfonylureas	2,341	5.4%	3,783	5.6%	-0.159	-0.007
Other diabetes medications	3,483	8.1%	5,572	8.2%	-0.155	-0.006
ACEI/ARB	22,381	51.9%	35,305	52.2%	-0.252	-0.005

Table 1f. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Sex: Male

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Antiarrhythmics	12,162	28.2%	19,157	28.3%	-0.096	-0.002
Anti-coagulant (injectable)	4,860	11.3%	7,640	11.3%	-0.016	-0.001
Anti-platelets	5,511	12.8%	8,724	12.9%	-0.108	-0.003
Beta-blockers	30,681	71.2%	48,313	71.4%	-0.220	-0.005
Calcium channel blockers	14,995	34.8%	23,604	34.9%	-0.095	-0.002
Digoxin	2,590	6.0%	4,131	6.1%	-0.097	-0.004
Diuretics (loop)	7,572	17.6%	12,203	18.0%	-0.468	-0.012
Diuretics (potassium sparing)	3,303	7.7%	5,283	7.8%	-0.144	-0.005
Diuretics (thiazide)	8,120	18.8%	12,840	19.0%	-0.138	-0.004
Nitrates	2,401	5.6%	3,891	5.7%	-0.181	-0.008
Statins	19,744	45.8%	31,268	46.2%	-0.402	-0.008
Fibrates	1,861	4.3%	2,987	4.4%	-0.096	-0.005
Amiodarone	4,609	10.7%	7,367	10.9%	-0.194	-0.006
Dronedarone	1,092	2.5%	1,698	2.5%	0.024	0.002
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	29,380	68.2%	46,060	68.1%	0.093	0.002
No ED encounters (past 31-183 days)	35,073	81.4%	54,949	81.2%	0.163	0.004
At least 1 ED encounter (past 0-30 days)	13,729	31.8%	21,615	31.9%	-0.093	-0.002
At least 2 ED encounters (past 0-30 days)	3,051	7.1%	4,835	7.1%	-0.068	-0.003
At least 1 ED encounter (past 31-183 days)	8,036	18.6%	12,726	18.8%	-0.163	-0.004
At least 2 ED encounters (past 31-183 days)	2,562	5.9%	4,128	6.1%	-0.157	-0.007

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1g. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	9,854	100.0%	14,408	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	43.0	6.2	43.4	6.0	-0.328	-0.054
Age						
21-49 years	9,854	100.0%	14,408	100.0%	0.000	-
50-64 years	0	0.0%	0	0.0%	-	-
Sex						
Female	1,944	19.7%	3,284	22.8%	-3.065	-0.075
Male	7,910	80.3%	11,124	77.2%	3.065	0.075
Race ³						
American Indian or Alaska Native	4	0.0%	9	0.1%	-0.022	-0.010
Asian	26	0.3%	40	0.3%	-0.014	-0.003
Black or African American	198	2.0%	372	2.6%	-0.573	-0.038
Native Hawaiian or Other Pacific Islander	5	0.1%	z	0.1%	-0.005	-0.002
Unknown	8,801	89.3%	12,581	87.3%	1.994	0.062
White	767	7.8%	1,334	9.3%	-1.475	-0.053
Hispanic origin						
Yes	99	1.0%	113	0.8%	0.220	0.023
No	382	3.9%	770	5.3%	-1.468	-0.070
Unknown	9,373	95.1%	13,525	93.9%	1.247	0.055
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	6	0.1%	0	0.0%	NaN	NaN
2012	487	4.9%	0	0.0%	NaN	NaN
2013	1,008	10.2%	221	1.5%	8.695	0.376
2014	1,228	12.5%	542	3.8%	8.700	0.323
2015	1,207	12.2%	986	6.8%	5.405	0.185
2016	1,107	11.2%	1,356	9.4%	1.823	0.060
2017	1,098	11.1%	1,693	11.8%	-0.608	-0.019
2018	1,064	10.8%	2,044	14.2%	-3.389	-0.103
2019	931	9.4%	2,298	15.9%	-6.502	-0.196
2020	777	7.9%	2,335	16.2%	-8.321	-0.258
2021	806	8.2%	2,599	18.0%	-9.859	-0.295
2022	135	1.4%	334	2.3%	-0.948	-0.071
CHADSVASC						
mean, std	1.2	1.1	1.4	1.2	-0.204	-0.174
0	3,063	31.1%	3,798	26.4%	4.723	0.105
1	3,552	36.0%	4,956	34.4%	1.649	0.035
2	1,976	20.1%	3,067	21.3%	-1.234	-0.030
3	871	8.8%	1,598	11.1%	-2.252	-0.075
4	316	3.2%	749	5.2%	-1.992	-0.099

Table 1g. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	76	0.8%	240	1.7%	-0.894	-0.082
HASBLED						
mean, std	0.7	0.7	0.9	0.8	-0.111	-0.144
0	4,000	40.6%	5,183	36.0%	4.620	0.095
1	4,549	46.2%	6,667	46.3%	-0.109	-0.002
2	1,101	11.2%	2,020	14.0%	-2.847	-0.086
>= 3	204	2.1%	538	3.7%	-1.664	-0.099
Health Characteristics						
Diabetes	1,700	17.3%	2,891	20.1%	-2.813	-0.072
Hypercholesterolemia	1,545	15.7%	2,392	16.6%	-0.923	-0.025
Hypertension	5,426	55.1%	8,474	58.8%	-3.751	-0.076
Kidney failure (chronic)	263	2.7%	746	5.2%	-2.509	-0.129
Kidney failure (acute)	428	4.3%	1,114	7.7%	-3.388	-0.143
Obesity	3,509	35.6%	6,127	42.5%	-6.915	-0.142
Peptic ulcer disease	14	0.1%	39	0.3%	-0.129	-0.028
Nicotine dependency	2,337	23.7%	3,895	27.0%	-3.317	-0.076
Hospitalized AMI (past 0-30 days)	118	1.2%	276	1.9%	-0.718	-0.058
Hospitalized AMI (past 31-183 days)	56	0.6%	110	0.8%	-0.195	-0.024
Coronary revascularization	261	2.6%	593	4.1%	-1.467	-0.081
Hospitalized heart failure	1,132	11.5%	2,232	15.5%	-4.004	-0.117
Outpatient heart failure	1,002	10.2%	1,929	13.4%	-3.220	-0.100
Other ischemic heart disease	1,417	14.4%	2,413	16.7%	-2.368	-0.065
Hospitalized stroke (past 0-30 days)	77	0.8%	171	1.2%	-0.405	-0.041
Hospitalized stroke (past 31-183 days)	44	0.4%	104	0.7%	-0.275	-0.036
Transient ischemic attack	219	2.2%	420	2.9%	-0.693	-0.044
Other medical conditions (falls, fractures, syncope, walker use)	2,823	28.6%	4,156	28.8%	-0.197	-0.004
Cardioversion	2,127	21.6%	3,006	20.9%	0.722	0.018
Cardioablation	707	7.2%	963	6.7%	0.491	0.019
Hospitalized for bleeding	23	0.2%	58	0.4%	-0.169	-0.030
Medical Product Use						
Estrogen replacement	205	2.1%	305	2.1%	-0.037	-0.003
H2-antagonist	166	1.7%	309	2.1%	-0.460	-0.034
NSAIDs	1,380	14.0%	2,037	14.1%	-0.134	-0.004
Proton pump inhibitors	1,592	16.2%	2,501	17.4%	-1.203	-0.032
SSRI antidepressants	1,009	10.2%	1,596	11.1%	-0.838	-0.027
Insulin	383	3.9%	766	5.3%	-1.430	-0.068
Metformin (Biguanide)	1,050	10.7%	1,710	11.9%	-1.213	-0.038
Sulfonylureas	285	2.9%	433	3.0%	-0.113	-0.007
Other diabetes medications	434	4.4%	814	5.6%	-1.245	-0.057
ACEI/ARB	3,577	36.3%	5,503	38.2%	-1.894	-0.039
Antiarrhythmics	3,118	31.6%	4,228	29.3%	2.297	0.050
Anti-coagulant (injectable)	1,247	12.7%	1,968	13.7%	-1.004	-0.030

Table 1g. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	572	5.8%	1,272	8.8%	-3.024	-0.116
Beta-blockers	6,520	66.2%	9,912	68.8%	-2.629	-0.056
Calcium channel blockers	2,959	30.0%	4,556	31.6%	-1.593	-0.035
Digoxin	596	6.0%	699	4.9%	1.197	0.053
Diuretics (loop)	1,169	11.9%	2,193	15.2%	-3.358	-0.098
Diuretics (potassium sparing)	596	6.0%	1,155	8.0%	-1.968	-0.077
Diuretics (thiazide)	1,284	13.0%	2,033	14.1%	-1.080	-0.032
Nitrates	209	2.1%	474	3.3%	-1.169	-0.072
Statins	2,185	22.2%	3,643	25.3%	-3.111	-0.073
Fibrates	261	2.6%	346	2.4%	0.247	0.016
Amiodarone	769	7.8%	1,263	8.8%	-0.962	-0.035
Dronedarone	320	3.2%	320	2.2%	1.026	0.063
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	6,128	62.2%	8,480	58.9%	3.332	0.068
No ED encounters (past 31-183 days)	7,717	78.3%	10,908	75.7%	2.605	0.062
At least 1 ED encounter (past 0-30 days)	3,726	37.8%	5,928	41.1%	-3.332	-0.068
At least 2 ED encounters (past 0-30 days)	750	7.6%	1,330	9.2%	-1.620	-0.058
At least 1 ED encounter (past 31-183 days)	2,137	21.7%	3,500	24.3%	-2.605	-0.062
At least 2 ED encounters (past 31-183 days)	679	6.9%	1,233	8.6%	-1.667	-0.062

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1h. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	9,867	N/A	14,333	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	43.2	6.0	43.2	6.1	0.001	0.000
Age						
21-49 years	9,867	100.0%	14,333	100.0%	0.000	-
50-64 years	0	0.0%	0	0.0%	-	-
Sex						
Female	2,112	21.4%	3,073	21.4%	-0.038	-0.001
Male	7,755	78.6%	11,260	78.6%	0.038	0.001
Race ³						
American Indian or Alaska Native	4	0.0%	8	0.1%	-0.021	-0.010
Asian	24	0.2%	40	0.3%	-0.033	-0.007
Black or African American	218	2.2%	337	2.3%	-0.137	-0.010
Native Hawaiian or Other Pacific Islander	6	0.1%	z	0.1%	0.001	0.000
Unknown	8,780	89.0%	12,556	87.6%	1.384	0.055
White	781	7.9%	1,321	9.2%	-1.301	-0.054
Hispanic origin						
Yes	97	1.0%	108	0.8%	0.226	0.025
No	421	4.3%	736	5.1%	-0.868	-0.060
Unknown	9,349	94.8%	13,489	94.1%	0.641	0.038
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	6	0.1%	0	0.0%	NaN	NaN
2012	447	4.5%	0	0.0%	NaN	NaN
2013	943	9.6%	236	1.6%	7.904	0.349
2014	1,177	11.9%	566	3.9%	7.981	0.299
2015	1,172	11.9%	1,019	7.1%	4.774	0.163
2016	1,109	11.2%	1,375	9.6%	1.642	0.054
2017	1,124	11.4%	1,697	11.8%	-0.448	-0.014
2018	1,107	11.2%	2,032	14.2%	-2.951	-0.089
2019	964	9.8%	2,250	15.7%	-5.924	-0.179
2020	825	8.4%	2,297	16.0%	-7.662	-0.236
2021	851	8.6%	2,536	17.7%	-9.073	-0.271
2022	142	1.4%	326	2.3%	-0.832	-0.062
CHADSVASC						
mean, std	1.3	1.2	1.3	1.2	-0.000	-0.000
0	2,804	28.4%	4,053	28.3%	0.138	0.003
1	3,467	35.1%	5,046	35.2%	-0.067	-0.001
2	2,044	20.7%	2,986	20.8%	-0.118	-0.003

Table 1h. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
3	995	10.1%	1,453	10.1%	-0.057	-0.002
4	430	4.4%	627	4.4%	-0.013	-0.001
>= 5	127	1.3%	168	1.2%	0.118	0.011
HASBLED						
mean, std	0.8	0.8	0.8	0.8	0.000	0.000
0	3,749	38.0%	5,429	37.9%	0.122	0.003
1	4,548	46.1%	6,645	46.4%	-0.261	-0.005
2	1,272	12.9%	1,837	12.8%	0.079	0.002
>= 3	297	3.0%	423	2.9%	0.061	0.004
Health Characteristics						
Diabetes	1,851	18.8%	2,694	18.8%	-0.035	-0.001
Hypercholesterolemia	1,592	16.1%	2,312	16.1%	0.008	0.000
Hypertension	5,635	57.1%	8,205	57.2%	-0.130	-0.003
Kidney failure (chronic)	399	4.0%	566	4.0%	0.096	0.005
Kidney failure (acute)	619	6.3%	885	6.2%	0.097	0.004
Obesity	3,915	39.7%	5,686	39.7%	0.006	0.000
Peptic ulcer disease	20	0.2%	28	0.2%	0.006	0.001
Nicotine dependency	2,558	25.9%	3,694	25.8%	0.151	0.003
Hospitalized AMI (past 0-30 days)	159	1.6%	229	1.6%	0.015	0.001
Hospitalized AMI (past 31-183 days)	69	0.7%	98	0.7%	0.018	0.002
Coronary revascularization	349	3.5%	495	3.5%	0.079	0.004
Hospitalized heart failure	1,361	13.8%	1,969	13.7%	0.052	0.002
Outpatient heart failure	1,195	12.1%	1,714	12.0%	0.147	0.005
Other ischemic heart disease	1,553	15.7%	2,250	15.7%	0.042	0.001
Hospitalized stroke (past 0-30 days)	98	1.0%	146	1.0%	-0.021	-0.002
Hospitalized stroke (past 31-183 days)	60	0.6%	84	0.6%	0.022	0.003
Transient ischemic attack	260	2.6%	374	2.6%	0.033	0.002
Other medical conditions (falls, fractures, syncope, walker use)	2,852	28.9%	4,125	28.8%	0.118	0.003
Cardioversion	2,088	21.2%	3,032	21.2%	0.010	0.000
Cardioablation	678	6.9%	989	6.9%	-0.024	-0.001
Hospitalized for bleeding	31	0.3%	46	0.3%	-0.004	-0.001
Medical Product Use						
Estrogen replacement	203	2.1%	299	2.1%	-0.027	-0.002
H2-antagonist	186	1.9%	281	2.0%	-0.075	-0.006
NSAIDs	1,382	14.0%	2,019	14.1%	-0.077	-0.002
Proton pump inhibitors	1,670	16.9%	2,416	16.9%	0.067	0.002
SSRI antidepressants	1,061	10.8%	1,549	10.8%	-0.056	-0.002
Insulin	451	4.6%	658	4.6%	-0.019	-0.001
Metformin (Biguanide)	1,112	11.3%	1,621	11.3%	-0.042	-0.001
Sulfonylureas	288	2.9%	420	2.9%	-0.005	-0.000
Other diabetes medications	498	5.0%	724	5.1%	-0.003	-0.000

Table 1h. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
ACEI/ARB	3,691	37.4%	5,361	37.4%	0.001	0.000
Antiarrhythmics	2,994	30.3%	4,339	30.3%	0.064	0.001
Anti-coagulant (injectable)	1,301	13.2%	1,908	13.3%	-0.126	-0.004
Anti-platelets	746	7.6%	1,070	7.5%	0.089	0.003
Beta-blockers	6,690	67.8%	9,708	67.7%	0.075	0.002
Calcium channel blockers	3,069	31.1%	4,440	31.0%	0.125	0.003
Digoxin	513	5.2%	763	5.3%	-0.128	-0.006
Diuretics (loop)	1,344	13.6%	1,968	13.7%	-0.110	-0.003
Diuretics (potassium sparing)	700	7.1%	1,025	7.2%	-0.051	-0.002
Diuretics (thiazide)	1,355	13.7%	1,962	13.7%	0.050	0.001
Nitrates	285	2.9%	399	2.8%	0.104	0.006
Statins	2,367	24.0%	3,426	23.9%	0.087	0.002
Fibrates	239	2.4%	354	2.5%	-0.046	-0.003
Amiodarone	825	8.4%	1,192	8.3%	0.040	0.001
Dronedarone	256	2.6%	374	2.6%	-0.019	-0.001
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	5,901	59.8%	8,669	60.5%	-0.670	-0.014
No ED encounters (past 31-183 days)	7,549	76.5%	11,006	76.8%	-0.284	-0.007
At least 1 ED encounter (past 0-30 days)	3,966	40.2%	5,664	39.5%	0.670	0.014
At least 2 ED encounters (past 0-30 days)	867	8.8%	1,211	8.4%	0.337	0.012
At least 1 ED encounter (past 31-183 days)	2,318	23.5%	3,327	23.2%	0.284	0.007
At least 2 ED encounters (past 31-183 days)	801	8.1%	1,129	7.9%	0.235	0.009

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1i. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	48,071	100.0%	81,610	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	59.0	4.0	59.3	4.0	-0.334	-0.084
Age						
21-49 years	0	0.0%	0	0.0%	-	-
50-64 years	48,071	100.0%	81,610	100.0%	0.000	-
Sex						
Female	12,913	26.9%	25,019	30.7%	-3.794	-0.084
Male	35,158	73.1%	56,591	69.3%	3.794	0.084
Race ³						
American Indian or Alaska Native	26	0.1%	74	0.1%	-0.037	-0.014
Asian	86	0.2%	156	0.2%	-0.012	-0.003
Black or African American	1,018	2.1%	2,430	3.0%	-0.860	-0.055
Native Hawaiian or Other Pacific Islander	41	0.1%	z	0.1%	-0.009	-0.003
Unknown	40,123	83.5%	64,691	79.3%	4.198	0.108
White	6,617	13.8%	13,861	17.0%	-3.219	-0.089
Hispanic origin						
Yes	190	0.4%	407	0.5%	-0.103	-0.016
No	4,412	9.2%	10,417	12.8%	-3.586	-0.115
Unknown	43,469	90.4%	70,786	86.7%	3.690	0.116
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	44	0.1%	0	0.0%	NaN	NaN
2012	2,287	4.8%	0	0.0%	NaN	NaN
2013	4,905	10.2%	1,176	1.4%	8.763	0.381
2014	6,203	12.9%	3,252	4.0%	8.919	0.325
2015	5,511	11.5%	5,885	7.2%	4.253	0.147
2016	5,348	11.1%	8,100	9.9%	1.200	0.039
2017	5,547	11.5%	9,737	11.9%	-0.392	-0.012
2018	5,232	10.9%	11,068	13.6%	-2.678	-0.082
2019	4,542	9.4%	12,670	15.5%	-6.077	-0.185
2020	3,746	7.8%	13,005	15.9%	-8.143	-0.254
2021	4,014	8.4%	14,793	18.1%	-9.776	-0.292
2022	692	1.4%	1,924	2.4%	-0.918	-0.067
CHADSVASC						
mean, std	1.6	1.2	1.9	1.3	-0.254	-0.208
0	7,701	16.0%	10,143	12.4%	3.591	0.103
1	16,778	34.9%	25,128	30.8%	4.112	0.088
2	13,219	27.5%	22,574	27.7%	-0.162	-0.004
3	6,739	14.0%	13,846	17.0%	-2.947	-0.082
4	2,802	5.8%	7,284	8.9%	-3.096	-0.119

Table 1i. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	832	1.7%	2,635	3.2%	-1.498	-0.096
HASBLED						
mean, std	1.0	0.7	1.1	0.8	-0.141	-0.185
0	11,504	23.9%	16,518	20.2%	3.691	0.089
1	27,947	58.1%	44,689	54.8%	3.378	0.068
2	6,990	14.5%	15,242	18.7%	-4.136	-0.111
>= 3	1,630	3.4%	5,161	6.3%	-2.933	-0.137
Health Characteristics						
Diabetes	13,388	27.9%	25,416	31.1%	-3.293	-0.072
Hypercholesterolemia	13,347	27.8%	24,397	29.9%	-2.129	-0.047
Hypertension	35,258	73.3%	62,756	76.9%	-3.552	-0.082
Kidney failure (chronic)	2,414	5.0%	7,163	8.8%	-3.755	-0.149
Kidney failure (acute)	2,354	4.9%	8,025	9.8%	-4.936	-0.190
Obesity	15,655	32.6%	32,245	39.5%	-6.945	-0.145
Peptic ulcer disease	126	0.3%	362	0.4%	-0.181	-0.031
Nicotine dependency	10,995	22.9%	23,516	28.8%	-5.943	-0.136
Hospitalized AMI (past 0-30 days)	788	1.6%	2,345	2.9%	-1.234	-0.083
Hospitalized AMI (past 31-183 days)	400	0.8%	1,217	1.5%	-0.659	-0.062
Coronary revascularization	3,599	7.5%	8,815	10.8%	-3.315	-0.115
Hospitalized heart failure	6,179	12.9%	14,735	18.1%	-5.201	-0.144
Outpatient heart failure	6,502	13.5%	13,896	17.0%	-3.501	-0.097
Other ischemic heart disease	13,099	27.2%	25,401	31.1%	-3.876	-0.085
Hospitalized stroke (past 0-30 days)	482	1.0%	1,268	1.6%	-0.551	-0.049
Hospitalized stroke (past 31-183 days)	243	0.5%	760	0.9%	-0.426	-0.050
Transient ischemic attack	1,454	3.0%	2,783	3.4%	-0.385	-0.022
Other medical conditions (falls, fractures, syncope, walker use)	11,650	24.2%	21,378	26.2%	-1.960	-0.045
Cardioversion	7,249	15.1%	12,143	14.9%	0.200	0.006
Cardioablation	1,960	4.1%	3,206	3.9%	0.149	0.008
Hospitalized for bleeding	152	0.3%	434	0.5%	-0.216	-0.033
Medical Product Use						
Estrogen replacement	1,119	2.3%	2,054	2.5%	-0.189	-0.012
H2-antagonist	1,086	2.3%	2,468	3.0%	-0.765	-0.048
NSAIDs	7,690	16.0%	13,752	16.9%	-0.854	-0.023
Proton pump inhibitors	9,340	19.4%	18,363	22.5%	-3.071	-0.076
SSRI antidepressants	5,528	11.5%	10,664	13.1%	-1.567	-0.048
Insulin	3,218	6.7%	6,922	8.5%	-1.788	-0.068
Metformin (Biguanide)	8,259	17.2%	15,414	18.9%	-1.707	-0.044
Sulfonylureas	2,820	5.9%	4,735	5.8%	0.064	0.003
Other diabetes medications	3,704	7.7%	7,767	9.5%	-1.812	-0.065
ACEI/ARB	24,635	51.2%	43,531	53.3%	-2.093	-0.042
Antiarrhythmics	13,889	28.9%	22,555	27.6%	1.255	0.028
Anti-coagulant (injectable)	4,841	10.1%	9,788	12.0%	-1.923	-0.061

Table 1i. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	5,103	10.6%	11,528	14.1%	-3.510	-0.107
Beta-blockers	33,740	70.2%	59,538	73.0%	-2.766	-0.061
Calcium channel blockers	16,784	34.9%	29,827	36.5%	-1.633	-0.034
Digoxin	3,354	7.0%	4,427	5.4%	1.553	0.064
Diuretics (loop)	8,033	16.7%	17,008	20.8%	-4.130	-0.106
Diuretics (potassium sparing)	3,510	7.3%	7,307	9.0%	-1.652	-0.060
Diuretics (thiazide)	10,167	21.1%	17,744	21.7%	-0.592	-0.014
Nitrates	2,364	4.9%	5,332	6.5%	-1.616	-0.070
Statins	21,714	45.2%	40,290	49.4%	-4.198	-0.084
Fibrates	1,987	4.1%	3,416	4.2%	-0.052	-0.003
Amiodarone	4,465	9.3%	9,074	11.1%	-1.830	-0.060
Dronedarone	1,462	3.0%	1,795	2.2%	0.842	0.053
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	34,374	71.5%	53,938	66.1%	5.414	0.117
No ED encounters (past 31-183 days)	39,511	82.2%	64,435	79.0%	3.238	0.082
At least 1 ED encounter (past 0-30 days)	13,697	28.5%	27,672	33.9%	-5.414	-0.117
At least 2 ED encounters (past 0-30 days)	2,973	6.2%	6,711	8.2%	-2.039	-0.079
At least 1 ED encounter (past 31-183 days)	8,560	17.8%	17,175	21.0%	-3.238	-0.082
At least 2 ED encounters (past 31-183 days)	2,693	5.6%	5,993	7.3%	-1.741	-0.071

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1j. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
Weighted patients	48,105	N/A	81,592	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	59.2	4.0	59.2	4.0	-0.029	-0.007
Age						
21-49 years	0	0.0%	0	0.0%	-	-
50-64 years	48,105	100.0%	81,592	100.0%	0.000	-
Sex						
Female	14,048	29.2%	23,929	29.3%	-0.124	-0.003
Male	34,057	70.8%	57,663	70.7%	0.124	0.003
Race ³						
American Indian or Alaska Native	26	0.1%	72	0.1%	-0.035	-0.013
Asian	81	0.2%	163	0.2%	-0.031	-0.007
Black or African American	1,106	2.3%	2,316	2.8%	-0.541	-0.036
Native Hawaiian or Other Pacific Islander	43	0.1%	z	0.1%	-0.004	-0.001
Unknown	39,828	82.8%	64,961	79.6%	3.178	0.121
White	6,861	14.3%	13,683	16.8%	-2.507	-0.091
Hispanic origin						
Yes	193	0.4%	402	0.5%	-0.091	-0.014
No	4,635	9.6%	10,207	12.5%	-2.875	-0.179
Unknown	43,276	90.0%	70,983	87.0%	2.965	0.175
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	37	0.1%	0	0.0%	NaN	NaN
2012	2,045	4.3%	0	0.0%	NaN	NaN
2013	4,556	9.5%	1,278	1.6%	7.905	0.352
2014	5,870	12.2%	3,476	4.3%	7.943	0.292
2015	5,334	11.1%	6,173	7.6%	3.523	0.121
2016	5,316	11.1%	8,264	10.1%	0.923	0.030
2017	5,711	11.9%	9,825	12.0%	-0.171	-0.005
2018	5,430	11.3%	11,039	13.5%	-2.242	-0.068
2019	4,779	9.9%	12,481	15.3%	-5.362	-0.162
2020	3,988	8.3%	12,753	15.6%	-7.341	-0.228
2021	4,288	8.9%	14,432	17.7%	-8.775	-0.261
2022	751	1.6%	1,871	2.3%	-0.733	-0.053
CHADSVASC						
mean, std	1.8	1.2	1.8	1.2	-0.023	-0.019
0	6,712	14.0%	11,141	13.7%	0.299	0.009
1	15,650	32.5%	26,229	32.1%	0.386	0.008
2	13,282	27.6%	22,522	27.6%	0.007	0.000
3	7,555	15.7%	13,036	16.0%	-0.271	-0.007

Table 1j. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	3,643	7.6%	6,437	7.9%	-0.315	-0.012
>= 5	1,262	2.6%	2,227	2.7%	-0.106	-0.007
HASBLED						
mean, std	1.1	0.8	1.1	0.8	-0.012	-0.015
0	10,520	21.9%	17,506	21.5%	0.413	0.010
1	26,953	56.0%	45,670	56.0%	0.057	0.001
2	8,152	16.9%	14,081	17.3%	-0.312	-0.008
>= 3	2,480	5.2%	4,335	5.3%	-0.159	-0.007
Health Characteristics						
Diabetes	14,190	29.5%	24,596	30.1%	-0.647	-0.014
Hypercholesterolemia	13,893	28.9%	23,768	29.1%	-0.250	-0.006
Hypertension	36,229	75.3%	61,809	75.8%	-0.441	-0.010
Kidney failure (chronic)	3,502	7.3%	6,138	7.5%	-0.242	-0.009
Kidney failure (acute)	3,824	7.9%	6,615	8.1%	-0.159	-0.006
Obesity	17,666	36.7%	30,302	37.1%	-0.413	-0.009
Peptic ulcer disease	175	0.4%	309	0.4%	-0.015	-0.002
Nicotine dependency	12,682	26.4%	21,908	26.9%	-0.488	-0.011
Hospitalized AMI (past 0-30 days)	1,118	2.3%	1,986	2.4%	-0.110	-0.007
Hospitalized AMI (past 31-183 days)	607	1.3%	1,034	1.3%	-0.006	-0.001
Coronary revascularization	4,528	9.4%	7,889	9.7%	-0.255	-0.009
Hospitalized heart failure	7,638	15.9%	13,285	16.3%	-0.406	-0.011
Outpatient heart failure	7,429	15.4%	13,031	16.0%	-0.527	-0.015
Other ischemic heart disease	14,143	29.4%	24,399	29.9%	-0.503	-0.011
Hospitalized stroke (past 0-30 days)	633	1.3%	1,100	1.3%	-0.033	-0.003
Hospitalized stroke (past 31-183 days)	384	0.8%	636	0.8%	0.019	0.002
Transient ischemic attack	1,579	3.3%	2,674	3.3%	0.005	0.000
Other medical conditions (falls, fractures, syncope, walker use)	12,218	25.4%	20,870	25.6%	-0.179	-0.004
Cardioversion	7,222	15.0%	12,166	14.9%	0.103	0.003
Cardioablation	1,925	4.0%	3,246	4.0%	0.023	0.001
Hospitalized for bleeding	220	0.5%	370	0.5%	0.004	0.001
Medical Product Use						
Estrogen replacement	1,189	2.5%	1,995	2.4%	0.026	0.002
H2-antagonist	1,304	2.7%	2,294	2.8%	-0.100	-0.006
NSAIDs	7,930	16.5%	13,556	16.6%	-0.130	-0.003
Proton pump inhibitors	10,146	21.1%	17,574	21.5%	-0.448	-0.011
SSRI antidepressants	5,947	12.4%	10,298	12.6%	-0.259	-0.008
Insulin	3,660	7.6%	6,455	7.9%	-0.303	-0.011
Metformin (Biguanide)	8,682	18.0%	14,974	18.4%	-0.305	-0.008
Sulfonylureas	2,723	5.7%	4,775	5.9%	-0.191	-0.008
Other diabetes medications	4,195	8.7%	7,235	8.9%	-0.147	-0.005
ACEI/ARB	25,261	52.5%	43,037	52.7%	-0.234	-0.005

Table 1j. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Antiarrhythmics	13,514	28.1%	22,947	28.1%	-0.030	-0.001
Anti-coagulant (injectable)	5,418	11.3%	9,241	11.3%	-0.063	-0.002
Anti-platelets	6,151	12.8%	10,524	12.9%	-0.113	-0.003
Beta-blockers	34,529	71.8%	58,750	72.0%	-0.225	-0.005
Calcium channel blockers	17,214	35.8%	29,362	36.0%	-0.202	-0.004
Digoxin	2,856	5.9%	4,919	6.0%	-0.093	-0.004
Diuretics (loop)	9,130	19.0%	15,947	19.5%	-0.566	-0.015
Diuretics (potassium sparing)	3,976	8.3%	6,865	8.4%	-0.149	-0.005
Diuretics (thiazide)	10,308	21.4%	17,588	21.6%	-0.127	-0.003
Nitrates	2,805	5.8%	4,925	6.0%	-0.206	-0.009
Statins	22,834	47.5%	39,140	48.0%	-0.503	-0.010
Fibrates	1,969	4.1%	3,406	4.2%	-0.082	-0.004
Amiodarone	4,948	10.3%	8,541	10.5%	-0.182	-0.006
Dronedarone	1,227	2.5%	2,048	2.5%	0.039	0.003
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	32,867	68.3%	55,498	68.0%	0.305	0.007
No ED encounters (past 31-183 days)	38,595	80.2%	65,220	79.9%	0.297	0.008
At least 1 ED encounter (past 0-30 days)	15,238	31.7%	26,095	32.0%	-0.305	-0.007
At least 2 ED encounters (past 0-30 days)	3,524	7.3%	6,143	7.5%	-0.203	-0.008
At least 1 ED encounter (past 31-183 days)	9,510	19.8%	16,372	20.1%	-0.297	-0.008
At least 2 ED encounters (past 31-183 days)	3,171	6.6%	5,576	6.8%	-0.242	-0.010

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1k. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	10,764	100.0%	13,941	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	53.4	9.1	53.9	9.0	-0.525	-0.058
Age						
21-49 years	3,063	28.5%	3,798	27.2%	1.213	0.027
50-64 years	7,701	71.5%	10,143	72.8%	-1.213	-0.027
Sex						
Female	0	0.0%	0	0.0%	-	-
Male	10,764	100.0%	13,941	100.0%	0.000	-
Race ³						
American Indian or Alaska Native	8	0.1%	7	0.1%	0.024	0.010
Asian	17	0.2%	37	0.3%	-0.107	-0.023
Black or African American	55	0.5%	52	0.4%	0.138	0.021
Native Hawaiian or Other Pacific Islander	1	0.0%	2	0.0%	0.002	0.002
Unknown	9,655	89.7%	12,420	89.1%	0.607	0.020
White	995	9.2%	1,373	9.8%	-0.605	-0.021
Hispanic origin						
Yes	44	0.4%	66	0.5%	-0.065	-0.010
No	245	2.3%	375	2.7%	-0.414	-0.027
Unknown	10,475	97.3%	13,500	96.8%	0.478	0.028
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	11	0.1%	0	0.0%	NaN	NaN
2012	568	5.3%	0	0.0%	NaN	NaN
2013	1,238	11.5%	245	1.8%	9.744	0.399
2014	1,396	13.0%	640	4.6%	8.378	0.299
2015	1,337	12.4%	1,094	7.8%	4.574	0.152
2016	1,185	11.0%	1,405	10.1%	0.931	0.030
2017	1,144	10.6%	1,612	11.6%	-0.935	-0.030
2018	1,141	10.6%	1,935	13.9%	-3.280	-0.100
2019	955	8.9%	2,066	14.8%	-5.947	-0.185
2020	806	7.5%	2,182	15.7%	-8.164	-0.257
2021	815	7.6%	2,447	17.6%	-9.981	-0.305
2022	168	1.6%	315	2.3%	-0.699	-0.051
CHADSVASC						
mean, std	0.0	-	0.0	-	-	-
0	10,764	100.0%	13,941	100.0%	0.000	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
3	0	0.0%	0	0.0%	-	-
4	0	0.0%	0	0.0%	-	-

Table 1k. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	0.1	0.3	0.1	0.3	-0.017	-0.051
0	9,823	91.3%	12,517	89.8%	1.472	0.050
1	862	8.0%	1,294	9.3%	-1.274	-0.045
2	74	0.7%	117	0.8%	-0.152	-0.017
>= 3	5	0.0%	13	0.1%	-0.047	-0.018
Health Characteristics						
Diabetes	28	0.3%	50	0.4%	-0.099	-0.018
Hypercholesterolemia	1,452	13.5%	1,887	13.5%	-0.046	-0.001
Hypertension	258	2.4%	416	3.0%	-0.587	-0.036
Kidney failure (chronic)	80	0.7%	163	1.2%	-0.426	-0.044
Kidney failure (acute)	107	1.0%	266	1.9%	-0.914	-0.076
Obesity	1,544	14.3%	2,520	18.1%	-3.732	-0.101
Peptic ulcer disease	12	0.1%	27	0.2%	-0.082	-0.021
Nicotine dependency	1,611	15.0%	2,448	17.6%	-2.593	-0.070
Hospitalized AMI (past 0-30 days)	0	0.0%	0	0.0%	-	-
Hospitalized AMI (past 31-183 days)	0	0.0%	0	0.0%	-	-
Coronary revascularization	162	1.5%	278	2.0%	-0.489	-0.037
Hospitalized heart failure	0	0.0%	0	0.0%	-	-
Outpatient heart failure	429	4.0%	623	4.5%	-0.483	-0.024
Other ischemic heart disease	1,129	10.5%	1,686	12.1%	-1.605	-0.051
Hospitalized stroke (past 0-30 days)	0	0.0%	0	0.0%	-	-
Hospitalized stroke (past 31-183 days)	0	0.0%	0	0.0%	-	-
Transient ischemic attack	5	0.0%	7	0.1%	-0.004	-0.002
Other medical conditions (falls, fractures, syncope, walker use)	2,314	21.5%	3,090	22.2%	-0.667	-0.016
Cardioversion	1,754	16.3%	2,250	16.1%	0.156	0.004
Cardioablation	628	5.8%	815	5.8%	-0.012	-0.001
Hospitalized for bleeding	14	0.1%	28	0.2%	-0.071	-0.017
Medical Product Use						
Estrogen replacement	0	0.0%	5	0.0%	-	-
H2-antagonist	92	0.9%	157	1.1%	-0.271	-0.027
NSAIDs	1,151	10.7%	1,437	10.3%	0.385	0.013
Proton pump inhibitors	1,319	12.3%	1,808	13.0%	-0.715	-0.022
SSRI antidepressants	637	5.9%	819	5.9%	0.043	0.002
Insulin	11	0.1%	21	0.2%	-0.048	-0.014
Metformin (Biguanide)	113	1.0%	140	1.0%	0.046	0.005
Sulfonylureas	20	0.2%	10	0.1%	0.114	0.032
Other diabetes medications	39	0.4%	52	0.4%	-0.011	-0.002
ACEI/ARB	1,071	9.9%	1,420	10.2%	-0.236	-0.008
Antiarrhythmics	3,211	29.8%	3,790	27.2%	2.645	0.059
Anti-coagulant (injectable)	1,020	9.5%	1,427	10.2%	-0.760	-0.025

Table 1k. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	424	3.9%	693	5.0%	-1.032	-0.050
Beta-blockers	5,986	55.6%	8,030	57.6%	-1.989	-0.040
Calcium channel blockers	2,195	20.4%	2,884	20.7%	-0.295	-0.007
Digoxin	426	4.0%	449	3.2%	0.737	0.040
Diuretics (loop)	401	3.7%	574	4.1%	-0.392	-0.020
Diuretics (potassium sparing)	170	1.6%	232	1.7%	-0.085	-0.007
Diuretics (thiazide)	247	2.3%	340	2.4%	-0.144	-0.009
Nitrates	97	0.9%	173	1.2%	-0.340	-0.033
Statins	2,222	20.6%	3,008	21.6%	-0.934	-0.023
Fibrates	160	1.5%	166	1.2%	0.296	0.026
Amiodarone	520	4.8%	727	5.2%	-0.384	-0.018
Dronedarone	374	3.5%	377	2.7%	0.770	0.045
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	7,897	73.4%	9,847	70.6%	2.732	0.061
No ED encounters (past 31-183 days)	9,577	89.0%	12,218	87.6%	1.332	0.041
At least 1 ED encounter (past 0-30 days)	2,867	26.6%	4,094	29.4%	-2.732	-0.061
At least 2 ED encounters (past 0-30 days)	427	4.0%	649	4.7%	-0.688	-0.034
At least 1 ED encounter (past 31-183 days)	1,187	11.0%	1,723	12.4%	-1.332	-0.041
At least 2 ED encounters (past 31-183 days)	269	2.5%	406	2.9%	-0.413	-0.025

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1I. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
Weighted patients	10,752	N/A	13,893	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	53.7	8.9	53.7	9.1	-0.000	-0.000
Age						
21-49 years	2,935	27.3%	3,915	28.2%	-0.880	-0.020
50-64 years	7,817	72.7%	9,977	71.8%	0.880	0.020
Sex						
Female	0	0.0%	0	0.0%	-	-
Male	10,752	100.0%	13,893	100.0%	0.000	-
Race ³						
American Indian or Alaska Native	8	0.1%	7	0.1%	0.021	0.008
Asian	17	0.2%	37	0.3%	-0.108	-0.023
Black or African American	57	0.5%	47	0.3%	0.194	0.030
Native Hawaiian or Other Pacific Islander	1	0.0%	z	0.0%	0.000	0.000
Unknown	9,642	89.7%	12,410	89.3%	0.344	0.014
White	995	9.3%	1,339	9.6%	-0.389	-0.016
Hispanic origin						
Yes	45	0.4%	64	0.5%	-0.044	-0.007
No	243	2.3%	349	2.5%	-0.249	-0.021
Unknown	10,464	97.3%	13,480	97.0%	0.293	0.021
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	10	0.1%	0	0.0%	NaN	NaN
2012	542	5.0%	0	0.0%	NaN	NaN
2013	1,186	11.0%	254	1.8%	9.196	0.382
2014	1,356	12.6%	656	4.7%	7.890	0.283
2015	1,324	12.3%	1,122	8.1%	4.234	0.140
2016	1,177	10.9%	1,413	10.2%	0.776	0.025
2017	1,157	10.8%	1,619	11.7%	-0.891	-0.028
2018	1,160	10.8%	1,924	13.9%	-3.065	-0.093
2019	986	9.2%	2,041	14.7%	-5.518	-0.171
2020	829	7.7%	2,160	15.5%	-7.839	-0.246
2021	848	7.9%	2,395	17.2%	-9.356	-0.285
2022	178	1.7%	308	2.2%	-0.561	-0.041
CHADSVASC						
mean, std	0.0	-	0.0	-	0.000	-
0	10,752	100.0%	13,893	100.0%	0.000	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
3	0	0.0%	0	0.0%	-	-

Table 11. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	0	0.0%	0	0.0%	-	-
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	0.1	0.3	0.1	0.3	0.001	0.003
0	9,720	90.4%	12,571	90.5%	-0.086	-0.003
1	943	8.8%	1,210	8.7%	0.060	0.002
2	85	0.8%	105	0.8%	0.029	0.003
>= 3	5	0.0%	7	0.0%	-0.004	-0.002
Health Characteristics						
Diabetes	30	0.3%	40	0.3%	-0.007	-0.001
Hypercholesterolemia	1,458	13.6%	1,875	13.5%	0.068	0.002
Hypertension	294	2.7%	368	2.7%	0.087	0.005
Kidney failure (chronic)	107	1.0%	133	1.0%	0.041	0.004
Kidney failure (acute)	165	1.5%	204	1.5%	0.069	0.006
Obesity	1,780	16.6%	2,289	16.5%	0.079	0.002
Peptic ulcer disease	14	0.1%	18	0.1%	-0.000	-0.000
Nicotine dependency	1,772	16.5%	2,280	16.4%	0.073	0.002
Hospitalized AMI (past 0-30 days)	0	0.0%	0	0.0%	-	-
Hospitalized AMI (past 31-183 days)	0	0.0%	0	0.0%	-	-
Coronary revascularization	189	1.8%	243	1.7%	0.012	0.001
Hospitalized heart failure	0	0.0%	0	0.0%	-	-
Outpatient heart failure	457	4.3%	592	4.3%	-0.008	-0.000
Other ischemic heart disease	1,241	11.5%	1,582	11.4%	0.153	0.005
Hospitalized stroke (past 0-30 days)	0	0.0%	0	0.0%	-	-
Hospitalized stroke (past 31-183 days)	0	0.0%	0	0.0%	-	-
Transient ischemic attack	3	0.0%	3	0.0%	0.003	0.002
Other medical conditions (falls, fractures, syncope, walker use)	2,361	22.0%	3,038	21.9%	0.083	0.002
Cardioversion	1,753	16.3%	2,257	16.2%	0.061	0.002
Cardioablation	635	5.9%	808	5.8%	0.088	0.004
Hospitalized for bleeding	18	0.2%	22	0.2%	0.008	0.002
Medical Product Use						
Estrogen replacement	0	0.0%	0	0.0%	-	-
H2-antagonist	108	1.0%	137	1.0%	0.016	0.002
NSAIDs	1,121	10.4%	1,446	10.4%	0.020	0.001
Proton pump inhibitors	1,357	12.6%	1,756	12.6%	-0.014	-0.000
SSRI antidepressants	641	6.0%	819	5.9%	0.063	0.003
Insulin	15	0.1%	18	0.1%	0.006	0.002
Metformin (Biguanide)	110	1.0%	139	1.0%	0.023	0.002
Sulfonylureas	10	0.1%	16	0.1%	-0.027	-0.008
Other diabetes medications	42	0.4%	53	0.4%	0.003	0.000
ACEI/ARB	1,087	10.1%	1,394	10.0%	0.071	0.002

Table 1I. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
Antiarrhythmics	3,034	28.2%	3,927	28.3%	-0.048	-0.001
Anti-coagulant (injectable)	1,089	10.1%	1,366	9.8%	0.294	0.010
Anti-platelets	489	4.5%	633	4.6%	-0.011	-0.001
Beta-blockers	6,102	56.8%	7,878	56.7%	0.047	0.001
Calcium channel blockers	2,203	20.5%	2,850	20.5%	-0.027	-0.001
Digoxin	378	3.5%	488	3.5%	0.007	0.000
Diuretics (loop)	421	3.9%	544	3.9%	0.004	0.000
Diuretics (potassium sparing)	172	1.6%	224	1.6%	-0.019	-0.002
Diuretics (thiazide)	256	2.4%	328	2.4%	0.020	0.001
Nitrates	116	1.1%	150	1.1%	-0.002	-0.000
Statins	2,282	21.2%	2,941	21.2%	0.059	0.001
Fibrates	138	1.3%	180	1.3%	-0.011	-0.001
Amiodarone	541	5.0%	698	5.0%	0.002	0.000
Dronedarone	321	3.0%	416	3.0%	-0.006	-0.000
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	7,706	71.7%	9,992	71.9%	-0.257	-0.006
No ED encounters (past 31-183 days)	9,474	88.1%	12,264	88.3%	-0.163	-0.005
At least 1 ED encounter (past 0-30 days)	3,047	28.3%	3,901	28.1%	0.257	0.006
At least 2 ED encounters (past 0-30 days)	482	4.5%	589	4.2%	0.246	0.012
At least 1 ED encounter (past 31-183 days)	1,278	11.9%	1,628	11.7%	0.163	0.005
At least 2 ED encounters (past 31-183 days)	302	2.8%	368	2.6%	0.159	0.010

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1m. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	20,330	100.0%	30,084	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	56.1	7.4	56.5	7.3	-0.432	-0.059
Age						
21-49 years	3,552	17.5%	4,956	16.5%	0.998	0.027
50-64 years	16,778	82.5%	25,128	83.5%	-0.998	-0.027
Sex						
Female	3,463	17.0%	5,866	19.5%	-2.465	-0.064
Male	16,867	83.0%	24,218	80.5%	2.465	0.064
Race ³						
American Indian or Alaska Native	4	0.0%	12	0.0%	-0.020	-0.012
Asian	34	0.2%	50	0.2%	0.001	0.000
Black or African American	186	0.9%	317	1.1%	-0.139	-0.014
Native Hawaiian or Other Pacific Islander	8	0.0%	z	0.0%	-0.007	-0.003
Unknown	17,933	88.2%	25,992	86.4%	1.811	0.054
White	2,085	10.3%	3,569	11.9%	-1.608	-0.051
Hispanic origin						
Yes	81	0.4%	125	0.4%	-0.017	-0.003
No	927	4.6%	1,774	5.9%	-1.337	-0.060
Unknown	19,322	95.0%	28,185	93.7%	1.354	0.059
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	17	0.1%	0	0.0%	NaN	NaN
2012	1,079	5.3%	0	0.0%	NaN	NaN
2013	2,107	10.4%	527	1.8%	8.612	0.367
2014	2,687	13.2%	1,278	4.2%	8.969	0.322
2015	2,331	11.5%	2,336	7.8%	3.701	0.126
2016	2,256	11.1%	2,980	9.9%	1.191	0.039
2017	2,331	11.5%	3,667	12.2%	-0.723	-0.022
2018	2,174	10.7%	4,113	13.7%	-2.978	-0.091
2019	1,892	9.3%	4,604	15.3%	-5.997	-0.183
2020	1,524	7.5%	4,624	15.4%	-7.874	-0.249
2021	1,650	8.1%	5,272	17.5%	-9.408	-0.284
2022	282	1.4%	683	2.3%	-0.883	-0.066
CHADSVASC						
mean, std	1.0	0.0	1.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	20,330	100.0%	30,084	100.0%	0.000	-
2	0	0.0%	0	0.0%	-	-
3	0	0.0%	0	0.0%	-	-
4	0	0.0%	0	0.0%	-	-

Table 1m. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	0.9	0.6	0.9	0.7	-0.017	-0.026
0	4,499	22.1%	7,055	23.5%	-1.321	-0.031
1	13,435	66.1%	18,818	62.6%	3.533	0.074
2	2,068	10.2%	3,518	11.7%	-1.522	-0.049
>= 3	328	1.6%	693	2.3%	-0.690	-0.050
Health Characteristics						
Diabetes	756	3.7%	936	3.1%	0.607	0.033
Hypercholesterolemia	4,937	24.3%	7,476	24.9%	-0.566	-0.013
Hypertension	15,189	74.7%	21,852	72.6%	2.076	0.047
Kidney failure (chronic)	495	2.4%	1,063	3.5%	-1.099	-0.065
Kidney failure (acute)	486	2.4%	1,229	4.1%	-1.695	-0.096
Obesity	5,719	28.1%	9,758	32.4%	-4.305	-0.094
Peptic ulcer disease	32	0.2%	78	0.3%	-0.102	-0.022
Nicotine dependency	4,245	20.9%	7,341	24.4%	-3.521	-0.084
Hospitalized AMI (past 0-30 days)	38	0.2%	100	0.3%	-0.145	-0.029
Hospitalized AMI (past 31-183 days)	19	0.1%	26	0.1%	0.007	0.002
Coronary revascularization	918	4.5%	1,725	5.7%	-1.218	-0.055
Hospitalized heart failure	655	3.2%	1,094	3.6%	-0.415	-0.023
Outpatient heart failure	1,385	6.8%	2,059	6.8%	-0.032	-0.001
Other ischemic heart disease	4,242	20.9%	6,516	21.7%	-0.794	-0.019
Hospitalized stroke (past 0-30 days)	0	0.0%	0	0.0%	-	-
Hospitalized stroke (past 31-183 days)	0	0.0%	0	0.0%	-	-
Transient ischemic attack	10	0.0%	21	0.1%	-0.021	-0.008
Other medical conditions (falls, fractures, syncope, walker use)	4,703	23.1%	6,936	23.1%	0.078	0.002
Cardioversion	3,389	16.7%	4,666	15.5%	1.160	0.032
Cardioablation	1,078	5.3%	1,472	4.9%	0.410	0.019
Hospitalized for bleeding	44	0.2%	103	0.3%	-0.126	-0.024
Medical Product Use						
Estrogen replacement	445	2.2%	720	2.4%	-0.204	-0.014
H2-antagonist	304	1.5%	612	2.0%	-0.539	-0.041
NSAIDs	2,966	14.6%	4,667	15.5%	-0.924	-0.026
Proton pump inhibitors	3,555	17.5%	5,608	18.6%	-1.155	-0.030
SSRI antidepressants	1,874	9.2%	3,069	10.2%	-0.984	-0.033
Insulin	113	0.6%	140	0.5%	0.090	0.013
Metformin (Biguanide)	673	3.3%	935	3.1%	0.202	0.011
Sulfonylureas	136	0.7%	139	0.5%	0.207	0.028
Other diabetes medications	218	1.1%	298	1.0%	0.082	0.008
ACEI/ARB	9,674	47.6%	13,979	46.5%	1.118	0.022
Antiarrhythmics	6,076	29.9%	8,459	28.1%	1.769	0.039
Anti-coagulant (injectable)	2,048	10.1%	3,416	11.4%	-1.281	-0.041

Table 1m. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	1,439	7.1%	2,680	8.9%	-1.830	-0.068
Beta-blockers	14,026	69.0%	21,016	69.9%	-0.866	-0.019
Calcium channel blockers	7,144	35.1%	10,833	36.0%	-0.869	-0.018
Digoxin	1,183	5.8%	1,195	4.0%	1.847	0.086
Diuretics (loop)	1,797	8.8%	2,780	9.2%	-0.402	-0.014
Diuretics (potassium sparing)	926	4.6%	1,430	4.8%	-0.199	-0.009
Diuretics (thiazide)	3,893	19.1%	5,657	18.8%	0.345	0.009
Nitrates	584	2.9%	972	3.2%	-0.358	-0.021
Statins	7,307	35.9%	11,217	37.3%	-1.344	-0.028
Fibrates	649	3.2%	827	2.7%	0.443	0.026
Amiodarone	1,535	7.6%	2,336	7.8%	-0.215	-0.008
Dronedarone	726	3.6%	880	2.9%	0.646	0.036
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	15,150	74.5%	21,170	70.4%	4.151	0.093
No ED encounters (past 31-183 days)	17,282	85.0%	25,117	83.5%	1.518	0.042
At least 1 ED encounter (past 0-30 days)	5,180	25.5%	8,914	29.6%	-4.151	-0.093
At least 2 ED encounters (past 0-30 days)	977	4.8%	1,760	5.9%	-1.045	-0.047
At least 1 ED encounter (past 31-183 days)	3,048	15.0%	4,967	16.5%	-1.518	-0.042
At least 2 ED encounters (past 31-183 days)	770	3.8%	1,312	4.4%	-0.574	-0.029

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1n. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	20,326	N/A	30,059	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	56.4	7.3	56.4	7.4	-0.015	-0.002
Age						
21-49 years	3,365	16.6%	5,171	17.2%	-0.647	-0.017
50-64 years	16,961	83.4%	24,889	82.8%	0.647	0.017
Sex						
Female	3,782	18.6%	5,562	18.5%	0.103	0.003
Male	16,544	81.4%	24,497	81.5%	-0.103	-0.003
Race ³						
American Indian or Alaska Native	4	0.0%	11	0.0%	-0.015	-0.009
Asian	30	0.1%	51	0.2%	-0.022	-0.005
Black or African American	185	0.9%	313	1.0%	-0.129	-0.013
Native Hawaiian or Other Pacific Islander	9	0.0%	z	0.0%	0.000	0.000
Unknown	17,866	87.9%	26,041	86.6%	1.268	0.050
White	2,151	10.6%	3,502	11.7%	-1.066	-0.042
Hispanic origin						
Yes	81	0.4%	125	0.4%	-0.018	-0.003
No	974	4.8%	1,722	5.7%	-0.937	-0.063
Unknown	19,271	94.8%	28,213	93.9%	0.954	0.060
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	15	0.1%	0	0.0%	NaN	NaN
2012	1,001	4.9%	0	0.0%	NaN	NaN
2013	2,018	9.9%	563	1.9%	8.055	0.347
2014	2,606	12.8%	1,337	4.4%	8.374	0.302
2015	2,293	11.3%	2,408	8.0%	3.267	0.111
2016	2,250	11.1%	3,018	10.0%	1.026	0.033
2017	2,360	11.6%	3,701	12.3%	-0.704	-0.022
2018	2,243	11.0%	4,098	13.6%	-2.599	-0.079
2019	1,962	9.7%	4,544	15.1%	-5.461	-0.166
2020	1,575	7.8%	4,556	15.2%	-7.406	-0.234
2021	1,709	8.4%	5,161	17.2%	-8.763	-0.265
2022	295	1.4%	673	2.2%	-0.788	-0.059
CHADSVASC						
mean, std	1.0	0.0	1.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	20,326	100.0%	30,059	100.0%	0.000	-
2	0	0.0%	0	0.0%	-	-

Table 1n. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
3	0	0.0%	0	0.0%	-	-
4	0	0.0%	0	0.0%	-	-
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	0.9	0.6	0.9	0.7	-0.002	-0.003
0	4,677	23.0%	6,889	22.9%	0.091	0.002
1	12,990	63.9%	19,233	64.0%	-0.075	-0.002
2	2,254	11.1%	3,334	11.1%	-0.004	-0.000
>= 3	405	2.0%	602	2.0%	-0.012	-0.001
Health Characteristics						
Diabetes	676	3.3%	1,009	3.4%	-0.032	-0.002
Hypercholesterolemia	4,992	24.6%	7,389	24.6%	-0.021	-0.000
Hypertension	14,930	73.5%	22,086	73.5%	-0.021	-0.000
Kidney failure (chronic)	633	3.1%	931	3.1%	0.016	0.001
Kidney failure (acute)	688	3.4%	1,013	3.4%	0.017	0.001
Obesity	6,216	30.6%	9,234	30.7%	-0.138	-0.003
Peptic ulcer disease	43	0.2%	63	0.2%	0.002	0.000
Nicotine dependency	4,657	22.9%	6,921	23.0%	-0.111	-0.003
Hospitalized AMI (past 0-30 days)	53	0.3%	80	0.3%	-0.004	-0.001
Hospitalized AMI (past 31-183 days)	15	0.1%	23	0.1%	-0.004	-0.001
Coronary revascularization	1,049	5.2%	1,572	5.2%	-0.068	-0.003
Hospitalized heart failure	706	3.5%	1,045	3.5%	-0.006	-0.000
Outpatient heart failure	1,385	6.8%	2,059	6.8%	-0.033	-0.001
Other ischemic heart disease	4,321	21.3%	6,423	21.4%	-0.111	-0.003
Hospitalized stroke (past 0-30 days)	0	0.0%	0	0.0%	-	-
Hospitalized stroke (past 31-183 days)	0	0.0%	0	0.0%	-	-
Transient ischemic attack	10	0.1%	16	0.1%	-0.001	-0.000
Other medical conditions (falls, fractures, syncope, walker use)	4,692	23.1%	6,939	23.1%	-0.000	-0.000
Cardioversion	3,252	16.0%	4,804	16.0%	0.018	0.000
Cardioablation	1,035	5.1%	1,515	5.0%	0.052	0.002
Hospitalized for bleeding	57	0.3%	85	0.3%	-0.004	-0.001
Medical Product Use						
Estrogen replacement	469	2.3%	693	2.3%	0.003	0.000
H2-antagonist	361	1.8%	548	1.8%	-0.045	-0.003
NSAIDs	3,066	15.1%	4,556	15.2%	-0.073	-0.002
Proton pump inhibitors	3,676	18.1%	5,477	18.2%	-0.135	-0.004
SSRI antidepressants	1,996	9.8%	2,958	9.8%	-0.023	-0.001
Insulin	101	0.5%	153	0.5%	-0.010	-0.001
Metformin (Biguanide)	649	3.2%	959	3.2%	0.000	0.000
Sulfonylureas	111	0.5%	169	0.6%	-0.015	-0.002
Other diabetes medications	207	1.0%	307	1.0%	-0.005	-0.001

Table 1n. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
ACEI/ARB	9,539	46.9%	14,117	47.0%	-0.032	-0.001
Antiarrhythmics	5,864	28.9%	8,674	28.9%	-0.003	-0.000
Anti-coagulant (injectable)	2,229	11.0%	3,250	10.8%	0.157	0.005
Anti-platelets	1,663	8.2%	2,451	8.2%	0.031	0.001
Beta-blockers	14,138	69.6%	20,895	69.5%	0.045	0.001
Calcium channel blockers	7,243	35.6%	10,713	35.6%	-0.007	-0.000
Digoxin	957	4.7%	1,422	4.7%	-0.023	-0.001
Diuretics (loop)	1,831	9.0%	2,736	9.1%	-0.092	-0.003
Diuretics (potassium sparing)	946	4.7%	1,409	4.7%	-0.032	-0.002
Diuretics (thiazide)	3,842	18.9%	5,688	18.9%	-0.018	-0.000
Nitrates	626	3.1%	935	3.1%	-0.028	-0.002
Statins	7,447	36.6%	11,038	36.7%	-0.079	-0.002
Fibrates	590	2.9%	880	2.9%	-0.027	-0.002
Amiodarone	1,535	7.6%	2,304	7.7%	-0.112	-0.004
Dronedarone	653	3.2%	957	3.2%	0.027	0.002
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	14,636	72.0%	21,672	72.1%	-0.090	-0.002
No ED encounters (past 31-183 days)	17,093	84.1%	25,283	84.1%	-0.016	-0.000
At least 1 ED encounter (past 0-30 days)	5,689	28.0%	8,387	27.9%	0.090	0.002
At least 2 ED encounters (past 0-30 days)	1,117	5.5%	1,615	5.4%	0.124	0.006
At least 1 ED encounter (past 31-183 days)	3,233	15.9%	4,776	15.9%	0.016	0.000
At least 2 ED encounters (past 31-183 days)	838	4.1%	1,237	4.1%	0.007	0.000

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1o. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	15,195	100.0%	25,641	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	57.3	6.5	57.6	6.3	-0.387	-0.060
Age						
21-49 years	1,976	13.0%	3,067	12.0%	1.043	0.032
50-64 years	13,219	87.0%	22,574	88.0%	-1.043	-0.032
Sex						
Female	5,914	38.9%	10,516	41.0%	-2.092	-0.043
Male	9,281	61.1%	15,125	59.0%	2.092	0.043
Race ³						
American Indian or Alaska Native	9	0.1%	25	0.1%	-0.038	-0.014
Asian	35	0.2%	52	0.2%	0.028	0.006
Black or African American	341	2.2%	739	2.9%	-0.638	-0.040
Native Hawaiian or Other Pacific Islander	16	0.1%	z	0.1%	0.027	0.009
Unknown	12,714	83.7%	20,618	80.4%	3.262	0.085
White	2,019	13.3%	4,068	15.9%	-2.578	-0.073
Hispanic origin						
Yes	71	0.5%	124	0.5%	-0.016	-0.002
No	1,394	9.2%	2,990	11.7%	-2.487	-0.081
Unknown	13,730	90.4%	22,527	87.9%	2.503	0.080
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	16	0.1%	0	0.0%	NaN	NaN
2012	743	4.9%	0	0.0%	NaN	NaN
2013	1,640	10.8%	396	1.5%	9.249	0.392
2014	2,102	13.8%	1,194	4.7%	9.177	0.321
2015	1,851	12.2%	1,936	7.6%	4.631	0.156
2016	1,657	10.9%	2,533	9.9%	1.026	0.034
2017	1,656	10.9%	3,132	12.2%	-1.316	-0.041
2018	1,551	10.2%	3,522	13.7%	-3.529	-0.109
2019	1,429	9.4%	3,981	15.5%	-6.122	-0.186
2020	1,145	7.5%	3,990	15.6%	-8.026	-0.253
2021	1,208	7.9%	4,411	17.2%	-9.253	-0.282
2022	197	1.3%	546	2.1%	-0.833	-0.064
CHADSVASC						
mean, std	2.0	0.0	2.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	15,195	100.0%	25,641	100.0%	0.000	-
3	0	0.0%	0	0.0%	-	-
4	0	0.0%	0	0.0%	-	-

Table 1o. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	1.2	0.6	1.3	0.7	-0.066	-0.104
0	911	6.0%	1,609	6.3%	-0.280	-0.012
1	11,092	73.0%	17,451	68.1%	4.939	0.108
2	2,681	17.6%	5,238	20.4%	-2.784	-0.071
>= 3	511	3.4%	1,343	5.2%	-1.875	-0.093
Health Characteristics						
Diabetes	5,608	36.9%	7,884	30.7%	6.159	0.130
Hypercholesterolemia	4,397	28.9%	7,395	28.8%	0.097	0.002
Hypertension	14,008	92.2%	23,443	91.4%	0.760	0.028
Kidney failure (chronic)	774	5.1%	1,956	7.6%	-2.535	-0.104
Kidney failure (acute)	791	5.2%	2,309	9.0%	-3.799	-0.148
Obesity	5,991	39.4%	11,328	44.2%	-4.752	-0.096
Peptic ulcer disease	46	0.3%	102	0.4%	-0.095	-0.016
Nicotine dependency	3,758	24.7%	7,538	29.4%	-4.666	-0.105
Hospitalized AMI (past 0-30 days)	225	1.5%	497	1.9%	-0.458	-0.035
Hospitalized AMI (past 31-183 days)	78	0.5%	217	0.8%	-0.333	-0.041
Coronary revascularization	1,128	7.4%	2,331	9.1%	-1.667	-0.061
Hospitalized heart failure	2,509	16.5%	5,061	19.7%	-3.226	-0.084
Outpatient heart failure	2,345	15.4%	4,480	17.5%	-2.039	-0.055
Other ischemic heart disease	4,319	28.4%	7,650	29.8%	-1.411	-0.031
Hospitalized stroke (past 0-30 days)	44	0.3%	118	0.5%	-0.171	-0.028
Hospitalized stroke (past 31-183 days)	23	0.2%	50	0.2%	-0.044	-0.010
Transient ischemic attack	200	1.3%	335	1.3%	0.010	0.001
Other medical conditions (falls, fractures, syncope, walker use)	3,859	25.4%	6,731	26.3%	-0.854	-0.020
Cardioversion	2,517	16.6%	4,259	16.6%	-0.045	-0.001
Cardioablation	592	3.9%	990	3.9%	0.035	0.002
Hospitalized for bleeding	45	0.3%	126	0.5%	-0.195	-0.031
Medical Product Use						
Estrogen replacement	529	3.5%	947	3.7%	-0.212	-0.011
H2-antagonist	380	2.5%	740	2.9%	-0.385	-0.024
NSAIDs	2,651	17.4%	4,604	18.0%	-0.509	-0.013
Proton pump inhibitors	3,048	20.1%	5,742	22.4%	-2.335	-0.057
SSRI antidepressants	1,999	13.2%	3,529	13.8%	-0.607	-0.018
Insulin	924	6.1%	1,283	5.0%	1.077	0.047
Metformin (Biguanide)	3,459	22.8%	4,961	19.3%	3.416	0.084
Sulfonylureas	1,128	7.4%	1,368	5.3%	2.088	0.086
Other diabetes medications	1,455	9.6%	2,179	8.5%	1.077	0.038
ACEI/ARB	9,302	61.2%	15,406	60.1%	1.134	0.023
Antiarrhythmics	4,407	29.0%	7,203	28.1%	0.911	0.020
Anti-coagulant (injectable)	1,567	10.3%	3,141	12.2%	-1.937	-0.061

Table 1o. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	1,606	10.6%	3,146	12.3%	-1.700	-0.053
Beta-blockers	11,309	74.4%	19,514	76.1%	-1.679	-0.039
Calcium channel blockers	5,828	38.4%	9,881	38.5%	-0.181	-0.004
Digoxin	1,250	8.2%	1,572	6.1%	2.096	0.081
Diuretics (loop)	3,039	20.0%	5,694	22.2%	-2.207	-0.054
Diuretics (potassium sparing)	1,451	9.5%	2,697	10.5%	-0.969	-0.032
Diuretics (thiazide)	4,031	26.5%	6,702	26.1%	0.391	0.009
Nitrates	765	5.0%	1,508	5.9%	-0.847	-0.037
Statins	6,998	46.1%	11,866	46.3%	-0.223	-0.004
Fibrates	721	4.7%	1,087	4.2%	0.506	0.024
Amiodarone	1,554	10.2%	2,970	11.6%	-1.356	-0.044
Dronedarone	453	3.0%	521	2.0%	0.949	0.061
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	10,413	68.5%	16,560	64.6%	3.945	0.084
No ED encounters (past 31-183 days)	12,209	80.3%	20,145	78.6%	1.783	0.044
At least 1 ED encounter (past 0-30 days)	4,782	31.5%	9,081	35.4%	-3.945	-0.084
At least 2 ED encounters (past 0-30 days)	1,042	6.9%	2,134	8.3%	-1.465	-0.055
At least 1 ED encounter (past 31-183 days)	2,986	19.7%	5,496	21.4%	-1.783	-0.044
At least 2 ED encounters (past 31-183 days)	866	5.7%	1,778	6.9%	-1.235	-0.051

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1p. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	15,201	N/A	25,606	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	57.5	6.4	57.5	6.4	-0.049	-0.008
Age						
21-49 years	1,866	12.3%	3,183	12.4%	-0.155	-0.005
50-64 years	13,335	87.7%	22,424	87.6%	0.155	0.005
Sex						
Female	6,114	40.2%	10,292	40.2%	0.030	0.001
Male	9,087	59.8%	15,314	59.8%	-0.030	-0.001
Race ³						
American Indian or Alaska Native	10	0.1%	25	0.1%	-0.036	-0.013
Asian	34	0.2%	54	0.2%	0.016	0.003
Black or African American	353	2.3%	719	2.8%	-0.487	-0.032
Native Hawaiian or Other Pacific Islander	15	0.1%	z	0.1%	0.021	0.007
Unknown	12,648	83.2%	20,645	80.6%	2.584	0.098
White	2,080	13.7%	4,022	15.7%	-2.025	-0.075
Hispanic origin						
Yes	69	0.5%	124	0.5%	-0.033	-0.005
No	1,433	9.4%	2,945	11.5%	-2.071	-0.128
Unknown	13,699	90.1%	22,538	88.0%	2.105	0.123
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	14	0.1%	0	0.0%	NaN	NaN
2012	676	4.4%	0	0.0%	NaN	NaN
2013	1,529	10.1%	431	1.7%	8.373	0.362
2014	1,995	13.1%	1,271	5.0%	8.159	0.288
2015	1,792	11.8%	2,012	7.9%	3.927	0.132
2016	1,656	10.9%	2,574	10.1%	0.843	0.028
2017	1,712	11.3%	3,143	12.3%	-1.015	-0.032
2018	1,619	10.6%	3,511	13.7%	-3.060	-0.094
2019	1,499	9.9%	3,915	15.3%	-5.425	-0.164
2020	1,209	8.0%	3,904	15.2%	-7.291	-0.229
2021	1,282	8.4%	4,313	16.8%	-8.411	-0.256
2022	220	1.4%	533	2.1%	-0.634	-0.048
CHADSVASC						
mean, std	2.0	0.0	2.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	15,201	100.0%	25,606	100.0%	0.000	-

Table 1p. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
3	0	0.0%	0	0.0%	-	-
4	0	0.0%	0	0.0%	-	-
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	1.2	0.6	1.2	0.6	-0.001	-0.002
0	949	6.2%	1,583	6.2%	0.057	0.002
1	10,619	69.9%	17,886	69.8%	0.011	0.000
2	2,929	19.3%	4,978	19.4%	-0.173	-0.004
>= 3	704	4.6%	1,159	4.5%	0.105	0.005
Health Characteristics						
Diabetes	5,008	32.9%	8,463	33.0%	-0.102	-0.002
Hypercholesterolemia	4,339	28.5%	7,368	28.8%	-0.231	-0.005
Hypertension	13,931	91.6%	23,483	91.7%	-0.062	-0.002
Kidney failure (chronic)	1,023	6.7%	1,716	6.7%	0.033	0.001
Kidney failure (acute)	1,162	7.6%	1,936	7.6%	0.084	0.003
Obesity	6,438	42.4%	10,871	42.5%	-0.100	-0.002
Peptic ulcer disease	53	0.4%	89	0.3%	0.003	0.001
Nicotine dependency	4,207	27.7%	7,114	27.8%	-0.106	-0.002
Hospitalized AMI (past 0-30 days)	270	1.8%	454	1.8%	0.001	0.000
Hospitalized AMI (past 31-183 days)	107	0.7%	184	0.7%	-0.017	-0.002
Coronary revascularization	1,280	8.4%	2,170	8.5%	-0.054	-0.002
Hospitalized heart failure	2,828	18.6%	4,745	18.5%	0.074	0.002
Outpatient heart failure	2,549	16.8%	4,310	16.8%	-0.064	-0.002
Other ischemic heart disease	4,419	29.1%	7,509	29.3%	-0.255	-0.006
Hospitalized stroke (past 0-30 days)	59	0.4%	100	0.4%	-0.002	-0.000
Hospitalized stroke (past 31-183 days)	27	0.2%	44	0.2%	0.008	0.002
Transient ischemic attack	199	1.3%	333	1.3%	0.009	0.001
Other medical conditions (falls, fractures, syncope, walker use)	3,961	26.1%	6,663	26.0%	0.037	0.001
Cardioversion	2,536	16.7%	4,247	16.6%	0.099	0.003
Cardioablation	586	3.9%	993	3.9%	-0.025	-0.001
Hospitalized for bleeding	63	0.4%	102	0.4%	0.014	0.002
Medical Product Use						
Estrogen replacement	541	3.6%	922	3.6%	-0.040	-0.002
H2-antagonist	414	2.7%	714	2.8%	-0.063	-0.004
NSAIDs	2,694	17.7%	4,561	17.8%	-0.089	-0.002
Proton pump inhibitors	3,236	21.3%	5,526	21.6%	-0.292	-0.007
SSRI antidepressants	2,040	13.4%	3,489	13.6%	-0.206	-0.006
Insulin	809	5.3%	1,381	5.4%	-0.074	-0.003
Metformin (Biguanide)	3,129	20.6%	5,282	20.6%	-0.039	-0.001
Sulfonylureas	918	6.0%	1,564	6.1%	-0.069	-0.003
Other diabetes medications	1,342	8.8%	2,266	8.8%	-0.020	-0.001

Table 1p. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
ACEI/ARB	9,219	60.7%	15,507	60.6%	0.092	0.002
Antiarrhythmics	4,323	28.4%	7,286	28.5%	-0.015	-0.000
Anti-coagulant (injectable)	1,751	11.5%	2,957	11.5%	-0.026	-0.001
Anti-platelets	1,771	11.7%	2,980	11.6%	0.015	0.000
Beta-blockers	11,465	75.4%	19,332	75.5%	-0.074	-0.002
Calcium channel blockers	5,850	38.5%	9,862	38.5%	-0.026	-0.001
Digoxin	1,049	6.9%	1,780	6.9%	-0.047	-0.002
Diuretics (loop)	3,252	21.4%	5,509	21.5%	-0.116	-0.003
Diuretics (potassium sparing)	1,547	10.2%	2,610	10.2%	-0.014	-0.000
Diuretics (thiazide)	3,978	26.2%	6,722	26.3%	-0.083	-0.002
Nitrates	841	5.5%	1,434	5.6%	-0.068	-0.003
Statins	7,007	46.1%	11,845	46.3%	-0.160	-0.003
Fibrates	668	4.4%	1,136	4.4%	-0.043	-0.002
Amiodarone	1,668	11.0%	2,830	11.1%	-0.081	-0.003
Dronedarone	361	2.4%	606	2.4%	0.008	0.001
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	10,008	65.8%	16,959	66.2%	-0.388	-0.009
No ED encounters (past 31-183 days)	12,032	79.2%	20,272	79.2%	-0.018	-0.000
At least 1 ED encounter (past 0-30 days)	5,193	34.2%	8,648	33.8%	0.388	0.009
At least 2 ED encounters (past 0-30 days)	1,183	7.8%	1,976	7.7%	0.061	0.002
At least 1 ED encounter (past 31-183 days)	3,169	20.8%	5,334	20.8%	0.018	0.000
At least 2 ED encounters (past 31-183 days)	993	6.5%	1,665	6.5%	0.030	0.001

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1q. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	7,610	100.0%	15,444	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	57.6	6.1	58.0	6.0	-0.356	-0.059
Age						
21-49 years	871	11.4%	1,598	10.3%	1.098	0.035
50-64 years	6,739	88.6%	13,846	89.7%	-1.098	-0.035
Sex						
Female	3,206	42.1%	5,878	38.1%	4.069	0.083
Male	4,404	57.9%	9,566	61.9%	-4.069	-0.083
Race ³						
American Indian or Alaska Native	6	0.1%	20	0.1%	-0.051	-0.016
Asian	15	0.2%	36	0.2%	-0.036	-0.008
Black or African American	339	4.5%	769	5.0%	-0.525	-0.025
Native Hawaiian or Other Pacific Islander	8	0.1%	z	0.2%	-0.057	-0.016
Unknown	5,853	76.9%	11,313	73.3%	3.660	0.085
White	1,361	17.9%	3,229	20.9%	-3.023	-0.077
Hispanic origin						
Yes	65	0.9%	111	0.7%	0.135	0.015
No	1,233	16.2%	2,935	19.0%	-2.802	-0.074
Unknown	6,312	82.9%	12,398	80.3%	2.666	0.069
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	5	0.1%	0	0.0%	NaN	NaN
2012	286	3.8%	0	0.0%	NaN	NaN
2013	679	8.9%	164	1.1%	7.861	0.367
2014	886	11.6%	479	3.1%	8.541	0.331
2015	861	11.3%	1,006	6.5%	4.800	0.169
2016	863	11.3%	1,492	9.7%	1.680	0.055
2017	959	12.6%	1,780	11.5%	1.076	0.033
2018	890	11.7%	2,090	13.5%	-1.838	-0.055
2019	758	10.0%	2,554	16.5%	-6.577	-0.195
2020	617	8.1%	2,571	16.6%	-8.539	-0.262
2021	695	9.1%	2,918	18.9%	-9.761	-0.284
2022	111	1.5%	390	2.5%	-1.067	-0.076
CHADSVASC						
mean, std	3.0	0.0	3.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
3	7,610	100.0%	15,444	100.0%	0.000	-
4	0	0.0%	0	0.0%	-	-

Table 1q. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	1.4	0.7	1.5	0.7	-0.110	-0.157
0	238	3.1%	454	2.9%	0.188	0.011
1	4,975	65.4%	9,116	59.0%	6.348	0.131
2	1,931	25.4%	4,362	28.2%	-2.869	-0.065
>= 3	466	6.1%	1,512	9.8%	-3.667	-0.136
Health Characteristics						
Diabetes	5,348	70.3%	10,343	67.0%	3.305	0.071
Hypercholesterolemia	2,578	33.9%	5,600	36.3%	-2.384	-0.050
Hypertension	7,272	95.6%	14,748	95.5%	0.065	0.003
Kidney failure (chronic)	702	9.2%	2,079	13.5%	-4.237	-0.134
Kidney failure (acute)	722	9.5%	2,379	15.4%	-5.917	-0.180
Obesity	3,654	48.0%	8,194	53.1%	-5.040	-0.101
Peptic ulcer disease	32	0.4%	88	0.6%	-0.149	-0.021
Nicotine dependency	2,236	29.4%	5,550	35.9%	-6.554	-0.140
Hospitalized AMI (past 0-30 days)	337	4.4%	979	6.3%	-1.911	-0.085
Hospitalized AMI (past 31-183 days)	171	2.2%	435	2.8%	-0.570	-0.036
Coronary revascularization	887	11.7%	2,462	15.9%	-4.286	-0.125
Hospitalized heart failure	2,131	28.0%	4,673	30.3%	-2.255	-0.050
Outpatient heart failure	1,758	23.1%	3,930	25.4%	-2.346	-0.055
Other ischemic heart disease	2,842	37.3%	6,246	40.4%	-3.097	-0.064
Hospitalized stroke (past 0-30 days)	195	2.6%	420	2.7%	-0.157	-0.010
Hospitalized stroke (past 31-183 days)	84	1.1%	220	1.4%	-0.321	-0.029
Transient ischemic attack	588	7.7%	924	6.0%	1.744	0.069
Other medical conditions (falls, fractures, syncope, walker use)	2,139	28.1%	4,611	29.9%	-1.749	-0.039
Cardioversion	1,121	14.7%	2,402	15.6%	-0.822	-0.023
Cardioablation	217	2.9%	535	3.5%	-0.613	-0.035
Hospitalized for bleeding	42	0.6%	105	0.7%	-0.128	-0.016
Medical Product Use						
Estrogen replacement	240	3.2%	388	2.5%	0.641	0.039
H2-antagonist	268	3.5%	640	4.1%	-0.622	-0.032
NSAIDs	1,502	19.7%	3,005	19.5%	0.280	0.007
Proton pump inhibitors	1,831	24.1%	4,113	26.6%	-2.571	-0.059
SSRI antidepressants	1,213	15.9%	2,459	15.9%	0.018	0.000
Insulin	1,335	17.5%	2,700	17.5%	0.060	0.002
Metformin (Biguanide)	3,190	41.9%	6,160	39.9%	2.032	0.041
Sulfonylureas	1,117	14.7%	1,928	12.5%	2.194	0.064
Other diabetes medications	1,489	19.6%	3,206	20.8%	-1.193	-0.030
ACEI/ARB	5,244	68.9%	10,442	67.6%	1.297	0.028
Antiarrhythmics	2,169	28.5%	4,179	27.1%	1.443	0.032
Anti-coagulant (injectable)	897	11.8%	2,082	13.5%	-1.694	-0.051

Table 1q. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	1,210	15.9%	3,084	20.0%	-4.069	-0.106
Beta-blockers	5,795	76.1%	12,017	77.8%	-1.660	-0.039
Calcium channel blockers	3,032	39.8%	6,270	40.6%	-0.756	-0.015
Digoxin	693	9.1%	1,067	6.9%	2.198	0.081
Diuretics (loop)	2,263	29.7%	4,954	32.1%	-2.340	-0.051
Diuretics (potassium sparing)	888	11.7%	2,060	13.3%	-1.670	-0.050
Diuretics (thiazide)	2,183	28.7%	4,095	26.5%	2.171	0.049
Nitrates	631	8.3%	1,510	9.8%	-1.486	-0.052
Statins	4,577	60.1%	9,697	62.8%	-2.644	-0.054
Fibrates	483	6.3%	973	6.3%	0.047	0.002
Amiodarone	960	12.6%	2,279	14.8%	-2.142	-0.062
Dronedarone	177	2.3%	217	1.4%	0.921	0.068
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	4,791	63.0%	9,196	59.5%	3.412	0.070
No ED encounters (past 31-183 days)	5,677	74.6%	11,302	73.2%	1.419	0.032
At least 1 ED encounter (past 0-30 days)	2,819	37.0%	6,248	40.5%	-3.412	-0.070
At least 2 ED encounters (past 0-30 days)	706	9.3%	1,726	11.2%	-1.899	-0.063
At least 1 ED encounter (past 31-183 days)	1,933	25.4%	4,142	26.8%	-1.419	-0.032
At least 2 ED encounters (past 31-183 days)	747	9.8%	1,625	10.5%	-0.706	-0.023

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1r. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
Weighted patients	7,597	N/A	15,417	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	57.9	5.9	57.9	6.1	-0.048	-0.008
Age						
21-49 years	806	10.6%	1,653	10.7%	-0.119	-0.004
50-64 years	6,792	89.4%	13,764	89.3%	0.119	0.004
Sex						
Female	2,993	39.4%	6,066	39.3%	0.046	0.001
Male	4,604	60.6%	9,350	60.7%	-0.046	-0.001
Race ³						
American Indian or Alaska Native	6	0.1%	21	0.1%	-0.048	-0.014
Asian	13	0.2%	37	0.2%	-0.071	-0.016
Black or African American	338	4.4%	757	4.9%	-0.465	-0.023
Native Hawaiian or Other Pacific Islander	7	0.1%	z	0.2%	-0.082	-0.023
Unknown	5,802	76.4%	11,349	73.6%	2.752	0.104
White	1,404	18.5%	3,174	20.6%	-2.108	-0.072
Hispanic origin						
Yes	61	0.8%	111	0.7%	0.080	0.009
No	1,246	16.4%	2,889	18.7%	-2.335	-0.138
Unknown	6,290	82.8%	12,417	80.5%	2.255	0.127
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	4	0.1%	0	0.0%	NaN	NaN
2012	245	3.2%	0	0.0%	NaN	NaN
2013	608	8.0%	179	1.2%	6.843	0.332
2014	819	10.8%	520	3.4%	7.407	0.292
2015	808	10.6%	1,065	6.9%	3.729	0.132
2016	845	11.1%	1,533	9.9%	1.182	0.039
2017	991	13.0%	1,794	11.6%	1.406	0.043
2018	918	12.1%	2,084	13.5%	-1.432	-0.043
2019	809	10.6%	2,512	16.3%	-5.650	-0.166
2020	678	8.9%	2,509	16.3%	-7.357	-0.223
2021	752	9.9%	2,846	18.5%	-8.560	-0.248
2022	121	1.6%	375	2.4%	-0.842	-0.060
CHADSVASC						
mean, std	3.0	0.0	3.0	0.0	0.000	1.140
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
3	7,597	100.0%	15,417	100.0%	0.000	-

Table 1r. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	0	0.0%	0	0.0%	-	-
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	1.4	0.7	1.4	0.7	-0.003	-0.005
0	226	3.0%	456	3.0%	0.023	0.001
1	4,646	61.2%	9,427	61.1%	0.012	0.000
2	2,076	27.3%	4,214	27.3%	-0.006	-0.000
>= 3	648	8.5%	1,320	8.6%	-0.029	-0.001
Health Characteristics						
Diabetes	5,140	67.7%	10,493	68.1%	-0.410	-0.009
Hypercholesterolemia	2,679	35.3%	5,477	35.5%	-0.264	-0.006
Hypertension	7,261	95.6%	14,735	95.6%	-0.009	-0.000
Kidney failure (chronic)	916	12.1%	1,863	12.1%	-0.023	-0.001
Kidney failure (acute)	1,021	13.4%	2,070	13.4%	0.008	0.000
Obesity	3,903	51.4%	7,943	51.5%	-0.148	-0.003
Peptic ulcer disease	34	0.4%	76	0.5%	-0.051	-0.007
Nicotine dependency	2,546	33.5%	5,209	33.8%	-0.274	-0.006
Hospitalized AMI (past 0-30 days)	423	5.6%	877	5.7%	-0.116	-0.005
Hospitalized AMI (past 31-183 days)	203	2.7%	406	2.6%	0.035	0.002
Coronary revascularization	1,088	14.3%	2,241	14.5%	-0.215	-0.006
Hospitalized heart failure	2,229	29.3%	4,537	29.4%	-0.087	-0.002
Outpatient heart failure	1,855	24.4%	3,812	24.7%	-0.304	-0.007
Other ischemic heart disease	2,970	39.1%	6,082	39.5%	-0.357	-0.007
Hospitalized stroke (past 0-30 days)	203	2.7%	408	2.6%	0.034	0.002
Hospitalized stroke (past 31-183 days)	105	1.4%	202	1.3%	0.073	0.006
Transient ischemic attack	503	6.6%	1,009	6.5%	0.075	0.003
Other medical conditions (falls, fractures, syncope, walker use)	2,205	29.0%	4,521	29.3%	-0.294	-0.006
Cardioversion	1,157	15.2%	2,347	15.2%	0.001	0.000
Cardioablation	247	3.2%	501	3.2%	-0.002	-0.000
Hospitalized for bleeding	51	0.7%	92	0.6%	0.078	0.010
Medical Product Use						
Estrogen replacement	210	2.8%	419	2.7%	0.048	0.003
H2-antagonist	291	3.8%	608	3.9%	-0.118	-0.006
NSAIDs	1,488	19.6%	3,015	19.6%	0.024	0.001
Proton pump inhibitors	1,938	25.5%	3,984	25.8%	-0.332	-0.008
SSRI antidepressants	1,214	16.0%	2,475	16.1%	-0.074	-0.002
Insulin	1,322	17.4%	2,696	17.5%	-0.090	-0.002
Metformin (Biguanide)	3,078	40.5%	6,252	40.6%	-0.043	-0.001
Sulfonylureas	989	13.0%	2,029	13.2%	-0.151	-0.004
Other diabetes medications	1,548	20.4%	3,136	20.3%	0.026	0.001
ACEI/ARB	5,171	68.1%	10,496	68.1%	-0.016	-0.000

Table 1r. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Antiarrhythmics	2,087	27.5%	4,244	27.5%	-0.053	-0.001
Anti-coagulant (injectable)	980	12.9%	1,989	12.9%	-0.010	-0.000
Anti-platelets	1,421	18.7%	2,872	18.6%	0.072	0.002
Beta-blockers	5,856	77.1%	11,911	77.3%	-0.183	-0.004
Calcium channel blockers	3,063	40.3%	6,226	40.4%	-0.066	-0.001
Digoxin	566	7.5%	1,171	7.6%	-0.143	-0.005
Diuretics (loop)	2,357	31.0%	4,834	31.4%	-0.328	-0.007
Diuretics (potassium sparing)	970	12.8%	1,972	12.8%	-0.021	-0.001
Diuretics (thiazide)	2,070	27.2%	4,197	27.2%	0.019	0.000
Nitrates	695	9.2%	1,436	9.3%	-0.159	-0.006
Statins	4,687	61.7%	9,558	62.0%	-0.306	-0.006
Fibrates	473	6.2%	974	6.3%	-0.093	-0.004
Amiodarone	1,064	14.0%	2,166	14.0%	-0.044	-0.001
Dronedarone	126	1.7%	262	1.7%	-0.036	-0.003
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	4,634	61.0%	9,368	60.8%	0.226	0.005
No ED encounters (past 31-183 days)	5,588	73.5%	11,346	73.6%	-0.048	-0.001
At least 1 ED encounter (past 0-30 days)	2,964	39.0%	6,049	39.2%	-0.226	-0.005
At least 2 ED encounters (past 0-30 days)	792	10.4%	1,625	10.5%	-0.119	-0.004
At least 1 ED encounter (past 31-183 days)	2,010	26.5%	4,071	26.4%	0.048	0.001
At least 2 ED encounters (past 31-183 days)	784	10.3%	1,594	10.3%	-0.019	-0.001

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1s. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	3,118	100.0%	8,033	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	57.9	5.8	58.2	5.8	-0.330	-0.057
Age						
21-49 years	316	10.1%	749	9.3%	0.811	0.027
50-64 years	2,802	89.9%	7,284	90.7%	-0.811	-0.027
Sex						
Female	1,618	51.9%	3,886	48.4%	3.517	0.070
Male	1,500	48.1%	4,147	51.6%	-3.517	-0.070
Race ³						
American Indian or Alaska Native	2	0.1%	15	0.2%	-0.123	-0.035
Asian	8	0.3%	15	0.2%	0.070	0.015
Black or African American	207	6.6%	581	7.2%	-0.594	-0.023
Native Hawaiian or Other Pacific Islander	7	0.2%	z	0.2%	-0.024	-0.005
Unknown	2,184	70.0%	5,266	65.6%	4.490	0.096
White	700	22.5%	2,110	26.3%	-3.816	-0.089
Hispanic origin						
Yes	22	0.7%	62	0.8%	-0.066	-0.008
No	727	23.3%	2,158	26.9%	-3.548	-0.082
Unknown	2,369	76.0%	5,813	72.4%	3.614	0.083
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	1	0.0%	0	0.0%	NaN	NaN
2012	74	2.4%	0	0.0%	NaN	NaN
2013	196	6.3%	50	0.6%	5.664	0.314
2014	290	9.3%	143	1.8%	7.521	0.333
2015	272	8.7%	370	4.6%	4.118	0.166
2016	378	12.1%	768	9.6%	2.563	0.082
2017	430	13.8%	960	12.0%	1.840	0.055
2018	413	13.2%	1,070	13.3%	-0.074	-0.002
2019	339	10.9%	1,334	16.6%	-5.734	-0.167
2020	326	10.5%	1,405	17.5%	-7.035	-0.204
2021	346	11.1%	1,695	21.1%	-10.004	-0.275
2022	53	1.7%	238	3.0%	-1.263	-0.084
CHADSVASC						
mean, std	4.0	0.0	4.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
3	0	0.0%	0	0.0%	-	-
4	3,118	100.0%	8,033	100.0%	0.000	-

Table 1s. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	1.5	0.7	1.7	0.8	-0.170	-0.225
0	30	1.0%	59	0.7%	0.228	0.025
1	1,756	56.3%	3,758	46.8%	9.536	0.192
2	994	31.9%	2,853	35.5%	-3.637	-0.077
>= 3	338	10.8%	1,363	17.0%	-6.127	-0.178
Health Characteristics						
Diabetes	2,541	81.5%	6,549	81.5%	-0.032	-0.001
Hypercholesterolemia	1,154	37.0%	3,164	39.4%	-2.377	-0.049
Hypertension	3,054	97.9%	7,909	98.5%	-0.509	-0.038
Kidney failure (chronic)	444	14.2%	1,865	23.2%	-8.977	-0.232
Kidney failure (acute)	483	15.5%	2,051	25.5%	-10.041	-0.251
Obesity	1,750	56.1%	4,786	59.6%	-3.454	-0.070
Peptic ulcer disease	13	0.4%	68	0.8%	-0.430	-0.054
Nicotine dependency	1,112	35.7%	3,250	40.5%	-4.794	-0.099
Hospitalized AMI (past 0-30 days)	241	7.7%	782	9.7%	-2.006	-0.071
Hospitalized AMI (past 31-183 days)	144	4.6%	459	5.7%	-1.096	-0.050
Coronary revascularization	575	18.4%	1,880	23.4%	-4.962	-0.122
Hospitalized heart failure	1,488	47.7%	4,279	53.3%	-5.545	-0.111
Outpatient heart failure	1,157	37.1%	3,345	41.6%	-4.534	-0.093
Other ischemic heart disease	1,486	47.7%	4,132	51.4%	-3.779	-0.076
Hospitalized stroke (past 0-30 days)	178	5.7%	435	5.4%	0.294	0.013
Hospitalized stroke (past 31-183 days)	86	2.8%	259	3.2%	-0.466	-0.027
Transient ischemic attack	500	16.0%	914	11.4%	4.658	0.136
Other medical conditions (falls, fractures, syncope, walker use)	1,110	35.6%	2,992	37.2%	-1.647	-0.034
Cardioversion	503	16.1%	1,274	15.9%	0.273	0.007
Cardioablation	129	4.1%	288	3.6%	0.552	0.029
Hospitalized for bleeding	22	0.7%	85	1.1%	-0.353	-0.038
Medical Product Use						
Estrogen replacement	82	2.6%	219	2.7%	-0.096	-0.006
H2-antagonist	150	4.8%	434	5.4%	-0.592	-0.027
NSAIDs	609	19.5%	1,543	19.2%	0.323	0.008
Proton pump inhibitors	866	27.8%	2,548	31.7%	-3.945	-0.086
SSRI antidepressants	584	18.7%	1,638	20.4%	-1.661	-0.042
Insulin	890	28.5%	2,423	30.2%	-1.619	-0.036
Metformin (Biguanide)	1,432	45.9%	3,678	45.8%	0.141	0.003
Sulfonylureas	539	17.3%	1,257	15.6%	1.639	0.044
Other diabetes medications	712	22.8%	2,109	26.3%	-3.419	-0.080
ACEI/ARB	2,252	72.2%	5,718	71.2%	1.044	0.023
Antiarrhythmics	909	29.2%	2,389	29.7%	-0.587	-0.013
Anti-coagulant (injectable)	420	13.5%	1,188	14.8%	-1.319	-0.038

Table 1s. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	718	23.0%	2,179	27.1%	-4.098	-0.095
Beta-blockers	2,432	78.0%	6,530	81.3%	-3.291	-0.082
Calcium channel blockers	1,167	37.4%	3,301	41.1%	-3.665	-0.075
Digoxin	302	9.7%	638	7.9%	1.743	0.062
Diuretics (loop)	1,277	41.0%	3,733	46.5%	-5.515	-0.111
Diuretics (potassium sparing)	514	16.5%	1,494	18.6%	-2.113	-0.056
Diuretics (thiazide)	849	27.2%	2,197	27.3%	-0.121	-0.003
Nitrates	362	11.6%	1,150	14.3%	-2.706	-0.081
Statins	2,098	67.3%	5,860	72.9%	-5.662	-0.124
Fibrates	184	5.9%	524	6.5%	-0.622	-0.026
Amiodarone	524	16.8%	1,528	19.0%	-2.216	-0.058
Dronedarone	42	1.3%	96	1.2%	0.152	0.014
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	1,782	57.2%	4,260	53.0%	4.121	0.083
No ED encounters (past 31-183 days)	2,001	64.2%	5,042	62.8%	1.410	0.029
At least 1 ED encounter (past 0-30 days)	1,336	42.8%	3,773	47.0%	-4.121	-0.083
At least 2 ED encounters (past 0-30 days)	409	13.1%	1,238	15.4%	-2.294	-0.066
At least 1 ED encounter (past 31-183 days)	1,117	35.8%	2,991	37.2%	-1.410	-0.029
At least 2 ED encounters (past 31-183 days)	505	16.2%	1,379	17.2%	-0.970	-0.026

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1t. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	3,130	N/A	7,935	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	58.0	5.7	58.2	5.8	-0.165	-0.028
Age						
21-49 years	307	9.8%	755	9.5%	0.295	0.010
50-64 years	2,823	90.2%	7,180	90.5%	-0.295	-0.010
Sex						
Female	1,560	49.9%	3,913	49.3%	0.542	0.011
Male	1,570	50.1%	4,022	50.7%	-0.542	-0.011
Race ³						
American Indian or Alaska Native	2	0.1%	14	0.2%	-0.131	-0.038
Asian	8	0.3%	15	0.2%	0.070	0.015
Black or African American	200	6.4%	564	7.1%	-0.704	-0.030
Native Hawaiian or Other Pacific Islander	6	0.2%	z	0.3%	-0.062	-0.013
Unknown	2,162	69.1%	5,225	65.8%	3.233	0.123
White	742	23.7%	2,072	26.1%	-2.403	-0.076
Hispanic origin						
Yes	22	0.7%	60	0.8%	-0.053	-0.006
No	739	23.6%	2,135	26.9%	-3.297	-0.191
Unknown	2,369	75.7%	5,740	72.3%	3.349	0.188
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	2	0.1%	0	0.0%	NaN	NaN
2012	59	1.9%	0	0.0%	NaN	NaN
2013	186	5.9%	54	0.7%	5.264	0.297
2014	264	8.4%	151	1.9%	6.516	0.298
2015	263	8.4%	387	4.9%	3.521	0.142
2016	355	11.3%	787	9.9%	1.430	0.046
2017	443	14.2%	966	12.2%	1.989	0.059
2018	413	13.2%	1,060	13.4%	-0.157	-0.005
2019	364	11.6%	1,300	16.4%	-4.757	-0.137
2020	361	11.5%	1,359	17.1%	-5.600	-0.160
2021	363	11.6%	1,643	20.7%	-9.095	-0.250
2022	57	1.8%	229	2.9%	-1.062	-0.070
CHADSVASC						
mean, std	4.0	0.0	4.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
3	0	0.0%	0	0.0%	-	-

Table 1t. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	3,130	100.0%	7,935	100.0%	0.000	-
>= 5	0	0.0%	0	0.0%	-	-
HASBLED						
mean, std	1.6	0.8	1.7	0.8	-0.012	-0.015
0	25	0.8%	63	0.8%	0.019	0.002
1	1,571	50.2%	3,952	49.8%	0.376	0.008
2	1,075	34.4%	2,740	34.5%	-0.178	-0.004
>= 3	459	14.7%	1,180	14.9%	-0.217	-0.006
Health Characteristics						
Diabetes	2,546	81.3%	6,483	81.7%	-0.365	-0.009
Hypercholesterolemia	1,221	39.0%	3,080	38.8%	0.194	0.004
Hypertension	3,079	98.4%	7,803	98.3%	0.025	0.002
Kidney failure (chronic)	628	20.1%	1,626	20.5%	-0.415	-0.010
Kidney failure (acute)	692	22.1%	1,773	22.3%	-0.244	-0.006
Obesity	1,846	59.0%	4,669	58.8%	0.154	0.003
Peptic ulcer disease	19	0.6%	40	0.5%	0.114	0.015
Nicotine dependency	1,233	39.4%	3,114	39.2%	0.146	0.003
Hospitalized AMI (past 0-30 days)	274	8.8%	725	9.1%	-0.382	-0.013
Hospitalized AMI (past 31-183 days)	172	5.5%	429	5.4%	0.085	0.004
Coronary revascularization	685	21.9%	1,753	22.1%	-0.201	-0.005
Hospitalized heart failure	1,608	51.4%	4,101	51.7%	-0.322	-0.006
Outpatient heart failure	1,249	39.9%	3,219	40.6%	-0.680	-0.014
Other ischemic heart disease	1,560	49.8%	4,010	50.5%	-0.704	-0.014
Hospitalized stroke (past 0-30 days)	171	5.5%	431	5.4%	0.021	0.001
Hospitalized stroke (past 31-183 days)	97	3.1%	240	3.0%	0.063	0.004
Transient ischemic attack	397	12.7%	1,002	12.6%	0.072	0.002
Other medical conditions (falls, fractures, syncope, walker use)	1,146	36.6%	2,931	36.9%	-0.305	-0.006
Cardioversion	514	16.4%	1,268	16.0%	0.428	0.012
Cardioablation	117	3.7%	299	3.8%	-0.034	-0.002
Hospitalized for bleeding	31	1.0%	70	0.9%	0.096	0.010
Medical Product Use						
Estrogen replacement	87	2.8%	214	2.7%	0.089	0.005
H2-antagonist	169	5.4%	412	5.2%	0.205	0.009
NSAIDs	618	19.8%	1,540	19.4%	0.339	0.009
Proton pump inhibitors	945	30.2%	2,421	30.5%	-0.319	-0.007
SSRI antidepressants	627	20.0%	1,583	20.0%	0.081	0.002
Insulin	921	29.4%	2,362	29.8%	-0.353	-0.008
Metformin (Biguanide)	1,427	45.6%	3,644	45.9%	-0.317	-0.006
Sulfonylureas	489	15.6%	1,273	16.0%	-0.431	-0.012
Other diabetes medications	780	24.9%	1,998	25.2%	-0.265	-0.006
ACEI/ARB	2,239	71.5%	5,689	71.7%	-0.172	-0.004

Table 1t. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Antiarrhythmics	919	29.4%	2,335	29.4%	-0.070	-0.002
Anti-coagulant (injectable)	443	14.2%	1,141	14.4%	-0.217	-0.006
Anti-platelets	815	26.0%	2,053	25.9%	0.154	0.004
Beta-blockers	2,513	80.3%	6,385	80.5%	-0.189	-0.005
Calcium channel blockers	1,251	40.0%	3,173	40.0%	-0.026	-0.001
Digoxin	256	8.2%	672	8.5%	-0.278	-0.010
Diuretics (loop)	1,385	44.3%	3,573	45.0%	-0.760	-0.016
Diuretics (potassium sparing)	566	18.1%	1,433	18.1%	0.031	0.001
Diuretics (thiazide)	856	27.3%	2,173	27.4%	-0.051	-0.001
Nitrates	427	13.6%	1,077	13.6%	0.077	0.002
Statins	2,219	70.9%	5,666	71.4%	-0.525	-0.012
Fibrates	190	6.1%	500	6.3%	-0.242	-0.010
Amiodarone	565	18.0%	1,446	18.2%	-0.173	-0.004
Dronedarone	37	1.2%	97	1.2%	-0.047	-0.004
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	1,684	53.8%	4,312	54.3%	-0.555	-0.013
No ED encounters (past 31-183 days)	1,974	63.1%	5,013	63.2%	-0.110	-0.002
At least 1 ED encounter (past 0-30 days)	1,446	46.2%	3,623	45.7%	0.555	0.013
At least 2 ED encounters (past 0-30 days)	461	14.7%	1,166	14.7%	0.042	0.001
At least 1 ED encounter (past 31-183 days)	1,156	36.9%	2,922	36.8%	0.110	0.002
At least 2 ED encounters (past 31-183 days)	526	16.8%	1,340	16.9%	-0.069	-0.002

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1u. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	908	100.0%	2,875	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	58.6	5.7	58.7	5.6	-0.061	-0.011
Age						
21-49 years	76	8.4%	240	8.3%	0.022	0.001
50-64 years	832	91.6%	2,635	91.7%	-0.022	-0.001
Sex						
Female	656	72.2%	2,157	75.0%	-2.779	-0.063
Male	252	27.8%	718	25.0%	2.779	0.063
Race ³						
American Indian or Alaska Native	1	0.1%	4	0.1%	-0.029	-0.008
Asian	3	0.3%	6	0.2%	0.122	0.023
Black or African American	88	9.7%	344	12.0%	-2.274	-0.073
Native Hawaiian or Other Pacific Islander	6	0.7%	z	0.2%	0.487	0.076
Unknown	585	64.4%	1,663	57.8%	6.584	0.135
White	224	24.7%	846	29.4%	-4.756	-0.107
Hispanic origin						
Yes	6	0.7%	32	1.1%	-0.452	-0.048
No	268	29.5%	955	33.2%	-3.702	-0.080
Unknown	634	69.8%	1,888	65.7%	4.154	0.089
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	0	0.0%	0	0.0%	NaN	NaN
2012	24	2.6%	0	0.0%	NaN	NaN
2013	53	5.8%	15	0.5%	5.315	0.306
2014	70	7.7%	60	2.1%	5.622	0.263
2015	66	7.3%	129	4.5%	2.782	0.118
2016	116	12.8%	278	9.7%	3.106	0.099
2017	125	13.8%	279	9.7%	4.062	0.126
2018	127	14.0%	382	13.3%	0.700	0.020
2019	100	11.0%	429	14.9%	-3.909	-0.117
2020	105	11.6%	568	19.8%	-8.193	-0.227
2021	106	11.7%	649	22.6%	-10.900	-0.292
2022	16	1.8%	86	3.0%	-1.229	-0.081
CHADSVASC						
mean, std	5.3	0.5	5.3	0.5	-0.027	-0.051
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
3	0	0.0%	0	0.0%	-	-
4	0	0.0%	0	0.0%	-	-

Table 1u. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	908	100.0%	2,875	100.0%	0.000	-
HASBLED						
mean, std	1.8	0.8	2.0	0.9	-0.181	-0.214
0	3	0.3%	7	0.2%	0.087	0.016
1	376	41.4%	919	32.0%	9.444	0.197
2	343	37.8%	1,174	40.8%	-3.059	-0.063
>= 3	186	20.5%	775	27.0%	-6.472	-0.153
Health Characteristics						
Diabetes	807	88.9%	2,545	88.5%	0.355	0.011
Hypercholesterolemia	374	41.2%	1,267	44.1%	-2.880	-0.058
Hypertension	903	99.4%	2,862	99.5%	-0.098	-0.014
Kidney failure (chronic)	182	20.0%	783	27.2%	-7.191	-0.170
Kidney failure (acute)	193	21.3%	905	31.5%	-10.223	-0.234
Obesity	506	55.7%	1,786	62.1%	-6.395	-0.130
Peptic ulcer disease	5	0.6%	38	1.3%	-0.771	-0.080
Nicotine dependency	370	40.7%	1,284	44.7%	-3.912	-0.079
Hospitalized AMI (past 0-30 days)	65	7.2%	263	9.1%	-1.989	-0.073
Hospitalized AMI (past 31-183 days)	44	4.8%	190	6.6%	-1.763	-0.076
Coronary revascularization	190	20.9%	732	25.5%	-4.536	-0.108
Hospitalized heart failure	528	58.1%	1,860	64.7%	-6.546	-0.135
Outpatient heart failure	430	47.4%	1,388	48.3%	-0.921	-0.018
Other ischemic heart disease	498	54.8%	1,584	55.1%	-0.250	-0.005
Hospitalized stroke (past 0-30 days)	142	15.6%	466	16.2%	-0.570	-0.016
Hospitalized stroke (past 31-183 days)	94	10.4%	335	11.7%	-1.300	-0.042
Transient ischemic attack	370	40.7%	1,002	34.9%	5.897	0.122
Other medical conditions (falls, fractures, syncope, walker use)	348	38.3%	1,174	40.8%	-2.509	-0.051
Cardioversion	92	10.1%	298	10.4%	-0.233	-0.008
Cardioablation	23	2.5%	69	2.4%	0.133	0.009
Hospitalized for bleeding	8	0.9%	45	1.6%	-0.684	-0.062
Medical Product Use						
Estrogen replacement	28	3.1%	80	2.8%	0.301	0.018
H2-antagonist	58	6.4%	194	6.7%	-0.360	-0.015
NSAIDs	191	21.0%	533	18.5%	2.496	0.063
Proton pump inhibitors	313	34.5%	1,045	36.3%	-1.876	-0.039
SSRI antidepressants	230	25.3%	746	25.9%	-0.617	-0.014
Insulin	328	36.1%	1,121	39.0%	-2.868	-0.059
Metformin (Biguanide)	442	48.7%	1,250	43.5%	5.200	0.104
Sulfonylureas	165	18.2%	466	16.2%	1.963	0.052
Other diabetes medications	225	24.8%	737	25.6%	-0.855	-0.020
ACEI/ARB	669	73.7%	2,069	72.0%	1.713	0.039
Antiarrhythmics	235	25.9%	763	26.5%	-0.658	-0.015
Anti-coagulant (injectable)	136	15.0%	502	17.5%	-2.483	-0.067

Table 1u. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	278	30.6%	1,018	35.4%	-4.792	-0.102
Beta-blockers	712	78.4%	2,343	81.5%	-3.082	-0.077
Calcium channel blockers	377	41.5%	1,214	42.2%	-0.706	-0.014
Digoxin	96	10.6%	205	7.1%	3.442	0.121
Diuretics (loop)	425	46.8%	1,466	51.0%	-4.185	-0.084
Diuretics (potassium sparing)	157	17.3%	549	19.1%	-1.805	-0.047
Diuretics (thiazide)	248	27.3%	786	27.3%	-0.026	-0.001
Nitrates	134	14.8%	493	17.1%	-2.390	-0.065
Statins	697	76.8%	2,285	79.5%	-2.716	-0.066
Fibrates	51	5.6%	185	6.4%	-0.818	-0.034
Amiodarone	141	15.5%	497	17.3%	-1.758	-0.047
Dronedarone	10	1.1%	24	0.8%	0.267	0.027
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	469	51.7%	1,385	48.2%	3.478	0.070
No ED encounters (past 31-183 days)	482	53.1%	1,519	52.8%	0.249	0.005
At least 1 ED encounter (past 0-30 days)	439	48.3%	1,490	51.8%	-3.478	-0.070
At least 2 ED encounters (past 0-30 days)	162	17.8%	534	18.6%	-0.733	-0.019
At least 1 ED encounter (past 31-183 days)	426	46.9%	1,356	47.2%	-0.249	-0.005
At least 2 ED encounters (past 31-183 days)	215	23.7%	726	25.3%	-1.574	-0.037

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1v. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
Weighted patients	918	N/A	2,677	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	58.6	5.8	58.7	5.6	-0.105	-0.018
Age						
21-49 years	75	8.1%	234	8.8%	-0.639	-0.023
50-64 years	844	91.9%	2,442	91.2%	0.639	0.023
Sex						
Female	684	74.4%	1,974	73.8%	0.689	0.016
Male	235	25.6%	703	26.2%	-0.689	-0.016
Race ³						
American Indian or Alaska Native	1	0.1%	4	0.2%	-0.090	-0.027
Asian	3	0.3%	8	0.3%	-0.027	-0.005
Black or African American	89	9.6%	311	11.6%	-1.990	-0.070
Native Hawaiian or Other Pacific Islander	6	0.6%	z	0.2%	0.412	0.066
Unknown	605	65.9%	1,561	58.3%	7.543	0.295
White	215	23.4%	781	29.2%	-5.755	-0.172
Hispanic origin						
Yes	5	0.5%	33	1.3%	-0.756	-0.082
No	259	28.2%	884	33.0%	-4.836	-0.304
Unknown	655	71.3%	1,760	65.7%	5.592	0.348
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	0	0.0%	0	0.0%	NaN	NaN
2012	18	2.0%	0	0.0%	NaN	NaN
2013	52	5.7%	14	0.5%	5.189	0.301
2014	60	6.5%	58	2.2%	4.319	0.213
2015	59	6.4%	120	4.5%	1.955	0.086
2016	127	13.8%	261	9.7%	4.048	0.126
2017	136	14.8%	281	10.5%	4.334	0.132
2018	133	14.5%	345	12.9%	1.595	0.046
2019	103	11.2%	392	14.6%	-3.420	-0.102
2020	106	11.5%	522	19.5%	-7.970	-0.221
2021	112	12.1%	602	22.5%	-10.322	-0.276
2022	12	1.3%	82	3.0%	-1.703	-0.116
CHADSVASC						
mean, std	5.3	0.5	5.3	0.5	-0.020	-0.037
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
3	0	0.0%	0	0.0%	-	-

Table 1v. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	0	0.0%	0	0.0%	-	-
>= 5	918	100.0%	2,677	100.0%	0.000	-
HASBLED						
mean, std	1.9	0.8	1.9	0.9	-0.024	-0.029
0	1	0.2%	4	0.2%	0.008	0.002
1	329	35.8%	945	35.3%	0.496	0.010
2	373	40.7%	1,080	40.3%	0.338	0.007
>= 3	215	23.4%	648	24.2%	-0.842	-0.020
Health Characteristics						
Diabetes	808	88.0%	2,356	88.0%	-0.071	-0.002
Hypercholesterolemia	396	43.2%	1,162	43.4%	-0.233	-0.005
Hypertension	915	99.6%	2,667	99.6%	-0.019	-0.003
Kidney failure (chronic)	221	24.0%	662	24.7%	-0.673	-0.016
Kidney failure (acute)	253	27.6%	742	27.7%	-0.171	-0.004
Obesity	558	60.8%	1,608	60.1%	0.691	0.014
Peptic ulcer disease	6	0.7%	11	0.4%	0.265	0.036
Nicotine dependency	384	41.8%	1,180	44.1%	-2.241	-0.046
Hospitalized AMI (past 0-30 days)	84	9.2%	232	8.7%	0.544	0.019
Hospitalized AMI (past 31-183 days)	49	5.3%	147	5.5%	-0.191	-0.008
Coronary revascularization	222	24.1%	641	23.9%	0.212	0.005
Hospitalized heart failure	572	62.3%	1,657	61.9%	0.406	0.008
Outpatient heart failure	435	47.4%	1,289	48.2%	-0.756	-0.016
Other ischemic heart disease	491	53.5%	1,465	54.7%	-1.214	-0.025
Hospitalized stroke (past 0-30 days)	152	16.6%	452	16.9%	-0.301	-0.008
Hospitalized stroke (past 31-183 days)	100	10.9%	293	11.0%	-0.035	-0.001
Transient ischemic attack	348	37.9%	986	36.8%	1.104	0.023
Other medical conditions (falls, fractures, syncope, walker use)	366	39.9%	1,093	40.8%	-0.972	-0.020
Cardioversion	103	11.2%	275	10.3%	0.917	0.030
Cardioablation	19	2.0%	60	2.2%	-0.198	-0.014
Hospitalized for bleeding	10	1.1%	27	1.0%	0.096	0.009
Medical Product Use						
Estrogen replacement	25	2.8%	71	2.6%	0.110	0.007
H2-antagonist	60	6.6%	169	6.3%	0.228	0.009
NSAIDs	172	18.7%	509	19.0%	-0.285	-0.007
Proton pump inhibitors	313	34.1%	959	35.8%	-1.730	-0.037
SSRI antidepressants	236	25.7%	702	26.2%	-0.528	-0.012
Insulin	337	36.7%	996	37.2%	-0.502	-0.010
Metformin (Biguanide)	410	44.6%	1,210	45.2%	-0.586	-0.012
Sulfonylureas	149	16.3%	442	16.5%	-0.255	-0.007
Other diabetes medications	233	25.3%	668	24.9%	0.404	0.009
ACEI/ARB	660	71.9%	1,956	73.1%	-1.180	-0.026

Table 1v. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Antiarrhythmics	242	26.3%	701	26.2%	0.110	0.003
Anti-coagulant (injectable)	152	16.6%	439	16.4%	0.166	0.005
Anti-platelets	321	35.0%	901	33.7%	1.305	0.027
Beta-blockers	739	80.5%	2,161	80.7%	-0.255	-0.006
Calcium channel blockers	376	41.0%	1,118	41.8%	-0.773	-0.016
Digoxin	71	7.7%	220	8.2%	-0.550	-0.020
Diuretics (loop)	444	48.3%	1,315	49.1%	-0.796	-0.016
Diuretics (potassium sparing)	167	18.2%	491	18.3%	-0.176	-0.005
Diuretics (thiazide)	245	26.7%	745	27.8%	-1.125	-0.025
Nitrates	143	15.5%	425	15.9%	-0.320	-0.009
Statins	721	78.5%	2,115	79.0%	-0.461	-0.011
Fibrates	51	5.5%	156	5.8%	-0.290	-0.012
Amiodarone	149	16.2%	449	16.8%	-0.537	-0.014
Dronedarone	7	0.8%	19	0.7%	0.036	0.004
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	466	50.8%	1,307	48.8%	1.964	0.046
No ED encounters (past 31-183 days)	484	52.7%	1,414	52.8%	-0.117	-0.002
At least 1 ED encounter (past 0-30 days)	452	49.2%	1,370	51.2%	-1.964	-0.046
At least 2 ED encounters (past 0-30 days)	165	18.0%	497	18.6%	-0.555	-0.015
At least 1 ED encounter (past 31-183 days)	434	47.3%	1,263	47.2%	0.117	0.002
At least 2 ED encounters (past 31-183 days)	216	23.5%	664	24.8%	-1.326	-0.032

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1w. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	15,504	100.0%	21,701	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	54.0	8.8	54.7	8.6	-0.675	-0.078
Age						
21-49 years	4,000	25.8%	5,183	23.9%	1.916	0.044
50-64 years	11,504	74.2%	16,518	76.1%	-1.916	-0.044
Sex						
Female	3,751	24.2%	6,333	29.2%	-4.989	-0.113
Male	11,753	75.8%	15,368	70.8%	4.989	0.113
Race ³						
American Indian or Alaska Native	9	0.1%	10	0.0%	0.012	0.005
Asian	25	0.2%	45	0.2%	-0.046	-0.011
Black or African American	111	0.7%	132	0.6%	0.108	0.013
Native Hawaiian or Other Pacific Islander	3	0.0%	z	0.0%	-0.008	-0.005
Unknown	13,754	88.7%	19,140	88.2%	0.514	0.016
White	1,554	10.0%	2,285	10.5%	-0.506	-0.017
Hispanic origin						
Yes	58	0.4%	105	0.5%	-0.110	-0.017
No	494	3.2%	842	3.9%	-0.694	-0.038
Unknown	14,952	96.4%	20,754	95.6%	0.803	0.041
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	10	0.1%	0	0.0%	NaN	NaN
2012	851	5.5%	0	0.0%	NaN	NaN
2013	1,738	11.2%	366	1.7%	9.523	0.395
2014	2,054	13.2%	968	4.5%	8.788	0.313
2015	1,898	12.2%	1,759	8.1%	4.136	0.137
2016	1,684	10.9%	2,168	10.0%	0.871	0.029
2017	1,675	10.8%	2,524	11.6%	-0.827	-0.026
2018	1,632	10.5%	3,056	14.1%	-3.556	-0.108
2019	1,371	8.8%	3,210	14.8%	-5.949	-0.185
2020	1,150	7.4%	3,397	15.7%	-8.236	-0.260
2021	1,205	7.8%	3,763	17.3%	-9.568	-0.292
2022	236	1.5%	490	2.3%	-0.736	-0.054
CHADSVASC						
mean, std	0.5	0.7	0.5	0.7	-0.086	-0.120
0	9,823	63.4%	12,517	57.7%	5.678	0.116
1	4,499	29.0%	7,055	32.5%	-3.492	-0.076
2	911	5.9%	1,609	7.4%	-1.539	-0.062
3	238	1.5%	454	2.1%	-0.557	-0.042
4	30	0.2%	59	0.3%	-0.078	-0.016

Table 1w. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	3	0.0%	7	0.0%	-0.013	-0.008
HASBLED						
mean, std	0.0	-	0.0	-	-	-
0	15,504	100.0%	21,701	100.0%	0.000	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
>= 3	0	0.0%	0	0.0%	-	-
Health Characteristics						
Diabetes	1,205	7.8%	1,815	8.4%	-0.591	-0.022
Hypercholesterolemia	2,080	13.4%	3,013	13.9%	-0.468	-0.014
Hypertension	421	2.7%	721	3.3%	-0.607	-0.035
Kidney failure (chronic)	9	0.1%	23	0.1%	-0.048	-0.017
Kidney failure (acute)	227	1.5%	444	2.0%	-0.582	-0.044
Obesity	2,703	17.4%	4,680	21.6%	-4.132	-0.104
Peptic ulcer disease	0	0.0%	3	0.0%	-	-
Nicotine dependency	2,485	16.0%	4,089	18.8%	-2.814	-0.074
Hospitalized AMI (past 0-30 days)	102	0.7%	217	1.0%	-0.342	-0.038
Hospitalized AMI (past 31-183 days)	26	0.2%	58	0.3%	-0.100	-0.021
Coronary revascularization	316	2.0%	572	2.6%	-0.598	-0.040
Hospitalized heart failure	816	5.3%	1,386	6.4%	-1.124	-0.048
Outpatient heart failure	998	6.4%	1,542	7.1%	-0.669	-0.027
Other ischemic heart disease	1,943	12.5%	3,024	13.9%	-1.403	-0.041
Hospitalized stroke (past 0-30 days)	0	0.0%	0	0.0%	-	-
Hospitalized stroke (past 31-183 days)	0	0.0%	0	0.0%	-	-
Transient ischemic attack	279	1.8%	422	1.9%	-0.145	-0.011
Other medical conditions (falls, fractures, syncope, walker use)	3,491	22.5%	4,930	22.7%	-0.201	-0.005
Cardioversion	2,536	16.4%	3,460	15.9%	0.413	0.011
Cardioablation	941	6.1%	1,252	5.8%	0.300	0.013
Hospitalized for bleeding	0	0.0%	0	0.0%	-	-
Medical Product Use						
Estrogen replacement	452	2.9%	726	3.3%	-0.430	-0.025
H2-antagonist	137	0.9%	272	1.3%	-0.370	-0.036
NSAIDs	1,773	11.4%	2,541	11.7%	-0.273	-0.009
Proton pump inhibitors	1,966	12.7%	2,855	13.2%	-0.475	-0.014
SSRI antidepressants	1,239	8.0%	1,858	8.6%	-0.570	-0.021
Insulin	236	1.5%	370	1.7%	-0.183	-0.015
Metformin (Biguanide)	794	5.1%	1,200	5.5%	-0.408	-0.018
Sulfonylureas	212	1.4%	270	1.2%	0.123	0.011
Other diabetes medications	308	2.0%	504	2.3%	-0.336	-0.023
ACEI/ARB	2,077	13.4%	2,901	13.4%	0.028	0.001
Antiarrhythmics	4,721	30.5%	6,125	28.2%	2.226	0.049
Anti-coagulant (injectable)	1,492	9.6%	2,290	10.6%	-0.929	-0.031

Table 1w. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	747	4.8%	1,363	6.3%	-1.463	-0.064
Beta-blockers	9,118	58.8%	13,119	60.5%	-1.643	-0.033
Calcium channel blockers	3,160	20.4%	4,661	21.5%	-1.096	-0.027
Digoxin	858	5.5%	915	4.2%	1.318	0.061
Diuretics (loop)	1,112	7.2%	1,760	8.1%	-0.938	-0.035
Diuretics (potassium sparing)	460	3.0%	726	3.3%	-0.378	-0.022
Diuretics (thiazide)	468	3.0%	666	3.1%	-0.050	-0.003
Nitrates	228	1.5%	349	1.6%	-0.138	-0.011
Statins	3,512	22.7%	5,152	23.7%	-1.089	-0.026
Fibrates	227	1.5%	279	1.3%	0.178	0.015
Amiodarone	905	5.8%	1,410	6.5%	-0.660	-0.027
Dronedarone	523	3.4%	583	2.7%	0.687	0.040
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	11,180	72.1%	14,823	68.3%	3.805	0.083
No ED encounters (past 31-183 days)	13,558	87.4%	18,740	86.4%	1.093	0.032
At least 1 ED encounter (past 0-30 days)	4,324	27.9%	6,878	31.7%	-3.805	-0.083
At least 2 ED encounters (past 0-30 days)	723	4.7%	1,146	5.3%	-0.618	-0.028
At least 1 ED encounter (past 31-183 days)	1,946	12.6%	2,961	13.6%	-1.093	-0.032
At least 2 ED encounters (past 31-183 days)	445	2.9%	730	3.4%	-0.494	-0.028

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1x. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	15,510	N/A	21,657	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	54.4	8.6	54.4	8.8	0.012	0.001
Age						
21-49 years	3,761	24.2%	5,427	25.1%	-0.809	-0.019
50-64 years	11,749	75.8%	16,230	74.9%	0.809	0.019
Sex						
Female	4,207	27.1%	5,866	27.1%	0.039	0.001
Male	11,303	72.9%	15,791	72.9%	-0.039	-0.001
Race ³						
American Indian or Alaska Native	8	0.0%	9	0.0%	0.005	0.002
Asian	26	0.2%	46	0.2%	-0.047	-0.011
Black or African American	115	0.7%	125	0.6%	0.166	0.021
Native Hawaiian or Other Pacific Islander	3	0.0%	z	0.0%	-0.008	-0.005
Unknown	13,717	88.4%	19,135	88.4%	0.087	0.003
White	1,593	10.3%	2,253	10.4%	-0.132	-0.005
Hispanic origin						
Yes	56	0.4%	102	0.5%	-0.110	-0.017
No	520	3.4%	809	3.7%	-0.384	-0.029
Unknown	14,933	96.3%	20,745	95.8%	0.493	0.034
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	9	0.1%	0	0.0%	NaN	NaN
2012	806	5.2%	0	0.0%	NaN	NaN
2013	1,666	10.7%	386	1.8%	8.958	0.376
2014	1,990	12.8%	1,001	4.6%	8.209	0.294
2015	1,859	12.0%	1,811	8.4%	3.620	0.120
2016	1,682	10.8%	2,191	10.1%	0.723	0.024
2017	1,717	11.1%	2,534	11.7%	-0.627	-0.020
2018	1,664	10.7%	3,036	14.0%	-3.295	-0.100
2019	1,426	9.2%	3,174	14.7%	-5.458	-0.169
2020	1,185	7.6%	3,349	15.5%	-7.822	-0.247
2021	1,256	8.1%	3,696	17.1%	-8.968	-0.273
2022	251	1.6%	479	2.2%	-0.595	-0.043
CHADSVASC						
mean, std	0.5	0.7	0.5	0.7	0.001	0.001
0	9,313	60.0%	13,015	60.1%	-0.046	-0.001
1	4,813	31.0%	6,719	31.0%	0.007	0.000
2	1,063	6.9%	1,473	6.8%	0.055	0.002
3	282	1.8%	397	1.8%	-0.014	-0.001

Table 1x. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
4	35	0.2%	49	0.2%	0.002	0.000
>= 5	3	0.0%	5	0.0%	-0.004	-0.002
HASBLED						
mean, std	0.0	-	0.0	-	0.000	-
0	15,510	100.0%	21,657	100.0%	0.000	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
>= 3	0	0.0%	0	0.0%	-	-
Health Characteristics						
Diabetes	1,244	8.0%	1,744	8.1%	-0.029	-0.001
Hypercholesterolemia	2,111	13.6%	2,953	13.6%	-0.025	-0.001
Hypertension	490	3.2%	657	3.0%	0.123	0.007
Kidney failure (chronic)	11	0.1%	17	0.1%	-0.009	-0.003
Kidney failure (acute)	285	1.8%	387	1.8%	0.051	0.004
Obesity	3,081	19.9%	4,302	19.9%	0.004	0.000
Peptic ulcer disease	0	0.0%	0	0.0%	-	-
Nicotine dependency	2,747	17.7%	3,824	17.7%	0.052	0.001
Hospitalized AMI (past 0-30 days)	132	0.9%	185	0.9%	-0.002	-0.000
Hospitalized AMI (past 31-183 days)	32	0.2%	45	0.2%	-0.006	-0.001
Coronary revascularization	368	2.4%	513	2.4%	0.005	0.000
Hospitalized heart failure	921	5.9%	1,278	5.9%	0.034	0.001
Outpatient heart failure	1,069	6.9%	1,478	6.8%	0.068	0.003
Other ischemic heart disease	2,078	13.4%	2,891	13.4%	0.046	0.001
Hospitalized stroke (past 0-30 days)	0	0.0%	0	0.0%	-	-
Hospitalized stroke (past 31-183 days)	0	0.0%	0	0.0%	-	-
Transient ischemic attack	294	1.9%	408	1.9%	0.014	0.001
Other medical conditions (falls, fractures, syncope, walker use)	3,530	22.8%	4,910	22.7%	0.086	0.002
Cardioversion	2,520	16.2%	3,500	16.2%	0.083	0.002
Cardioablation	926	6.0%	1,273	5.9%	0.088	0.004
Hospitalized for bleeding	0	0.0%	0	0.0%	-	-
Medical Product Use						
Estrogen replacement	490	3.2%	687	3.2%	-0.010	-0.001
H2-antagonist	171	1.1%	238	1.1%	0.003	0.000
NSAIDs	1,781	11.5%	2,502	11.6%	-0.072	-0.002
Proton pump inhibitors	2,017	13.0%	2,812	13.0%	0.019	0.001
SSRI antidepressants	1,299	8.4%	1,809	8.4%	0.021	0.001
Insulin	251	1.6%	353	1.6%	-0.014	-0.001
Metformin (Biguanide)	821	5.3%	1,153	5.3%	-0.031	-0.001
Sulfonylureas	195	1.3%	277	1.3%	-0.021	-0.002
Other diabetes medications	333	2.1%	469	2.2%	-0.015	-0.001
ACEI/ARB	2,084	13.4%	2,894	13.4%	0.073	0.002

Table 1x. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 0

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Antiarrhythmics	4,525	29.2%	6,313	29.1%	0.029	0.001
Anti-coagulant (injectable)	1,608	10.4%	2,193	10.1%	0.242	0.008
Anti-platelets	883	5.7%	1,230	5.7%	0.014	0.001
Beta-blockers	9,284	59.9%	12,946	59.8%	0.082	0.002
Calcium channel blockers	3,244	20.9%	4,542	21.0%	-0.053	-0.001
Digoxin	743	4.8%	1,030	4.8%	0.031	0.001
Diuretics (loop)	1,211	7.8%	1,670	7.7%	0.099	0.004
Diuretics (potassium sparing)	495	3.2%	689	3.2%	0.011	0.001
Diuretics (thiazide)	472	3.0%	654	3.0%	0.024	0.001
Nitrates	244	1.6%	338	1.6%	0.013	0.001
Statins	3,615	23.3%	5,040	23.3%	0.037	0.001
Fibrates	208	1.3%	292	1.3%	-0.009	-0.001
Amiodarone	971	6.3%	1,346	6.2%	0.041	0.002
Dronedarone	460	3.0%	638	2.9%	0.019	0.001
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	10,820	69.8%	15,166	70.0%	-0.264	-0.006
No ED encounters (past 31-183 days)	13,446	86.7%	18,811	86.9%	-0.162	-0.005
At least 1 ED encounter (past 0-30 days)	4,689	30.2%	6,491	30.0%	0.264	0.006
At least 2 ED encounters (past 0-30 days)	805	5.2%	1,067	4.9%	0.263	0.012
At least 1 ED encounter (past 31-183 days)	2,064	13.3%	2,846	13.1%	0.162	0.005
At least 2 ED encounters (past 31-183 days)	503	3.2%	672	3.1%	0.144	0.008

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1y. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	32,496	100.0%	51,356	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	57.0	6.7	57.4	6.6	-0.405	-0.061
Age						
21-49 years	4,549	14.0%	6,667	13.0%	1.017	0.030
50-64 years	27,947	86.0%	44,689	87.0%	-1.017	-0.030
Sex						
Female	8,416	25.9%	14,971	29.2%	-3.253	-0.073
Male	24,080	74.1%	36,385	70.8%	3.253	0.073
Race ³						
American Indian or Alaska Native	16	0.0%	41	0.1%	-0.031	-0.012
Asian	66	0.2%	105	0.2%	-0.001	-0.000
Black or African American	651	2.0%	1,293	2.5%	-0.514	-0.035
Native Hawaiian or Other Pacific Islander	32	0.1%	z	0.1%	0.017	0.006
Unknown	27,548	84.8%	41,783	81.4%	3.414	0.091
White	4,046	12.5%	7,872	15.3%	-2.878	-0.083
Hispanic origin						
Yes	169	0.5%	252	0.5%	0.029	0.004
No	2,681	8.3%	5,548	10.8%	-2.553	-0.087
Unknown	29,646	91.2%	45,556	88.7%	2.523	0.084
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	34	0.1%	0	0.0%	NaN	NaN
2012	1,597	4.9%	0	0.0%	NaN	NaN
2013	3,350	10.3%	814	1.6%	8.724	0.375
2014	4,268	13.1%	2,166	4.2%	8.916	0.321
2015	3,801	11.7%	3,812	7.4%	4.274	0.146
2016	3,678	11.3%	5,208	10.1%	1.177	0.038
2017	3,726	11.5%	6,255	12.2%	-0.714	-0.022
2018	3,477	10.7%	7,018	13.7%	-2.966	-0.091
2019	3,034	9.3%	7,875	15.3%	-5.998	-0.183
2020	2,432	7.5%	7,895	15.4%	-7.889	-0.250
2021	2,656	8.2%	9,133	17.8%	-9.610	-0.289
2022	443	1.4%	1,180	2.3%	-0.934	-0.070
CHADSVASC						
mean, std	1.8	1.0	2.0	1.0	-0.133	-0.132
0	862	2.7%	1,294	2.5%	0.133	0.008
1	13,435	41.3%	18,818	36.6%	4.701	0.097
2	11,092	34.1%	17,451	34.0%	0.153	0.003
3	4,975	15.3%	9,116	17.8%	-2.441	-0.066
4	1,756	5.4%	3,758	7.3%	-1.914	-0.078

Table 1y. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	376	1.2%	919	1.8%	-0.632	-0.053
HASBLED						
mean, std	1.0	0.0	1.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	32,496	100.0%	51,356	100.0%	0.000	-
2	0	0.0%	0	0.0%	-	-
>= 3	0	0.0%	0	0.0%	-	-
Health Characteristics						
Diabetes	9,660	29.7%	15,821	30.8%	-1.080	-0.024
Hypercholesterolemia	9,493	29.2%	15,670	30.5%	-1.300	-0.028
Hypertension	30,547	94.0%	48,003	93.5%	0.531	0.022
Kidney failure (chronic)	211	0.6%	446	0.9%	-0.219	-0.025
Kidney failure (acute)	1,022	3.1%	2,904	5.7%	-2.510	-0.123
Obesity	11,944	36.8%	21,884	42.6%	-5.857	-0.120
Peptic ulcer disease	22	0.1%	41	0.1%	-0.012	-0.004
Nicotine dependency	7,440	22.9%	14,184	27.6%	-4.724	-0.109
Hospitalized AMI (past 0-30 days)	508	1.6%	1,313	2.6%	-0.993	-0.070
Hospitalized AMI (past 31-183 days)	229	0.7%	558	1.1%	-0.382	-0.041
Coronary revascularization	2,329	7.2%	4,894	9.5%	-2.363	-0.085
Hospitalized heart failure	3,979	12.2%	7,866	15.3%	-3.072	-0.089
Outpatient heart failure	4,210	13.0%	7,826	15.2%	-2.283	-0.066
Other ischemic heart disease	8,784	27.0%	15,106	29.4%	-2.383	-0.053
Hospitalized stroke (past 0-30 days)	92	0.3%	186	0.4%	-0.079	-0.014
Hospitalized stroke (past 31-183 days)	35	0.1%	82	0.2%	-0.052	-0.014
Transient ischemic attack	811	2.5%	1,432	2.8%	-0.293	-0.018
Other medical conditions (falls, fractures, syncope, walker use)	7,766	23.9%	12,840	25.0%	-1.104	-0.026
Cardioversion	5,201	16.0%	8,098	15.8%	0.237	0.006
Cardioablation	1,337	4.1%	2,012	3.9%	0.197	0.010
Hospitalized for bleeding	15	0.0%	45	0.1%	-0.041	-0.016
Medical Product Use						
Estrogen replacement	680	2.1%	1,185	2.3%	-0.215	-0.015
H2-antagonist	659	2.0%	1,309	2.5%	-0.521	-0.035
NSAIDs	5,456	16.8%	9,111	17.7%	-0.951	-0.025
Proton pump inhibitors	5,941	18.3%	10,331	20.1%	-1.834	-0.047
SSRI antidepressants	3,666	11.3%	6,356	12.4%	-1.095	-0.034
Insulin	2,127	6.5%	3,695	7.2%	-0.649	-0.026
Metformin (Biguanide)	6,201	19.1%	10,369	20.2%	-1.108	-0.028
Sulfonylureas	2,054	6.3%	2,935	5.7%	0.606	0.025
Other diabetes medications	2,734	8.4%	4,911	9.6%	-1.149	-0.040
ACEI/ARB	19,641	60.4%	31,092	60.5%	-0.101	-0.002
Antiarrhythmics	9,362	28.8%	13,989	27.2%	1.570	0.035
Anti-coagulant (injectable)	3,380	10.4%	6,175	12.0%	-1.623	-0.051

Table 1y. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	3,354	10.3%	6,749	13.1%	-2.820	-0.088
Beta-blockers	23,541	72.4%	38,198	74.4%	-1.936	-0.044
Calcium channel blockers	12,369	38.1%	19,741	38.4%	-0.376	-0.008
Digoxin	2,249	6.9%	2,624	5.1%	1.811	0.076
Diuretics (loop)	5,278	16.2%	9,398	18.3%	-2.058	-0.054
Diuretics (potassium sparing)	2,463	7.6%	4,435	8.6%	-1.056	-0.039
Diuretics (thiazide)	8,404	25.9%	13,051	25.4%	0.449	0.010
Nitrates	1,514	4.7%	3,031	5.9%	-1.243	-0.056
Statins	15,021	46.2%	25,284	49.2%	-3.009	-0.060
Fibrates	1,457	4.5%	2,138	4.2%	0.321	0.016
Amiodarone	2,944	9.1%	5,082	9.9%	-0.836	-0.029
Dronedarone	1,035	3.2%	1,171	2.3%	0.905	0.056
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	23,160	71.3%	34,227	66.6%	4.624	0.100
No ED encounters (past 31-183 days)	26,771	82.4%	41,338	80.5%	1.889	0.049
At least 1 ED encounter (past 0-30 days)	9,336	28.7%	17,129	33.4%	-4.624	-0.100
At least 2 ED encounters (past 0-30 days)	1,932	5.9%	3,952	7.7%	-1.750	-0.069
At least 1 ED encounter (past 31-183 days)	5,725	17.6%	10,018	19.5%	-1.889	-0.049
At least 2 ED encounters (past 31-183 days)	1,644	5.1%	3,115	6.1%	-1.006	-0.044

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1z. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	32,514	N/A	51,315	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	57.2	6.6	57.2	6.7	-0.055	-0.008
Age						
21-49 years	4,291	13.2%	6,946	13.5%	-0.339	-0.010
50-64 years	28,223	86.8%	44,368	86.5%	0.339	0.010
Sex						
Female	9,036	27.8%	14,331	27.9%	-0.135	-0.003
Male	23,477	72.2%	36,984	72.1%	0.135	0.003
Race ³						
American Indian or Alaska Native	17	0.1%	40	0.1%	-0.025	-0.010
Asian	60	0.2%	109	0.2%	-0.027	-0.006
Black or African American	683	2.1%	1,261	2.5%	-0.356	-0.025
Native Hawaiian or Other Pacific Islander	32	0.1%	z	0.1%	0.018	0.006
Unknown	27,428	84.4%	41,886	81.6%	2.734	0.105
White	4,160	12.8%	7,759	15.1%	-2.326	-0.087
Hispanic origin						
Yes	169	0.5%	247	0.5%	0.040	0.006
No	2,786	8.6%	5,438	10.6%	-2.029	-0.126
Unknown	29,559	90.9%	45,631	88.9%	1.990	0.116
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	30	0.1%	0	0.0%	NaN	NaN
2012	1,454	4.5%	0	0.0%	NaN	NaN
2013	3,142	9.7%	877	1.7%	7.954	0.349
2014	4,080	12.5%	2,300	4.5%	8.066	0.292
2015	3,707	11.4%	3,976	7.7%	3.655	0.124
2016	3,681	11.3%	5,293	10.3%	1.006	0.032
2017	3,793	11.7%	6,301	12.3%	-0.614	-0.019
2018	3,611	11.1%	6,988	13.6%	-2.512	-0.076
2019	3,151	9.7%	7,774	15.1%	-5.456	-0.166
2020	2,578	7.9%	7,756	15.1%	-7.184	-0.227
2021	2,814	8.7%	8,901	17.3%	-8.691	-0.261
2022	471	1.4%	1,149	2.2%	-0.790	-0.059
CHADSVASC						
mean, std	1.9	1.0	1.9	1.0	-0.010	-0.010
0	851	2.6%	1,317	2.6%	0.051	0.003
1	12,556	38.6%	19,673	38.3%	0.279	0.006
2	11,067	34.0%	17,457	34.0%	0.018	0.000
3	5,423	16.7%	8,657	16.9%	-0.192	-0.005

Table 1z. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users			
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Absolute Difference	Standardized Difference
4	2,119	6.5%	3,409	6.6%	-0.126	-0.005
>= 5	498	1.5%	802	1.6%	-0.032	-0.003
HASBLED						
mean, std	1.0	0.0	1.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	32,514	100.0%	51,315	100.0%	0.000	-
2	0	0.0%	0	0.0%	-	-
>= 3	0	0.0%	0	0.0%	-	-
Health Characteristics						
Diabetes	9,825	30.2%	15,661	30.5%	-0.301	-0.007
Hypercholesterolemia	9,709	29.9%	15,384	30.0%	-0.118	-0.003
Hypertension	30,447	93.6%	48,085	93.7%	-0.060	-0.002
Kidney failure (chronic)	259	0.8%	404	0.8%	0.010	0.001
Kidney failure (acute)	1,523	4.7%	2,401	4.7%	0.005	0.000
Obesity	13,098	40.3%	20,756	40.4%	-0.163	-0.003
Peptic ulcer disease	24	0.1%	38	0.1%	-0.001	-0.000
Nicotine dependency	8,370	25.7%	13,299	25.9%	-0.173	-0.004
Hospitalized AMI (past 0-30 days)	687	2.1%	1,116	2.2%	-0.063	-0.004
Hospitalized AMI (past 31-183 days)	306	0.9%	481	0.9%	0.004	0.000
Coronary revascularization	2,783	8.6%	4,438	8.6%	-0.090	-0.003
Hospitalized heart failure	4,560	14.0%	7,278	14.2%	-0.159	-0.005
Outpatient heart failure	4,628	14.2%	7,432	14.5%	-0.251	-0.007
Other ischemic heart disease	9,212	28.3%	14,667	28.6%	-0.251	-0.006
Hospitalized stroke (past 0-30 days)	108	0.3%	168	0.3%	0.004	0.001
Hospitalized stroke (past 31-183 days)	45	0.1%	70	0.1%	0.002	0.000
Transient ischemic attack	867	2.7%	1,373	2.7%	-0.010	-0.001
Other medical conditions (falls, fractures, syncope, walker use)	7,980	24.5%	12,632	24.6%	-0.074	-0.002
Cardioversion	5,157	15.9%	8,120	15.8%	0.039	0.001
Cardioablation	1,297	4.0%	2,045	4.0%	0.005	0.000
Hospitalized for bleeding	21	0.1%	31	0.1%	0.004	0.002
Medical Product Use						
Estrogen replacement	726	2.2%	1,140	2.2%	0.010	0.001
H2-antagonist	753	2.3%	1,227	2.4%	-0.076	-0.005
NSAIDs	5,632	17.3%	8,951	17.4%	-0.121	-0.003
Proton pump inhibitors	6,244	19.2%	10,002	19.5%	-0.286	-0.007
SSRI antidepressants	3,848	11.8%	6,175	12.0%	-0.201	-0.006
Insulin	2,222	6.8%	3,579	7.0%	-0.142	-0.006
Metformin (Biguanide)	6,384	19.6%	10,175	19.8%	-0.194	-0.005
Sulfonylureas	1,917	5.9%	3,068	6.0%	-0.084	-0.004
Other diabetes medications	2,945	9.1%	4,679	9.1%	-0.058	-0.002
ACEI/ARB	19,681	60.5%	31,088	60.6%	-0.050	-0.001

Table 1z. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 1

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Antiarrhythmics	9,072	27.9%	14,305	27.9%	0.026	0.001
Anti-coagulant (injectable)	3,693	11.4%	5,871	11.4%	-0.085	-0.003
Anti-platelets	3,906	12.0%	6,193	12.1%	-0.054	-0.002
Beta-blockers	23,914	73.5%	37,791	73.6%	-0.096	-0.002
Calcium channel blockers	12,472	38.4%	19,674	38.3%	0.021	0.000
Digoxin	1,881	5.8%	2,991	5.8%	-0.043	-0.002
Diuretics (loop)	5,653	17.4%	9,061	17.7%	-0.270	-0.007
Diuretics (potassium sparing)	2,645	8.1%	4,234	8.3%	-0.114	-0.004
Diuretics (thiazide)	8,306	25.5%	13,140	25.6%	-0.059	-0.001
Nitrates	1,737	5.3%	2,804	5.5%	-0.124	-0.006
Statins	15,575	47.9%	24,713	48.2%	-0.257	-0.005
Fibrates	1,377	4.2%	2,200	4.3%	-0.051	-0.003
Amiodarone	3,089	9.5%	4,912	9.6%	-0.071	-0.002
Dronedarone	865	2.7%	1,353	2.6%	0.025	0.002
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	22,235	68.4%	35,183	68.6%	-0.176	-0.004
No ED encounters (past 31-183 days)	26,398	81.2%	41,640	81.1%	0.044	0.001
At least 1 ED encounter (past 0-30 days)	10,278	31.6%	16,131	31.4%	0.176	0.004
At least 2 ED encounters (past 0-30 days)	2,287	7.0%	3,585	7.0%	0.047	0.002
At least 1 ED encounter (past 31-183 days)	6,116	18.8%	9,675	18.9%	-0.044	-0.001
At least 2 ED encounters (past 31-183 days)	1,840	5.7%	2,930	5.7%	-0.050	-0.002

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1aa. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	8,091	100.0%	17,262	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	57.2	6.5	57.7	6.3	-0.548	-0.086
Age						
21-49 years	1,101	13.6%	2,020	11.7%	1.906	0.057
50-64 years	6,990	86.4%	15,242	88.3%	-1.906	-0.057
Sex						
Female	2,205	27.3%	5,314	30.8%	-3.532	-0.078
Male	5,886	72.7%	11,948	69.2%	3.532	0.078
Race ³						
American Indian or Alaska Native	5	0.1%	25	0.1%	-0.083	-0.026
Asian	21	0.3%	34	0.2%	0.063	0.013
Black or African American	337	4.2%	893	5.2%	-1.008	-0.048
Native Hawaiian or Other Pacific Islander	7	0.1%	z	0.2%	-0.064	-0.019
Unknown	6,344	78.4%	12,685	73.5%	4.923	0.115
White	1,357	16.8%	3,537	20.5%	-3.718	-0.096
Hispanic origin						
Yes	50	0.6%	117	0.7%	-0.060	-0.007
No	1,191	14.7%	3,226	18.7%	-3.968	-0.107
Unknown	6,850	84.7%	13,919	80.6%	4.028	0.107
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	5	0.1%	0	0.0%	NaN	NaN
2012	285	3.5%	0	0.0%	NaN	NaN
2013	698	8.6%	177	1.0%	7.601	0.360
2014	938	11.6%	548	3.2%	8.419	0.326
2015	867	10.7%	1,024	5.9%	4.784	0.174
2016	879	10.9%	1,627	9.4%	1.439	0.048
2017	1,004	12.4%	2,063	12.0%	0.458	0.014
2018	958	11.8%	2,298	13.3%	-1.472	-0.044
2019	845	10.4%	2,881	16.7%	-6.246	-0.183
2020	753	9.3%	2,942	17.0%	-7.737	-0.230
2021	746	9.2%	3,289	19.1%	-9.833	-0.285
2022	113	1.4%	413	2.4%	-0.996	-0.073
CHADSVASC						
mean, std	2.3	1.2	2.6	1.2	-0.240	-0.201
0	74	0.9%	117	0.7%	0.237	0.027
1	2,068	25.6%	3,518	20.4%	5.179	0.123
2	2,681	33.1%	5,238	30.3%	2.791	0.060
3	1,931	23.9%	4,362	25.3%	-1.403	-0.033
4	994	12.3%	2,853	16.5%	-4.242	-0.121

Table 1aa. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	343	4.2%	1,174	6.8%	-2.562	-0.112
HASBLED						
mean, std	2.0	0.0	2.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	8,091	100.0%	17,262	100.0%	0.000	-
>= 3	0	0.0%	0	0.0%	-	-
Health Characteristics						
Diabetes	3,324	41.1%	7,586	43.9%	-2.864	-0.058
Hypercholesterolemia	2,675	33.1%	5,974	34.6%	-1.546	-0.033
Hypertension	7,896	97.6%	16,848	97.6%	-0.012	-0.001
Kidney failure (chronic)	1,636	20.2%	4,327	25.1%	-4.847	-0.116
Kidney failure (acute)	1,008	12.5%	3,404	19.7%	-7.261	-0.199
Obesity	3,620	44.7%	8,717	50.5%	-5.757	-0.115
Peptic ulcer disease	74	0.9%	196	1.1%	-0.221	-0.022
Nicotine dependency	2,660	32.9%	6,517	37.8%	-4.877	-0.102
Hospitalized AMI (past 0-30 days)	245	3.0%	761	4.4%	-1.380	-0.073
Hospitalized AMI (past 31-183 days)	134	1.7%	431	2.5%	-0.841	-0.059
Coronary revascularization	950	11.7%	2,795	16.2%	-4.450	-0.129
Hospitalized heart failure	1,870	23.1%	5,191	30.1%	-6.960	-0.158
Outpatient heart failure	1,711	21.1%	4,346	25.2%	-4.030	-0.096
Other ischemic heart disease	2,998	37.1%	6,910	40.0%	-2.977	-0.061
Hospitalized stroke (past 0-30 days)	342	4.2%	844	4.9%	-0.662	-0.032
Hospitalized stroke (past 31-183 days)	158	2.0%	467	2.7%	-0.753	-0.050
Transient ischemic attack	423	5.2%	931	5.4%	-0.165	-0.007
Other medical conditions (falls, fractures, syncope, walker use)	2,541	31.4%	5,478	31.7%	-0.329	-0.007
Cardioversion	1,366	16.9%	2,743	15.9%	0.993	0.027
Cardioablation	322	4.0%	676	3.9%	0.064	0.003
Hospitalized for bleeding	96	1.2%	233	1.3%	-0.163	-0.015
Medical Product Use						
Estrogen replacement	157	1.9%	371	2.1%	-0.209	-0.015
H2-antagonist	330	4.1%	791	4.6%	-0.504	-0.025
NSAIDs	1,529	18.9%	3,193	18.5%	0.400	0.010
Proton pump inhibitors	2,307	28.5%	5,355	31.0%	-2.509	-0.055
SSRI antidepressants	1,258	15.5%	2,895	16.8%	-1.223	-0.033
Insulin	923	11.4%	2,390	13.8%	-2.438	-0.073
Metformin (Biguanide)	1,897	23.4%	4,225	24.5%	-1.030	-0.024
Sulfonylureas	656	8.1%	1,384	8.0%	0.090	0.003
Other diabetes medications	873	10.8%	2,296	13.3%	-2.511	-0.077
ACEI/ARB	5,236	64.7%	11,289	65.4%	-0.684	-0.014
Antiarrhythmics	2,424	30.0%	5,032	29.2%	0.808	0.018
Anti-coagulant (injectable)	994	12.3%	2,460	14.3%	-1.966	-0.058

Table 1aa. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	1,234	15.3%	3,402	19.7%	-4.457	-0.118
Beta-blockers	6,139	75.9%	13,487	78.1%	-2.257	-0.054
Calcium channel blockers	3,406	42.1%	7,320	42.4%	-0.309	-0.006
Digoxin	656	8.1%	1,131	6.6%	1.556	0.060
Diuretics (loop)	2,130	26.3%	5,458	31.6%	-5.293	-0.117
Diuretics (potassium sparing)	895	11.1%	2,275	13.2%	-2.118	-0.065
Diuretics (thiazide)	2,106	26.0%	4,584	26.6%	-0.527	-0.012
Nitrates	646	8.0%	1,654	9.6%	-1.598	-0.056
Statins	4,338	53.6%	9,962	57.7%	-4.095	-0.083
Fibrates	453	5.6%	974	5.6%	-0.044	-0.002
Amiodarone	1,099	13.6%	2,766	16.0%	-2.441	-0.069
Dronedarone	196	2.4%	302	1.7%	0.673	0.047
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	5,058	62.5%	10,261	59.4%	3.071	0.063
No ED encounters (past 31-183 days)	5,829	72.0%	12,024	69.7%	2.387	0.053
At least 1 ED encounter (past 0-30 days)	3,033	37.5%	7,001	40.6%	-3.071	-0.063
At least 2 ED encounters (past 0-30 days)	804	9.9%	2,041	11.8%	-1.887	-0.061
At least 1 ED encounter (past 31-183 days)	2,262	28.0%	5,238	30.3%	-2.387	-0.053
At least 2 ED encounters (past 31-183 days)	902	11.1%	2,137	12.4%	-1.232	-0.038

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1ab. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	8,101	N/A	17,171	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	57.5	6.3	57.6	6.4	-0.080	-0.013
Age						
21-49 years	1,002	12.4%	2,115	12.3%	0.050	0.002
50-64 years	7,099	87.6%	15,056	87.7%	-0.050	-0.002
Sex						
Female	2,400	29.6%	5,078	29.6%	0.053	0.001
Male	5,701	70.4%	12,092	70.4%	-0.053	-0.001
Race ³						
American Indian or Alaska Native	6	0.1%	25	0.1%	-0.075	-0.023
Asian	20	0.2%	36	0.2%	0.040	0.008
Black or African American	344	4.2%	866	5.0%	-0.794	-0.040
Native Hawaiian or Other Pacific Islander	8	0.1%	z	0.2%	-0.059	-0.016
Unknown	6,274	77.5%	12,694	73.9%	3.527	0.132
White	1,426	17.6%	3,458	20.1%	-2.535	-0.087
Hispanic origin						
Yes	46	0.6%	118	0.7%	-0.120	-0.015
No	1,229	15.2%	3,173	18.5%	-3.305	-0.192
Unknown	6,825	84.3%	13,879	80.8%	3.425	0.190
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	5	0.1%	0	0.0%	NaN	NaN
2012	246	3.0%	0	0.0%	NaN	NaN
2013	642	7.9%	192	1.1%	6.812	0.332
2014	879	10.9%	583	3.4%	7.454	0.293
2015	838	10.3%	1,063	6.2%	4.150	0.151
2016	886	10.9%	1,642	9.6%	1.375	0.045
2017	1,031	12.7%	2,065	12.0%	0.706	0.021
2018	983	12.1%	2,289	13.3%	-1.201	-0.036
2019	878	10.8%	2,838	16.5%	-5.688	-0.166
2020	805	9.9%	2,879	16.8%	-6.834	-0.202
2021	784	9.7%	3,216	18.7%	-9.054	-0.262
2022	125	1.5%	404	2.4%	-0.814	-0.059
CHADSVASC						
mean, std	2.5	1.2	2.5	1.2	-0.012	-0.010
0	61	0.8%	130	0.8%	0.001	0.000
1	1,814	22.4%	3,778	22.0%	0.388	0.009
2	2,539	31.3%	5,362	31.2%	0.116	0.003

Table 1ab. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
3	1,996	24.6%	4,269	24.9%	-0.221	-0.005
4	1,207	14.9%	2,616	15.2%	-0.330	-0.009
>= 5	483	6.0%	1,016	5.9%	0.046	0.002
HASBLED						
mean, std	2.0	0.0	2.0	0.0	0.000	-
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	8,101	100.0%	17,171	100.0%	0.000	-
>= 3	0	0.0%	0	0.0%	-	-
Health Characteristics						
Diabetes	3,446	42.5%	7,408	43.1%	-0.600	-0.012
Hypercholesterolemia	2,755	34.0%	5,863	34.1%	-0.134	-0.003
Hypertension	7,900	97.5%	16,759	97.6%	-0.078	-0.005
Kidney failure (chronic)	1,897	23.4%	4,055	23.6%	-0.196	-0.005
Kidney failure (acute)	1,407	17.4%	2,973	17.3%	0.058	0.002
Obesity	3,915	48.3%	8,360	48.7%	-0.355	-0.007
Peptic ulcer disease	80	1.0%	180	1.0%	-0.057	-0.006
Nicotine dependency	2,922	36.1%	6,234	36.3%	-0.232	-0.005
Hospitalized AMI (past 0-30 days)	311	3.8%	670	3.9%	-0.066	-0.003
Hospitalized AMI (past 31-183 days)	180	2.2%	379	2.2%	0.019	0.001
Coronary revascularization	1,177	14.5%	2,534	14.8%	-0.224	-0.006
Hospitalized heart failure	2,227	27.5%	4,771	27.8%	-0.288	-0.007
Outpatient heart failure	1,905	23.5%	4,143	24.1%	-0.610	-0.015
Other ischemic heart disease	3,137	38.7%	6,734	39.2%	-0.484	-0.010
Hospitalized stroke (past 0-30 days)	381	4.7%	801	4.7%	0.047	0.002
Hospitalized stroke (past 31-183 days)	205	2.5%	419	2.4%	0.089	0.006
Transient ischemic attack	433	5.3%	916	5.3%	0.015	0.001
Other medical conditions (falls, fractures, syncope, walker use)	2,555	31.5%	5,460	31.8%	-0.265	-0.006
Cardioversion	1,319	16.3%	2,778	16.2%	0.105	0.003
Cardioablation	315	3.9%	676	3.9%	-0.051	-0.003
Hospitalized for bleeding	103	1.3%	220	1.3%	-0.006	-0.001
Medical Product Use						
Estrogen replacement	170	2.1%	354	2.1%	0.029	0.002
H2-antagonist	353	4.4%	767	4.5%	-0.108	-0.005
NSAIDs	1,506	18.6%	3,203	18.7%	-0.054	-0.001
Proton pump inhibitors	2,420	29.9%	5,194	30.2%	-0.372	-0.008
SSRI antidepressants	1,298	16.0%	2,823	16.4%	-0.420	-0.011
Insulin	1,032	12.7%	2,242	13.1%	-0.315	-0.009
Metformin (Biguanide)	1,925	23.8%	4,144	24.1%	-0.365	-0.009
Sulfonylureas	626	7.7%	1,381	8.0%	-0.321	-0.012
Other diabetes medications	1,004	12.4%	2,138	12.5%	-0.063	-0.002

Table 1ab. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 2

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
ACEI/ARB	5,285	65.2%	11,206	65.3%	-0.017	-0.000
Antiarrhythmics	2,368	29.2%	5,041	29.4%	-0.129	-0.003
Anti-coagulant (injectable)	1,110	13.7%	2,340	13.6%	0.067	0.002
Anti-platelets	1,482	18.3%	3,131	18.2%	0.067	0.002
Beta-blockers	6,246	77.1%	13,297	77.4%	-0.327	-0.008
Calcium channel blockers	3,414	42.1%	7,266	42.3%	-0.165	-0.003
Digoxin	562	6.9%	1,214	7.1%	-0.132	-0.005
Diuretics (loop)	2,394	29.6%	5,148	30.0%	-0.423	-0.009
Diuretics (potassium sparing)	1,023	12.6%	2,155	12.5%	0.084	0.003
Diuretics (thiazide)	2,144	26.5%	4,524	26.3%	0.116	0.003
Nitrates	728	9.0%	1,567	9.1%	-0.135	-0.005
Statins	4,528	55.9%	9,692	56.4%	-0.546	-0.011
Fibrates	440	5.4%	966	5.6%	-0.194	-0.008
Amiodarone	1,215	15.0%	2,606	15.2%	-0.182	-0.005
Dronedarone	157	1.9%	336	2.0%	-0.016	-0.001
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	4,945	61.0%	10,368	60.4%	0.660	0.015
No ED encounters (past 31-183 days)	5,696	70.3%	12,056	70.2%	0.108	0.002
At least 1 ED encounter (past 0-30 days)	3,156	39.0%	6,803	39.6%	-0.660	-0.015
At least 2 ED encounters (past 0-30 days)	872	10.8%	1,928	11.2%	-0.464	-0.015
At least 1 ED encounter (past 31-183 days)	2,404	29.7%	5,115	29.8%	-0.108	-0.002
At least 2 ED encounters (past 31-183 days)	967	11.9%	2,088	12.2%	-0.217	-0.007

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1ac. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 3+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Unique patients	1,834	100.0%	5,699	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	57.8	6.2	58.3	5.9	-0.547	-0.091
Age						
21-49 years	204	11.1%	538	9.4%	1.683	0.055
50-64 years	1,630	88.9%	5,161	90.6%	-1.683	-0.055
Sex						
Female	485	26.4%	1,685	29.6%	-3.122	-0.070
Male	1,349	73.6%	4,014	70.4%	3.122	0.070
Race ³						
American Indian or Alaska Native	0	0.0%	7	0.1%	-	-
Asian	0	0.0%	12	0.2%	-	-
Black or African American	117	6.4%	484	8.5%	-2.113	-0.081
Native Hawaiian or Other Pacific Islander	4	0.2%	z	0.2%	0.025	0.006
Unknown	1,278	69.7%	3,664	64.3%	5.392	0.115
White	427	23.3%	1,501	26.3%	-3.056	-0.071
Hispanic origin						
Yes	12	0.7%	46	0.8%	-0.153	-0.018
No	428	23.3%	1,571	27.6%	-4.229	-0.097
Unknown	1,394	76.0%	4,082	71.6%	4.382	0.100
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	1	0.1%	0	0.0%	NaN	NaN
2012	41	2.2%	0	0.0%	NaN	NaN
2013	127	6.9%	40	0.7%	6.223	0.329
2014	171	9.3%	112	2.0%	7.359	0.323
2015	152	8.3%	276	4.8%	3.445	0.139
2016	214	11.7%	453	7.9%	3.720	0.125
2017	240	13.1%	588	10.3%	2.769	0.086
2018	229	12.5%	740	13.0%	-0.498	-0.015
2019	223	12.2%	1,002	17.6%	-5.423	-0.153
2020	188	10.3%	1,106	19.4%	-9.156	-0.260
2021	213	11.6%	1,207	21.2%	-9.565	-0.261
2022	35	1.9%	175	3.1%	-1.162	-0.075
CHADSVASC						
mean, std	2.8	1.3	3.1	1.3	-0.290	-0.219
0	5	0.3%	13	0.2%	0.045	0.009
1	328	17.9%	693	12.2%	5.724	0.161
2	511	27.9%	1,343	23.6%	4.297	0.098
3	466	25.4%	1,512	26.5%	-1.122	-0.026
4	338	18.4%	1,363	23.9%	-5.487	-0.135

Table 1ac. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 3+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
>= 5	186	10.1%	775	13.6%	-3.457	-0.107
HASBLED						
mean, std	3.1	0.3	3.1	0.3	-0.029	-0.092
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
>= 3	1,834	100.0%	5,699	100.0%	0.000	-
Health Characteristics						
Diabetes	899	49.0%	3,085	54.1%	-5.114	-0.102
Hypercholesterolemia	644	35.1%	2,132	37.4%	-2.296	-0.048
Hypertension	1,820	99.2%	5,658	99.3%	-0.044	-0.005
Kidney failure (chronic)	821	44.8%	3,113	54.6%	-9.858	-0.198
Kidney failure (acute)	525	28.6%	2,387	41.9%	-13.259	-0.280
Obesity	897	48.9%	3,091	54.2%	-5.328	-0.107
Peptic ulcer disease	44	2.4%	161	2.8%	-0.426	-0.027
Nicotine dependency	747	40.7%	2,621	46.0%	-5.260	-0.106
Hospitalized AMI (past 0-30 days)	51	2.8%	330	5.8%	-3.010	-0.149
Hospitalized AMI (past 31-183 days)	67	3.7%	280	4.9%	-1.260	-0.062
Coronary revascularization	265	14.4%	1,147	20.1%	-5.677	-0.151
Hospitalized heart failure	646	35.2%	2,524	44.3%	-9.065	-0.186
Outpatient heart failure	585	31.9%	2,111	37.0%	-5.144	-0.108
Other ischemic heart disease	791	43.1%	2,774	48.7%	-5.545	-0.111
Hospitalized stroke (past 0-30 days)	125	6.8%	409	7.2%	-0.361	-0.014
Hospitalized stroke (past 31-183 days)	94	5.1%	315	5.5%	-0.402	-0.018
Transient ischemic attack	160	8.7%	418	7.3%	1.389	0.051
Other medical conditions (falls, fractures, syncope, walker use)	675	36.8%	2,286	40.1%	-3.308	-0.068
Cardioversion	273	14.9%	848	14.9%	0.006	0.000
Cardioablation	67	3.7%	229	4.0%	-0.365	-0.019
Hospitalized for bleeding	64	3.5%	214	3.8%	-0.265	-0.014
Medical Product Use						
Estrogen replacement	35	1.9%	77	1.4%	0.557	0.044
H2-antagonist	126	6.9%	405	7.1%	-0.236	-0.009
NSAIDs	312	17.0%	944	16.6%	0.448	0.012
Proton pump inhibitors	718	39.1%	2,323	40.8%	-1.612	-0.033
SSRI antidepressants	374	20.4%	1,151	20.2%	0.196	0.005
Insulin	315	17.2%	1,233	21.6%	-4.460	-0.113
Metformin (Biguanide)	417	22.7%	1,330	23.3%	-0.600	-0.014
Sulfonylureas	183	10.0%	579	10.2%	-0.181	-0.006
Other diabetes medications	223	12.2%	870	15.3%	-3.107	-0.090
ACEI/ARB	1,258	68.6%	3,752	65.8%	2.757	0.059
Antiarrhythmics	500	27.3%	1,637	28.7%	-1.462	-0.033
Anti-coagulant (injectable)	222	12.1%	831	14.6%	-2.477	-0.073

Table 1ac. Aggregated Unadjusted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 3+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Anti-platelets	340	18.5%	1,286	22.6%	-4.027	-0.100
Beta-blockers	1,462	79.7%	4,646	81.5%	-1.807	-0.046
Calcium channel blockers	808	44.1%	2,661	46.7%	-2.636	-0.053
Digoxin	187	10.2%	456	8.0%	2.195	0.076
Diuretics (loop)	682	37.2%	2,585	45.4%	-8.172	-0.167
Diuretics (potassium sparing)	288	15.7%	1,026	18.0%	-2.300	-0.061
Diuretics (thiazide)	473	25.8%	1,476	25.9%	-0.109	-0.002
Nitrates	185	10.1%	772	13.5%	-3.459	-0.107
Statins	1,028	56.1%	3,535	62.0%	-5.976	-0.122
Fibrates	111	6.1%	371	6.5%	-0.458	-0.019
Amiodarone	286	15.6%	1,079	18.9%	-3.339	-0.088
Dronedarone	28	1.5%	59	1.0%	0.491	0.044
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	1,104	60.2%	3,107	54.5%	5.678	0.115
No ED encounters (past 31-183 days)	1,070	58.3%	3,241	56.9%	1.473	0.030
At least 1 ED encounter (past 0-30 days)	730	39.8%	2,592	45.5%	-5.678	-0.115
At least 2 ED encounters (past 0-30 days)	264	14.4%	902	15.8%	-1.433	-0.040
At least 1 ED encounter (past 31-183 days)	764	41.7%	2,458	43.1%	-1.473	-0.030
At least 2 ED encounters (past 31-183 days)	381	20.8%	1,244	21.8%	-1.054	-0.026

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 1ad. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 3+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Weighted patients	1,854	N/A	5,598	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	58.2	5.9	58.2	6.0	-0.018	-0.003
Age						
21-49 years	174	9.4%	550	9.8%	-0.452	-0.015
50-64 years	1,681	90.6%	5,048	90.2%	0.452	0.015
Sex						
Female	516	27.8%	1,602	28.6%	-0.777	-0.017
Male	1,338	72.2%	3,996	71.4%	0.777	0.017
Race ³						
American Indian or Alaska Native	0	0.0%	6	0.1%	-	-
Asian	0	0.0%	13	0.2%	-	-
Black or African American	109	5.9%	464	8.3%	-2.408	-0.100
Native Hawaiian or Other Pacific Islander	4	0.2%	z	0.2%	0.002	0.000
Unknown	1,287	69.4%	3,618	64.6%	4.762	0.178
White	447	24.1%	1,466	26.2%	-2.074	-0.065
Hispanic origin						
Yes	13	0.7%	47	0.8%	-0.129	-0.015
No	433	23.4%	1,536	27.4%	-4.075	-0.229
Unknown	1,408	75.9%	4,016	71.7%	4.205	0.233
Year						
2010	0	0.0%	0	0.0%	NaN	NaN
2011	1	0.0%	0	0.0%	NaN	NaN
2012	36	1.9%	0	0.0%	NaN	NaN
2013	116	6.3%	43	0.8%	5.506	0.301
2014	159	8.6%	114	2.0%	6.531	0.294
2015	132	7.1%	276	4.9%	2.208	0.093
2016	200	10.8%	443	7.9%	2.874	0.099
2017	270	14.6%	585	10.5%	4.115	0.125
2018	232	12.5%	746	13.3%	-0.811	-0.024
2019	238	12.9%	984	17.6%	-4.715	-0.132
2020	202	10.9%	1,071	19.1%	-8.256	-0.233
2021	226	12.2%	1,166	20.8%	-8.651	-0.235
2022	42	2.3%	169	3.0%	-0.766	-0.048
CHADSVASC						
mean, std	3.0	1.3	3.0	1.3	-0.019	-0.014
0	3	0.2%	10	0.2%	-0.001	-0.000
1	263	14.2%	754	13.5%	0.707	0.021
2	458	24.7%	1,392	24.9%	-0.149	-0.003

Table 1ad. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 3+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
3	484	26.1%	1,479	26.4%	-0.328	-0.007
4	421	22.7%	1,268	22.6%	0.073	0.002
>= 5	225	12.1%	695	12.4%	-0.302	-0.009
HASBLED						
mean, std	3.1	0.3	3.1	0.3	-0.028	-0.091
0	0	0.0%	0	0.0%	-	-
1	0	0.0%	0	0.0%	-	-
2	0	0.0%	0	0.0%	-	-
>= 3	1,854	100.0%	5,598	100.0%	0.000	-
Health Characteristics						
Diabetes	976	52.6%	2,963	52.9%	-0.294	-0.006
Hypercholesterolemia	684	36.9%	2,064	36.9%	0.035	0.001
Hypertension	1,844	99.4%	5,564	99.4%	0.019	0.002
Kidney failure (chronic)	957	51.6%	2,914	52.1%	-0.440	-0.009
Kidney failure (acute)	713	38.4%	2,143	38.3%	0.175	0.004
Obesity	974	52.5%	2,967	53.0%	-0.500	-0.010
Peptic ulcer disease	46	2.5%	151	2.7%	-0.222	-0.014
Nicotine dependency	816	44.0%	2,497	44.6%	-0.622	-0.013
Hospitalized AMI (past 0-30 days)	92	5.0%	263	4.7%	0.261	0.012
Hospitalized AMI (past 31-183 days)	89	4.8%	255	4.6%	0.247	0.012
Coronary revascularization	355	19.1%	1,041	18.6%	0.551	0.014
Hospitalized heart failure	782	42.2%	2,348	41.9%	0.232	0.005
Outpatient heart failure	660	35.6%	2,007	35.9%	-0.267	-0.006
Other ischemic heart disease	867	46.8%	2,636	47.1%	-0.332	-0.007
Hospitalized stroke (past 0-30 days)	117	6.3%	390	7.0%	-0.646	-0.026
Hospitalized stroke (past 31-183 days)	104	5.6%	314	5.6%	0.011	0.000
Transient ischemic attack	141	7.6%	428	7.7%	-0.030	-0.001
Other medical conditions (falls, fractures, syncope, walker use)	721	38.9%	2,211	39.5%	-0.584	-0.012
Cardioversion	279	15.1%	830	14.8%	0.242	0.007
Cardioablation	72	3.9%	220	3.9%	-0.039	-0.002
Hospitalized for bleeding	70	3.8%	207	3.7%	0.075	0.004
Medical Product Use						
Estrogen replacement	24	1.3%	83	1.5%	-0.159	-0.014
H2-antagonist	132	7.1%	399	7.1%	-0.023	-0.001
NSAIDs	309	16.7%	944	16.9%	-0.205	-0.005
Proton pump inhibitors	768	41.4%	2,276	40.7%	0.750	0.015
SSRI antidepressants	386	20.8%	1,139	20.4%	0.459	0.011
Insulin	386	20.8%	1,148	20.5%	0.322	0.008
Metformin (Biguanide)	443	23.9%	1,306	23.3%	0.552	0.013
Sulfonylureas	179	9.6%	549	9.8%	-0.150	-0.005

Table 1ad. Aggregated Weighted Characteristics of Rivaroxaban and Apixaban Users, Truncation Weight = 0%, ATES Weights (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect, Stabilized (ATES), Truncation: 0%) in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, HASBLED: 3+

Patient Characteristics	Medical Product				Covariate Balance	
	Rivaroxaban Users		Apixaban Users		Absolute Difference	Standardized Difference
	Number/ Mean	Percent/ Standard Deviation ^{1,2}	Number/ Mean	Percent/ Standard Deviation ^{1,2}		
Other diabetes medications	262	14.1%	799	14.3%	-0.154	-0.004
ACEI/ARB	1,241	66.9%	3,746	66.9%	-0.008	-0.000
Antiarrhythmics	523	28.2%	1,578	28.2%	-0.011	-0.000
Anti-coagulant (injectable)	264	14.2%	774	13.8%	0.430	0.013
Anti-platelets	417	22.5%	1,199	21.4%	1.076	0.026
Beta-blockers	1,498	80.8%	4,534	81.0%	-0.223	-0.006
Calcium channel blockers	866	46.7%	2,574	46.0%	0.743	0.015
Digoxin	155	8.4%	487	8.7%	-0.332	-0.012
Diuretics (loop)	811	43.7%	2,420	43.2%	0.483	0.010
Diuretics (potassium sparing)	319	17.2%	977	17.4%	-0.245	-0.006
Diuretics (thiazide)	479	25.8%	1,447	25.9%	-0.018	-0.000
Nitrates	249	13.4%	699	12.5%	0.949	0.028
Statins	1,146	61.8%	3,396	60.7%	1.119	0.023
Fibrates	124	6.7%	357	6.4%	0.307	0.012
Amiodarone	336	18.1%	1,006	18.0%	0.130	0.003
Dronedarone	18	1.0%	64	1.1%	-0.157	-0.015
Health Service Utilization Intensity Metrics						
No ED encounters (past 0-30 days)	1,079	58.2%	3,139	56.1%	2.112	0.048
No ED encounters (past 31-183 days)	1,073	57.9%	3,192	57.0%	0.858	0.018
At least 1 ED encounter (past 0-30 days)	775	41.8%	2,459	43.9%	-2.112	-0.048
At least 2 ED encounters (past 0-30 days)	269	14.5%	869	15.5%	-0.989	-0.029
At least 1 ED encounter (past 31-183 days)	781	42.1%	2,406	43.0%	-0.858	-0.018
At least 2 ED encounters (past 31-183 days)	375	20.2%	1,208	21.6%	-1.364	-0.035

¹Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted population. Treated patients are weighted by the proportion of treated patients in the trimmed population divided by the inverse of their propensity score (PS). Reference patients are weighted by 1 minus the proportion of treated patients in the trimmed population divided by 1 minus their PS.

²Value represents standard deviation where no % follows the value.

³Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

**AMI - acute myocardial infarction; NSAIDs - non-steroidal anti-inflammatory drugs; ACEI - angiotensin converting enzyme inhibitor; ARB - angiotensin receptor blocker; ED - emergency department; SSRI - selective serotonin reuptake inhibitor

*Data presented by a dash, asterisk, or period represents missing information. This table may not use all data representations.

Table 2a. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Site-Adjusted Analysis, Unweighted											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	67	3.49	1.16	-0.66	-0.23	0.84 (0.63, 1.13)	0.257
Apixaban Users	96,057	32,036.33	121.82	0.33	133	4.15	1.38				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	67	3.49	1.16	-0.66	-0.23	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	133	4.15	1.39				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	78	4.06	1.35	0.18	0.06	1.05 (0.77, 1.44)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	124	3.88	1.29				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 2b. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Age Group

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	67	3.49	1.16	-0.66	-0.23	0.84 (0.63, 1.13)	0.257
Apixaban Users	96,057	32,036.33	121.82	0.33	133	4.15	1.38				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	67	3.49	1.16	-0.66	-0.23	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	133	4.15	1.39				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	78	4.06	1.35	0.18	0.06	1.05 (0.77, 1.44)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	124	3.88	1.29				
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights, Age Group: 21-49 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	9,854	2,411.74	89.39	0.24	7	2.90	0.71	-0.65	-0.19	0.80 (0.32, 2.01)	0.636
Apixaban Users	14,408	3,660.19	92.79	0.25	13	3.55	0.90				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	9,835	2,408.70	z	0.24	7	2.91	0.71	-0.66	-0.20	N/A	N/A
Apixaban Users	14,330	3,642.05	92.83	0.25	13	3.57	0.91				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	9,867	2,433.06	90.07	0.25	8	3.15	0.78	-0.10	-0.04	0.96 (0.37, 2.49)	N/A
Apixaban Users	14,333	3,612.34	92.05	0.25	12	3.25	0.82				
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights, Age Group: 50-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	48,071	16,770.86	127.43	0.35	60	3.58	1.25	-0.65	-0.22	0.85 (0.63, 1.16)	0.317
Apixaban Users	81,610	28,367.38	126.96	0.35	120	4.23	1.47				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	48,066	16,769.60	127.43	0.35	60	3.58	1.25	-0.65	-0.22	N/A	N/A

Table 2b. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Age Group

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	81,600	28,365.64	126.97	0.35	120	4.23	1.47	0.05	0.22	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	48,105	16,740.34	127.11	0.35	70	4.20	1.46	0.21	0.08	1.06 (0.77, 1.48)	N/A
Apixaban Users	81,592	28,316.70	126.76	0.35	113	3.99	1.39				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 2c. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Thromboembolic Stroke, Truncation Weight = 0, ATEs Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	67	3.49	1.16	-0.66	-0.23	0.84 (0.63, 1.13)	0.257
Apixaban Users	96,057	32,036.33	121.82	0.33	133	4.15	1.38				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	67	3.49	1.16	-0.66	-0.23	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	133	4.15	1.39				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	78	4.06	1.35	0.18	0.06	1.05 (0.77, 1.44)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	124	3.88	1.29				
Thromboembolic Stroke, Truncation Weight = 0, ATEs Weights, CHADSVASC: 0											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	10,764	2,783.19	94.44	0.26	7	2.52	0.65	0.56	0.15	1.27 (0.45, 3.63)	0.651
Apixaban Users	13,941	3,575.00	93.66	0.26	7	1.96	0.50				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	10,734	2,772.23	z	0.26	7	2.53	0.65	0.56	0.15	N/A	N/A
Apixaban Users	13,893	3,567.06	93.78	0.26	7	1.96	0.50				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	10,752	2,800.77	95.14	0.26	7	2.56	0.67	0.57	0.16	1.29 (0.45, 3.67)	N/A
Apixaban Users	13,893	3,553.03	93.41	0.26	7	1.99	0.51				
Thromboembolic Stroke, Truncation Weight = 0, ATEs Weights, CHADSVASC: 1											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	20,330	6,662.97	119.71	0.33	12	1.80	0.59	-0.22	-0.07	0.89 (0.43, 1.81)	0.739
Apixaban Users	30,084	9,885.18	120.02	0.33	20	2.02	0.66				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	20,319	6,660.05	119.72	0.33	12	1.80	0.59	-0.17	-0.04	N/A	N/A

Table 2c. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	30,050	9,876.57	120.05	0.33	19	1.92	0.63	-0.12	-0.04	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	20,326	6,673.78	119.93	0.33	12	1.87	0.61	-0.04	-0.01	0.97 (0.47, 2.02)	N/A
Apixaban Users	30,059	9,862.59	119.84	0.33	19	1.91	0.63				
Thromboembolic Stroke, Truncation Weight = 0, ATEs Weights, CHADSVASC: 2											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	15,195	5,665.08	136.17	0.37	18	3.18	1.18	-0.28	-0.10	0.92 (0.52, 1.64)	0.779
Apixaban Users	25,641	9,548.39	136.01	0.37	33	3.46	1.29				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	15,184	5,662.43	136.21	0.37	18	3.18	1.19	-0.28	-0.10	N/A	N/A
Apixaban Users	25,603	9,539.34	136.09	0.37	33	3.46	1.29				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	15,201	5,650.62	135.77	0.37	19	3.32	1.23	-0.20	-0.08	0.95 (0.52, 1.71)	N/A
Apixaban Users	25,606	9,539.54	136.07	0.37	34	3.51	1.31				
Thromboembolic Stroke, Truncation Weight = 0, ATEs Weights, CHADSVASC: 3											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	7,610	2,756.78	132.31	0.36	12	4.35	1.58	-0.74	-0.24	0.87 (0.44, 1.72)	0.691
Apixaban Users	15,444	5,502.67	130.14	0.36	28	5.09	1.81				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	7,584	2,746.80	132.29	0.36	12	4.37	1.58	-0.73	-0.24	N/A	N/A
Apixaban Users	15,407	5,496.85	130.31	0.36	28	5.09	1.82				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	7,597	2,692.02	129.42	0.35	12	4.35	1.54	-0.55	-0.21	0.89 (0.43, 1.81)	N/A
Apixaban Users	15,417	5,522.77	130.85	0.36	27	4.90	1.76				
Thromboembolic Stroke, Truncation Weight = 0, ATEs Weights, CHADSVASC: 4											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	3,118	1,057.04	123.82	0.34	11	10.41	3.53	2.45	0.91	1.26 (0.61, 2.62)	0.537
Apixaban Users	8,033	2,638.99	119.99	0.33	21	7.96	2.61				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	3,109	1,055.18	123.96	0.34	11	10.42	3.54	2.42	0.89	N/A	N/A
Apixaban Users	7,936	2,624.90	120.81	0.33	21	8.00	2.65				

Table 2c. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average		Number of Events	Incidence		Incidence Rate		Risk		Wald P-Value
			Person-Days at Risk	Average Person-Years at Risk		Rate per 1,000 Person-Years	Risk per 1,000 New Users	Difference per 1,000 Person-Years	Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)		
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>												
Rivaroxaban Users	3,130	1,051.63	122.71	0.34	13	12.62	4.24	4.57	1.57	1.50 (0.69, 3.27)	N/A	
Apixaban Users	7,935	2,632.88	121.19	0.33	21	8.05	2.67					
Thromboembolic Stroke, Truncation Weight = 0, ATEs Weights, CHADSVASC: 5+												
<i>Site-Adjusted Analysis, Unweighted</i>												
Rivaroxaban Users	908	257.54	103.60	0.28	7	27.18	7.71	-0.18	-0.64	0.92 (0.39, 2.13)	0.841	
Apixaban Users	2,875	877.34	111.46	0.31	24	27.36	8.35					
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>												
Rivaroxaban Users	894	255.56	104.41	0.29	7	27.39	7.83	-0.50	-0.82	N/A	N/A	
Apixaban Users	2,659	824.58	113.27	0.31	23	27.89	8.65					
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>												
Rivaroxaban Users	918	255.87	101.78	0.28	7	26.44	7.37	-1.38	-1.38	0.86 (0.36, 2.03)	N/A	
Apixaban Users	2,677	842.01	114.89	0.31	23	27.83	8.75					

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 2d. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	67	3.49	1.16	-0.66	-0.23	0.84 (0.63, 1.13)	0.257
Apixaban Users	96,057	32,036.33	121.82	0.33	133	4.15	1.38				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	67	3.49	1.16	-0.66	-0.23	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	133	4.15	1.39				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	78	4.06	1.35	0.18	0.06	1.05 (0.77, 1.44)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	124	3.88	1.29				
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights, HASBLED: 0											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	15,504	4,312.02	101.58	0.28	13	3.01	0.84	0.95	0.24	1.42 (0.66, 3.07)	0.371
Apixaban Users	21,701	6,284.79	105.78	0.29	13	2.07	0.60				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	15,495	4,310.15	z	0.28	13	3.02	0.84	0.94	0.24	N/A	N/A
Apixaban Users	21,658	6,275.66	105.84	0.29	13	2.07	0.60				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	15,510	4,372.35	102.97	0.28	14	3.18	0.90	1.20	0.33	1.59 (0.72, 3.51)	N/A
Apixaban Users	21,657	6,215.24	104.82	0.29	12	1.98	0.57				
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights, HASBLED: 1											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	32,496	11,645.84	130.90	0.36	28	2.40	0.86	-0.48	-0.17	0.84 (0.53, 1.32)	0.449
Apixaban Users	51,356	18,380.18	130.72	0.36	53	2.88	1.03				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	32,488	11,642.23	130.89	0.36	28	2.41	0.86	-0.48	-0.17	N/A	N/A

Table 2d. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	51,319	18,372.30	130.76	0.36	53	2.88	1.03	-0.48	-0.17	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	32,514	11,661.44	131.00	0.36	31	2.66	0.96	-0.11	-0.04	0.97 (0.59, 1.57)	N/A
Apixaban Users	51,315	18,312.13	130.34	0.36	51	2.78	0.99				
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights, HASBLED: 2											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	8,091	2,705.86	122.15	0.33	16	5.91	1.98	-2.75	-0.92	0.68 (0.39, 1.20)	0.183
Apixaban Users	17,262	5,771.69	122.12	0.33	50	8.66	2.90				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	8,073	2,702.16	122.25	0.33	16	5.92	1.98	-2.77	-0.93	N/A	N/A
Apixaban Users	17,166	5,750.40	122.35	0.33	50	8.70	2.91				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	8,101	2,700.17	121.75	0.33	17	6.14	2.05	-2.22	-0.76	0.73 (0.41, 1.32)	N/A
Apixaban Users	17,171	5,754.78	122.41	0.34	48	8.36	2.80				
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights, HASBLED: 3+											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	1,834	518.87	103.34	0.28	10	19.27	5.45	8.59	2.47	1.86 (0.85, 4.07)	0.121
Apixaban Users	5,699	1,590.91	101.96	0.28	17	10.69	2.98				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	1,824	516.62	103.45	0.28	10	19.36	5.48	8.54	2.44	N/A	N/A
Apixaban Users	5,588	1,571.27	102.70	0.28	17	10.82	3.04				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	1,854	503.93	99.26	0.27	8	16.62	4.52	5.62	1.42	1.53 (0.67, 3.49)	N/A
Apixaban Users	5,598	1,577.47	102.92	0.28	17	11.00	3.10				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

Table 2e. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Sex

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	67	3.49	1.16	-0.66	-0.23	0.84 (0.63, 1.13)	0.257
Apixaban Users	96,057	32,036.33	121.82	0.33	133	4.15	1.38				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	67	3.49	1.16	-0.66	-0.23	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	133	4.15	1.39				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	78	4.06	1.35	0.18	0.06	1.05 (0.77, 1.44)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	124	3.88	1.29				
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	14,857	5,257.64	129.26	0.35	18	3.42	1.21	-0.62	-0.24	0.86 (0.50, 1.50)	0.605
Apixaban Users	28,303	10,129.14	130.72	0.36	41	4.05	1.45				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	14,847	5,254.57	z	0.35	18	3.43	1.21	-0.63	-0.24	N/A	N/A
Apixaban Users	28,247	10,118.61	130.84	0.36	41	4.05	1.45				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	14,866	5,239.98	128.75	0.35	21	4.01	1.41	0.13	0.02	1.05 (0.59, 1.87)	N/A
Apixaban Users	28,247	10,135.13	131.05	0.36	39	3.87	1.39				
Thromboembolic Stroke, Truncation Weight = 0, ATES Weights, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	43,068	13,924.96	118.09	0.32	49	3.52	1.14	-0.68	-0.22	0.84 (0.59, 1.19)	0.325
Apixaban Users	67,715	21,898.43	118.12	0.32	92	4.20	1.36				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	43,064	13,924.60	118.10	0.32	49	3.52	1.14	-0.68	-0.22	N/A	N/A

Table 2e. Effect Estimates for Thromboembolic Stroke, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Sex

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	67,682	21,891.11	118.14	0.32	92	4.20	1.36	0.00	0.22	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	43,110	13,957.08	118.25	0.32	58	4.16	1.35	0.29	0.10	1.09 (0.75, 1.58)	N/A
Apixaban Users	67,675	21,791.30	117.61	0.32	84	3.87	1.25				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 3a. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Site-Adjusted Analysis, Unweighted											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	192	10.01	3.31	3.11	1.01	1.51 (1.24, 1.83)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	221	6.90	2.30				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	192	10.01	3.31	3.11	1.01	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	221	6.90	2.30				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	224	11.64	3.86	5.24	1.74	1.91 (1.56, 2.34)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	204	6.41	2.13				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 3b. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Age Group

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	192	10.01	3.31	3.11	1.01	1.51 (1.24, 1.83)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	221	6.90	2.30				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	192	10.01	3.31	3.11	1.01	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	221	6.90	2.30				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	224	11.64	3.86	5.24	1.74	1.91 (1.56, 2.34)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	204	6.41	2.13				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, Age Group: 21-49 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	9,854	2,411.74	89.39	0.24	14	5.80	1.42	1.98	0.45	1.60 (0.76, 3.36)	0.219
Apixaban Users	14,408	3,660.19	92.79	0.25	14	3.82	0.97				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	9,835	2,408.70	z	0.24	14	5.81	1.42	2.24	0.52	N/A	N/A
Apixaban Users	14,330	3,642.05	92.83	0.25	13	3.57	0.91				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	9,867	2,433.06	90.07	0.25	15	5.96	1.47	2.52	0.60	1.83 (0.86, 3.91)	N/A
Apixaban Users	14,333	3,612.34	92.05	0.25	12	3.45	0.87				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, Age Group: 50-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	48,071	16,770.86	127.43	0.35	178	10.61	3.70	3.32	1.17	1.52 (1.24, 1.86)	<0.001
Apixaban Users	81,610	28,367.38	126.96	0.35	207	7.30	2.54				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	48,066	16,769.60	127.43	0.35	178	10.61	3.70	3.35	1.18	N/A	N/A

Table 3b. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Age Group

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	81,600	28,365.64	126.97	0.35	206	7.26	2.52	3.33	1.18	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	48,105	16,740.34	127.11	0.35	208	12.42	4.32	5.64	1.97	1.93 (1.56, 2.37)	N/A
Apixaban Users	81,592	28,316.70	126.76	0.35	192	6.78	2.35				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 3c. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	192	10.01	3.31	3.11	1.01	1.51 (1.24, 1.83)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	221	6.90	2.30				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	192	10.01	3.31	3.11	1.01	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	221	6.90	2.30				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	224	11.64	3.86	5.24	1.74	1.91 (1.56, 2.34)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	204	6.41	2.13				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, CHADSVASC: 0											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	10,764	2,783.19	94.44	0.26	10	3.59	0.93	0.80	0.21	1.27 (0.53, 3.05)	0.599
Apixaban Users	13,941	3,575.00	93.66	0.26	10	2.80	0.72				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	10,734	2,772.23	z	0.26	10	3.61	0.93	0.80	0.21	N/A	N/A
Apixaban Users	13,893	3,567.06	93.78	0.26	10	2.80	0.72				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	10,752	2,800.77	95.14	0.26	11	4.10	1.07	1.01	0.28	1.31 (0.54, 3.15)	N/A
Apixaban Users	13,893	3,553.03	93.41	0.26	11	3.10	0.79				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, CHADSVASC: 1											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	20,330	6,662.97	119.71	0.33	46	6.90	2.26	2.55	0.83	1.61 (1.06, 2.45)	0.024
Apixaban Users	30,084	9,885.18	120.02	0.33	43	4.35	1.43				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	20,319	6,660.05	119.72	0.33	46	6.91	2.26	2.55	0.83	N/A	N/A

Table 3c. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	30,050	9,876.57	120.05	0.33	43	4.35	1.43	2.92	0.63	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	20,326	6,673.78	119.93	0.33	45	6.75	2.22	2.62	0.86	1.66 (1.09, 2.53)	N/A
Apixaban Users	30,059	9,862.59	119.84	0.33	41	4.14	1.36				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, CHADSVASC: 2											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	15,195	5,665.08	136.17	0.37	53	9.36	3.49	1.61	0.60	1.23 (0.86, 1.75)	0.252
Apixaban Users	25,641	9,548.39	136.01	0.37	74	7.75	2.89				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	15,184	5,662.43	136.21	0.37	53	9.36	3.49	1.60	0.60	N/A	N/A
Apixaban Users	25,603	9,539.34	136.09	0.37	74	7.76	2.89				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	15,201	5,650.62	135.77	0.37	58	10.21	3.79	2.82	1.04	1.41 (0.98, 2.02)	N/A
Apixaban Users	25,606	9,539.54	136.07	0.37	71	7.39	2.75				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, CHADSVASC: 3											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	7,610	2,756.78	132.31	0.36	44	15.96	5.78	9.24	3.39	2.35 (1.51, 3.65)	<0.001
Apixaban Users	15,444	5,502.67	130.14	0.36	37	6.72	2.40				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	7,584	2,746.80	132.29	0.36	44	16.02	5.80	9.29	3.40	N/A	N/A
Apixaban Users	15,407	5,496.85	130.31	0.36	37	6.73	2.40				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	7,597	2,692.02	129.42	0.35	47	17.38	6.16	11.02	3.88	2.72 (1.73, 4.28)	N/A
Apixaban Users	15,417	5,522.77	130.85	0.36	35	6.36	2.28				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, CHADSVASC: 4											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	3,118	1,057.04	123.82	0.34	31	29.33	9.94	15.31	5.34	2.21 (1.37, 3.57)	0.001
Apixaban Users	8,033	2,638.99	119.99	0.33	37	14.02	4.61				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	3,109	1,055.18	123.96	0.34	31	29.38	9.97	15.78	5.21	N/A	N/A

Table 3c. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	7,936	2,624.90	120.81	0.33	37	14.10	4.66	15.28	5.51	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	3,130	1,051.63	122.71	0.34	34	32.19	10.81	18.63	6.32	2.53 (1.54, 4.18)	N/A
Apixaban Users	7,935	2,632.88	121.19	0.33	36	13.55	4.50				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, CHADSVASC: 5+											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	908	257.54	103.60	0.28	8	31.06	8.81	8.27	1.85	1.41 (0.62, 3.21)	0.413
Apixaban Users	2,875	877.34	111.46	0.31	20	22.80	6.96				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	894	255.56	104.41	0.29	8	31.30	8.95	9.47	2.18	N/A	N/A
Apixaban Users	2,659	824.58	113.27	0.31	18	21.83	6.77				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	918	255.87	101.78	0.28	8	30.25	8.43	9.75	1.98	1.53 (0.65, 3.62)	N/A
Apixaban Users	2,677	842.01	114.89	0.31	17	20.50	6.45				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

Table 3d. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	192	10.01	3.31	3.11	1.01	1.51 (1.24, 1.83)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	221	6.90	2.30				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	192	10.01	3.31	3.11	1.01	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	221	6.90	2.30				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	224	11.64	3.86	5.24	1.74	1.91 (1.56, 2.34)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	204	6.41	2.13				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, HASBLED: 0											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	15,504	4,312.02	101.58	0.28	18	4.17	1.16	1.31	0.33	1.46 (0.76, 2.80)	0.26
Apixaban Users	21,701	6,284.79	105.78	0.29	18	2.86	0.83				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	15,495	4,310.15	z	0.28	18	4.18	1.16	1.31	0.33	N/A	N/A
Apixaban Users	21,658	6,275.66	105.84	0.29	18	2.87	0.83				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	15,510	4,372.35	102.97	0.28	19	4.38	1.23	1.54	0.42	1.53 (0.80, 2.95)	N/A
Apixaban Users	21,657	6,215.24	104.82	0.29	18	2.84	0.82				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, HASBLED: 1											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	32,496	11,645.84	130.90	0.36	103	8.84	3.17	4.00	1.44	1.87 (1.40, 2.48)	<0.001
Apixaban Users	51,356	18,380.18	130.72	0.36	89	4.84	1.73				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	32,488	11,642.23	130.89	0.36	103	8.85	3.17	4.06	1.46	N/A	N/A

Table 3d. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	51,319	18,372.30	130.76	0.36	88	4.79	1.71	4.00	1.40	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	32,514	11,661.44	131.00	0.36	114	9.78	3.51	5.21	1.88	2.18 (1.63, 2.92)	N/A
Apixaban Users	51,315	18,312.13	130.34	0.36	84	4.57	1.63				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, HASBLED: 2											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	8,091	2,705.86	122.15	0.33	48	17.74	5.93	5.78	1.94	1.54 (1.06, 2.22)	0.022
Apixaban Users	17,262	5,771.69	122.12	0.33	69	11.95	4.00				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	8,073	2,702.16	122.25	0.33	48	17.76	5.95	5.76	1.93	N/A	N/A
Apixaban Users	17,166	5,750.40	122.35	0.33	69	12.00	4.02				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	8,101	2,700.17	121.75	0.33	54	19.86	6.62	8.14	2.69	1.76 (1.21, 2.58)	N/A
Apixaban Users	17,171	5,754.78	122.41	0.34	67	11.73	3.93				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, HASBLED: 3+											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	1,834	518.87	103.34	0.28	23	44.33	12.54	16.04	4.64	1.64 (0.99, 2.72)	0.053
Apixaban Users	5,699	1,590.91	101.96	0.28	45	28.29	7.90				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	1,824	516.62	103.45	0.28	23	44.52	12.61	16.52	4.74	N/A	N/A
Apixaban Users	5,588	1,571.27	102.70	0.28	44	28.00	7.87				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	1,854	503.93	99.26	0.27	26	51.19	13.91	24.34	6.34	1.97 (1.12, 3.49)	N/A
Apixaban Users	5,598	1,577.47	102.92	0.28	42	26.86	7.57				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

Table 3e. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Sex

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	192	10.01	3.31	3.11	1.01	1.51 (1.24, 1.83)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	221	6.90	2.30				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	192	10.01	3.31	3.11	1.01	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	221	6.90	2.30				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	224	11.64	3.86	5.24	1.74	1.91 (1.56, 2.34)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	204	6.41	2.13				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	14,857	5,257.64	129.26	0.35	68	12.93	4.58	4.25	1.47	1.53 (1.11, 2.10)	0.009
Apixaban Users	28,303	10,129.14	130.72	0.36	88	8.69	3.11				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	14,847	5,254.57	z	0.35	68	12.94	4.58	4.34	1.50	N/A	N/A
Apixaban Users	28,247	10,118.61	130.84	0.36	87	8.60	3.08				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	14,866	5,239.98	128.75	0.35	76	14.45	5.09	6.45	2.22	1.88 (1.34, 2.63)	N/A
Apixaban Users	28,247	10,135.13	131.05	0.36	81	8.00	2.87				
Major Extracranial Bleeding, Truncation Weight = 0, ATES Weights, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	43,068	13,924.96	118.09	0.32	124	8.90	2.88	2.83	0.92	1.53 (1.19, 1.95)	<0.001
Apixaban Users	67,715	21,898.43	118.12	0.32	133	6.07	1.96				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	43,064	13,924.60	118.10	0.32	124	8.91	2.88	2.82	0.91	N/A	N/A

Table 3e. Effect Estimates for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Sex

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	67,682	21,891.11	118.14	0.32	133	6.08	1.97	2.63	0.91	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	43,110	13,957.08	118.25	0.32	148	10.57	3.42	4.88	1.59	1.95 (1.51, 2.51)	N/A
Apixaban Users	67,675	21,791.30	117.61	0.32	124	5.70	1.83				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

Table 4a. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Site-Adjusted Analysis, Unweighted											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	162	8.44	2.80	2.61	0.85	1.50 (1.22, 1.86)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	187	5.84	1.95				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	162	8.45	2.80	2.61	0.85	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	187	5.84	1.95				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	191	9.95	3.30	4.51	1.49	1.92 (1.54, 2.39)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	174	5.44	1.81				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 4b. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Age Group

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	162	8.44	2.80	2.61	0.85	1.50 (1.22, 1.86)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	187	5.84	1.95				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	162	8.45	2.80	2.61	0.85	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	187	5.84	1.95				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	191	9.95	3.30	4.51	1.49	1.92 (1.54, 2.39)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	174	5.44	1.81				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, Age Group: 21-49 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	9,854	2,411.74	89.39	0.24	7	2.90	0.71	1.26	0.29	1.84 (0.62, 5.48)	0.275
Apixaban Users	14,408	3,660.19	92.79	0.25	6	1.64	0.42				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	9,835	2,408.70	z	0.24	7	2.91	0.71	1.53	0.36	N/A	N/A
Apixaban Users	14,330	3,642.05	92.83	0.25	5	1.37	0.35				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	9,867	2,433.06	90.07	0.25	6	2.60	0.64	1.25	0.30	2.01 (0.65, 6.22)	N/A
Apixaban Users	14,333	3,612.34	92.05	0.25	5	1.35	0.34				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, Age Group: 50-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	48,071	16,770.86	127.43	0.35	155	9.24	3.22	2.86	1.01	1.51 (1.22, 1.87)	<0.001
Apixaban Users	81,610	28,367.38	126.96	0.35	181	6.38	2.22				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	48,066	16,769.60	127.43	0.35	155	9.24	3.22	2.86	1.01	N/A	N/A

Table 4b. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Age Group

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
								Difference per 1,000 Person-Years	Difference per 1,000 New Users		
Apixaban Users	81,600	28,365.64	126.97	0.35	180	6.35	2.21	2.50	1.02	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	48,105	16,740.34	127.11	0.35	183	10.94	3.81	4.99	1.74	1.93 (1.54, 2.42)	N/A
Apixaban Users	81,592	28,316.70	126.76	0.35	169	5.95	2.07				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 4c. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	162	8.44	2.80	2.61	0.85	1.50 (1.22, 1.86)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	187	5.84	1.95				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	162	8.45	2.80	2.61	0.85	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	187	5.84	1.95				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	191	9.95	3.30	4.51	1.49	1.92 (1.54, 2.39)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	174	5.44	1.81				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 0											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	10,764	2,783.19	94.44	0.26	9	3.23	0.84	0.72	0.19	1.27 (0.50, 3.20)	0.614
Apixaban Users	13,941	3,575.00	93.66	0.26	9	2.52	0.65				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	10,734	2,772.23	z	0.26	9	3.25	0.84	0.72	0.19	N/A	N/A
Apixaban Users	13,893	3,567.06	93.78	0.26	9	2.52	0.65				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	10,752	2,800.77	95.14	0.26	10	3.69	0.96	0.90	0.25	1.31 (0.52, 3.30)	N/A
Apixaban Users	13,893	3,553.03	93.41	0.26	10	2.79	0.71				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 1											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	20,330	6,662.97	119.71	0.33	37	5.55	1.82	1.81	0.59	1.50 (0.95, 2.37)	0.081
Apixaban Users	30,084	9,885.18	120.02	0.33	37	3.74	1.23				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	20,319	6,660.05	119.72	0.33	37	5.56	1.82	1.81	0.59	N/A	N/A

Table 4c. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	30,050	9,876.57	120.05	0.33	37	3.75	1.23	1.81	0.55	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	20,326	6,673.78	119.93	0.33	36	5.41	1.78	1.92	0.63	1.57 (0.99, 2.49)	N/A
Apixaban Users	30,059	9,862.59	119.84	0.33	34	3.49	1.15				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 2											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	15195	5,665.08	136.17	0.37	45	7.94	2.96	1.55	0.58	1.27 (0.86, 1.86)	0.231
Apixaban Users	25641	9,548.39	136.01	0.37	61	6.39	2.38				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	15184	5,662.43	136.21	0.37	45	7.95	2.96	1.55	0.58	N/A	N/A
Apixaban Users	25603	9,539.34	136.09	0.37	61	6.39	2.38				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	15201.0507	5,650.62	135.77	0.37	49	8.60	3.20	2.46	0.91	1.43 (0.96, 2.13)	N/A
Apixaban Users	25606.4819	9,539.54	136.07	0.37	58	6.13	2.28				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 3											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	7610	2,756.78	132.31	0.36	36	13.06	4.73	7.61	2.79	2.34 (1.44, 3.82)	<0.001
Apixaban Users	15444	5,502.67	130.14	0.36	30	5.45	1.94				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	7584	2,746.80	132.29	0.36	36	13.11	4.75	7.65	2.80	N/A	N/A
Apixaban Users	15407	5,496.85	130.31	0.36	30	5.46	1.95				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	7597.3676	2,692.02	129.42	0.35	39	14.38	5.10	9.25	3.26	2.76 (1.67, 4.57)	N/A
Apixaban Users	15416.6304	5,522.77	130.85	0.36	28	5.13	1.84				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 4											
<i>Site-Adjusted Analysis, Unweighted</i>											

Table 4c. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Rivaroxaban Users	3118	1,057.04	123.82	0.34	27	25.54	8.66	13.42	4.68	2.23 (1.33, 3.72)	0.002
Apixaban Users	8033	2,638.99	119.99	0.33	32	12.13	3.98				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	3109	1,055.18	123.96	0.34	27	25.59	8.68	13.40	4.65	N/A	N/A
Apixaban Users	7936	2,624.90	120.81	0.33	32	12.19	4.03				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	3130.12868	1,051.63	122.71	0.34	30	28.34	9.52	16.70	5.66	2.61 (1.52, 4.47)	N/A
Apixaban Users	7935.24101	2,632.88	121.19	0.33	31	11.64	3.86				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 5+											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	908	257.54	103.60	0.28	8	31.06	8.81	10.55	2.55	1.55 (0.67, 3.59)	0.302
Apixaban Users	2875	877.34	111.46	0.31	18	20.52	6.26				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	894	255.56	104.41	0.29	8	31.30	8.95	13.11	3.31	N/A	N/A
Apixaban Users	2659	824.58	113.27	0.31	15	18.19	5.64				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	918.226237	255.87	101.78	0.28	8	30.25	8.43	13.02	3.01	1.82 (0.75, 4.42)	N/A
Apixaban Users	2676.78454	842.01	114.89	0.31	15	17.23	5.42				

¹All values in this section are weighted. ²ATEs = Average Treatment Effect, Stabilized.

Table 4d. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	162	8.44	2.80	2.61	0.85	1.50 (1.22, 1.86)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	187	5.84	1.95				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	162	8.45	2.80	2.61	0.85	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	187	5.84	1.95				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	191	9.95	3.30	4.51	1.49	1.92 (1.54, 2.39)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	174	5.44	1.81				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, HASBLED: 0											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	15,504	4,312.02	101.58	0.28	14	3.25	0.90	0.54	0.12	1.19 (0.59, 2.41)	0.632
Apixaban Users	21,701	6,284.79	105.78	0.29	17	2.70	0.78				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	15,495	4,310.15	z	0.28	14	3.25	0.90	0.54	0.12	N/A	N/A
Apixaban Users	21,658	6,275.66	105.84	0.29	17	2.71	0.78				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	15,510	4,372.35	102.97	0.28	15	3.36	0.95	0.65	0.17	1.22 (0.61, 2.48)	N/A
Apixaban Users	21,657	6,215.24	104.82	0.29	17	2.71	0.78				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, HASBLED: 1											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	32,496	11,645.84	130.90	0.36	89	7.64	2.74	3.51	1.26	1.88 (1.38, 2.56)	<0.001
Apixaban Users	51,356	18,380.18	130.72	0.36	76	4.13	1.48				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	32,488	11,642.23	130.89	0.36	89	7.64	2.74	3.56	1.28	N/A	N/A

Table 4d. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	51,319	18,372.30	130.76	0.36	75	4.08	1.46				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	32,514	11,661.44	131.00	0.36	101	8.64	3.10	4.72	1.70	2.24 (1.64, 3.07)	N/A
Apixaban Users	51,315	18,312.13	130.34	0.36	72	3.92	1.40				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, HASBLED: 2											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	8091	2,705.86	122.15	0.33	40	14.78	4.94	4.73	1.58	1.52 (1.02, 2.28)	0.041
Apixaban Users	17262	5,771.69	122.12	0.33	58	10.05	3.36				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	8073	2,702.16	122.25	0.33	40	14.80	4.95	4.72	1.58	N/A	N/A
Apixaban Users	17166	5,750.40	122.35	0.33	58	10.09	3.38				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	8100.56528	2,700.17	121.75	0.33	45	16.49	5.50	6.72	2.22	1.75 (1.16, 2.66)	N/A
Apixaban Users	17170.702	5,754.78	122.41	0.34	56	9.77	3.27				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, HASBLED: 3+											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	1834	518.87	103.34	0.28	19	36.62	10.36	13.99	4.04	1.70 (0.97, 2.96)	0.063
Apixaban Users	5699	1,590.91	101.96	0.28	36	22.63	6.32				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	1824	516.62	103.45	0.28	19	36.78	10.42	14.50	4.15	N/A	N/A
Apixaban Users	5588	1,571.27	102.70	0.28	35	22.27	6.26				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	1854.43352	503.93	99.26	0.27	20	39.42	10.71	18.18	4.73	1.93 (1.04, 3.59)	N/A
Apixaban Users	5598.01131	1,577.47	102.92	0.28	34	21.24	5.98				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 4e. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Sex

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	162	8.44	2.80	2.61	0.85	1.50 (1.22, 1.86)	<0.001
Apixaban Users	96,057	32,036.33	121.82	0.33	187	5.84	1.95				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	162	8.45	2.80	2.61	0.85	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	187	5.84	1.95				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	191	9.95	3.30	4.51	1.49	1.92 (1.54, 2.39)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	174	5.44	1.81				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	14,857	5,257.64	129.26	0.35	52	9.89	3.50	2.98	1.03	1.47 (1.03, 2.11)	0.036
Apixaban Users	28,303	10,129.14	130.72	0.36	70	6.91	2.47				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	14,847	5,254.57	z	0.35	52	9.90	3.50	2.98	1.02	N/A	N/A
Apixaban Users	28,247	10,118.61	130.84	0.36	70	6.92	2.48				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	14,866	5,239.98	128.75	0.35	60	11.43	4.03	5.05	1.74	1.87 (1.27, 2.75)	N/A
Apixaban Users	28,247	10,135.13	131.05	0.36	65	6.39	2.29				
Gastrointestinal Hemorrhage, Truncation Weight = 0, ATEs Weights, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	43,068	13,924.96	118.09	0.32	110	7.90	2.55	2.56	0.83	1.54 (1.18, 2.00)	0.001
Apixaban Users	67,715	21,898.43	118.12	0.32	117	5.34	1.73				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	43,064	13,924.60	118.10	0.32	110	7.90	2.55	2.56	0.83	N/A	N/A

Table 4e. Effect Estimates for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Sex

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	67,682	21,891.11	118.14	0.32	117	5.34	1.73	2.50	0.85	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	43,110	13,957.08	118.25	0.32	132	9.49	3.07	4.45	1.45	1.98 (1.51, 2.59)	N/A
Apixaban Users	67,675	21,791.30	117.61	0.32	110	5.04	1.62				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 5a. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Site-Adjusted Analysis, Unweighted											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	29	1.51	0.50	0.33	0.10	1.30 (0.80, 2.11)	0.297
Apixaban Users	96,057	32,036.33	121.82	0.33	38	1.19	0.40				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	29	1.51	0.50	0.33	0.10	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	38	1.19	0.40				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	34	1.77	0.59	0.66	0.22	1.63 (0.99, 2.70)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	35	1.11	0.37				

¹All values in this section are weighted.

²ATEs = Average Treatment Effect, Stabilized.

Table 5b. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Age Group

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	29	1.51	0.50	0.33	0.10	1.30 (0.80, 2.11)	0.297
Apixaban Users	96,057	32,036.33	121.82	0.33	38	1.19	0.40				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	29	1.51	0.50	0.33	0.10	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	38	1.19	0.40				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	34	1.77	0.59	0.66	0.22	1.63 (0.99, 2.70)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	35	1.11	0.37				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, Age Group: 21-49 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	9,854	2,411.74	89.39	0.24	3	1.24	0.30	0.97	0.24	4.41 (0.46, 42.47)	0.199
Apixaban Users	14,408	3,660.19	92.79	0.25	1	0.27	0.07				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	9,835	2,408.70	z	0.24	3	1.25	0.31	0.97	0.24	N/A	N/A
Apixaban Users	14,330	3,642.05	92.83	0.25	1	0.27	0.07				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	9,867	2,433.06	90.07	0.25	4	1.44	0.36	1.12	0.27	4.36 (0.46, 41.30)	N/A
Apixaban Users	14,333	3,612.34	92.05	0.25	1	0.32	0.08				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, Age Group: 50-64 years											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	48,071	16,770.86	127.43	0.35	26	1.55	0.54	0.25	0.09	1.20 (0.73, 2.00)	0.473
Apixaban Users	81,610	28,367.38	126.96	0.35	37	1.30	0.45				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	48,066	16,769.60	127.43	0.35	26	1.55	0.54	0.25	0.09	N/A	N/A

Table 5b. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Age Group

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	81,600	28,365.64	126.97	0.35	37	1.30	0.45	0.25	0.05	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	48,105	16,740.34	127.11	0.35	30	1.80	0.63	0.59	0.21	1.52 (0.90, 2.56)	N/A
Apixaban Users	81,592	28,316.70	126.76	0.35	34	1.22	0.42				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

Table 5c. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	29	1.51	0.50	0.33	0.10	1.30 (0.80, 2.11)	0.297
Apixaban Users	96,057	32,036.33	121.82	0.33	38	1.19	0.40				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	29	1.51	0.50	0.33	0.10	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	38	1.19	0.40				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	34	1.77	0.59	0.66	0.22	1.63 (0.99, 2.70)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	35	1.11	0.37				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, CHADSVASC: 0											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	10,764	2,783.19	94.44	0.26	2	0.72	0.19	0.16	0.04	1.30 (0.18, 9.25)	0.793
Apixaban Users	13,941	3,575.00	93.66	0.26	2	0.56	0.14				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	10,734	2,772.23	z	0.26	2	0.72	0.19	0.16	0.04	N/A	N/A
Apixaban Users	13,893	3,567.06	93.78	0.26	2	0.56	0.14				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	10,752	2,800.77	95.14	0.26	2	0.65	0.17	0.13	0.04	1.29 (0.19, 8.91)	N/A
Apixaban Users	13,893	3,553.03	93.41	0.26	2	0.51	0.13				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, CHADSVASC: 1											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	20,330	6,662.97	119.71	0.33	6	0.90	0.30	-0.11	-0.04	0.95 (0.34, 2.62)	0.919
Apixaban Users	30,084	9,885.18	120.02	0.33	10	1.01	0.33				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	20,319	6,660.05	119.72	0.33	6	0.90	0.30	-0.11	-0.04	N/A	N/A

Table 5c. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	30,050	9,876.57	120.05	0.33	10	1.01	0.33	0.11	0.04	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	20,326	6,673.78	119.93	0.33	6	0.88	0.29	-0.12	-0.04	0.93 (0.34, 2.55)	N/A
Apixaban Users	30,059	9,862.59	119.84	0.33	10	0.99	0.33				
Intracranial Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 2											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	15,195	5,665.08	136.17	0.37	9	1.59	0.59	0.86	0.32	2.22 (0.83, 5.97)	0.113
Apixaban Users	25,641	9,548.39	136.01	0.37	7	0.73	0.27				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	15,184	5,662.43	136.21	0.37	9	1.59	0.59	0.86	0.32	N/A	N/A
Apixaban Users	25,603	9,539.34	136.09	0.37	7	0.73	0.27				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	15,201	5,650.62	135.77	0.37	12	2.12	0.79	1.41	0.52	3.08 (1.08, 8.79)	N/A
Apixaban Users	25,606	9,539.54	136.07	0.37	7	0.72	0.27				
Intracranial Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 3											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	7,610	2,756.78	132.31	0.36	6	2.18	0.79	0.36	0.14	1.16 (0.40, 3.36)	0.778
Apixaban Users	15,444	5,502.67	130.14	0.36	10	1.82	0.65				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	7,584	2,746.80	132.29	0.36	6	2.18	0.79	0.37	0.14	N/A	N/A
Apixaban Users	15,407	5,496.85	130.31	0.36	10	1.82	0.65				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATEs, Trimmed²</i>											
Rivaroxaban Users	7,597	2,692.02	129.42	0.35	6	2.38	0.84	0.67	0.23	1.38 (0.48, 4.00)	N/A
Apixaban Users	15,417	5,522.77	130.85	0.36	9	1.71	0.61				
Intracranial Hemorrhage, Truncation Weight = 0, ATEs Weights, CHADSVASC: 4											
<i>Site-Adjusted Analysis, Unweighted</i>											

Table 5c. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and CHADSVASC

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Rivaroxaban Users	3,118	1,057.04	123.82	0.34	3	2.84	0.96	0.94	0.34	1.13 (0.24, 5.18)	0.879
Apixaban Users	8,033	2,638.99	119.99	0.33	5	1.89	0.62				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	3,109	1,055.18	123.96	0.34	3	2.84	0.96	0.94	0.33	N/A	N/A
Apixaban Users	7,936	2,624.90	120.81	0.33	5	1.90	0.63				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	3,130	1,051.63	122.71	0.34	2	1.75	0.59	0.10	0.04	0.83 (0.18, 3.77)	N/A
Apixaban Users	7,935	2,632.88	121.19	0.33	4	1.66	0.55				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, CHADSVASC: 5+											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	908	257.54	103.60	0.28	3	11.65	3.30	7.09	1.91	2.60 (0.58, 11.63)	0.212
Apixaban Users	2,875	877.34	111.46	0.31	4	4.56	1.39				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	894	255.56	104.41	0.29	3	11.74	3.36	8.10	2.23	N/A	N/A
Apixaban Users	2,659	824.58	113.27	0.31	3	3.64	1.13				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	918	255.87	101.78	0.28	3	10.97	3.06	7.54	1.98	3.14 (0.66, 14.92)	N/A
Apixaban Users	2,677	842.01	114.89	0.31	3	3.43	1.08				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

Table 5d. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	29	1.51	0.50	0.33	0.10	1.30 (0.80, 2.11)	0.297
Apixaban Users	96,057	32,036.33	121.82	0.33	38	1.19	0.40				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	29	1.51	0.50	0.33	0.10	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	38	1.19	0.40				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	34	1.77	0.59	0.66	0.22	1.63 (0.99, 2.70)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	35	1.11	0.37				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, HASBLED: 0											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	15,504	4,312.02	101.58	0.28	3	0.70	0.19	0.22	0.06	1.47 (0.30, 7.31)	0.636
Apixaban Users	21,701	6,284.79	105.78	0.29	3	0.48	0.14				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	15,495	4,310.15	z	0.28	3	0.70	0.19	0.22	0.06	N/A	N/A
Apixaban Users	21,658	6,275.66	105.84	0.29	3	0.48	0.14				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	15,510	4,372.35	102.97	0.28	4	0.84	0.24	0.37	0.10	1.85 (0.37, 9.32)	N/A
Apixaban Users	21,657	6,215.24	104.82	0.29	3	0.47	0.13				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, HASBLED: 1											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	32,496	11,645.84	130.90	0.36	11	0.94	0.34	0.07	0.03	1.15 (0.53, 2.47)	0.729
Apixaban Users	51,356	18,380.18	130.72	0.36	16	0.87	0.31				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											

Table 5d. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Rivaroxaban Users	32,488	11,642.23	130.89	0.36	11	0.94	0.34	0.07	0.03	N/A	N/A
Apixaban Users	51,319	18,372.30	130.76	0.36	16	0.87	0.31				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	32,514	11,661.44	131.00	0.36	12	0.99	0.36	0.10	0.04	1.17 (0.54, 2.53)	N/A
Apixaban Users	51,315	18,312.13	130.34	0.36	16	0.89	0.32				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, HASBLED: 2											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	8,091	2,705.86	122.15	0.33	9	3.33	1.11	1.42	0.48	1.55 (0.63, 3.86)	0.341
Apixaban Users	17,262	5,771.69	122.12	0.33	11	1.91	0.64				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	8,073	2,702.16	122.25	0.33	9	3.33	1.11	1.59	0.53	N/A	N/A
Apixaban Users	17,166	5,750.40	122.35	0.33	10	1.74	0.58				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	8,101	2,700.17	121.75	0.33	9	3.18	1.06	1.54	0.51	1.79 (0.70, 4.55)	N/A
Apixaban Users	17,171	5,754.78	122.41	0.34	9	1.64	0.55				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, HASBLED: 3+											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	1,834	518.87	103.34	0.28	6	11.56	3.27	6.54	1.87	2.55 (0.88, 7.36)	0.084
Apixaban Users	5,699	1,590.91	101.96	0.28	8	5.03	1.40				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	1,824	516.62	103.45	0.28	6	11.61	3.29	6.52	1.86	N/A	N/A
Apixaban Users	5,588	1,571.27	102.70	0.28	8	5.09	1.43				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	1,854	503.93	99.26	0.27	7	13.17	3.58	8.26	2.19	2.99 (1.00, 8.91)	N/A
Apixaban Users	5,598	1,577.47	102.92	0.28	8	4.91	1.38				

Table 5d. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and HASBLED

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate	Risk	Hazard Ratio (95% Confidence Interval)	Wald P-Value
								Difference per 1,000 Person-Years	Difference per 1,000 New Users		

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

Table 5e. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Sex

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	57,932	19,183.81	120.95	0.33	29	1.51	0.50	0.33	0.10	1.30 (0.80, 2.11)	0.297
Apixaban Users	96,057	32,036.33	121.82	0.33	38	1.19	0.40				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	57,925	19,182.60	120.96	0.33	29	1.51	0.50	0.33	0.10	N/A	N/A
Apixaban Users	96,018	32,027.57	121.83	0.33	38	1.19	0.40				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	57,965	19,238.59	121.23	0.33	34	1.77	0.59	0.66	0.22	1.63 (0.99, 2.70)	N/A
Apixaban Users	96,013	31,893.04	121.33	0.33	35	1.11	0.37				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, Sex: Female											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	14,857	5,257.64	129.26	0.35	7	1.33	0.47	0.64	0.22	1.98 (0.69, 5.64)	0.203
Apixaban Users	28,303	10,129.14	130.72	0.36	7	0.69	0.25				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	14,847	5,254.57	z	0.35	7	1.33	0.47	0.64	0.22	N/A	N/A
Apixaban Users	28,247	10,118.61	130.84	0.36	7	0.69	0.25				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	14,866	5,239.98	128.75	0.35	8	1.49	0.53	0.88	0.31	2.55 (0.86, 7.53)	N/A
Apixaban Users	28,247	10,135.13	131.05	0.36	6	0.61	0.22				
Intracranial Hemorrhage, Truncation Weight = 0, ATES Weights, Sex: Male											
<i>Site-Adjusted Analysis, Unweighted</i>											
Rivaroxaban Users	43,068	13,924.96	118.09	0.32	22	1.58	0.51	0.16	0.05	1.13 (0.65, 1.96)	0.672
Apixaban Users	67,715	21,898.43	118.12	0.32	31	1.42	0.46				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Rivaroxaban Users	43,064	13,924.60	118.10	0.32	22	1.58	0.51	0.16	0.05	N/A	N/A

Table 5e. Effect Estimates for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022, by Analysis Type and Sex

Medical Product	Number of New Users	Person-Years at Risk	Average Person-Days at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1,000 Person-Years	Risk per 1,000 New Users	Incidence Rate Difference per 1,000 Person-Years	Risk Difference per 1,000 New Users	Hazard Ratio (95% Confidence Interval)	Wald P-Value
Apixaban Users	67,682	21,891.11	118.14	0.32	31	1.42	0.46	0.10	0.05	N/A	N/A
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATES, Trimmed²</i>											
Rivaroxaban Users	43,110	13,957.08	118.25	0.32	26	1.85	0.60	0.53	0.17	1.41 (0.80, 2.50)	N/A
Apixaban Users	67,675	21,791.30	117.61	0.32	29	1.32	0.43				

¹All values in this section are weighted.

²ATES = Average Treatment Effect, Stabilized.

Table 6. Summary of Patient Level Cohort Attrition in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

	Thromboembolic Stroke, Truncation Weight = 0%, ATES Weights ²				Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights ²			
	Rivaroxaban Users		Apixaban Users		Rivaroxaban Users		Apixaban Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	246,832,508	N/A	246,832,508	N/A	246,832,508	N/A	246,832,508	N/A
Had required coverage type (medical and/or drug coverage)	157,564,177	89,268,331	157,564,177	89,268,331	157,564,177	89,268,331	157,564,177	89,268,331
Enrolled during specified age range	121,587,584	35,976,593	121,587,584	35,976,593	121,587,584	35,976,593	121,587,584	35,976,593
Had requestable medical charts	121,587,584	0	121,587,584	0	121,587,584	0	121,587,584	0
Met demographic requirements (sex, race, and Hispanic origin)	121,426,130	161,454	121,426,130	161,454	121,426,130	161,454	121,426,130	161,454
Members with a valid index event								
Had any cohort-defining claim during the query period	501,228	120,924,902	720,428	120,705,702	501,228	120,924,902	720,428	120,705,702
Claim recorded during specified age range	359,192	142,036	398,984	310,730	359,192	142,036	398,984	310,730
Episode defining index claim recorded during the query period	358,905	287	398,780	204	358,905	287	398,780	204
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	240,378	118,527	277,731	121,049	240,378	118,527	277,731	121,049
Met inclusion and exclusion criteria ¹	58,611	181,767	97,784	179,947	58,611	181,767	97,784	179,947
<i>Evidence of dialysis</i>	N/A	282	z	3,213	N/A	282	N/A	3,213
<i>Evidence of kidney replacement, deep vein thrombosis, pulmonary embolism, joint replacement, mitral valve disease, valve replacement, or valve repair</i>	N/A	125,354	N/A	117,785	N/A	125,354	N/A	117,785
<i>Evidence of low-dose rivaroxaban or dabigatran, any dose of apixaban, edoxaban, or warfarin</i>	N/A	123,619	N/A	39,886	N/A	123,619	N/A	39,886
<i>Evidence of index exposure</i>	N/A	0	N/A	13,477	N/A	0	N/A	13,477
<i>Evidence of institutional stay encounter</i>	N/A	1,587	N/A	3,286	N/A	1,587	N/A	3,286
<i>No evidence of atrial fibrillation or flutter</i>	N/A	153,664	N/A	145,036	N/A	153,664	N/A	145,036
Met event incidence criteria	58,611	0	97,784	0	58,611	0	97,784	0
Members with required post-index follow-up								

Table 6. Summary of Patient Level Cohort Attrition in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

	Thromboembolic Stroke, Truncation Weight = 0%, ATES Weights ²				Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights ²			
	Rivaroxaban Users		Apixaban Users		Rivaroxaban Users		Apixaban Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Had sufficient post-index continuous enrollment	58,566	45	97,679	105	58,565	46	97,680	104
Had minimum days' supply on index date	58,566	0	97,679	0	58,565	0	97,680	0
Had index episode of at least required length	58,566	0	97,679	0	58,565	0	97,680	0
Had index episode longer than blackout period	58,496	70	97,559	120	58,490	75	97,547	133
Did not have an event during blackout period	58,491	5	97,546	13	58,490	0	97,547	0
Final cohort								
Number of members	58,491	N/A	97,546	N/A	58,490	N/A	97,547	N/A
Number of episodes	58,491	N/A	97,546	N/A	58,490	N/A	97,547	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	58,536	0	97,650	0	58,536	0	97,650	0
Excluded due to prior initiation of other exposure group	57,932	604	96,057	1,593	57,932	604	96,057	1,593
Excluded due to propensity score trimming	57,925	7	96,018	39	57,925	7	96,018	39
Included in comparative analysis	57,925	0	96,018	0	57,925	0	96,018	0
Additional information								
Number of events in comparative analysis	67	N/A	133	N/A	192	N/A	221	N/A
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	246,832,508	N/A	246,832,508	N/A	246,832,508	N/A	246,832,508	N/A
Had required coverage type (medical and/or drug coverage)	157,564,177	89,268,331	157,564,177	89,268,331	157,564,177	89,268,331	157,564,177	89,268,331
Enrolled during specified age range	121,587,584	35,976,593	121,587,584	35,976,593	121,587,584	35,976,593	121,587,584	35,976,593
Had requestable medical charts	121,587,584	0	121,587,584	0	121,587,584	0	121,587,584	0
Met demographic requirements (sex, race, and Hispanic origin)	121,426,130	161,454	121,426,130	161,454	121,426,130	161,454	121,426,130	161,454
Members with a valid index event								
Had any cohort-defining claim during the query period	501,228	120,924,902	720,428	120,705,702	501,228	120,924,902	720,428	120,705,702
Claim recorded during specified age range	359,192	142,036	398,984	310,730	359,192	142,036	398,984	310,730

Table 6. Summary of Patient Level Cohort Attrition in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

	Thromboembolic Stroke, Truncation Weight = 0%, ATES Weights ²				Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights ²			
	Rivaroxaban Users		Apixaban Users		Rivaroxaban Users		Apixaban Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Episode defining index claim recorded during the query period	358,905	287	398,780	204	358,905	287	398,780	204
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	240,378	118,527	277,731	121,049	240,378	118,527	277,731	121,049
Met inclusion and exclusion criteria ¹	58,611	181,767	97,784	179,947	58,611	181,767	97,784	179,947
<i>Evidence of dialysis</i>	N/A	282	N/A	3,213	N/A	282	N/A	3,213
<i>Evidence of kidney replacement, deep vein thrombosis, pulmonary embolism, joint replacement, mitral valve disease, valve replacement, or valve repair</i>	N/A	125,354	N/A	117,785	N/A	125,354	N/A	117,785
<i>Evidence of low-dose rivaroxaban or dabigatran, any dose of apixaban, edoxaban, or warfarin</i>	N/A	123,619	N/A	39,886	N/A	123,619	N/A	39,886
<i>Evidence of index exposure</i>	N/A	0	N/A	13,477	N/A	0	N/A	13,477
<i>Evidence of institutional stay encounter</i>	N/A	1,587	N/A	3,286	N/A	1,587	N/A	3,286
<i>No evidence of atrial fibrillation or flutter</i>	N/A	153,664	N/A	145,036	N/A	153,664	N/A	145,036
Met event incidence criteria	58,611	0	97,784	0	58,611	0	97,784	0
Members with required post-index follow-up								
Had sufficient post-index continuous enrollment	58,566	45	97,680	104	58,565	46	97,680	104
Had minimum days' supply on index date	58,566	0	97,680	0	58,565	0	97,680	0
Had index episode of at least required length	58,566	0	97,680	0	58,565	0	97,680	0
Had index episode longer than blackout period	58,491	75	97,547	133	58,490	75	97,547	133
Did not have an event during blackout period	58,491	0	97,547	0	58,490	0	97,547	0
Final cohort								
Number of members	58,491	N/A	97,547	N/A	58,490	N/A	97,547	N/A
Number of episodes	58,491	N/A	97,547	N/A	58,490	N/A	97,547	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	58,536	0	97,650	0	58,536	0	97,650	0

Table 6. Summary of Patient Level Cohort Attrition in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

	Thromboembolic Stroke, Truncation Weight = 0%, ATES Weights ²				Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights ²			
	Rivaroxaban Users		Apixaban Users		Rivaroxaban Users		Apixaban Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Excluded due to prior initiation of other exposure group	57,932	604	96,057	1,593	57,932	604	96,057	1,593
Excluded due to propensity score trimming	57,925	7	96,018	39	57,925	7	96,018	39
Included in comparative analysis	57,925	0	96,018	0	57,925	0	96,018	0
Additional information								
Number of events in comparative analysis	162	N/A	187	N/A	29	N/A	38	N/A

¹Patients can meet multiple inclusion and/or exclusion criteria; therefore, the total number of patients excluded overall may not equal the sum of all patients in each criterion.

²ATES = Average Treatment Effect, Stabilized.

Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Adjustment, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

Unweighted Propensity Score Distribution Before Trimming

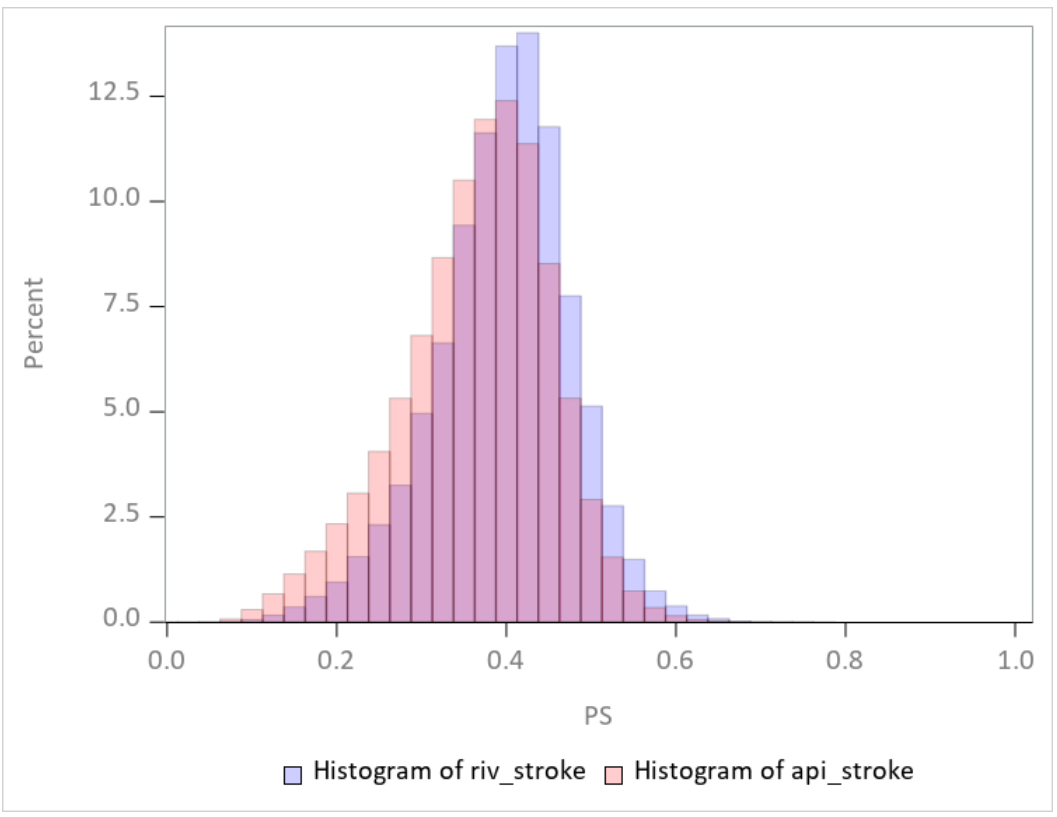


Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Adjustment, Truncation Weight = 0%, ATEs Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

Unweighted Propensity Score Distribution After Trimming

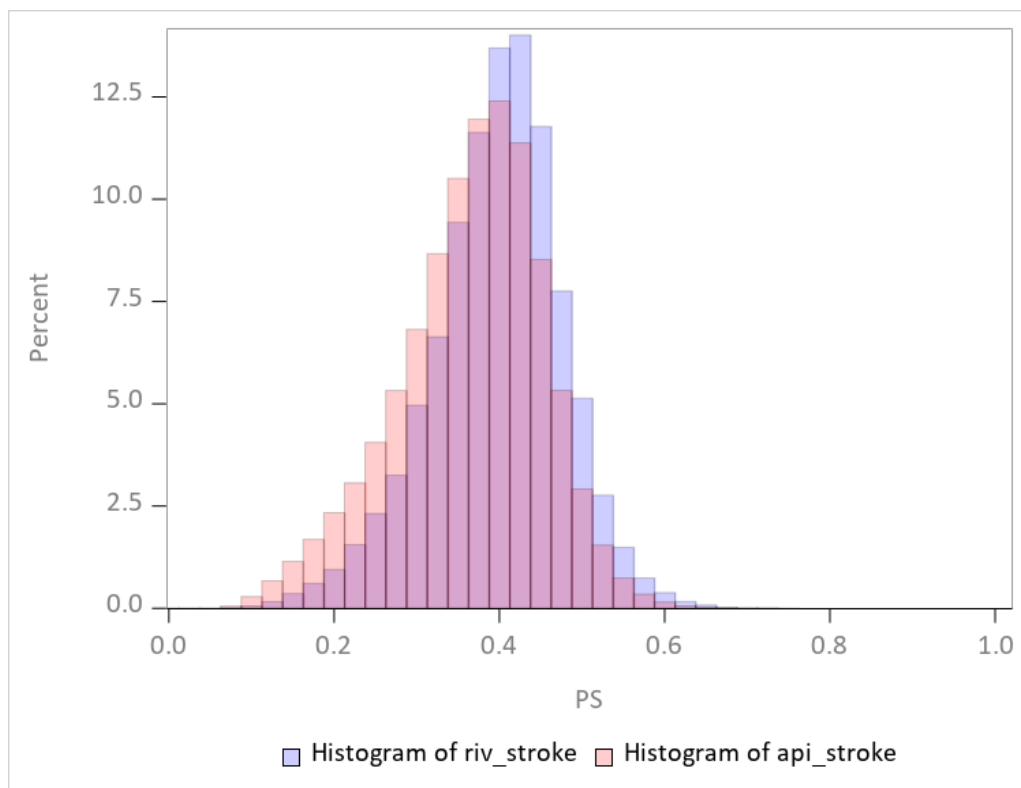


Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Adjustment, Truncation Weight = 0%, ATES Weights in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

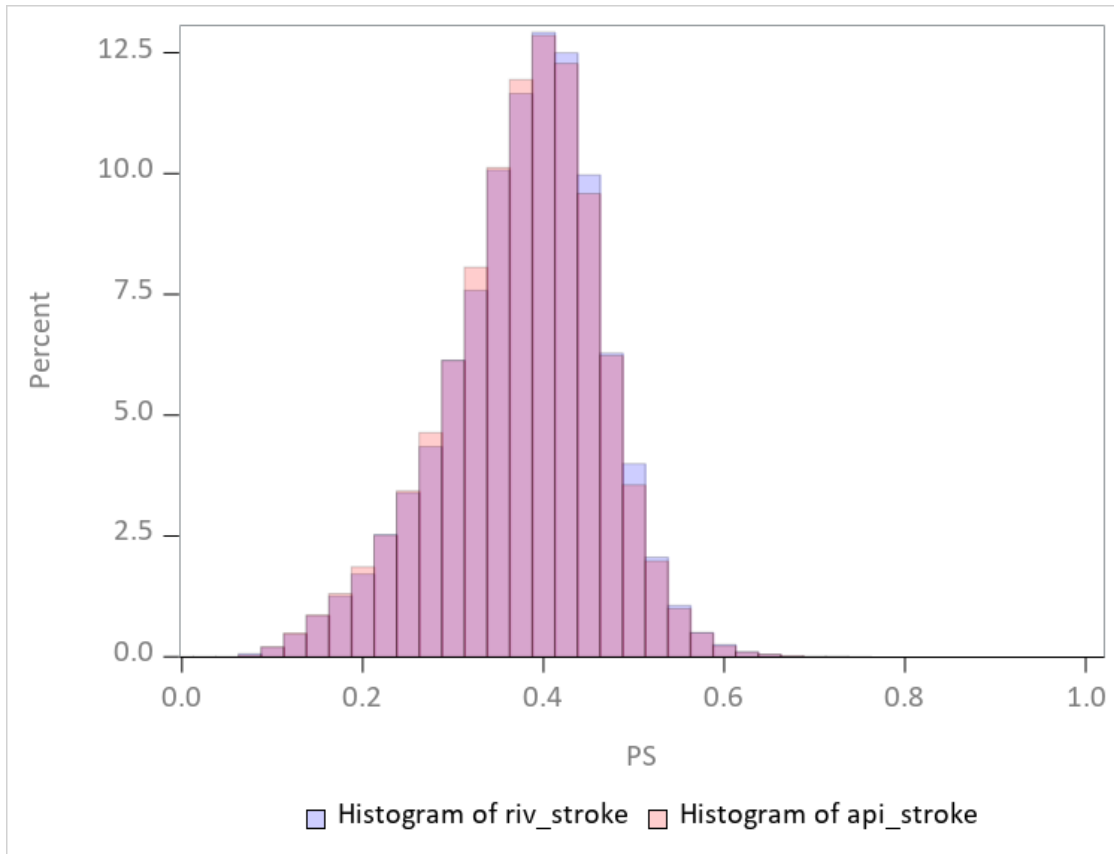


Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Sex: Female

Unweighted Propensity Score Distribution Before Trimming

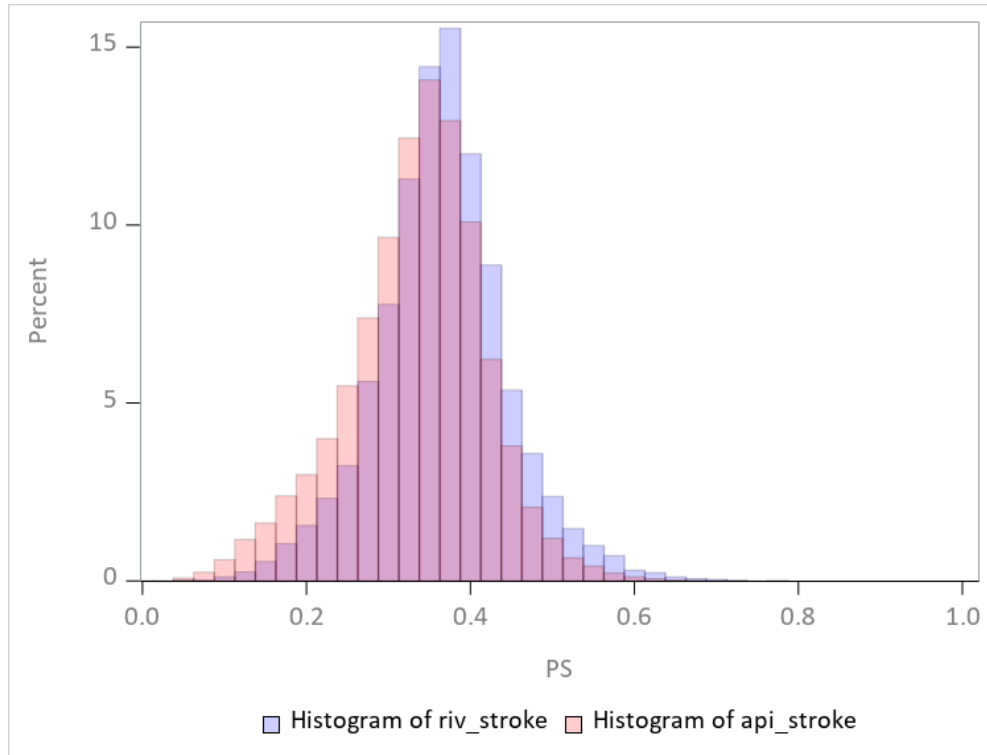


Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Sex: Female

Unweighted Propensity Score Distribution After Trimming

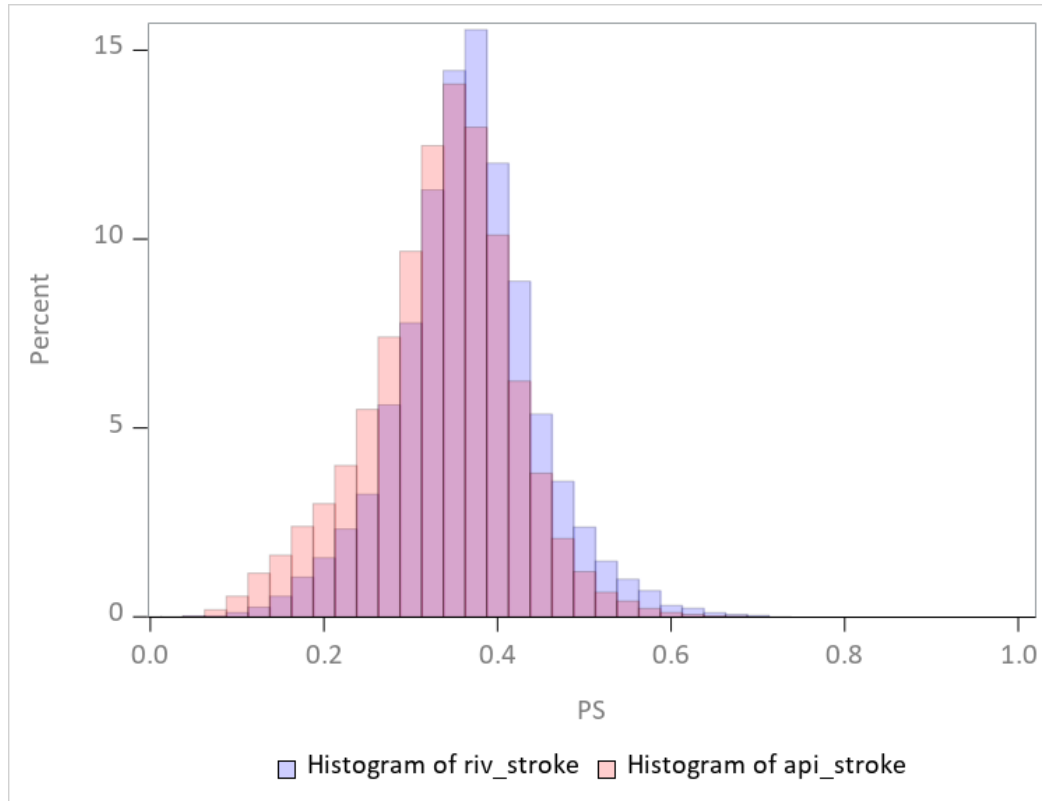


Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0, ATES Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Sex: Female

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

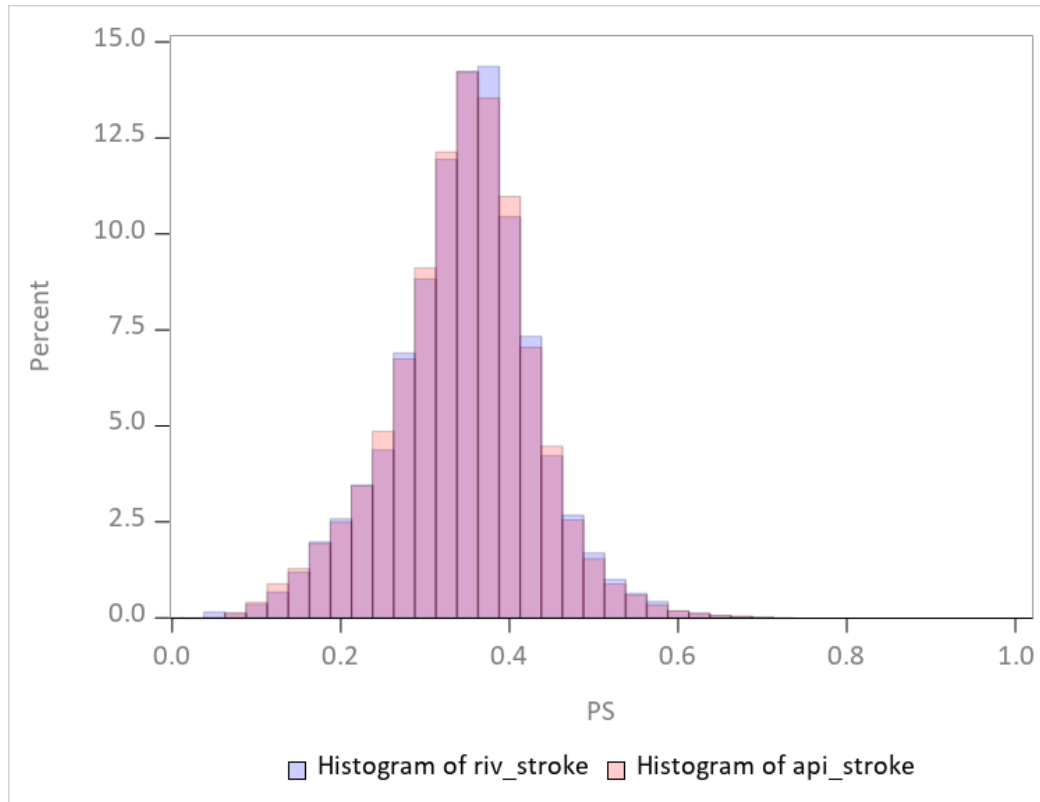


Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Sex: Male

Unweighted Propensity Score Distribution Before Trimming

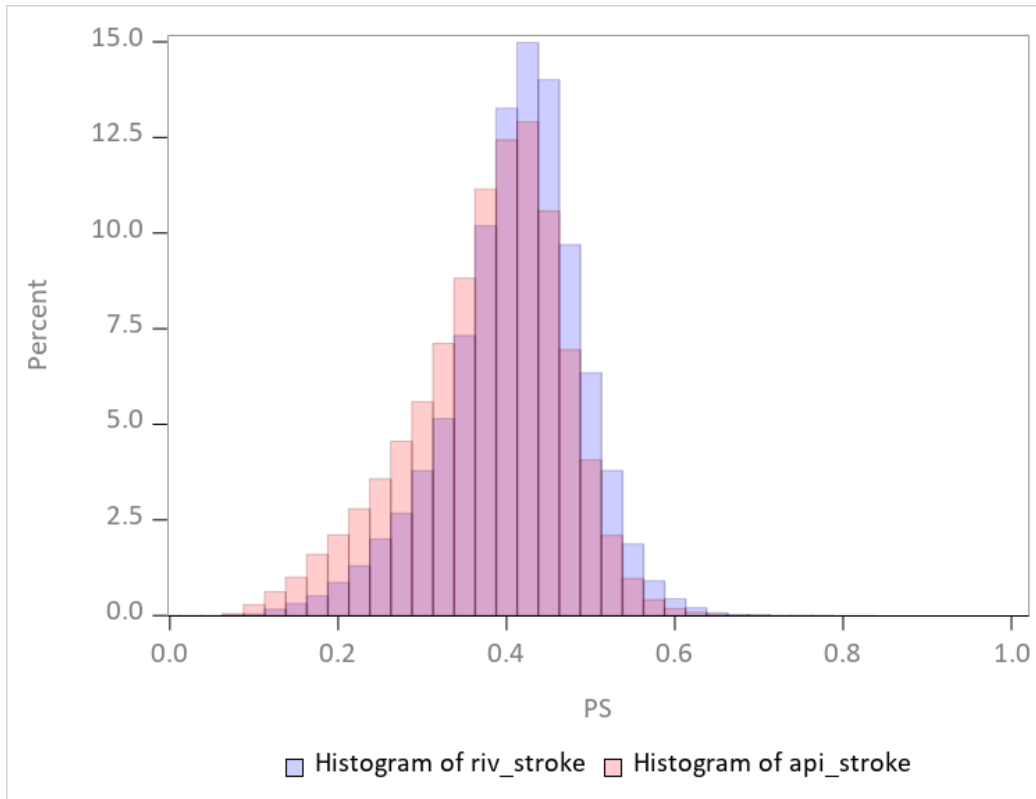


Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Sex: Male

Unweighted Propensity Score Distribution After Trimming

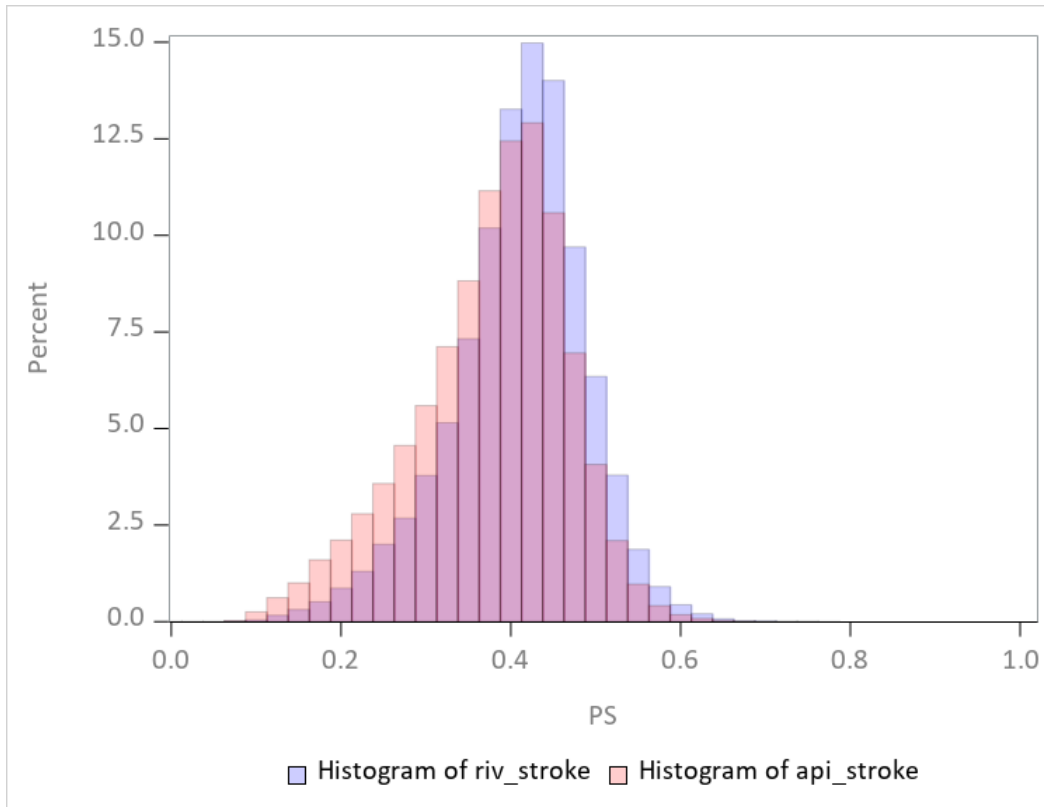


Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Sex: Male

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

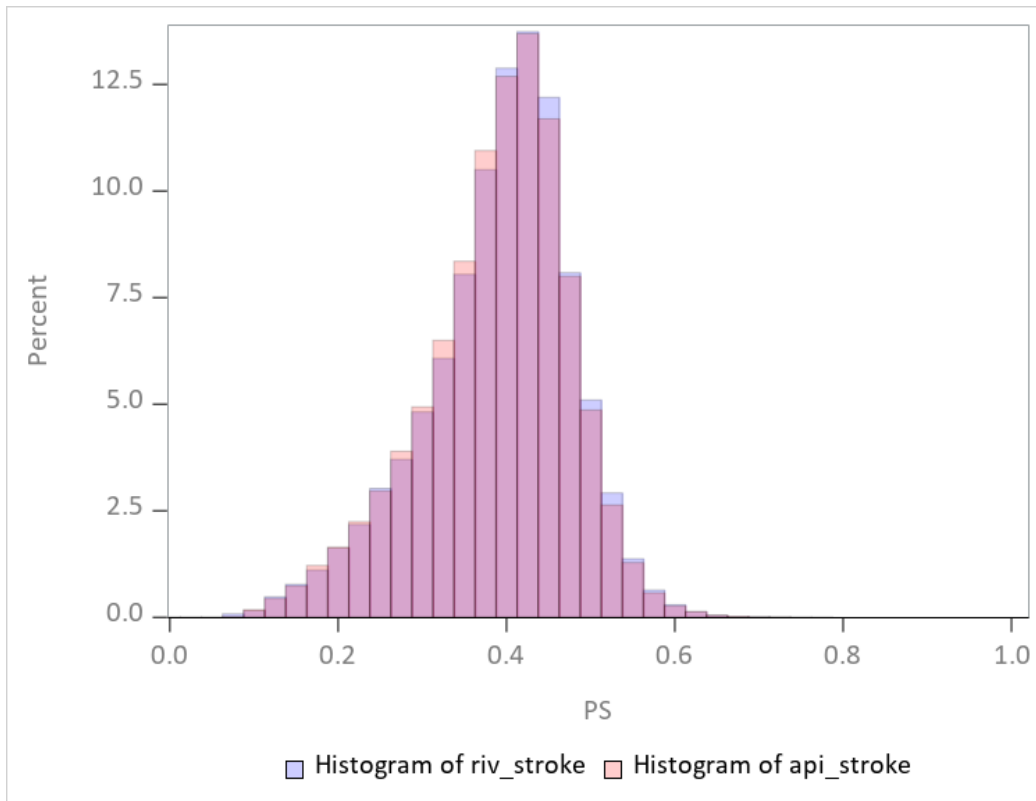


Figure 1d. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Unweighted Propensity Score Distribution Before Trimming

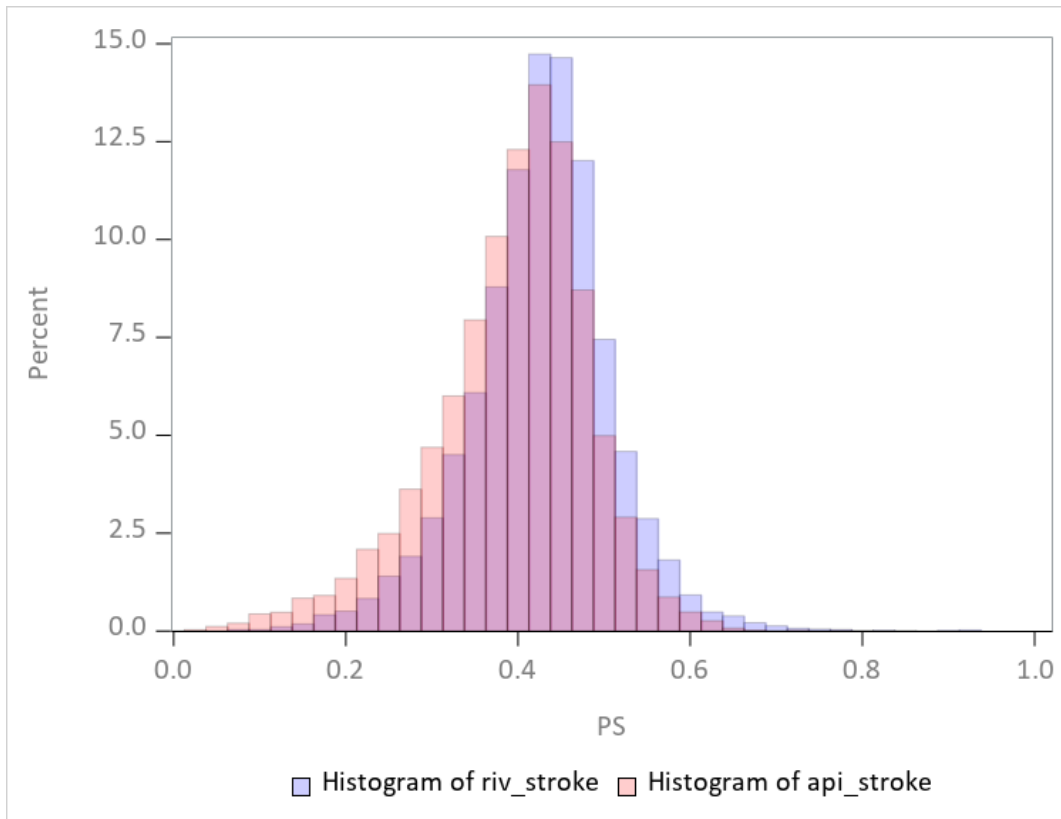


Figure 1d. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Unweighted Propensity Score Distribution After Trimming

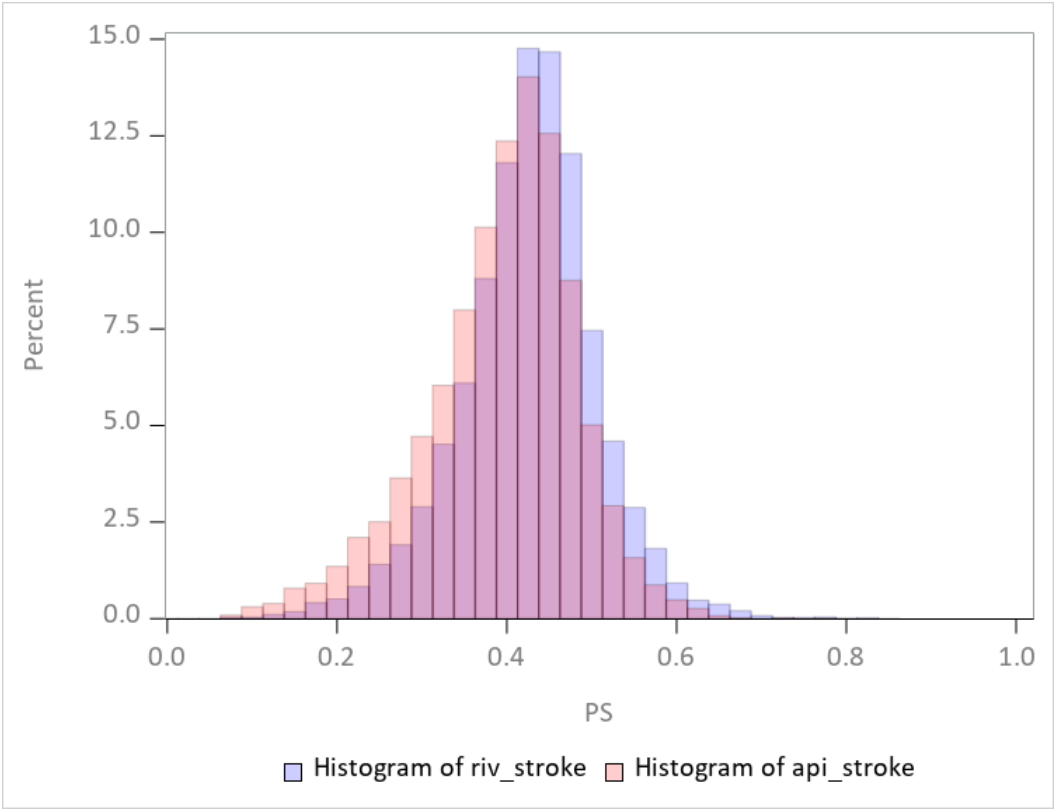


Figure 1d. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATES Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Age Group: 21-49 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

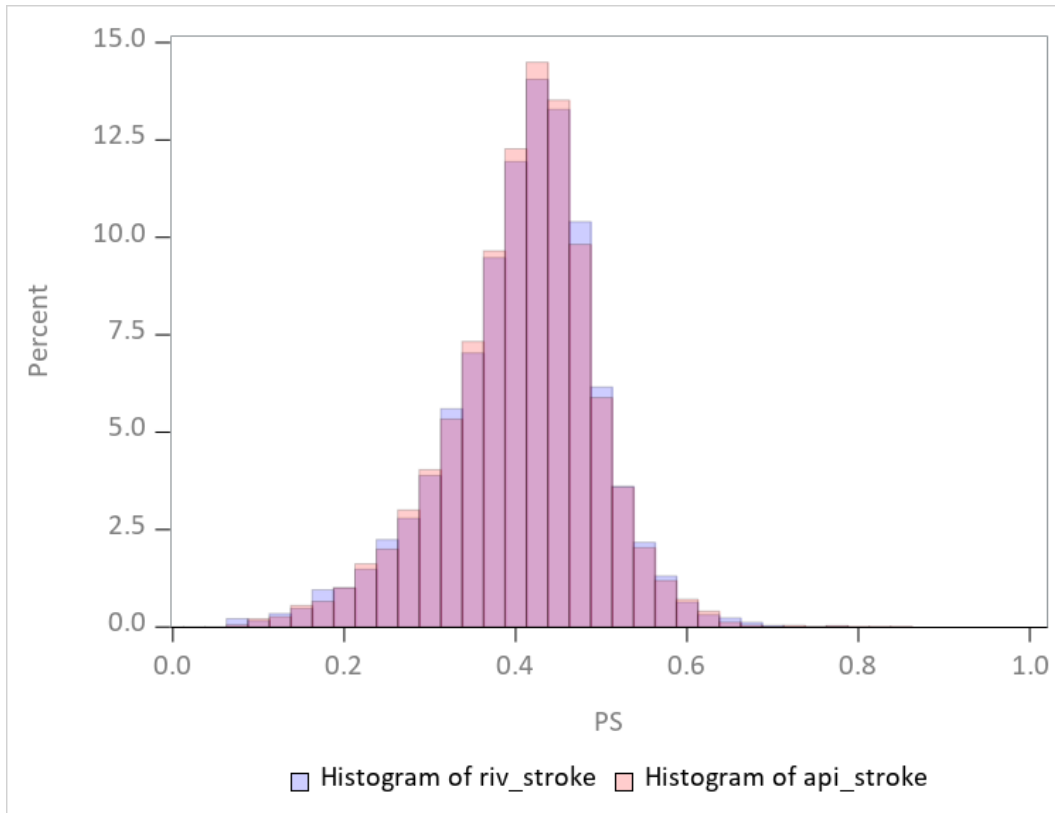


Figure 1e. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATES Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Unweighted Propensity Score Distribution Before Trimming

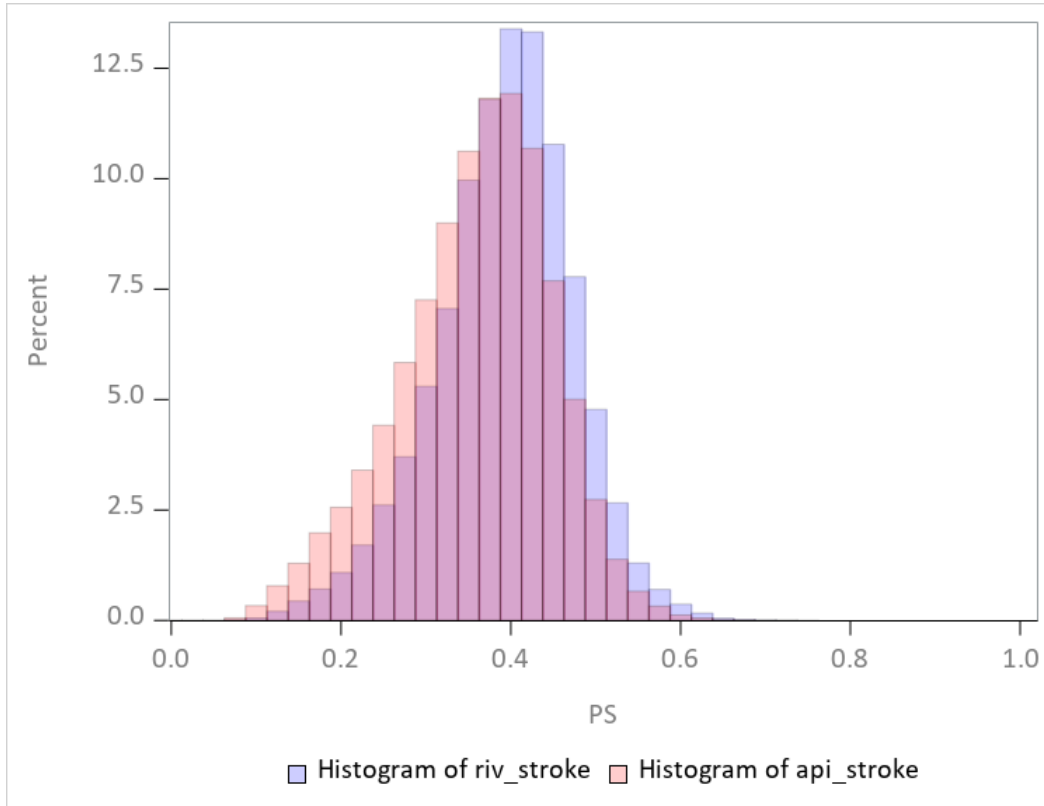


Figure 1e. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Unweighted Propensity Score Distribution After Trimming

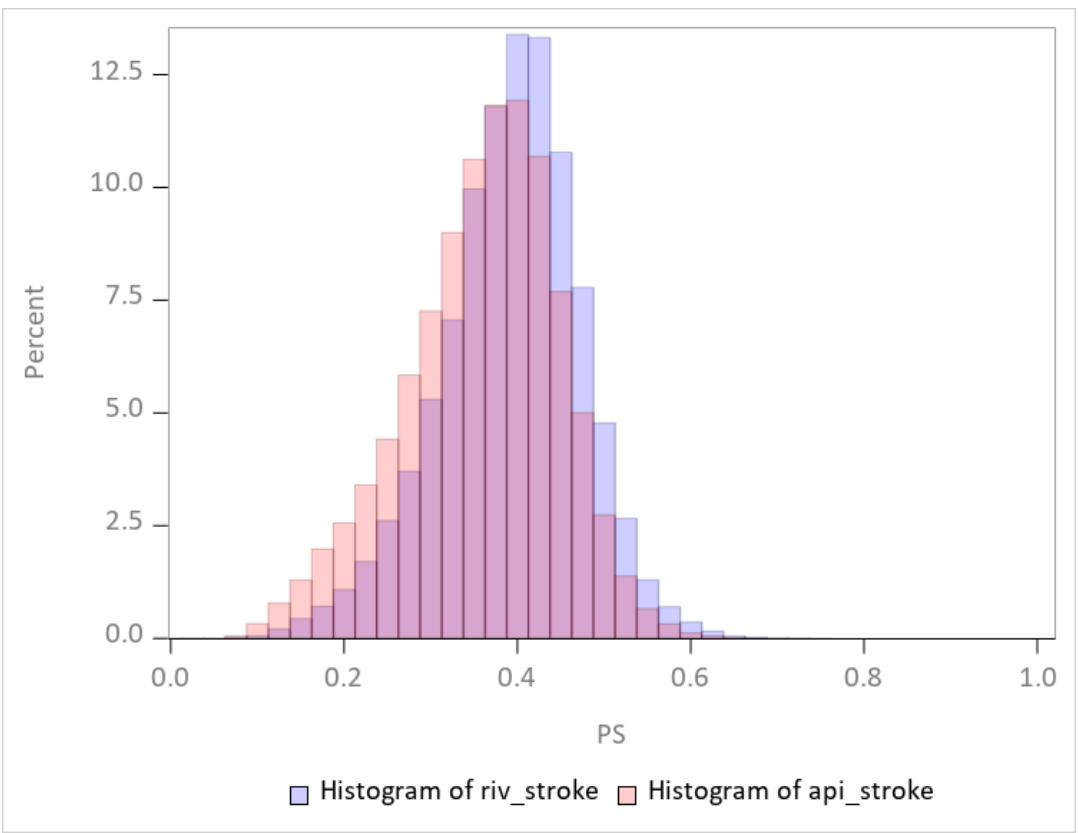


Figure 1e. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATES Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, Age Group: 50-64 years

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

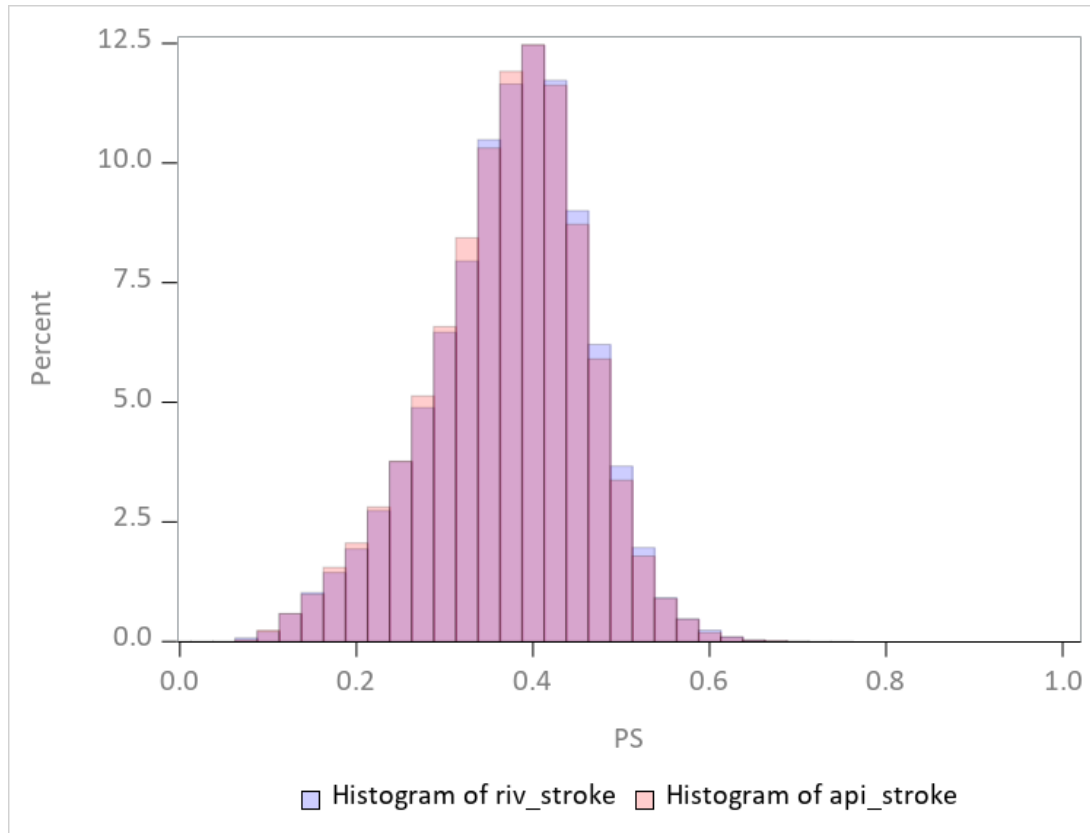


Figure 1f. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Unweighted Propensity Score Distribution Before Trimming

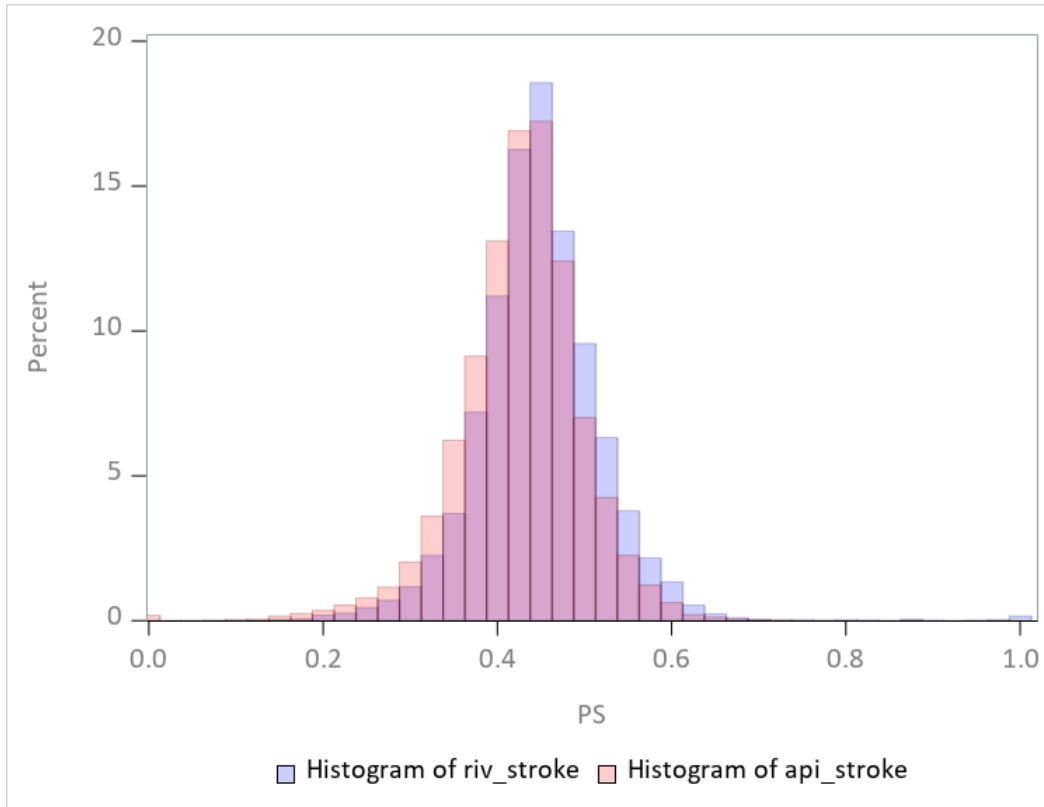


Figure 1f. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Unweighted Propensity Score Distribution After Trimming

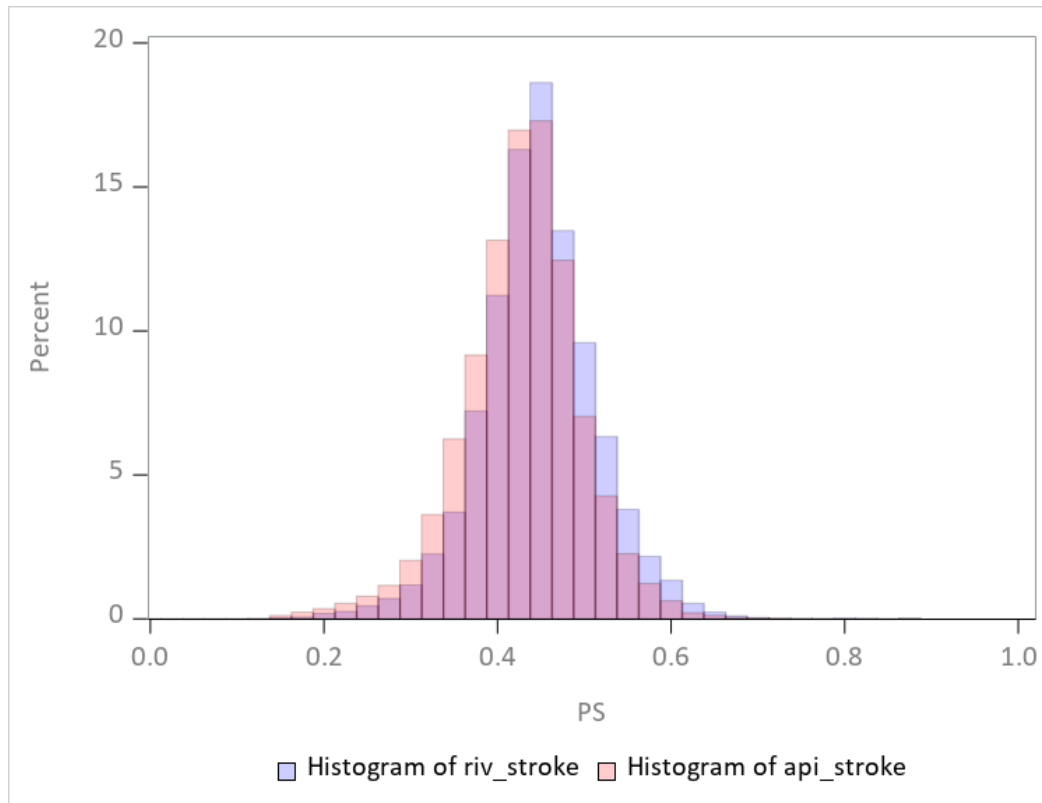


Figure 1f. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 0

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

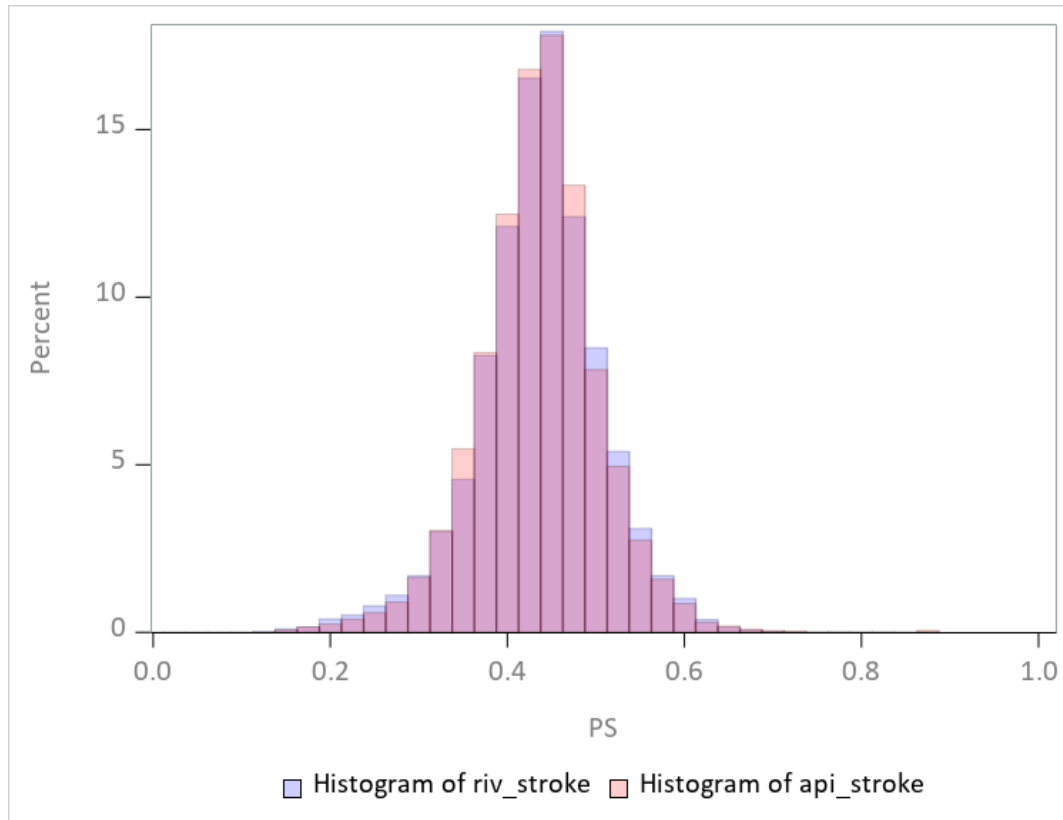


Figure 1g. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Unweighted Propensity Score Distribution Before Trimming

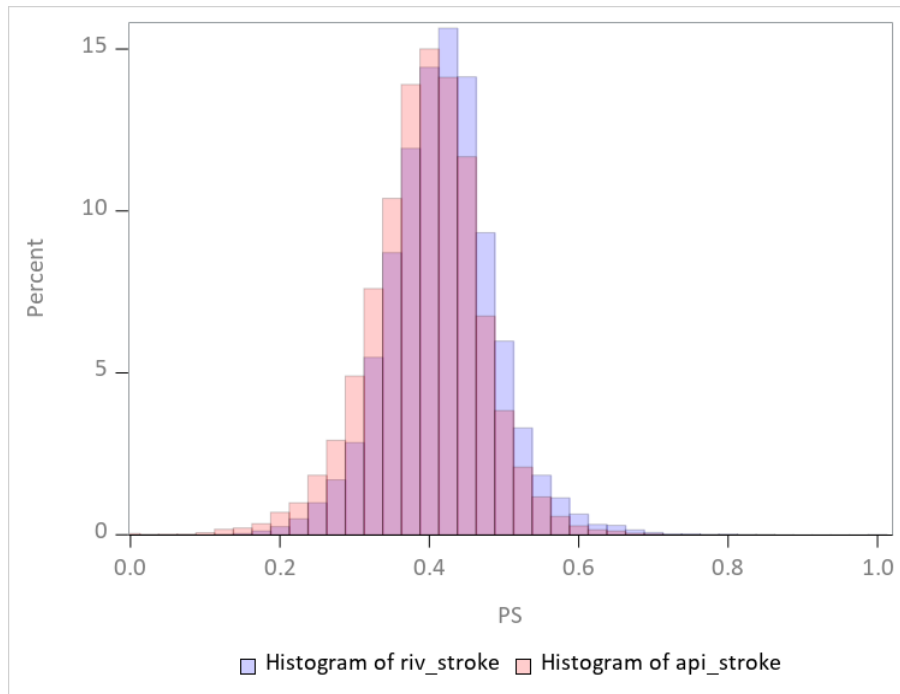


Figure 1g. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Unweighted Propensity Score Distribution After Trimming

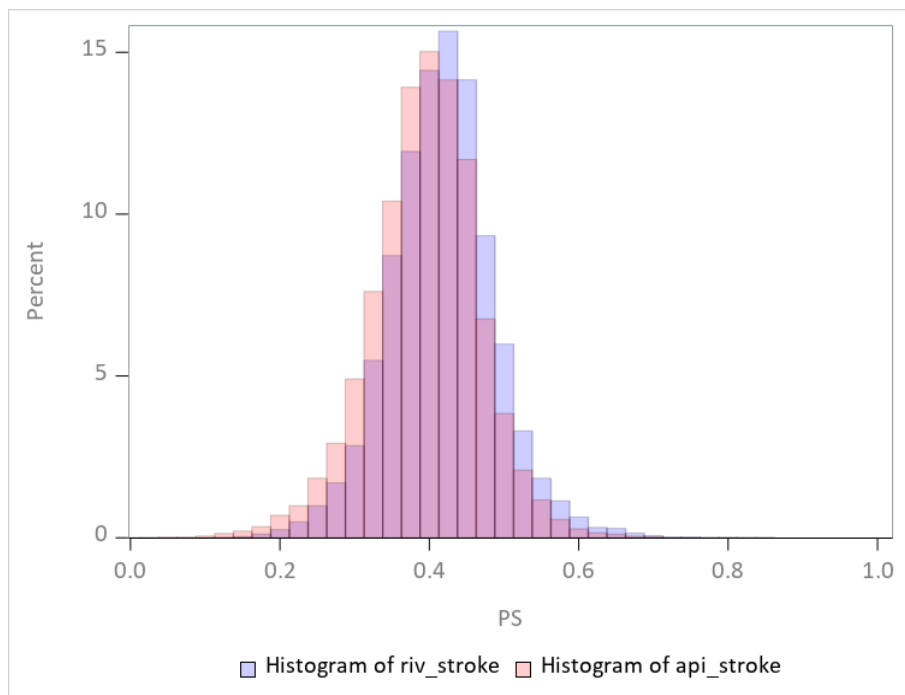


Figure 1g. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 1

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

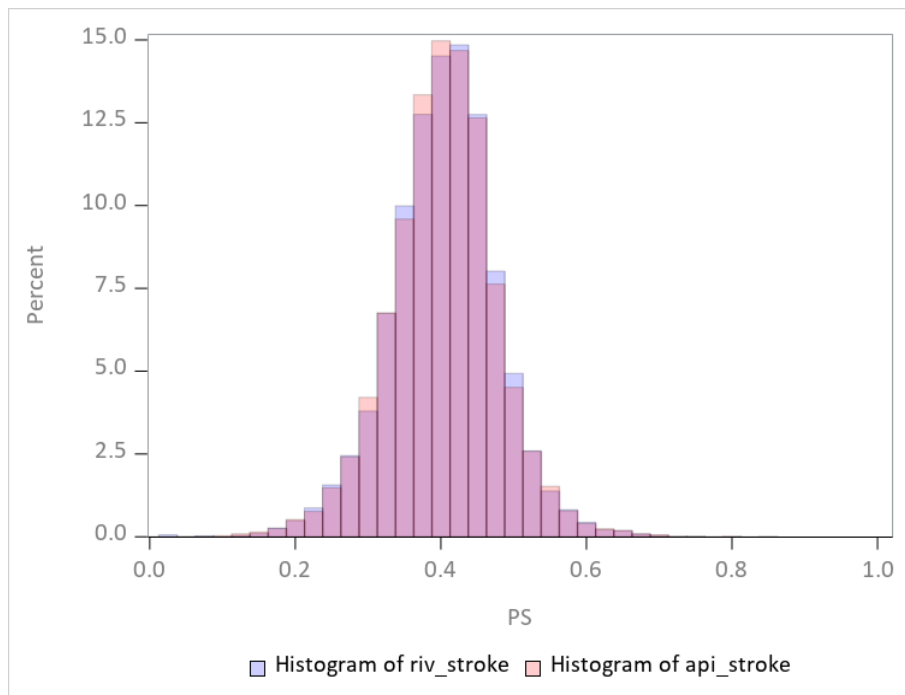


Figure 1h. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Unweighted Propensity Score Distribution Before Trimming

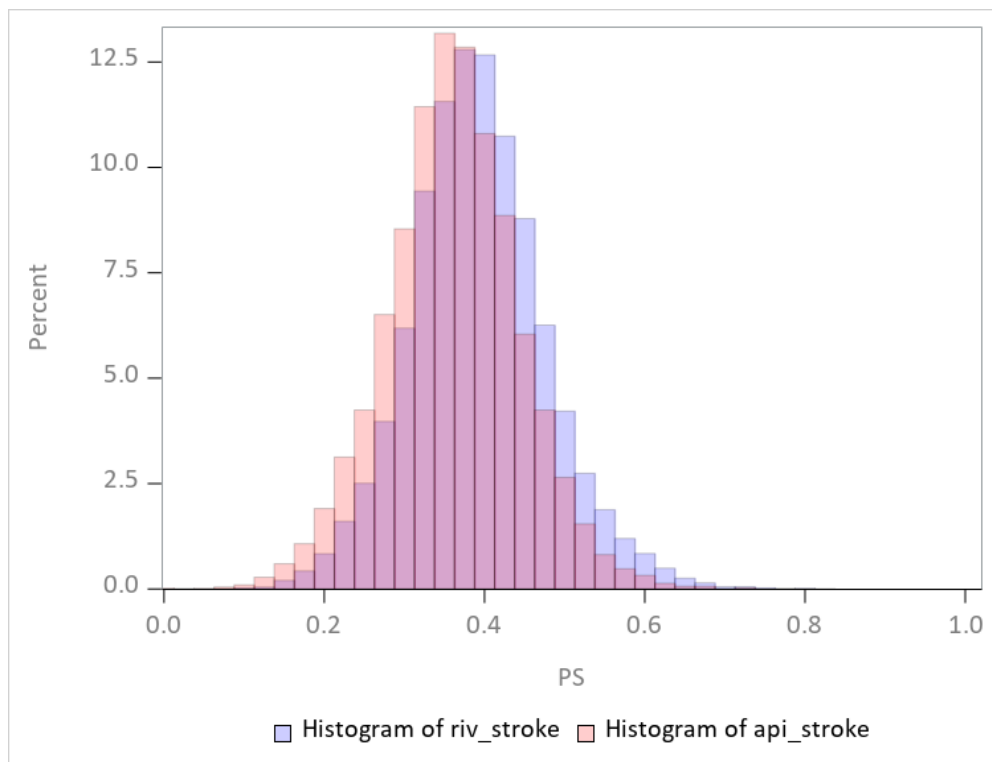


Figure 1h. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Unweighted Propensity Score Distribution After Trimming

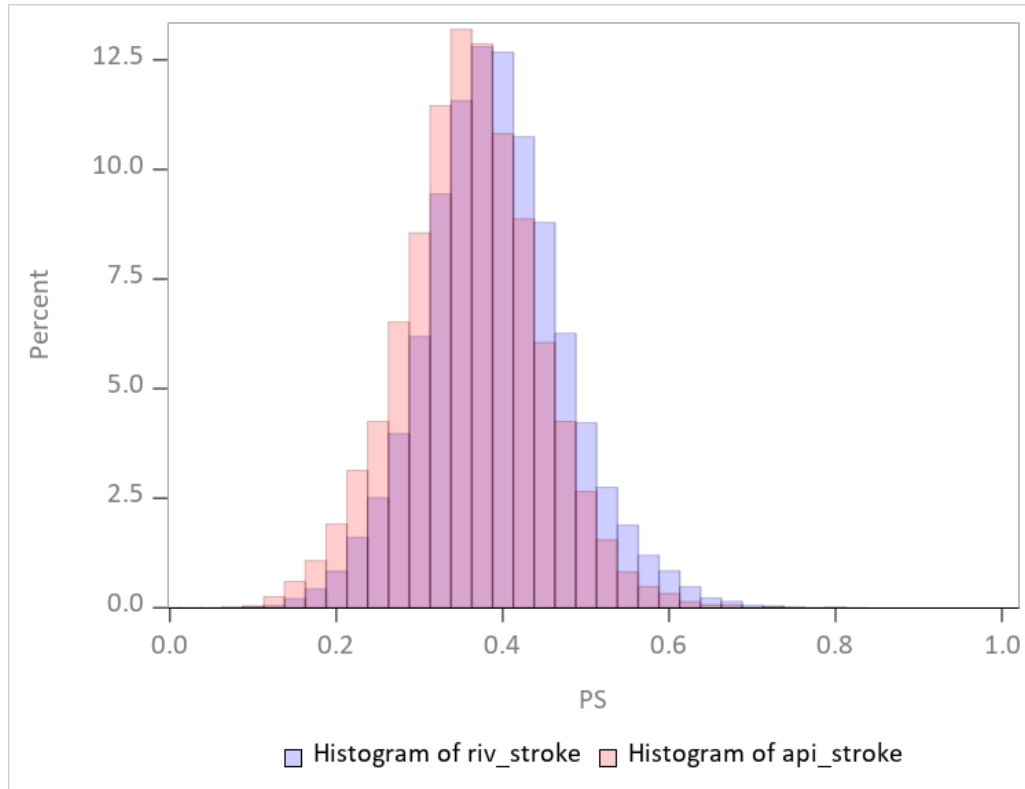


Figure 1h. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 2

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

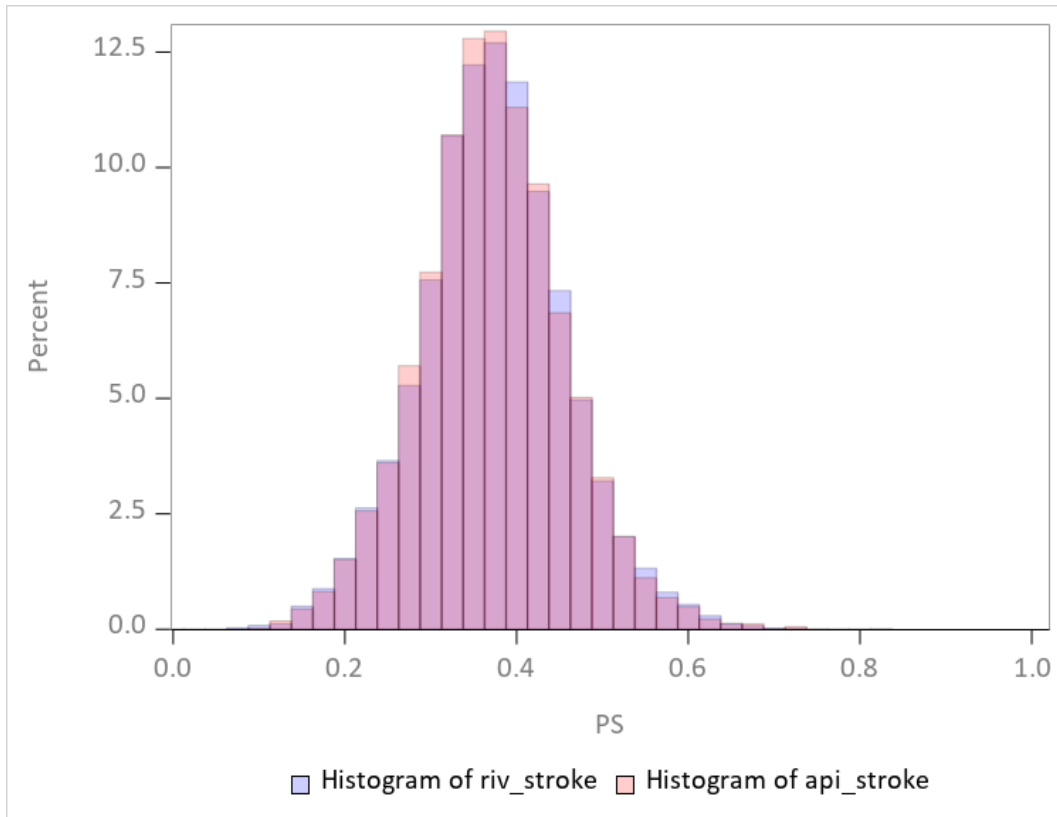


Figure 1i. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Unweighted Propensity Score Distribution Before Trimming

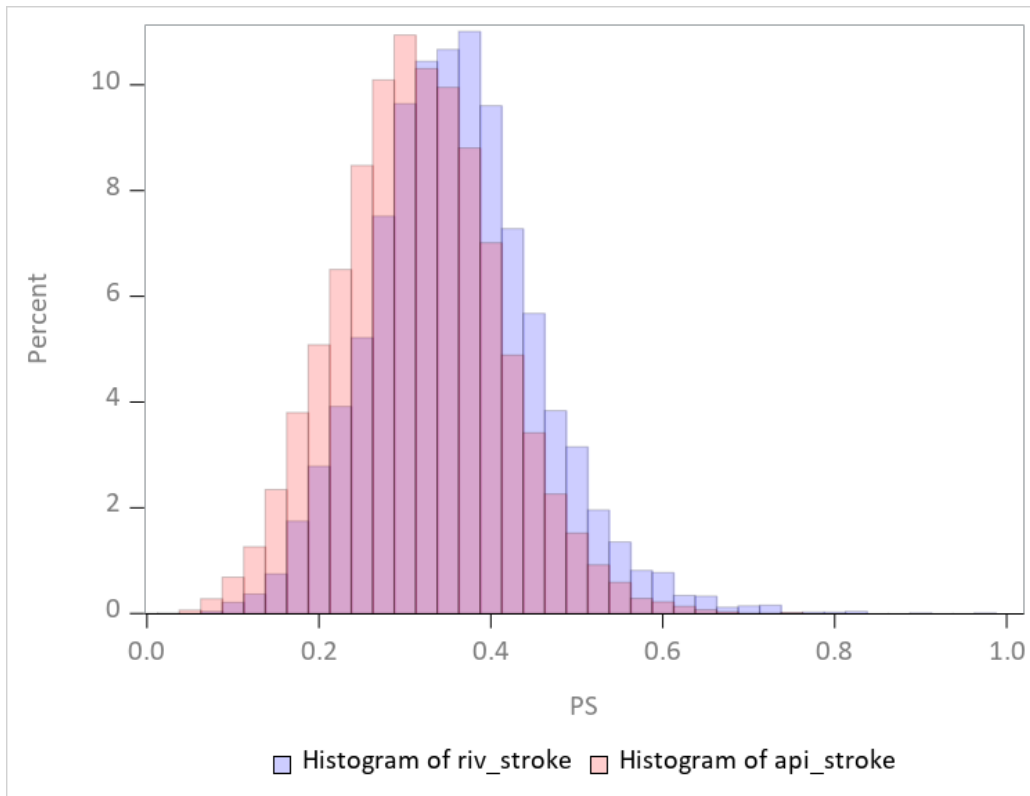


Figure 1i. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Unweighted Propensity Score Distribution After Trimming

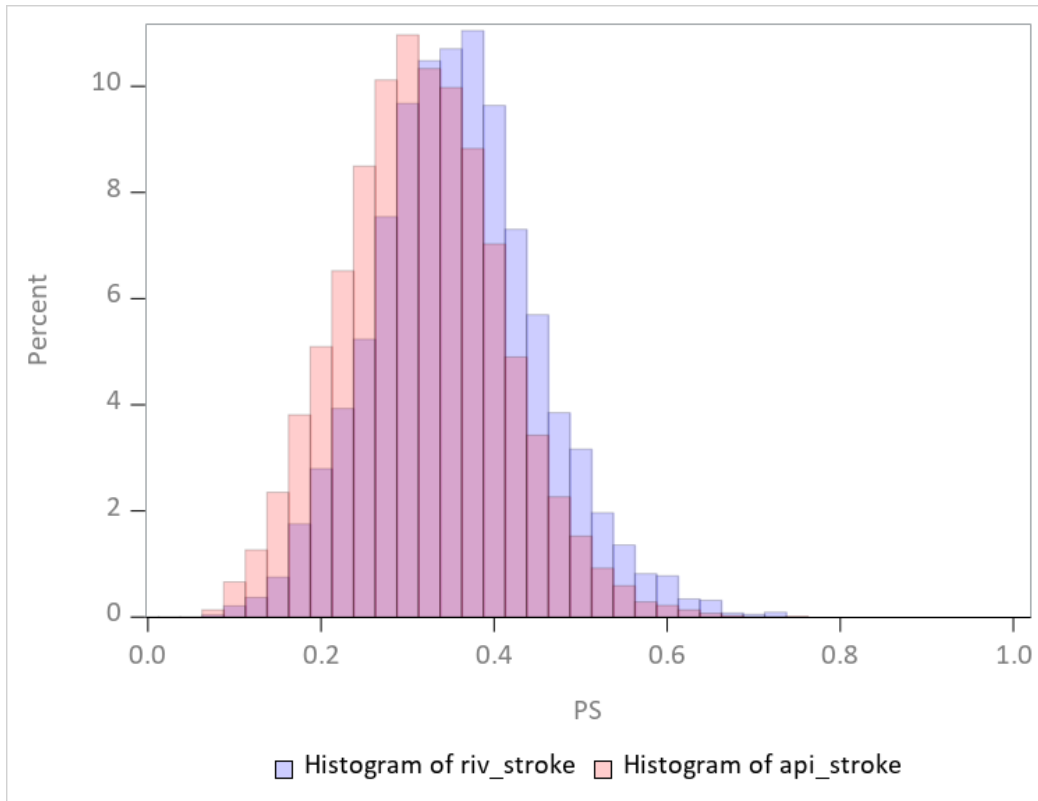


Figure 1i. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 3

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

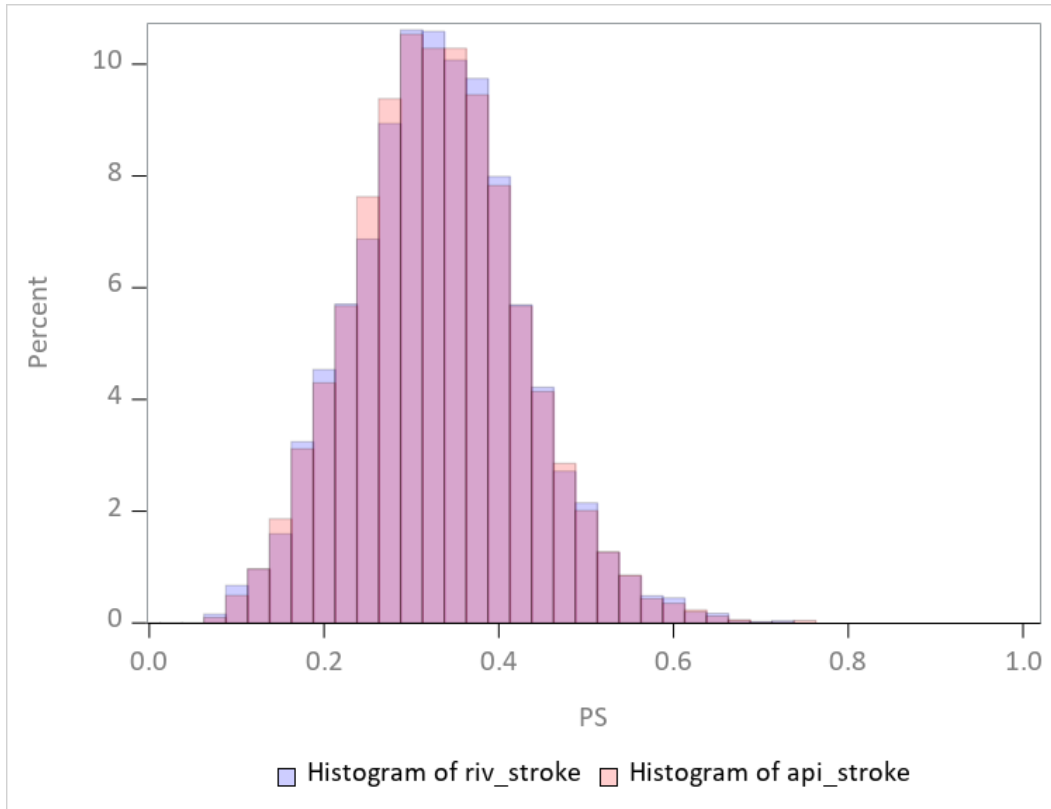


Figure 1j. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Unweighted Propensity Score Distribution Before Trimming

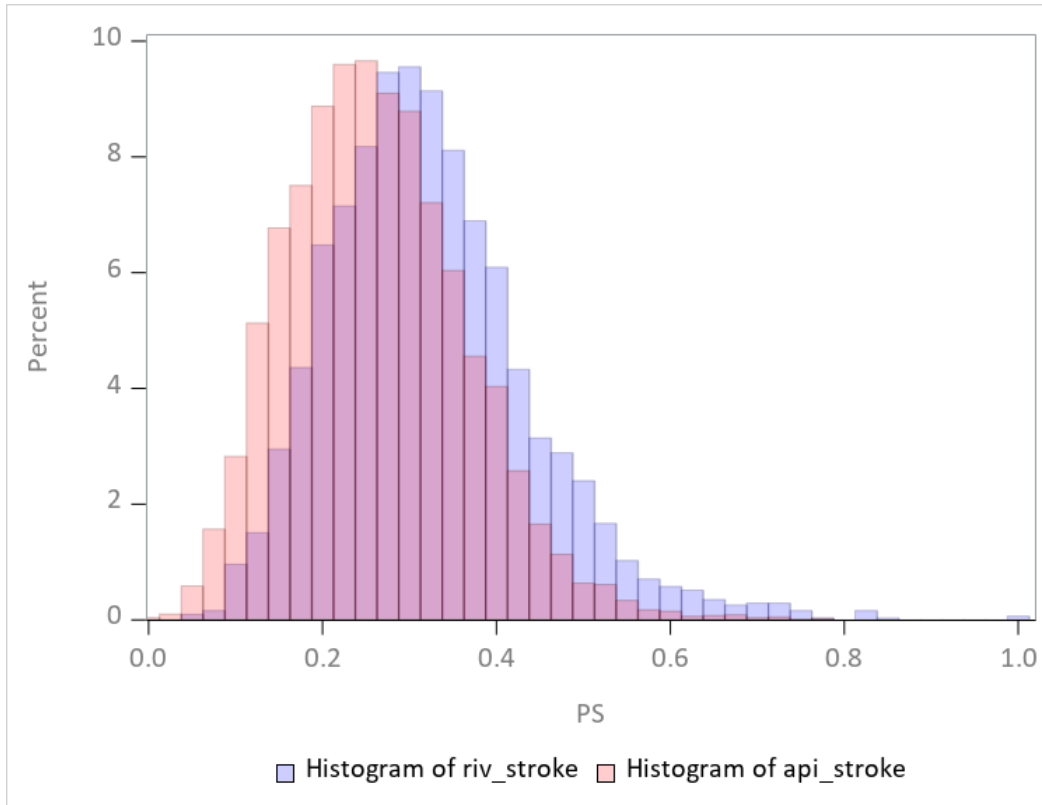


Figure 1j. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Unweighted Propensity Score Distribution After Trimming

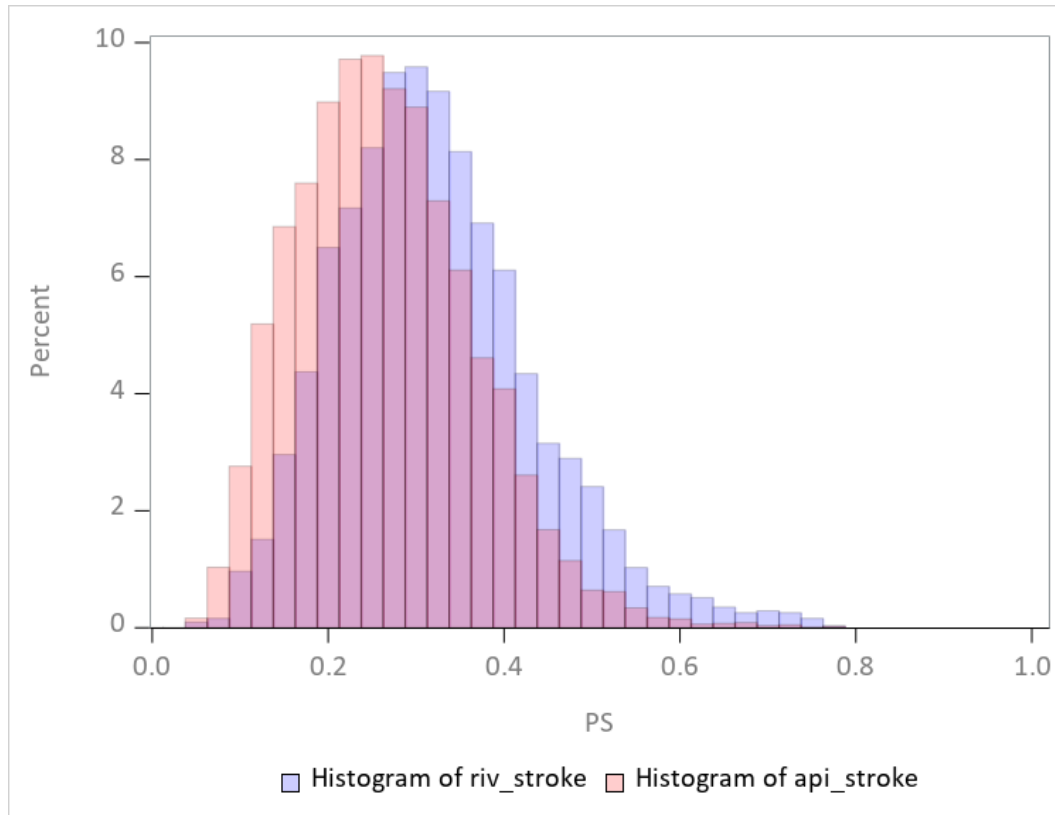


Figure 1j. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 4

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

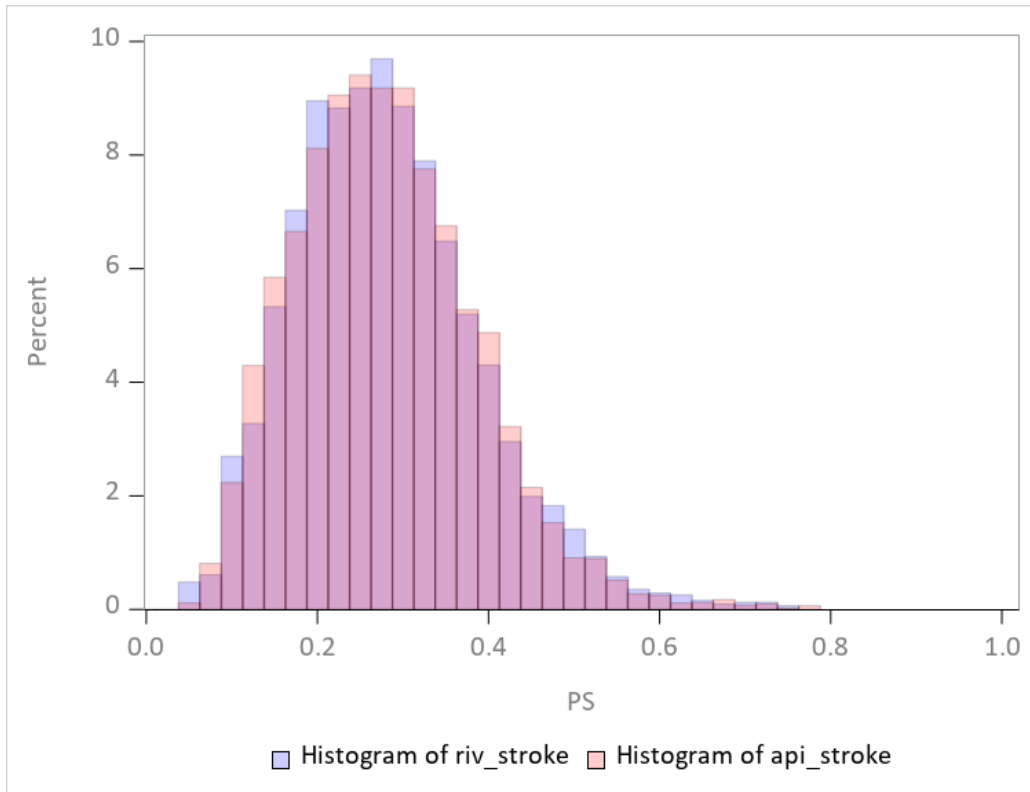


Figure 1k. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Unweighted Propensity Score Distribution Before Trimming

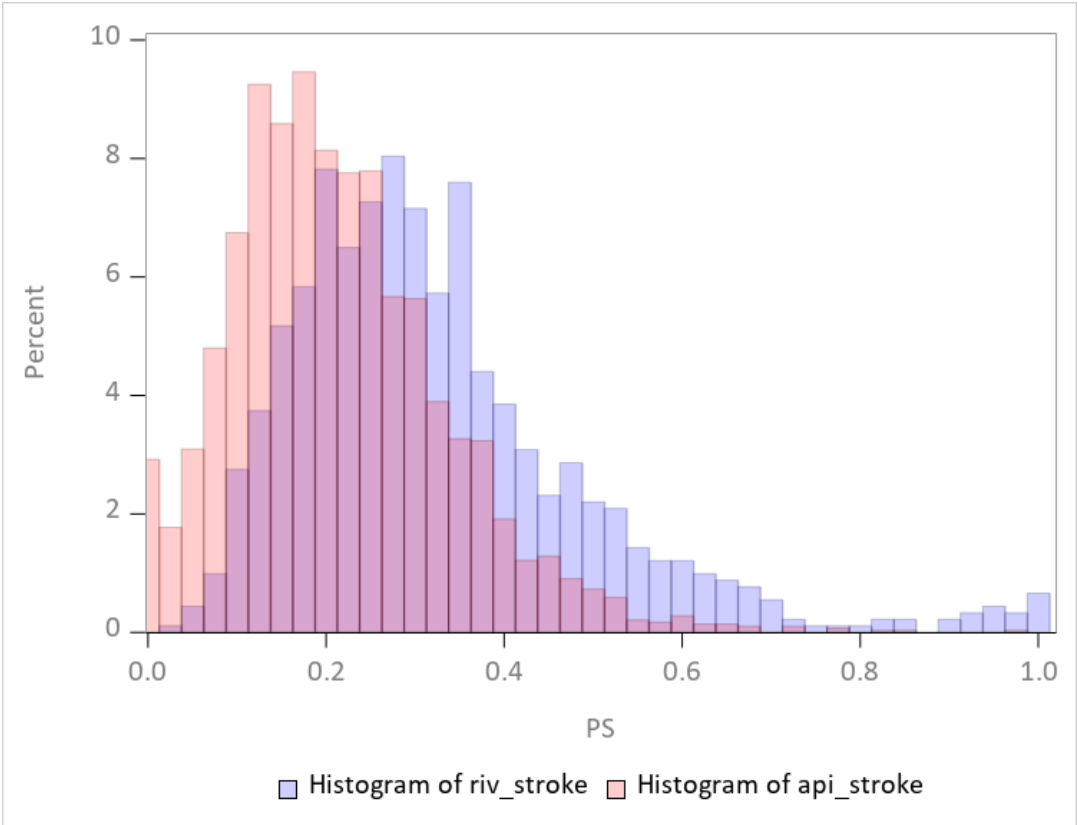


Figure 1k. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Unweighted Propensity Score Distribution After Trimming

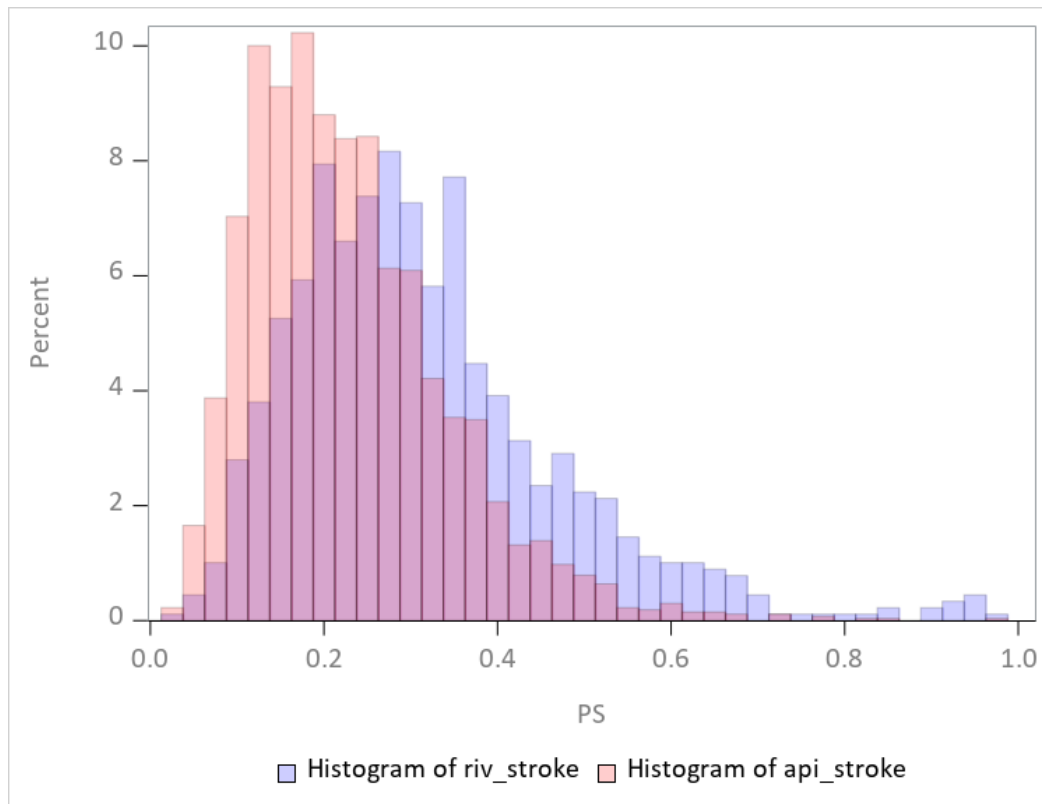


Figure 1k. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, CHADSVASC: 5+

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

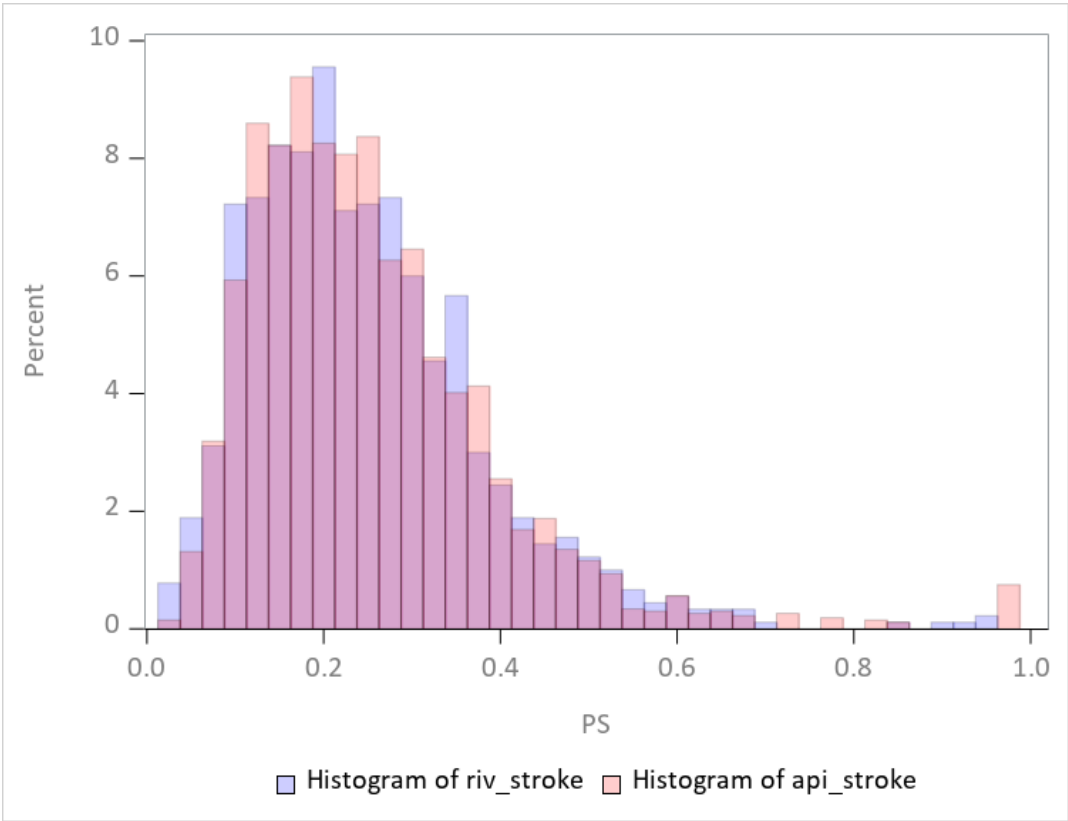


Figure 11. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 0

Unweighted Propensity Score Distribution Before Trimming

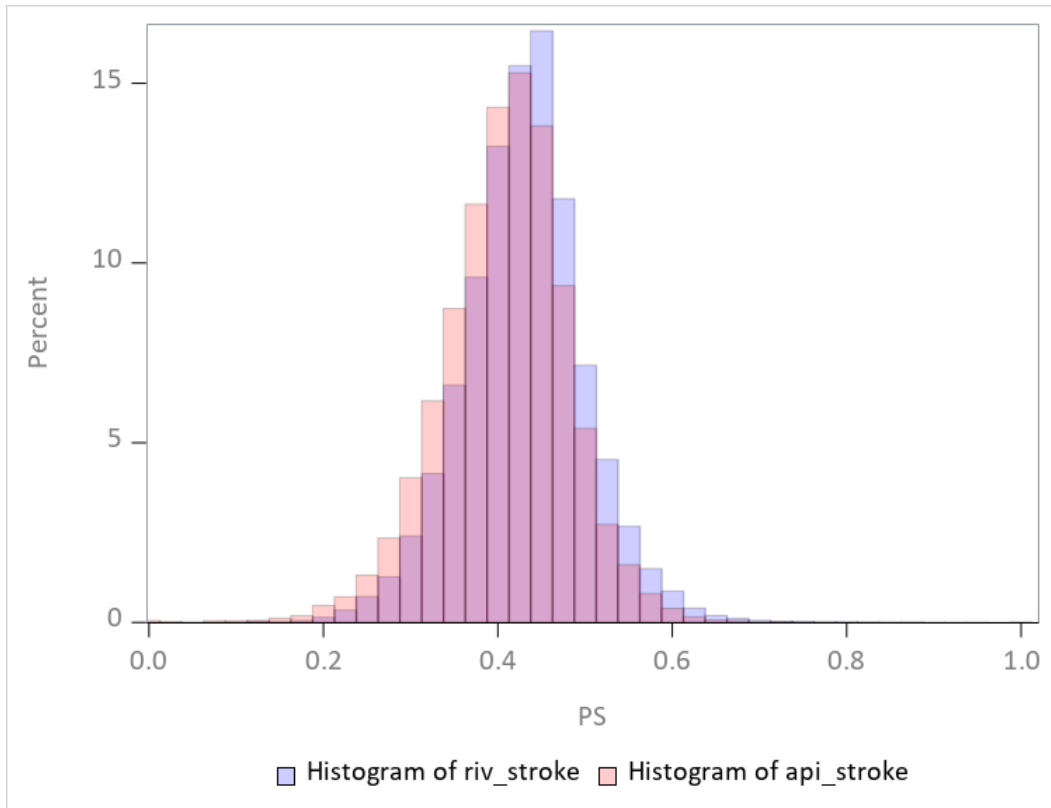


Figure 11. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 0

Unweighted Propensity Score Distribution After Trimming

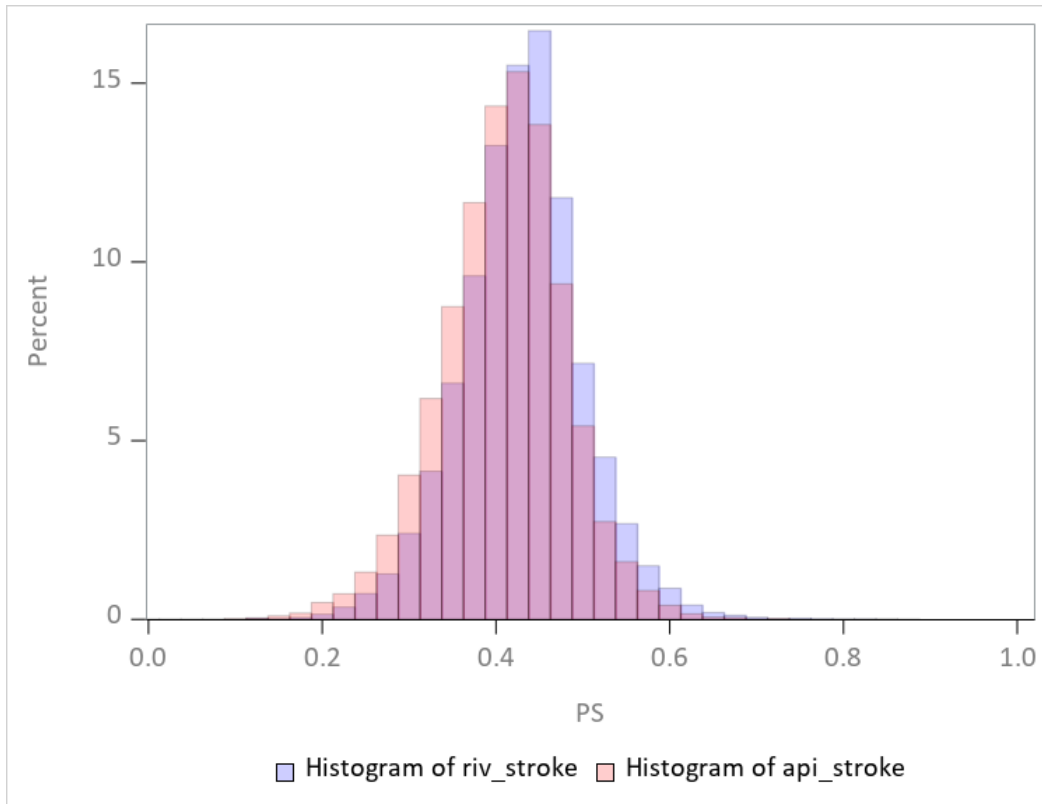


Figure 11. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 0

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

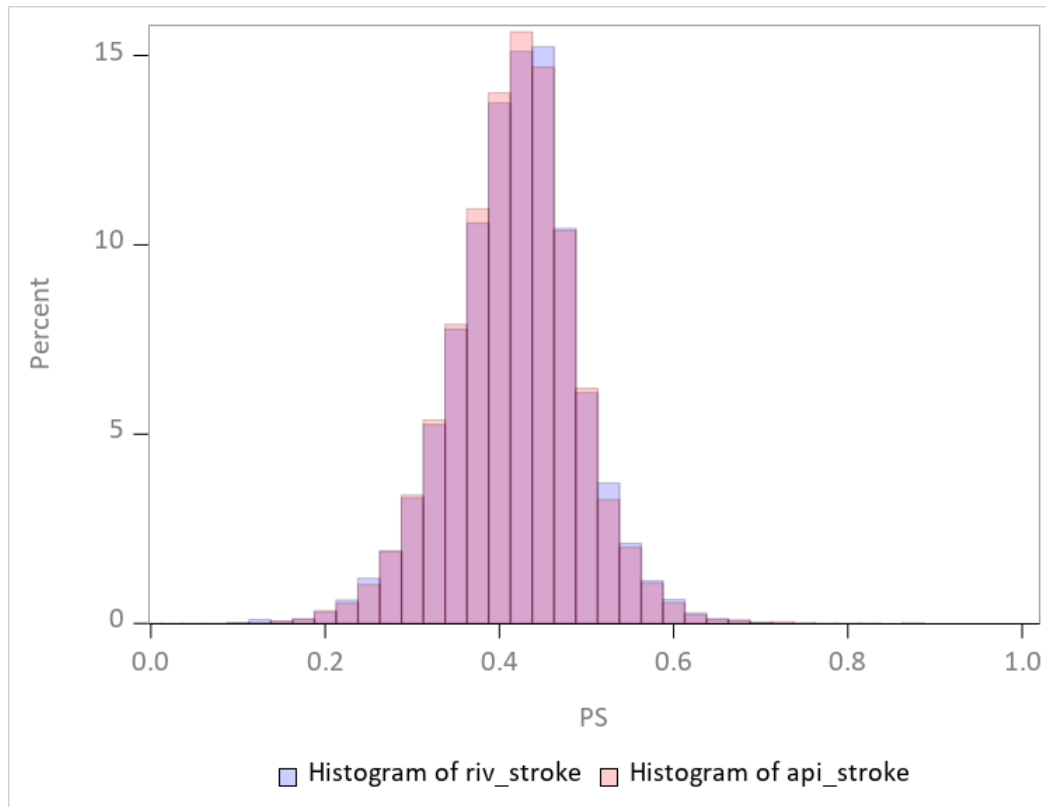


Figure 1m. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 1

Unweighted Propensity Score Distribution Before Trimming

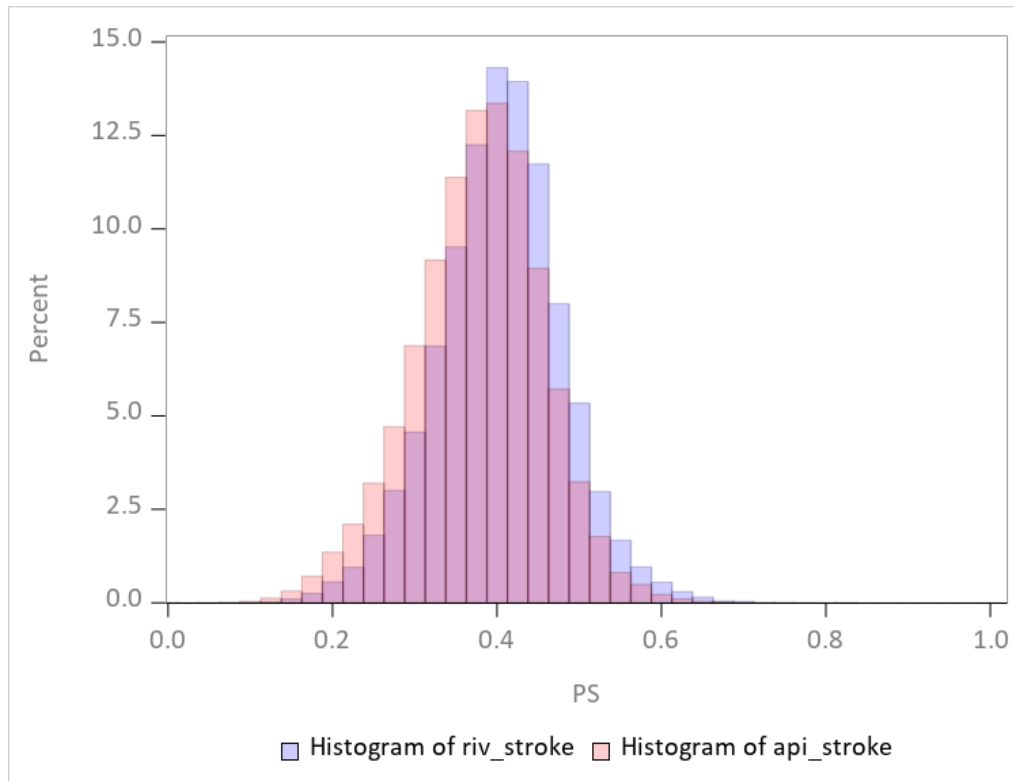


Figure 1m. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 1

Unweighted Propensity Score Distribution After Trimming

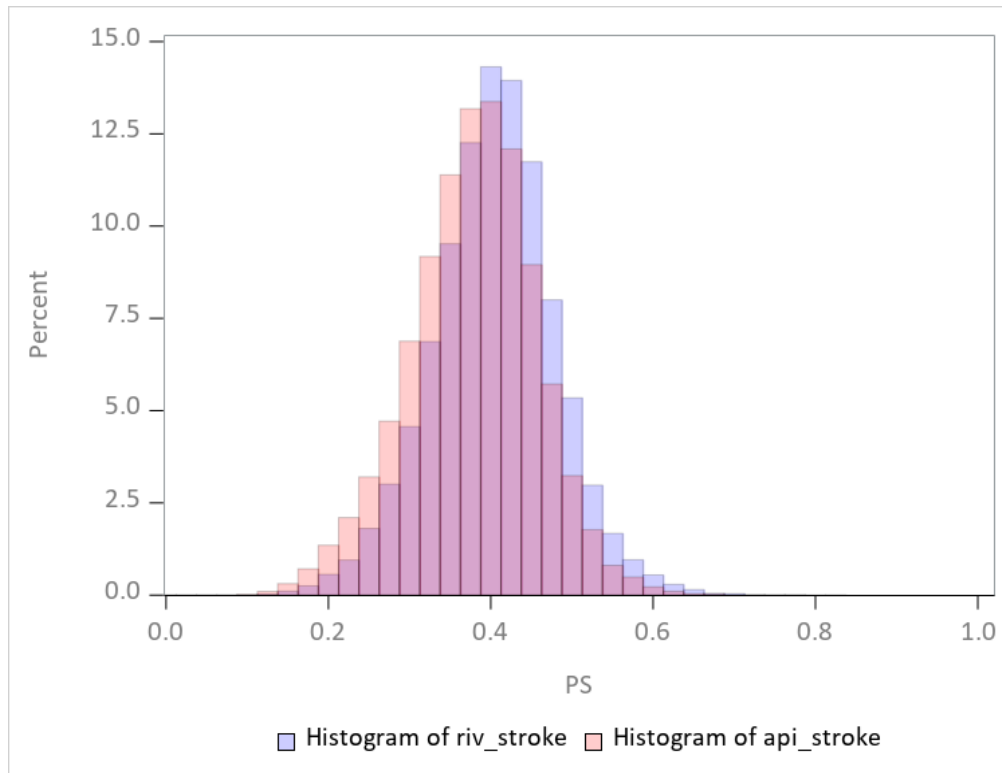


Figure 1m. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 1

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized (ATES)

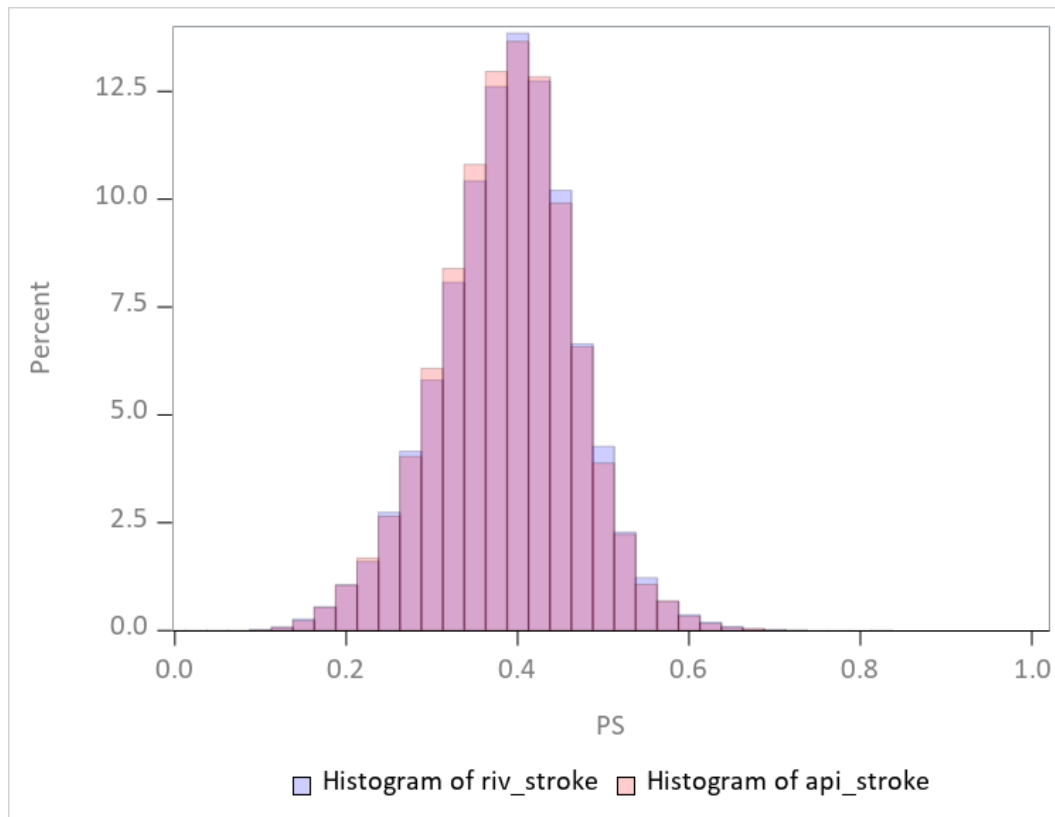


Figure 1n. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 2

Unweighted Propensity Score Distribution Before Trimming

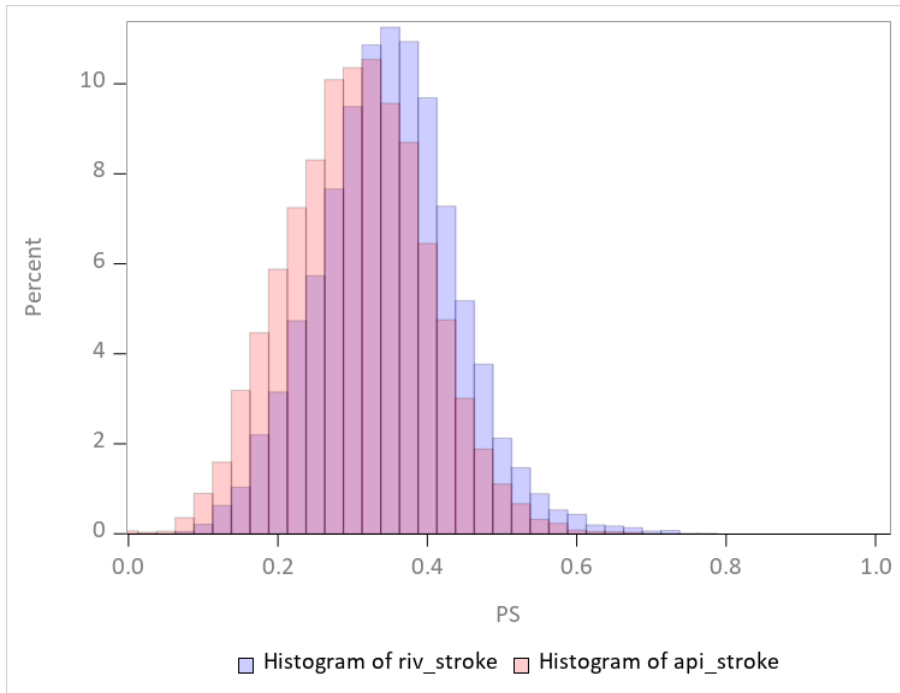


Figure 1n. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATES Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 2

Unweighted Propensity Score Distribution After Trimming

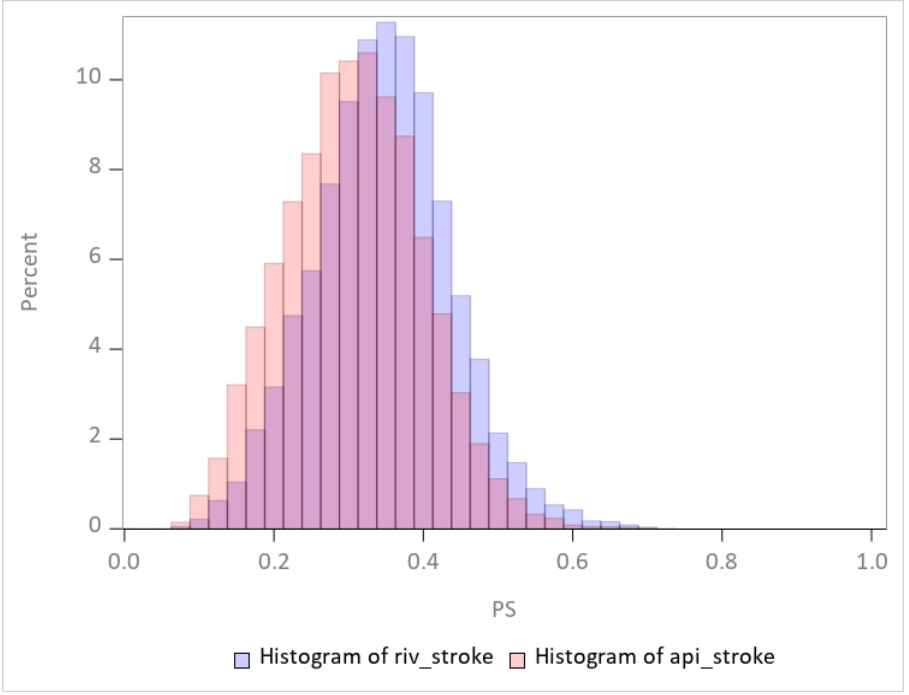


Figure 1n. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 2

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized(ATES)

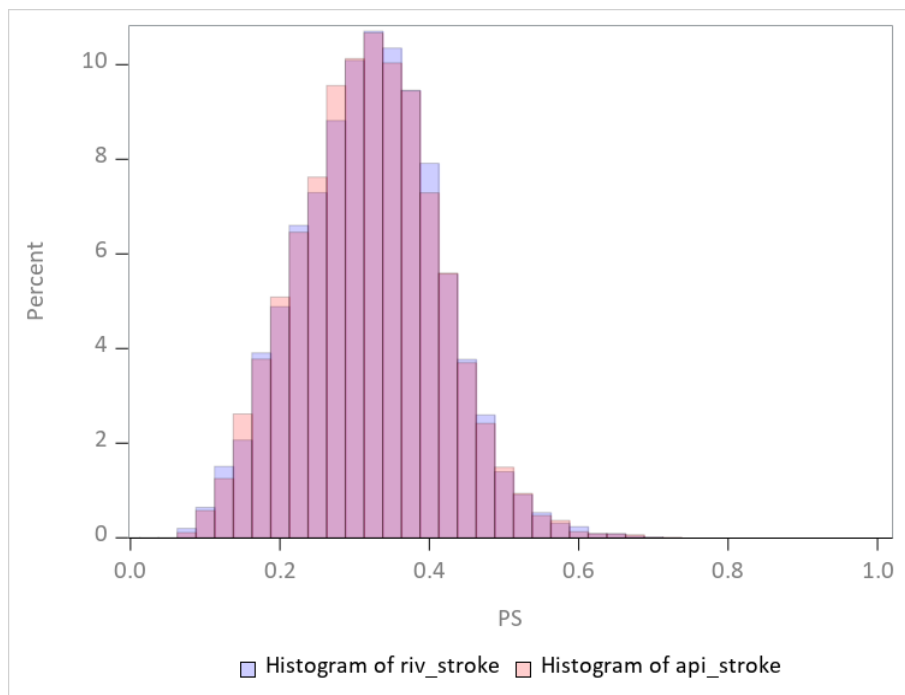


Figure 1o. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 3+

Unweighted Propensity Score Distribution Before Trimming

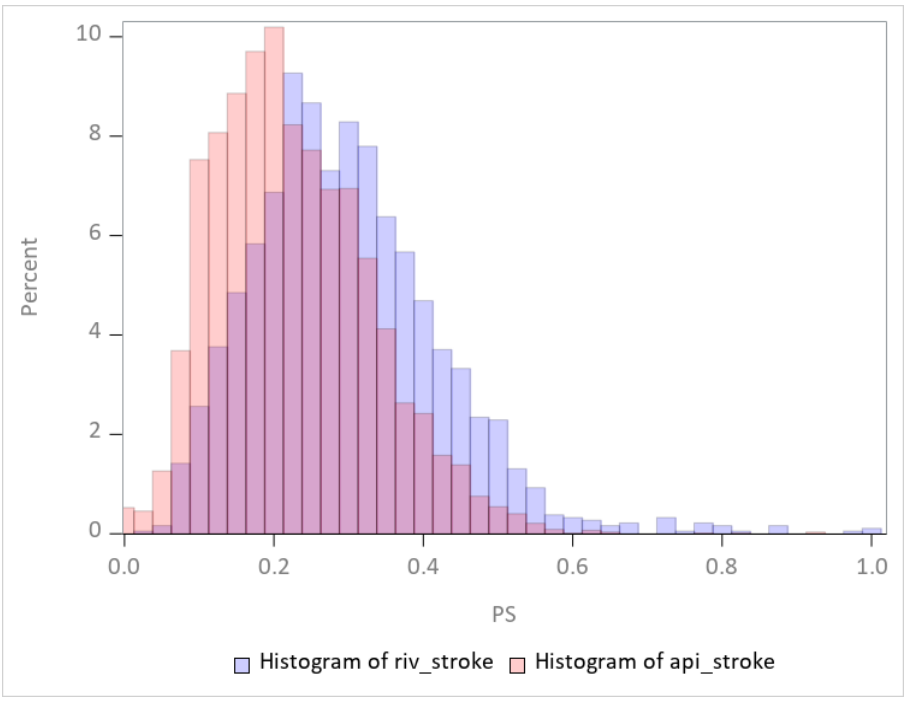


Figure 1o. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 3+

Unweighted Propensity Score Distribution After Trimming

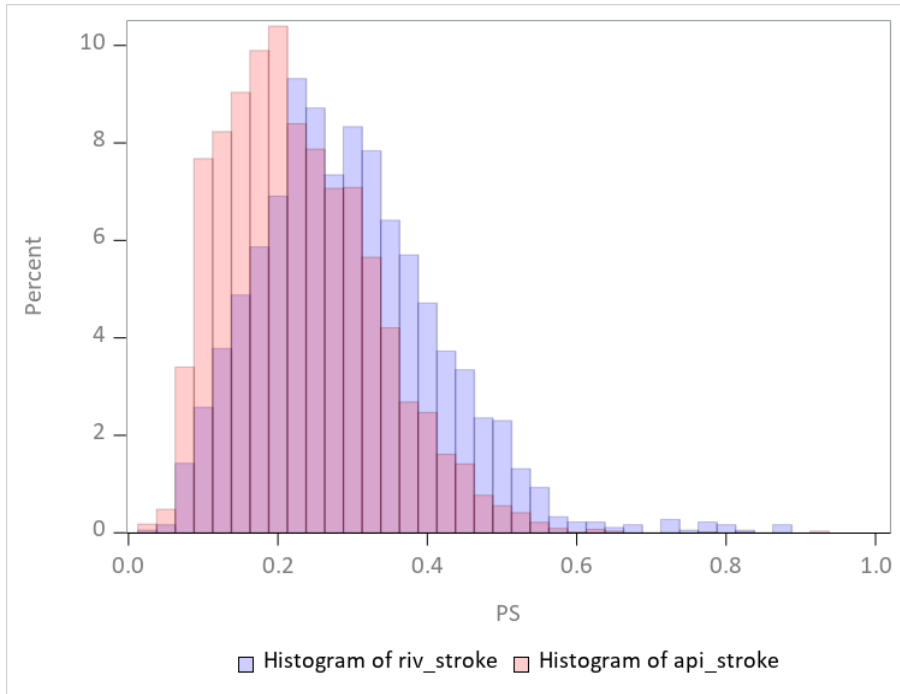


Figure 10. Histograms Depicting Propensity Score Distributions Before and After Adjustment, TruncWeight = 0%, ATEs Weights in the Sentinel Distributed Database (SDD) from October 19, 2010 to February 28, 2022, HASBLED: 3+

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect Stabilized(ATES)

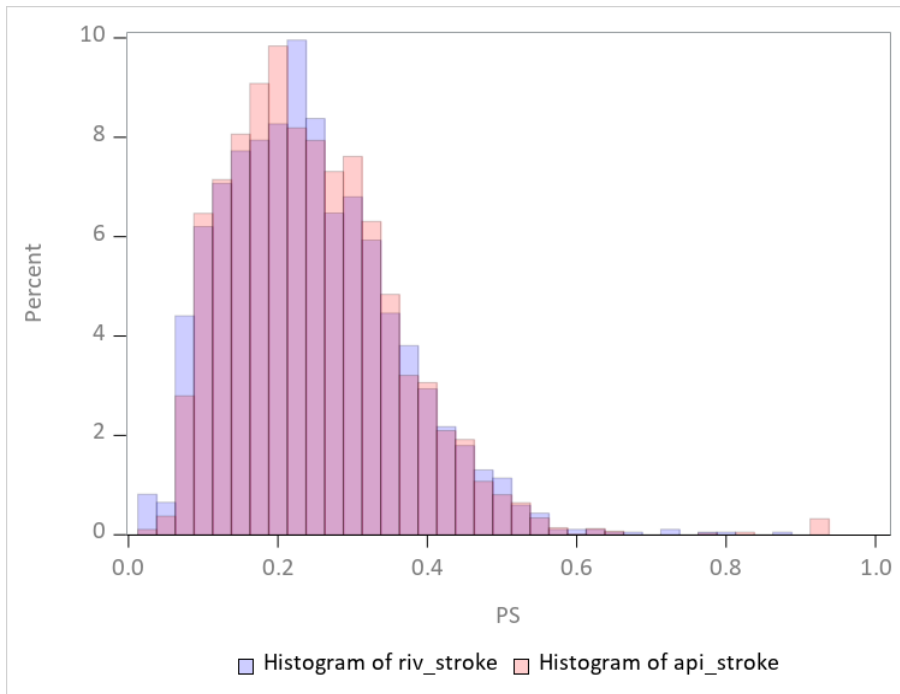


Figure 2a. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Thromboembolic Stroke, Site-Adjusted, Unweighted Analyses in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

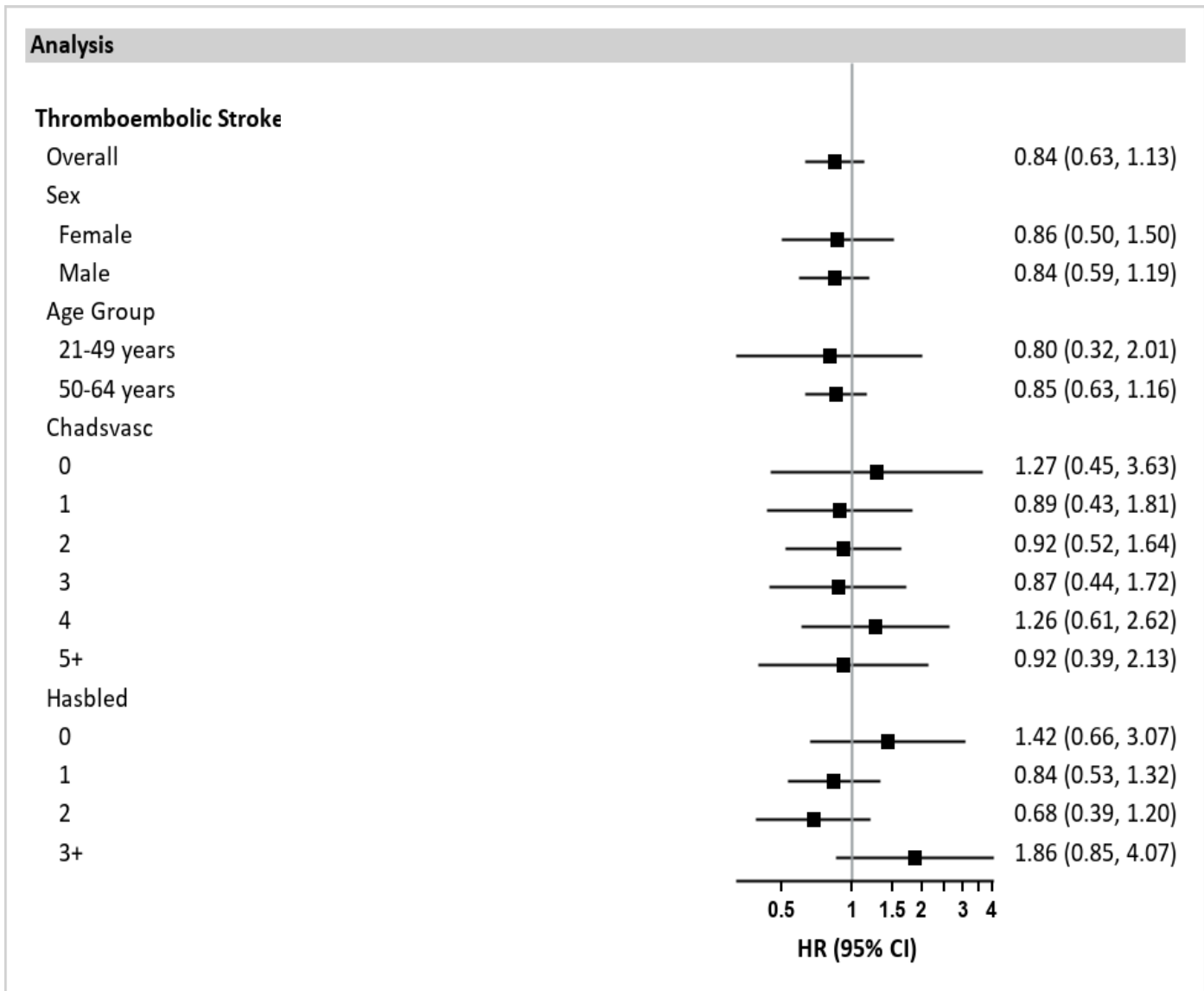


Figure 2b. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Major Extracranial Bleeding, Site-Adjusted, Unweighted Analyses in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

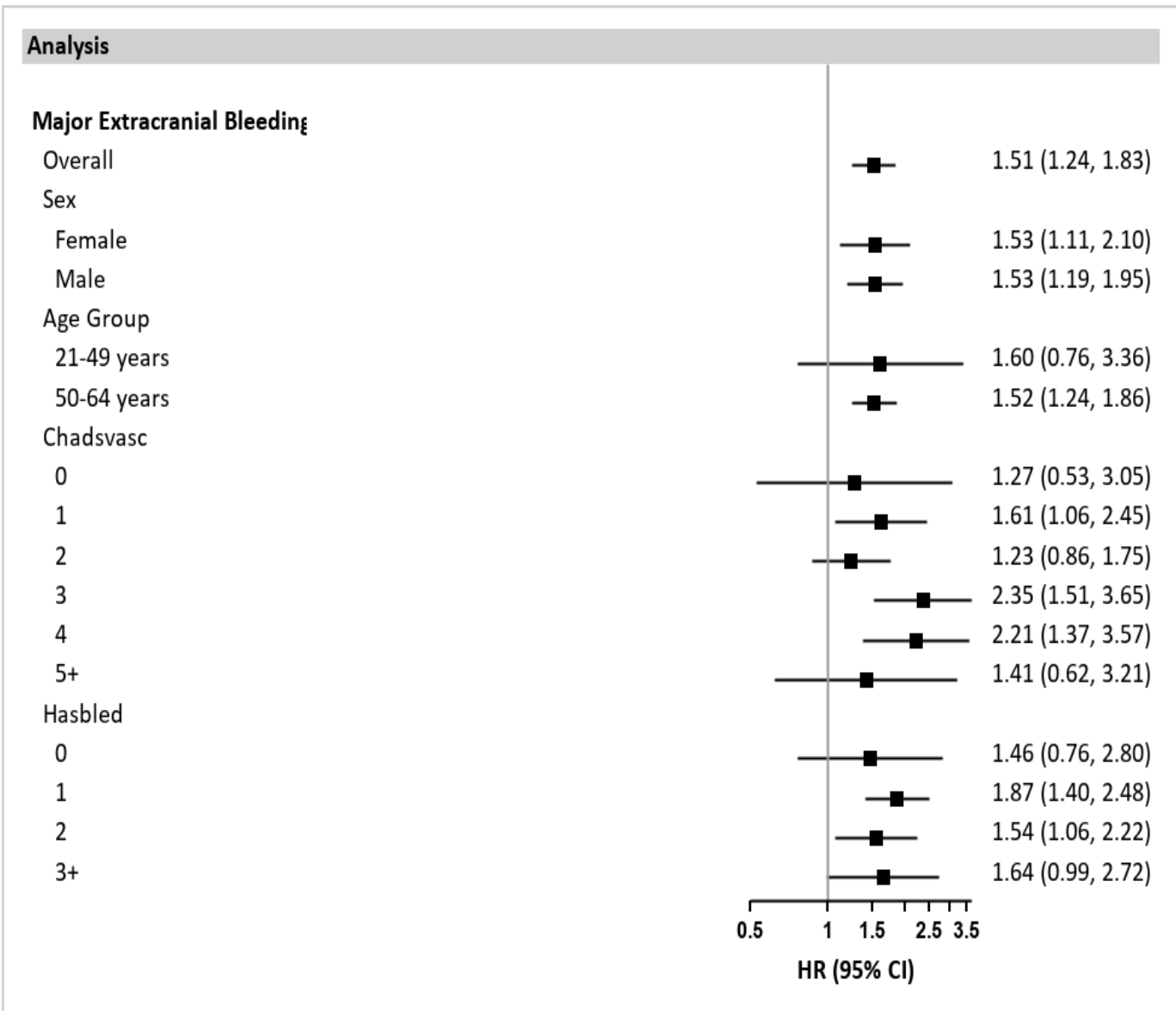


Figure 2c. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Gastrointestinal Hemorrhage, Site-Adjusted, Unweighted Analyses in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

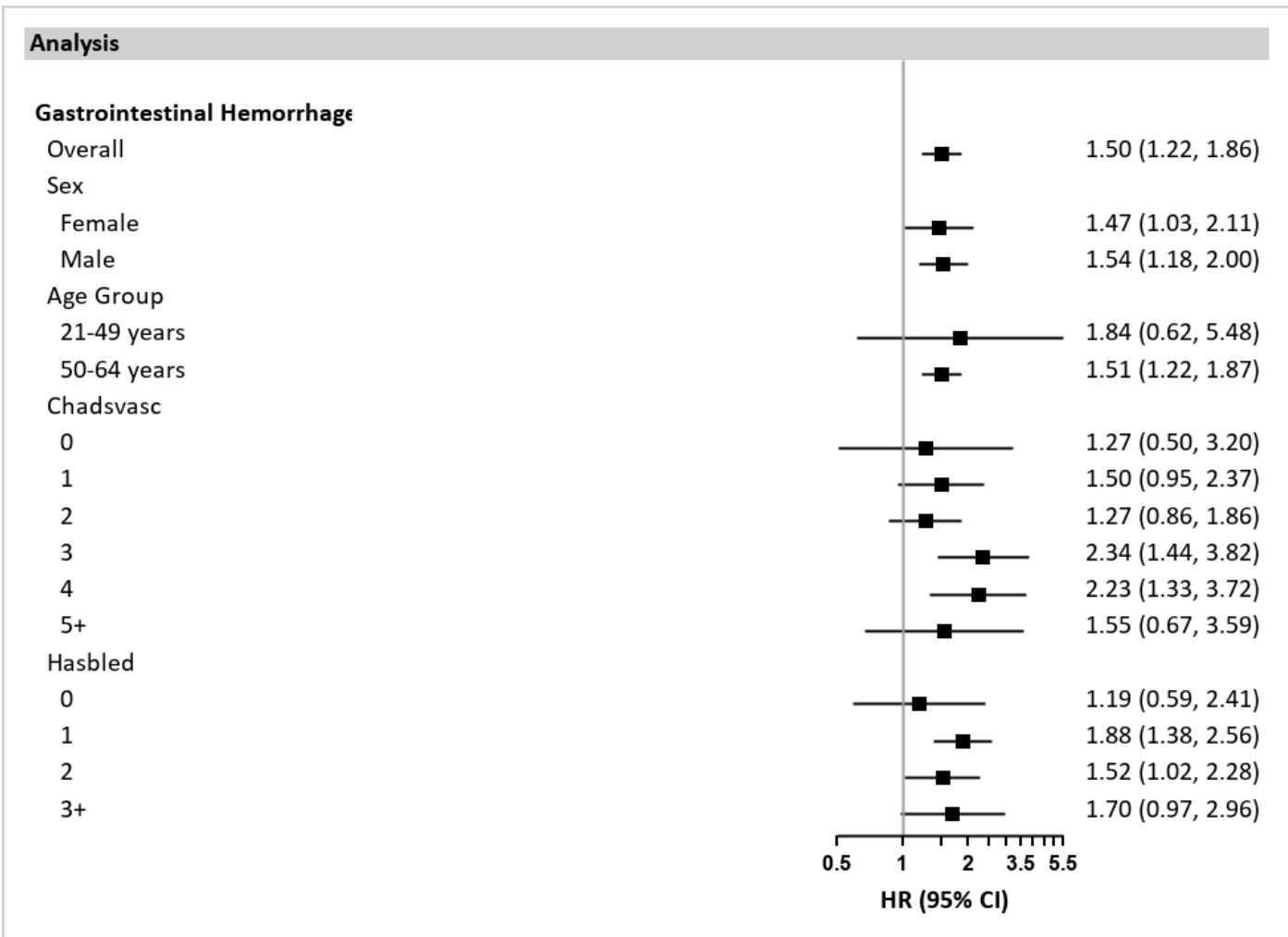


Figure 2d. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Intracranial Hemorrhage, Site-Adjusted Analyses, Unweighted in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022

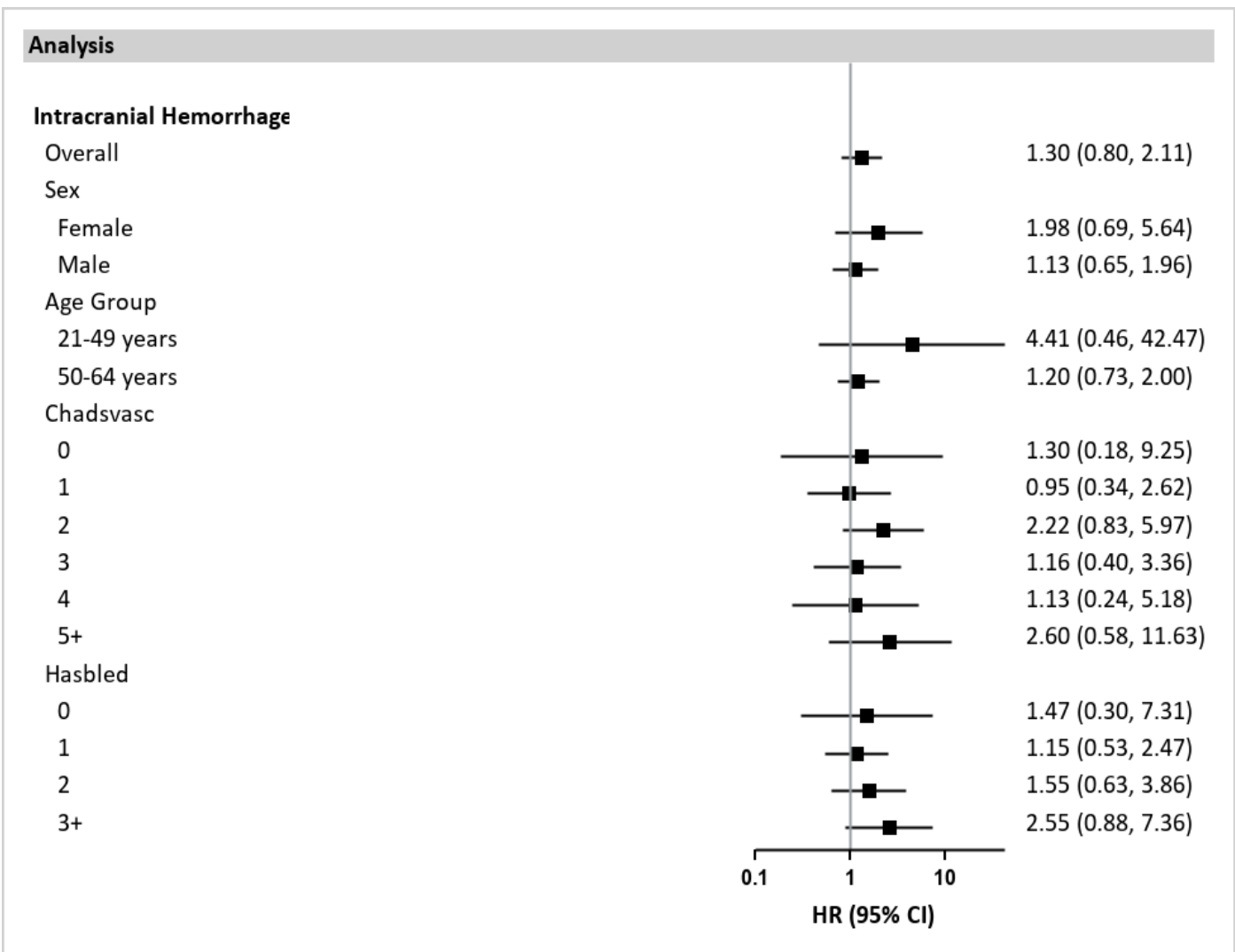
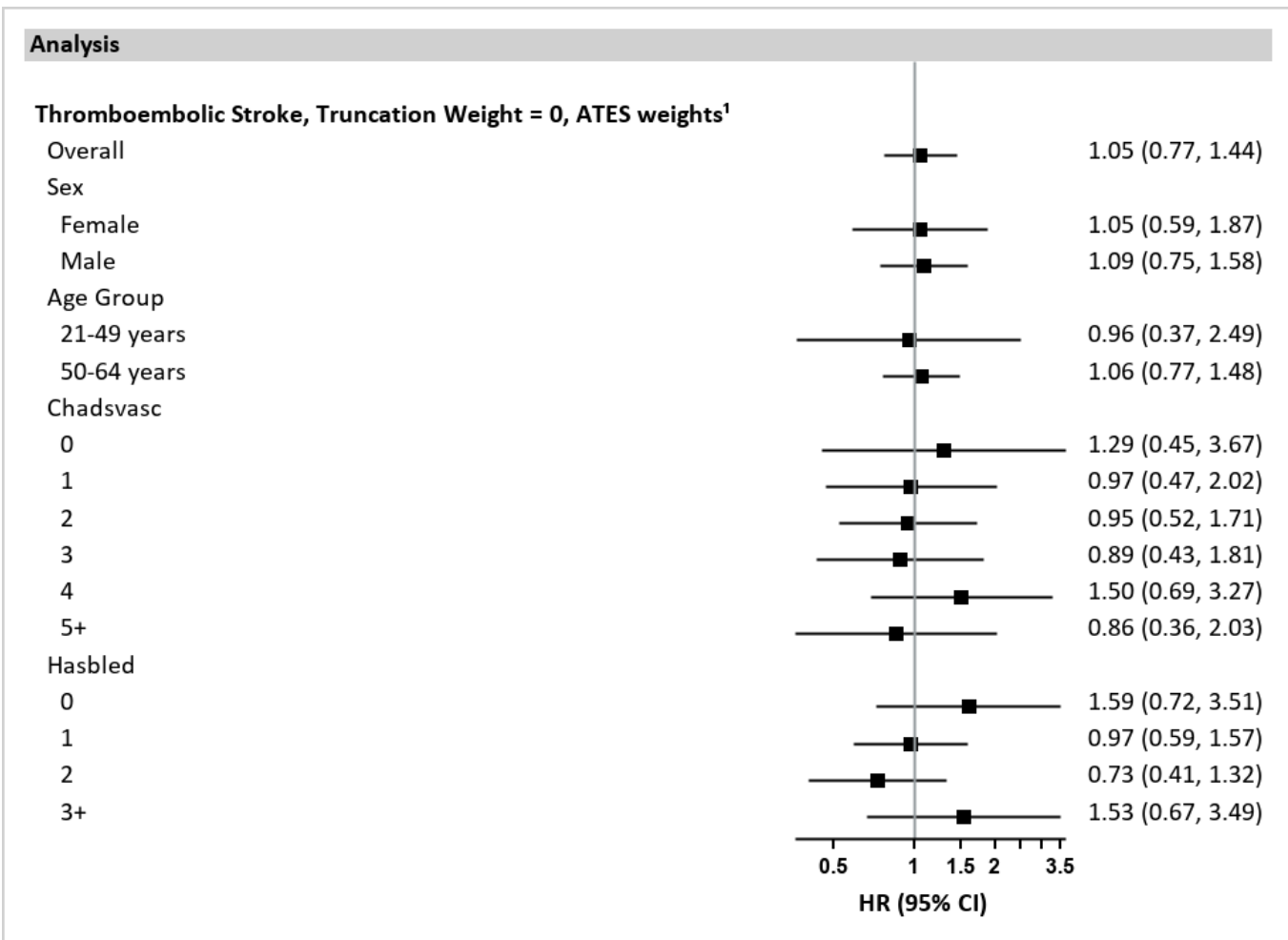
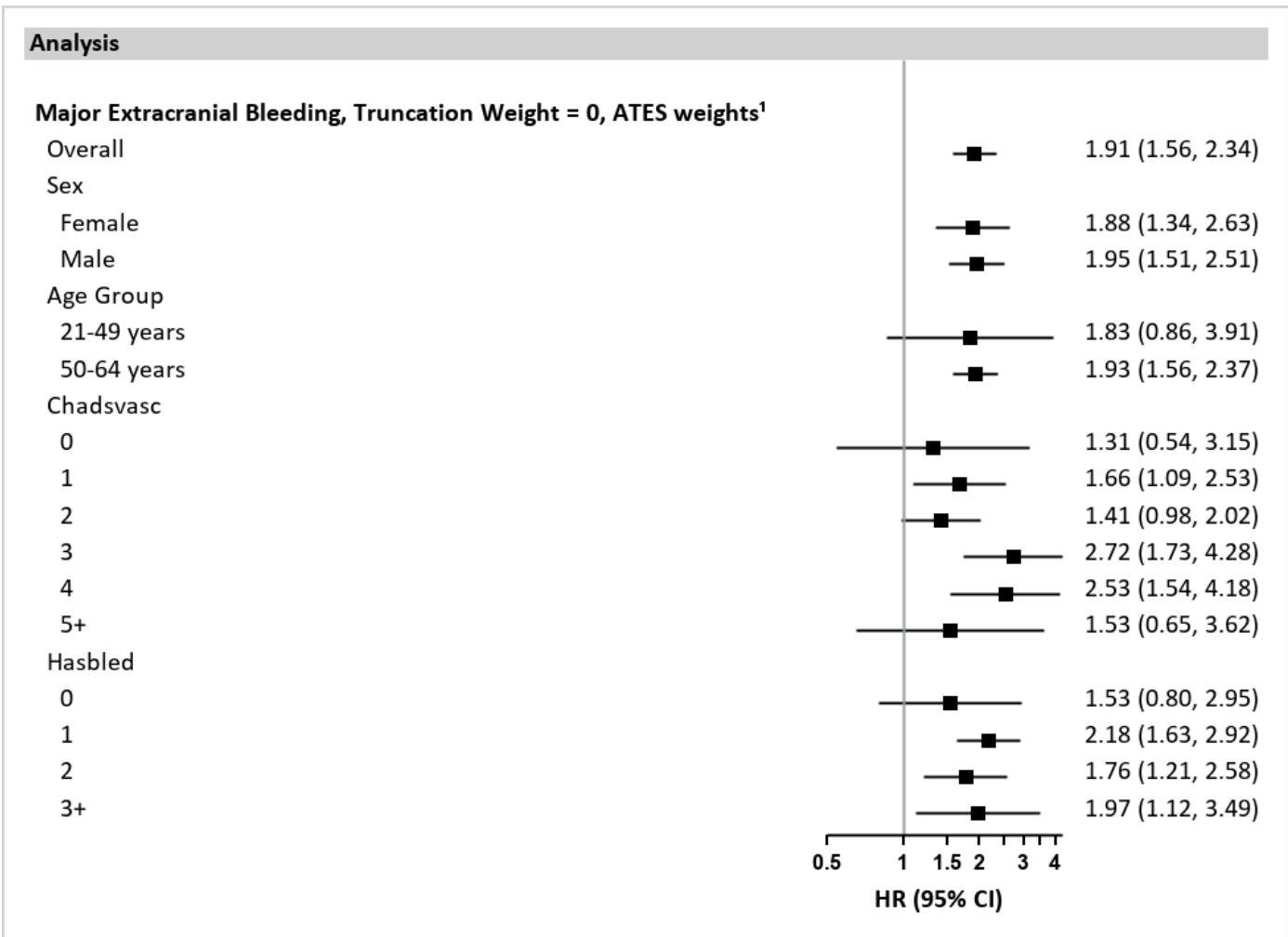


Figure 2e. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Thromboembolic Stroke, Truncation Weight = 0%, ATEs Weights, Inverse Probability of Treatment Weighted Analyses in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022



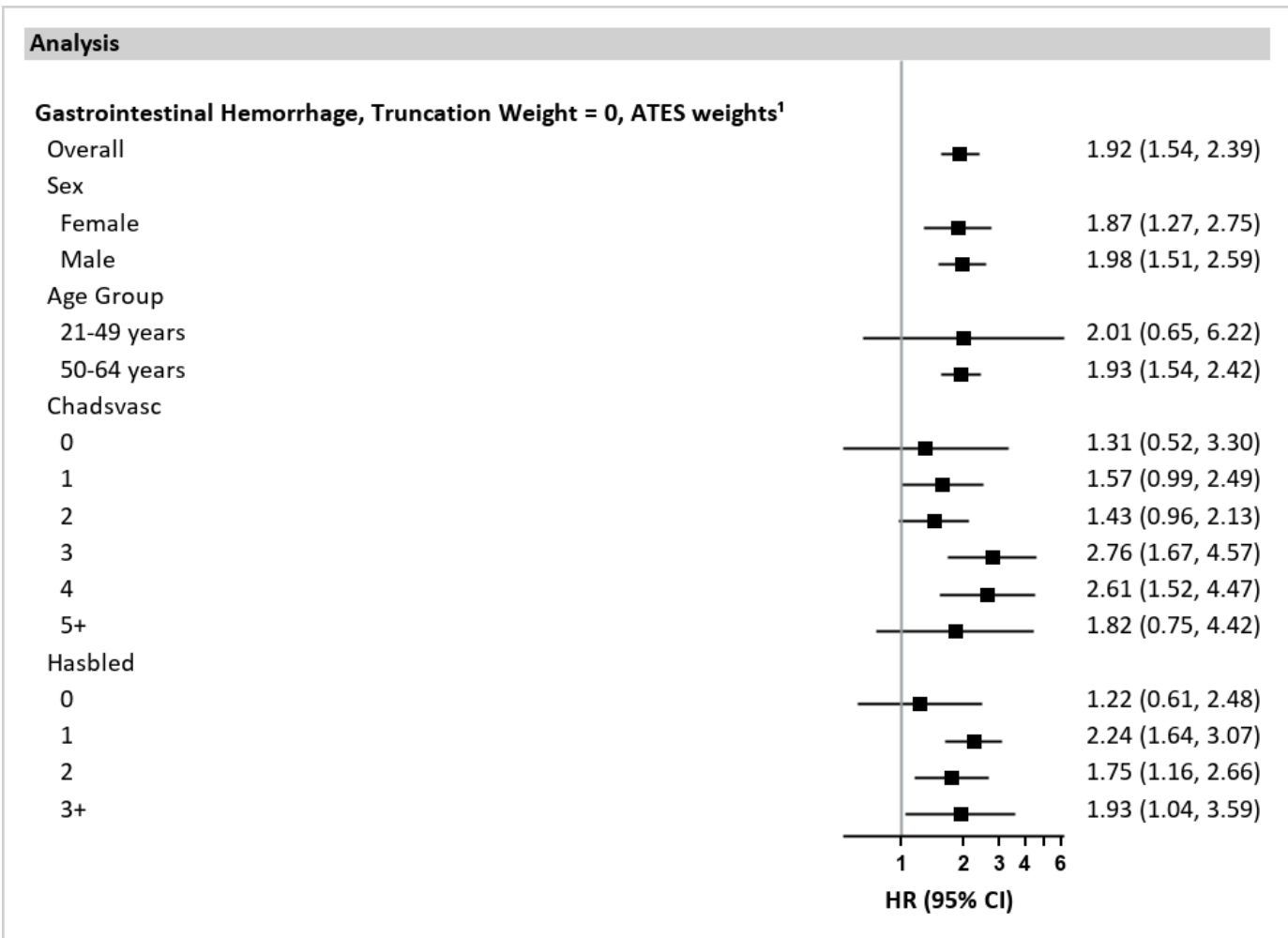
¹Weighted using Average Treatment Effect, Stabilized, (ATES)

Figure 2f. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Major Extracranial Bleeding, Truncation Weight = 0%, ATES Weights, Inverse Probability of Treatment Weighted Analyses in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022



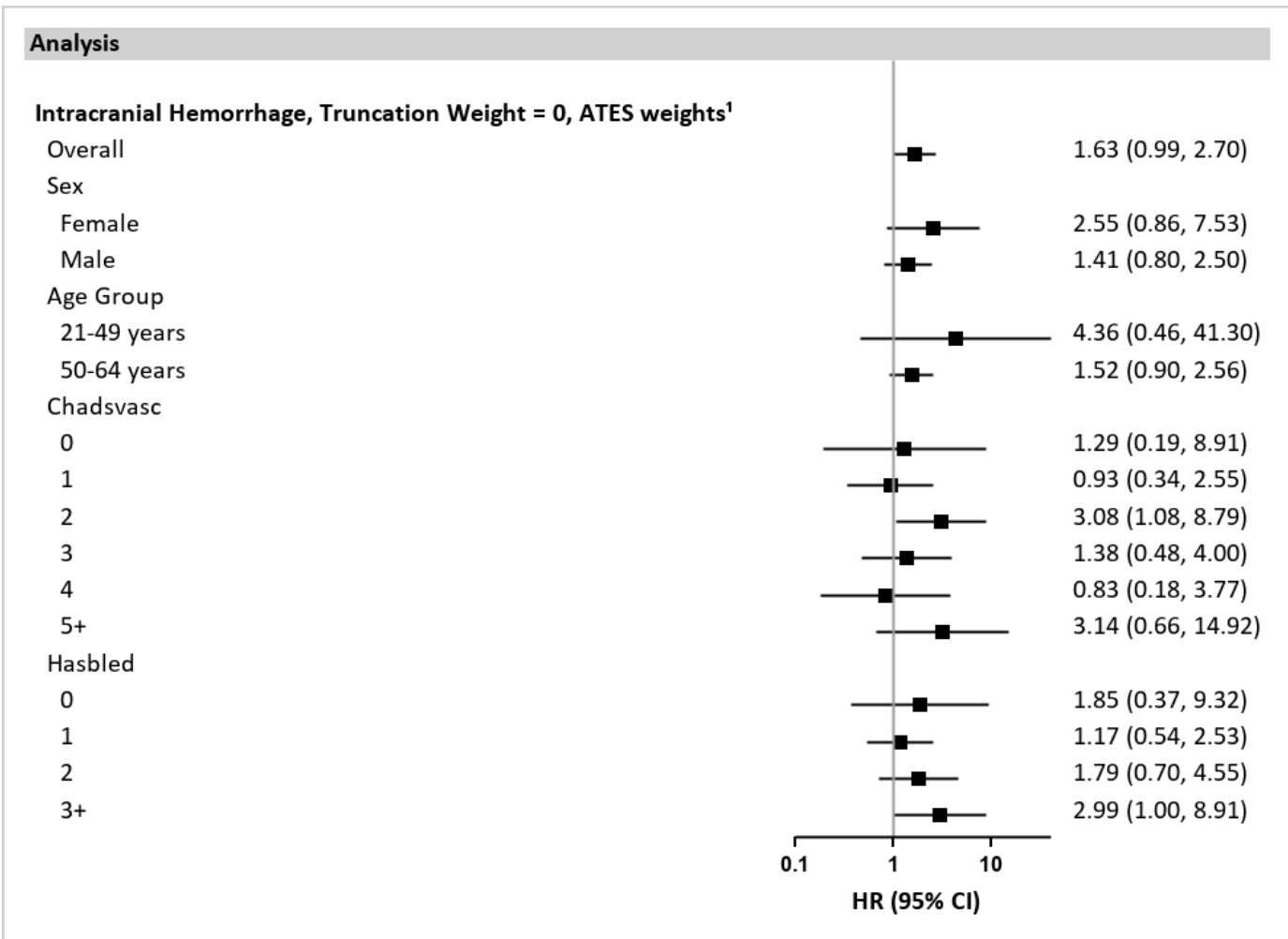
¹Weighted using Average Treatment Effect, Stabilized, (ATES)

Figure 2g. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Gastrointestinal Hemorrhage, Truncation Weight = 0%, ATES Weights, Inverse Probability of Treatment Weighted Analyses in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022



¹Weighted using Average Treatment Effect, Stabilized, (ATES)

Figure 2h. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Intracranial Hemorrhage, Truncation Weight = 0%, ATES Weights, Inverse Probability of Treatment Weighted Analyses in the Sentinel Distributed Database from October 19, 2010 to February 28, 2022



¹Weighted using Average Treatment Effect, Stabilized, (ATES)

Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (March 30, 2022)

Masked DP ID	DP Start Date	DP End Date ¹
DP01	01/01/2008	02/28/2022
DP02	01/01/2000	12/31/2020
DP03	01/01/2007	02/28/2022
DP04	01/01/2006	02/28/2022
DP05	01/01/2008	02/28/2022

¹End Date represents the earliest of: (1) query end date, or (2) last day of the most recent month for which all of a Data Partner's data tables (enrollment, dispensing, etc.) have at least 80% of the record count relative to the prior month.

Appendix B. List of Generic and Brand Names of Medical Products Used to Define Exposures in this Request

Generic Name	Brand Name
	Rivaroxaban
rivaroxaban	Xarelto
	Apixaban
apixaban	Eliquis
apixaban	Eliquis DVT-PE Treat 30D Start

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
Dialysis			
792.5	Cloudy (hemodialysis) (peritoneal) dialysis affluent	Diagnosis	ICD-9-CM
V45.1	Renal dialysis status	Diagnosis	ICD-9-CM
V45.11	Renal dialysis status	Diagnosis	ICD-9-CM
V45.12	Noncompliance with renal dialysis	Diagnosis	ICD-9-CM
V56.0	Encounter for extracorporeal dialysis	Diagnosis	ICD-9-CM
V56.1	Fitting and adjustment of extracorporeal dialysis catheter	Diagnosis	ICD-9-CM
V56.2	Fitting and adjustment of peritoneal dialysis catheter	Diagnosis	ICD-9-CM
V56.3	Encounter for adequacy testing for dialysis	Diagnosis	ICD-9-CM
V56.31	Encounter for adequacy testing for hemodialysis	Diagnosis	ICD-9-CM
V56.32	Encounter for adequacy testing for peritoneal dialysis	Diagnosis	ICD-9-CM
V56.8	Encounter other dialysis	Diagnosis	ICD-9-CM
R88.0	Cloudy (hemodialysis) (peritoneal) dialysis effluent	Diagnosis	ICD-10-CM
Z49.01	Encounter for fitting and adjustment of extracorporeal dialysis catheter	Diagnosis	ICD-10-CM
Z49.02	Encounter for fitting and adjustment of peritoneal dialysis catheter	Diagnosis	ICD-10-CM
Z49.31	Encounter for adequacy testing for hemodialysis	Diagnosis	ICD-10-CM
Z49.32	Encounter for adequacy testing for peritoneal dialysis	Diagnosis	ICD-10-CM
Z91.15	Patient's noncompliance with renal dialysis	Diagnosis	ICD-10-CM
Z99.2	Dependence on renal dialysis	Diagnosis	ICD-10-CM
90935	Hemodialysis procedure with single evaluation by a physician or other qualified health care professional	Procedure	CPT-4
90937	Hemodialysis procedure requiring repeated evaluation(s) with or without substantial revision of dialysis prescription	Procedure	CPT-4
90939	Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator dilution method, hook-up; transcutaneous measurement and disconnection	Procedure	CPT-4
90940	Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator method	Procedure	CPT-4
90941	Hemodialysis, For Acute Renal Failure And Or Intoxication,	Procedure	CPT-4
90942	Hemodialysis, For Acute Renal Failure And Or Intoxication,	Procedure	CPT-4
90943	Hemodialysis, For Acute Renal Failure And Or Intoxication,	Procedure	CPT-4
90944	Hemodialysis, For Acute Renal Failure And Or Intoxication,	Procedure	CPT-4
90945	Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies), with single evaluation by a physician or other qualified health care professional	Procedure	CPT-4
90947	Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies) requiring repeated evaluations by a physician or other qualified health care professional, with or without substantial revision of dialysis prescription	Procedure	CPT-4
90951	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 4 or more face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
90952	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 2-3 face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90953	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 1 face-to-face visit by a physician or other qualified health care professional per month	Procedure	CPT-4
90954	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 4 or more face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90955	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 2-3 face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90956	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 1 face-to-face visit by a physician or other qualified health care professional per month	Procedure	CPT-4
90957	End-stage renal disease (ESRD) related services monthly, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 4 or more face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90958	End-stage renal disease (ESRD) related services monthly, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 2-3 face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90959	End-stage renal disease (ESRD) related services monthly, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 1 face-to-face visit by a physician or other qualified health care professional per month	Procedure	CPT-4
90960	End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 4 or more face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90961	End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 2-3 face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90962	End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 1 face-to-face visit by a physician or other qualified health care professional per month	Procedure	CPT-4
90963	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents	Procedure	CPT-4

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
90964	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents	Procedure	CPT-4
90965	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents	Procedure	CPT-4
90966	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 20 years of age and older	Procedure	CPT-4
90967	End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients younger than 2 years of age	Procedure	CPT-4
90968	End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 2-11 years of age	Procedure	CPT-4
90969	End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 12-19 years of age	Procedure	CPT-4
90970	End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 20 years of age and older	Procedure	CPT-4
90976	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90977	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90978	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90979	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90982	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90983	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90984	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90985	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90988	Supervision Of Hemodialysis In Hospital Or Other Facility (excluding Home Dialysis), On Monthly Basis	Procedure	CPT-4
90989	Dialysis training, patient, including helper where applicable, any mode, completed course	Procedure	CPT-4
90990	Hemodialysis Training And/or Counseling	Procedure	CPT-4
90991	Home Hemodialysis Care, Outpatient, For Those Services Either Provided By The Physician Primarily Responsible	Procedure	CPT-4
90992	Peritoneal Dialysis Training And/or Counseling	Procedure	CPT-4
90993	Dialysis training, patient, including helper where applicable, any mode, course not completed, per training session	Procedure	CPT-4
90994	Supervision Of Chronic Ambulatory Peritoneal Dialysis (capd), Home Or Out-patient (monthly)	Procedure	CPT-4
90995	End Stage Renal Disease (esrd) Related Services, Per Full Month	Procedure	CPT-4
90996	Continuous Arteriovenous Hemofiltration (cavh) (per Day)	Procedure	CPT-4
90997	Hemoperfusion (eg, with activated charcoal or resin)	Procedure	CPT-4
90998	End Stage Renal Disease (esrd) Related Services (less Than Full Month), Per Day	Procedure	CPT-4
90999	Unlisted dialysis procedure, inpatient or outpatient	Procedure	CPT-4
Kidney replacement			
556	Transplant of kidney	Procedure	ICD-9-CM
5561	Renal autotransplantation	Procedure	ICD-9-CM
5569	Other kidney transplantation	Procedure	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
99681	Complications of transplanted kidney	Diagnosis	ICD-9-CM
V420	Kidney replaced by transplant	Diagnosis	ICD-9-CM
T86.10	Unspecified complication of kidney transplant	Diagnosis	ICD-10-CM
T86.11	Kidney transplant rejection	Diagnosis	ICD-10-CM
T86.12	Kidney transplant failure	Diagnosis	ICD-10-CM
T86.13	Kidney transplant infection	Diagnosis	ICD-10-CM
T86.19	Other complication of kidney transplant	Diagnosis	ICD-10-CM
Z48.22	Encounter for aftercare following kidney transplant	Diagnosis	ICD-10-CM
Z94.0	Kidney transplant status	Diagnosis	ICD-10-CM
OTS00ZZ	Reposition Right Kidney, Open Approach	Procedure	ICD-10-PCS
OTS10ZZ	Reposition Left Kidney, Open Approach	Procedure	ICD-10-PCS
OTY00Z0	Transplantation of Right Kidney, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OTY00Z1	Transplantation of Right Kidney, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OTY00Z2	Transplantation of Right Kidney, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OTY10Z0	Transplantation of Left Kidney, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OTY10Z1	Transplantation of Left Kidney, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OTY10Z2	Transplantation of Left Kidney, Zooplastic, Open Approach	Procedure	ICD-10-PCS
Ischemic Stroke			
433.01	Occlusion and stenosis of basilar artery with cerebral infarction	Diagnosis	ICD-9-CM
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	Diagnosis	ICD-9-CM
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.31	Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction	Diagnosis	ICD-9-CM
433.81	Occlusion and stenosis of other specified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.91	Occlusion and stenosis of unspecified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
434.01	Cerebral thrombosis with cerebral infarction	Diagnosis	ICD-9-CM
434.11	Cerebral embolism with cerebral infarction	Diagnosis	ICD-9-CM
434.91	Unspecified cerebral artery occlusion with cerebral infarction	Diagnosis	ICD-9-CM
436	Acute, but ill-defined, cerebrovascular disease	Diagnosis	ICD-9-CM
I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar arteries	Diagnosis	ICD-10-CM
I63.139	Cerebral infarction due to embolism of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid arteries	Diagnosis	ICD-10-CM
I63.019	Cerebral infarction due to thrombosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.119	Cerebral infarction due to embolism of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral arteries	Diagnosis	ICD-10-CM
I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery	Diagnosis	ICD-10-CM
I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral arteries	Diagnosis	ICD-10-CM
I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery	Diagnosis	ICD-10-CM
I67.89	Other cerebrovascular disease	Diagnosis	ICD-10-CM
I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.011	Cerebral infarction due to thrombosis of right vertebral artery	Diagnosis	ICD-10-CM
I63.012	Cerebral infarction due to thrombosis of left vertebral artery	Diagnosis	ICD-10-CM
I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.02	Cerebral infarction due to thrombosis of basilar artery	Diagnosis	ICD-10-CM
I63.031	Cerebral infarction due to thrombosis of right carotid artery	Diagnosis	ICD-10-CM
I63.032	Cerebral infarction due to thrombosis of left carotid artery	Diagnosis	ICD-10-CM
I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.09	Cerebral infarction due to thrombosis of other precerebral artery	Diagnosis	ICD-10-CM
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.111	Cerebral infarction due to embolism of right vertebral artery	Diagnosis	ICD-10-CM
I63.112	Cerebral infarction due to embolism of left vertebral artery	Diagnosis	ICD-10-CM
I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.12	Cerebral infarction due to embolism of basilar artery	Diagnosis	ICD-10-CM
I63.131	Cerebral infarction due to embolism of right carotid artery	Diagnosis	ICD-10-CM
I63.132	Cerebral infarction due to embolism of left carotid artery	Diagnosis	ICD-10-CM
I63.133	Cerebral infarction due to embolism of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.19	Cerebral infarction due to embolism of other precerebral artery	Diagnosis	ICD-10-CM
I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral arteries	Diagnosis	ICD-10-CM
I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral arteries	Diagnosis	ICD-10-CM
I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries	Diagnosis	ICD-10-CM
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries	Diagnosis	ICD-10-CM
I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries	Diagnosis	ICD-10-CM
I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery	Diagnosis	ICD-10-CM
I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.323	Cerebral infarction due to thrombosis of bilateral anterior arteries	Diagnosis	ICD-10-CM
I63.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I63.333	Cerebral infarction to thrombosis of bilateral posterior arteries	Diagnosis	ICD-10-CM
I63.339	Cerebral infarction due to thrombosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.341	Cerebral infarction due to thrombosis of right cerebellar artery	Diagnosis	ICD-10-CM
I63.342	Cerebral infarction due to thrombosis of left cerebellar artery	Diagnosis	ICD-10-CM
I63.343	Cerebral infarction to thrombosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.39	Cerebral infarction due to thrombosis of other cerebral artery	Diagnosis	ICD-10-CM
I63.411	Cerebral infarction due to embolism of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.412	Cerebral infarction due to embolism of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.419	Cerebral infarction due to embolism of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.421	Cerebral infarction due to embolism of right anterior cerebral artery	Diagnosis	ICD-10-CM
I63.422	Cerebral infarction due to embolism of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I63.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.431	Cerebral infarction due to embolism of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.432	Cerebral infarction due to embolism of left posterior cerebral artery	Diagnosis	ICD-10-CM
I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I63.439	Cerebral infarction due to embolism of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.441	Cerebral infarction due to embolism of right cerebellar artery	Diagnosis	ICD-10-CM
I63.442	Cerebral infarction due to embolism of left cerebellar artery	Diagnosis	ICD-10-CM
I63.443	Cerebral infarction due to embolism of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.449	Cerebral infarction due to embolism of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.49	Cerebral infarction due to embolism of other cerebral artery	Diagnosis	ICD-10-CM
I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle arteries	Diagnosis	ICD-10-CM
I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery	Diagnosis	ICD-10-CM
I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior arteries	Diagnosis	ICD-10-CM
I63.529	Cerebral infarction due to unspecified occlusion or stenosis of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I63.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior arteries	Diagnosis	ICD-10-CM
I63.539	Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery	Diagnosis	ICD-10-CM
I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery	Diagnosis	ICD-10-CM
I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.549	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic	Diagnosis	ICD-10-CM
I63.8	Other cerebral infarction	Diagnosis	ICD-10-CM
I63.9	Cerebral infarction, unspecified	Diagnosis	ICD-10-CM
Intracranial Hemorrhage			
430	Subarachnoid hemorrhage	Diagnosis	ICD-9-CM
431	Intracerebral hemorrhage	Diagnosis	ICD-9-CM
432	Other and unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
432	Nontraumatic extradural hemorrhage	Diagnosis	ICD-9-CM
432.1	Subdural hemorrhage	Diagnosis	ICD-9-CM
432.9	Unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
852	Subarachnoid hemorrhage following injury without mention of open intracranial wound	Diagnosis	ICD-9-CM
852	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, unspecified state of consciousness	Diagnosis	ICD-9-CM
852.01	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, no loss of consciousness	Diagnosis	ICD-9-CM
852.02	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, brief (less than 1 hour) loss of consciousness	Diagnosis	ICD-9-CM
852.03	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
852.04	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.05	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.06	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
852.09	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, unspecified concussion	Diagnosis	ICD-9-CM
852.2	Subdural hemorrhage following injury without mention of open intracranial wound	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
852.2	Subdural hemorrhage following injury, without mention of open intracranial wound, unspecified state of consciousness	Diagnosis	ICD-9-CM
852.21	Subdural hemorrhage following injury, without mention of open intracranial wound, no loss of consciousness	Diagnosis	ICD-9-CM
852.22	Subdural hemorrhage following injury, without mention of open intracranial wound, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
852.23	Subdural hemorrhage following injury, without mention of open intracranial wound, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
852.24	Subdural hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.25	Subdural hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.26	Subdural hemorrhage following injury, without mention of open intracranial wound, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
852.29	Subdural hemorrhage following injury, without mention of open intracranial wound, unspecified concussion	Diagnosis	ICD-9-CM
852.4	Extradural hemorrhage following injury without mention of open intracranial wound	Diagnosis	ICD-9-CM
852.4	Extradural hemorrhage following injury, without mention of open intracranial wound, unspecified state of consciousness	Diagnosis	ICD-9-CM
852.41	Extradural hemorrhage following injury, without mention of open intracranial wound, no loss of consciousness	Diagnosis	ICD-9-CM
852.42	Extradural hemorrhage following injury, without mention of open intracranial wound, brief (less than 1 hour) loss of consciousness	Diagnosis	ICD-9-CM
852.43	Extradural hemorrhage following injury, without mention of open intracranial wound, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
852.44	Extradural hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.45	Extradural hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.46	Extradural hemorrhage following injury, without mention of open intracranial wound, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
852.49	Extradural hemorrhage following injury, without mention of open intracranial wound, unspecified concussion	Diagnosis	ICD-9-CM
853	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound	Diagnosis	ICD-9-CM
853	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound, unspecified state of consciousness	Diagnosis	ICD-9-CM
853.01	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound, no loss of consciousness	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
853.02	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound, brief (less than 1 hour) loss of consciousness	Diagnosis	ICD-9-CM
853.03	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
853.04	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness and return to preexisting conscious level	Diagnosis	ICD-9-CM
853.05	Other and unspecified intracranial hemorrhage following injury. Without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
853.06	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
853.09	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound, unspecified concussion	Diagnosis	ICD-9-CM
I60.00	Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.10	Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I60.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery	Diagnosis	ICD-10-CM
I60.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery	Diagnosis	ICD-10-CM
I60.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery	Diagnosis	ICD-10-CM
I60.30	Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery	Diagnosis	ICD-10-CM
I60.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery	Diagnosis	ICD-10-CM
I60.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery	Diagnosis	ICD-10-CM
I60.4	Nontraumatic subarachnoid hemorrhage from basilar artery	Diagnosis	ICD-10-CM
I60.50	Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery	Diagnosis	ICD-10-CM
I60.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery	Diagnosis	ICD-10-CM
I60.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery	Diagnosis	ICD-10-CM
I60.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries	Diagnosis	ICD-10-CM
I60.7	Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery	Diagnosis	ICD-10-CM
I60.8	Other nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I60.9	Nontraumatic subarachnoid hemorrhage, unspecified	Diagnosis	ICD-10-CM
I61.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical	Diagnosis	ICD-10-CM
I61.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical	Diagnosis	ICD-10-CM
I61.2	Nontraumatic intracerebral hemorrhage in hemisphere, unspecified	Diagnosis	ICD-10-CM
I61.3	Nontraumatic intracerebral hemorrhage in brain stem	Diagnosis	ICD-10-CM
I61.4	Nontraumatic intracerebral hemorrhage in cerebellum	Diagnosis	ICD-10-CM
I61.5	Nontraumatic intracerebral hemorrhage, intraventricular	Diagnosis	ICD-10-CM
I61.6	Nontraumatic intracerebral hemorrhage, multiple localized	Diagnosis	ICD-10-CM
I61.8	Other nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I61.9	Nontraumatic intracerebral hemorrhage, unspecified	Diagnosis	ICD-10-CM
I62.00	Nontraumatic subdural hemorrhage, unspecified	Diagnosis	ICD-10-CM
I62.01	Nontraumatic acute subdural hemorrhage	Diagnosis	ICD-10-CM
I62.02	Nontraumatic subacute subdural hemorrhage	Diagnosis	ICD-10-CM
I62.03	Nontraumatic chronic subdural hemorrhage	Diagnosis	ICD-10-CM
I62.1	Nontraumatic extradural hemorrhage	Diagnosis	ICD-10-CM
I62.9	Nontraumatic intracranial hemorrhage, unspecified	Diagnosis	ICD-10-CM
S06.340A	Traumatic hemorrhage of right cerebrum without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.341A	Traumatic hemorrhage of right cerebrum with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.342A	Traumatic hemorrhage of right cerebrum with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.343A	Traumatic hemorrhage of right cerebrum with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.344A	Traumatic hemorrhage of right cerebrum with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.345A	Traumatic hemorrhage of right cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.346A	Traumatic hemorrhage of right cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.347A	Traumatic hemorrhage of right cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.348A	Traumatic hemorrhage of right cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.349A	Traumatic hemorrhage of right cerebrum with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.350A	Traumatic hemorrhage of left cerebrum without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.351A	Traumatic hemorrhage of left cerebrum with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.352A	Traumatic hemorrhage of left cerebrum with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.353A	Traumatic hemorrhage of left cerebrum with loss of consciousness of 1 hours to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.354A	Traumatic hemorrhage of left cerebrum with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.355A	Traumatic hemorrhage of left cerebrum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.356A	Traumatic hemorrhage of left cerebrum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S06.357A	Traumatic hemorrhage of left cerebrum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.358A	Traumatic hemorrhage of left cerebrum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.359A	Traumatic hemorrhage of left cerebrum with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
Gastrointestinal Bleeding - List 1			
455.2	Internal hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.5	External hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.8	Unspecified hemorrhoids with other complication	Diagnosis	ICD-9-CM
456	Esophageal varices with bleeding	Diagnosis	ICD-9-CM
456.2	Esophageal varices with bleeding in diseases classified elsewhere	Diagnosis	ICD-9-CM
459	Unspecified hemorrhage	Diagnosis	ICD-9-CM
530.7	Gastroesophageal laceration-hemorrhage syndrome	Diagnosis	ICD-9-CM
530.82	Esophageal hemorrhage	Diagnosis	ICD-9-CM
531	Acute gastric ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
531.01	Acute gastric ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
531.2	Acute gastric ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.21	Acute gastric ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
531.4	Chronic or unspecified gastric ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
531.41	Chronic or unspecified gastric ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
531.6	Chronic or unspecified gastric ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
531.61	Chronic or unspecified gastric ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
532	Acute duodenal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
532.01	Acute duodenal ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
532.2	Acute duodenal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.21	Acute duodenal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
532.4	Duodenal ulcer, chronic or unspecified, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
532.41	Chronic or unspecified duodenal ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
532.6	Chronic or unspecified duodenal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.61	Chronic or unspecified duodenal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
533	Acute peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
533.01	Acute peptic ulcer, unspecified site, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
533.2	Acute peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.21	Acute peptic ulcer, unspecified site, with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
533.4	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
533.41	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and obstruction	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
533.6	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.61	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
534	Acute gastrojejunal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
534.01	Acute gastrojejunal ulcer, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
534.2	Acute gastrojejunal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.21	Acute gastrojejunal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
534.4	Chronic or unspecified gastrojejunal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
534.41	Chronic or unspecified gastrojejunal ulcer, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
534.6	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.61	Chronic or unspecified gastrojejunal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
535.01	Acute gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.11	Atrophic gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.21	Gastric mucosal hypertrophy with hemorrhage	Diagnosis	ICD-9-CM
535.31	Alcoholic gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.41	Other specified gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.51	Unspecified gastritis and gastroduodenitis with hemorrhage	Diagnosis	ICD-9-CM
535.61	Duodenitis with hemorrhage	Diagnosis	ICD-9-CM
537.83	Angiodysplasia of stomach and duodenum with hemorrhage	Diagnosis	ICD-9-CM
562.02	Diverticulosis of small intestine with hemorrhage	Diagnosis	ICD-9-CM
562.03	Diverticulitis of small intestine with hemorrhage	Diagnosis	ICD-9-CM
562.12	Diverticulosis of colon with hemorrhage	Diagnosis	ICD-9-CM
562.13	Diverticulitis of colon with hemorrhage	Diagnosis	ICD-9-CM
568.81	Hemoperitoneum (nontraumatic)	Diagnosis	ICD-9-CM
569.3	Hemorrhage of rectum and anus	Diagnosis	ICD-9-CM
569.85	Angiodysplasia of intestine with hemorrhage	Diagnosis	ICD-9-CM
578	Hematemesis	Diagnosis	ICD-9-CM
578.1	Blood in stool	Diagnosis	ICD-9-CM
578.9	Hemorrhage of gastrointestinal tract, unspecified	Diagnosis	ICD-9-CM
I85.01	Esophageal varices with bleeding	Diagnosis	ICD-10-CM
I85.11	Secondary esophageal varices with bleeding	Diagnosis	ICD-10-CM
K22.6	Gastro-esophageal laceration-hemorrhage syndrome	Diagnosis	ICD-10-CM
K22.8	Other specified diseases of esophagus	Diagnosis	ICD-10-CM
K25.0	Acute gastric ulcer with hemorrhage	Diagnosis	ICD-10-CM
K25.2	Acute gastric ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K25.4	Chronic or unspecified gastric ulcer with hemorrhage	Diagnosis	ICD-10-CM
K25.6	Chronic or unspecified gastric ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K26.0	Acute duodenal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K26.2	Acute duodenal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K26.4	Chronic or unspecified duodenal ulcer with hemorrhage	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
K26.6	Chronic or unspecified duodenal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K27.0	Acute peptic ulcer, site unspecified, with hemorrhage	Diagnosis	ICD-10-CM
K27.2	Acute peptic ulcer, site unspecified, with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K27.4	Chronic or unspecified peptic ulcer, site unspecified, with hemorrhage	Diagnosis	ICD-10-CM
K27.6	Chronic or unspecified peptic ulcer, site unspecified, with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K28.0	Acute gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K28.2	Acute gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K28.4	Chronic or unspecified gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K28.6	Chronic or unspecified gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K29.01	Acute gastritis with bleeding	Diagnosis	ICD-10-CM
K29.21	Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.31	Chronic superficial gastritis with bleeding	Diagnosis	ICD-10-CM
K29.41	Chronic atrophic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.51	Unspecified chronic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.61	Other gastritis with bleeding	Diagnosis	ICD-10-CM
K29.71	Gastritis, unspecified, with bleeding	Diagnosis	ICD-10-CM
K29.81	Duodenitis with bleeding	Diagnosis	ICD-10-CM
K29.91	Gastroduodenitis, unspecified, with bleeding	Diagnosis	ICD-10-CM
K31.811	Angiodysplasia of stomach and duodenum with bleeding	Diagnosis	ICD-10-CM
K55.21	Angiodysplasia of colon with hemorrhage	Diagnosis	ICD-10-CM
K56.699	Other intestinal obstruction unspecified as to partial versus complete obstruction	Diagnosis	ICD-10-CM
K57.01	Diverticulitis of small intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.11	Diverticulosis of small intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.13	Diverticulitis of small intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.21	Diverticulitis of large intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.31	Diverticulosis of large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.33	Diverticulitis of large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.41	Diverticulitis of both small and large intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.51	Diverticulosis of both small and large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.53	Diverticulitis of both small and large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.81	Diverticulitis of intestine, part unspecified, with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.91	Diverticulosis of intestine, part unspecified, without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.93	Diverticulitis of intestine, part unspecified, without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K62.5	Hemorrhage of anus and rectum	Diagnosis	ICD-10-CM
K64.0	First degree hemorrhoids	Diagnosis	ICD-10-CM
K64.1	Second degree hemorrhoids	Diagnosis	ICD-10-CM
K64.2	Third degree hemorrhoids	Diagnosis	ICD-10-CM
K64.3	Fourth degree hemorrhoids	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
K64.4	Residual hemorrhoidal skin tags	Diagnosis	ICD-10-CM
K64.8	Other hemorrhoids	Diagnosis	ICD-10-CM
K66.1	Hemoperitoneum	Diagnosis	ICD-10-CM
K92.0	Hematemesis	Diagnosis	ICD-10-CM
K92.1	Melena	Diagnosis	ICD-10-CM
K92.2	Gastrointestinal hemorrhage, unspecified	Diagnosis	ICD-10-CM
R58	Hemorrhage, not elsewhere classified	Diagnosis	ICD-10-CM
Gastrointestinal Bleeding - List 2			
455.0	Internal hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.1	Internal thrombosed hemorrhoids	Diagnosis	ICD-9-CM
455.3	External hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.4	External thrombosed hemorrhoids	Diagnosis	ICD-9-CM
455.6	Unspecified hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.7	Unspecified thrombosed hemorrhoids	Diagnosis	ICD-9-CM
531.1	Acute gastric ulcer with perforation	Diagnosis	ICD-9-CM
531.3	Acute gastric ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
531.5	Chronic or unspecified gastric ulcer with perforation	Diagnosis	ICD-9-CM
531.7	Chronic gastric ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
531.9	Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.1	Acute duodenal ulcer with perforation	Diagnosis	ICD-9-CM
532.3	Acute duodenal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.5	Chronic or unspecified duodenal ulcer with perforation	Diagnosis	ICD-9-CM
532.7	Chronic duodenal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.9	Duodenal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
533.1	Acute peptic ulcer, unspecified site, with perforation	Diagnosis	ICD-9-CM
533.3	Acute peptic ulcer, unspecified site, without mention of hemorrhage and perforation	Diagnosis	ICD-9-CM
533.5	Chronic or unspecified peptic ulcer, unspecified site, with perforation	Diagnosis	ICD-9-CM
533.7	Chronic peptic ulcer, unspecified site, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
533.9	Peptic ulcer, unspecified site, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.1	Acute gastrojejunal ulcer with perforation	Diagnosis	ICD-9-CM
534.3	Acute gastrojejunal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.5	Chronic or unspecified gastrojejunal ulcer with perforation	Diagnosis	ICD-9-CM
534.7	Chronic gastrojejunal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.9	Gastrojejunal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
535.00	Acute gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.10	Atrophic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.20	Gastric mucosal hypertrophy without mention of hemorrhage	Diagnosis	ICD-9-CM
535.30	Alcoholic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.40	Other specified gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
535.50	Unspecified gastritis and gastroduodenitis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.60	Duodenitis without mention of hemorrhage	Diagnosis	ICD-9-CM
562.00	Diverticulosis of small intestine (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.01	Diverticulitis of small intestine (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.10	Diverticulosis of colon (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.11	Diverticulitis of colon (without mention of hemorrhage)	Diagnosis	ICD-9-CM
530.1	Esophagitis	Diagnosis	ICD-9-CM
K29.00	Acute gastritis without bleeding	Diagnosis	ICD-10-CM
K29.20	Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.30	Chronic superficial gastritis without bleeding	Diagnosis	ICD-10-CM
K29.40	Chronic atrophic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.50	Unspecified chronic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.60	Other gastritis without bleeding	Diagnosis	ICD-10-CM
K29.70	Gastritis, unspecified, without bleeding	Diagnosis	ICD-10-CM
K29.80	Duodenitis without bleeding	Diagnosis	ICD-10-CM
K29.90	Gastroduodenitis, unspecified, without bleeding	Diagnosis	ICD-10-CM
K57.00	Diverticulitis of small intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.10	Diverticulosis of small intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.12	Diverticulitis of small intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.20	Diverticulitis of large intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.30	Diverticulosis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.32	Diverticulitis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.40	Diverticulitis of both small and large intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.50	Diverticulosis of both small and large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.52	Diverticulitis of both small and large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.80	Diverticulitis of intestine, part unspecified, with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.90	Diverticulosis of intestine, part unspecified, without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.92	Diverticulitis of intestine, part unspecified, without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K64.0	First degree hemorrhoids	Diagnosis	ICD-10-CM
K64.1	Second degree hemorrhoids	Diagnosis	ICD-10-CM
K64.2	Third degree hemorrhoids	Diagnosis	ICD-10-CM
K64.3	Fourth degree hemorrhoids	Diagnosis	ICD-10-CM
K64.4	Residual hemorrhoidal skin tags	Diagnosis	ICD-10-CM
K64.5	Perianal venous thrombosis	Diagnosis	ICD-10-CM
K64.8	Other hemorrhoids	Diagnosis	ICD-10-CM
K64.9	Unspecified hemorrhoids	Diagnosis	ICD-10-CM
Major Extracranial Bleeding - List 1			
423.0	Hemopericardium	Diagnosis	ICD-9-CM
455.2	Internal hemorrhoids with other complication	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
455.5	External hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.8	Unspecified hemorrhoids with other complication	Diagnosis	ICD-9-CM
456.0	Esophageal varices with bleeding	Diagnosis	ICD-9-CM
456.20	Esophageal varices with bleeding in diseases classified elsewhere	Diagnosis	ICD-9-CM
459.0	Unspecified hemorrhage	Diagnosis	ICD-9-CM
530.7	Gastroesophageal laceration-hemorrhage syndrome	Diagnosis	ICD-9-CM
530.82	Esophageal hemorrhage	Diagnosis	ICD-9-CM
531.0	Acute gastric ulcer with hemorrhage	Diagnosis	ICD-9-CM
531.00	Acute gastric ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
531.01	Acute gastric ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
531.2	Acute gastric ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
531.20	Acute gastric ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.21	Acute gastric ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
531.4	Chronic or unspecified gastric ulcer with hemorrhage	Diagnosis	ICD-9-CM
531.40	Chronic or unspecified gastric ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
531.41	Chronic or unspecified gastric ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
531.6	Chronic or unspecified gastric ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
531.60	Chronic or unspecified gastric ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.61	Chronic or unspecified gastric ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
532.0	Acute duodenal ulcer with hemorrhage	Diagnosis	ICD-9-CM
532.00	Acute duodenal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
532.01	Acute duodenal ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
532.2	Acute duodenal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
532.20	Acute duodenal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.21	Acute duodenal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
532.4	Chronic or unspecified duodenal ulcer with hemorrhage	Diagnosis	ICD-9-CM
532.40	Duodenal ulcer, chronic or unspecified, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
532.41	Chronic or unspecified duodenal ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
532.6	Chronic or unspecified duodenal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
532.60	Chronic or unspecified duodenal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.61	Chronic or unspecified duodenal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
533.0	Acute peptic ulcer, unspecified site, with hemorrhage	Diagnosis	ICD-9-CM
533.00	Acute peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
533.01	Acute peptic ulcer, unspecified site, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
533.2	Acute peptic ulcer, unspecified site, with hemorrhage and perforation	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
533.20	Acute peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.21	Acute peptic ulcer, unspecified site, with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
533.4	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage	Diagnosis	ICD-9-CM
533.40	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
533.41	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
533.6	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and perforation	Diagnosis	ICD-9-CM
533.60	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.61	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
534.0	Acute gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-9-CM
534.00	Acute gastrojejunal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
534.01	Acute gastrojejunal ulcer, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
534.2	Acute gastrojejunal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
534.20	Acute gastrojejunal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.21	Acute gastrojejunal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
534.4	Chronic or unspecified gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-9-CM
534.40	Chronic or unspecified gastrojejunal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
534.41	Chronic or unspecified gastrojejunal ulcer, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
534.6	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
534.60	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.61	Chronic or unspecified gastrojejunal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
535.01	Acute gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.11	Atrophic gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.21	Gastric mucosal hypertrophy with hemorrhage	Diagnosis	ICD-9-CM
535.31	Alcoholic gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.41	Other specified gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.51	Unspecified gastritis and gastroduodenitis with hemorrhage	Diagnosis	ICD-9-CM
535.61	Duodenitis with hemorrhage	Diagnosis	ICD-9-CM
537.83	Angiodysplasia of stomach and duodenum with hemorrhage	Diagnosis	ICD-9-CM
562.02	Diverticulosis of small intestine with hemorrhage	Diagnosis	ICD-9-CM
562.03	Diverticulitis of small intestine with hemorrhage	Diagnosis	ICD-9-CM
562.12	Diverticulosis of colon with hemorrhage	Diagnosis	ICD-9-CM
562.13	Diverticulitis of colon with hemorrhage	Diagnosis	ICD-9-CM
568.81	Hemoperitoneum (nontraumatic)	Diagnosis	ICD-9-CM
569.3	Hemorrhage of rectum and anus	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
569.85	Angiodysplasia of intestine with hemorrhage	Diagnosis	ICD-9-CM
578.0	Hematemesis	Diagnosis	ICD-9-CM
578.1	Blood in stool	Diagnosis	ICD-9-CM
578.9	Hemorrhage of gastrointestinal tract, unspecified	Diagnosis	ICD-9-CM
593.81	Vascular disorders of kidney	Diagnosis	ICD-9-CM
599.7	Hematuria	Diagnosis	ICD-9-CM
623.8	Other specified noninflammatory disorder of vagina	Diagnosis	ICD-9-CM
626.2	Excessive or frequent menstruation	Diagnosis	ICD-9-CM
626.6	Metrorrhagia	Diagnosis	ICD-9-CM
719.1	Hemarthrosis	Diagnosis	ICD-9-CM
719.10	Hemarthrosis, site unspecified	Diagnosis	ICD-9-CM
719.11	Hemarthrosis, shoulder region	Diagnosis	ICD-9-CM
719.12	Hemarthrosis, upper arm	Diagnosis	ICD-9-CM
719.13	Hemarthrosis, forearm	Diagnosis	ICD-9-CM
719.14	Hemarthrosis, hand	Diagnosis	ICD-9-CM
719.15	Hemarthrosis, pelvic region and thigh	Diagnosis	ICD-9-CM
719.16	Hemarthrosis, lower leg	Diagnosis	ICD-9-CM
719.17	Hemarthrosis, ankle and foot	Diagnosis	ICD-9-CM
719.18	Hemarthrosis, other specified site	Diagnosis	ICD-9-CM
719.19	Hemarthrosis, multiple sites	Diagnosis	ICD-9-CM
784.7	Epistaxis	Diagnosis	ICD-9-CM
784.8	Hemorrhage from throat	Diagnosis	ICD-9-CM
786.3	Hemoptysis	Diagnosis	ICD-9-CM
I31.2	Hemopericardium, not elsewhere classified	Diagnosis	ICD-10-CM
I85.01	Esophageal varices with bleeding	Diagnosis	ICD-10-CM
I85.11	Secondary esophageal varices with bleeding	Diagnosis	ICD-10-CM
K22.6	Gastro-esophageal laceration-hemorrhage syndrome	Diagnosis	ICD-10-CM
K22.8	Other specified diseases of esophagus	Diagnosis	ICD-10-CM
K25.0	Acute gastric ulcer with hemorrhage	Diagnosis	ICD-10-CM
K25.2	Acute gastric ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K25.4	Chronic or unspecified gastric ulcer with hemorrhage	Diagnosis	ICD-10-CM
K25.6	Chronic or unspecified gastric ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K26.0	Acute duodenal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K26.2	Acute duodenal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K26.4	Chronic or unspecified duodenal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K26.6	Chronic or unspecified duodenal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K27.0	Acute peptic ulcer, site unspecified, with hemorrhage	Diagnosis	ICD-10-CM
K27.2	Acute peptic ulcer, site unspecified, with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K27.4	Chronic or unspecified peptic ulcer, site unspecified, with hemorrhage	Diagnosis	ICD-10-CM
K27.6	Chronic or unspecified peptic ulcer, site unspecified, with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K28.0	Acute gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K28.2	Acute gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K28.4	Chronic or unspecified gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K28.6	Chronic or unspecified gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
K29.01	Acute gastritis with bleeding	Diagnosis	ICD-10-CM
K29.21	Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.31	Chronic superficial gastritis with bleeding	Diagnosis	ICD-10-CM
K29.41	Chronic atrophic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.51	Unspecified chronic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.61	Other gastritis with bleeding	Diagnosis	ICD-10-CM
K29.71	Gastritis, unspecified, with bleeding	Diagnosis	ICD-10-CM
K29.81	Duodenitis with bleeding	Diagnosis	ICD-10-CM
K29.91	Gastroduodenitis, unspecified, with bleeding	Diagnosis	ICD-10-CM
K31.811	Angiodysplasia of stomach and duodenum with bleeding	Diagnosis	ICD-10-CM
K55.21	Angiodysplasia of colon with hemorrhage	Diagnosis	ICD-10-CM
K56.699	Other intestinal obstruction unspecified as to partial versus complete obstruction	Diagnosis	ICD-10-CM
K57.01	Diverticulitis of small intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.11	Diverticulosis of small intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.13	Diverticulitis of small intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.21	Diverticulitis of large intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.31	Diverticulosis of large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.33	Diverticulitis of large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.41	Diverticulitis of both small and large intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.51	Diverticulosis of both small and large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.53	Diverticulitis of both small and large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.81	Diverticulitis of intestine, part unspecified, with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.91	Diverticulosis of intestine, part unspecified, without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.93	Diverticulitis of intestine, part unspecified, without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K62.5	Hemorrhage of anus and rectum	Diagnosis	ICD-10-CM
K64.0	First degree hemorrhoids	Diagnosis	ICD-10-CM
K64.1	Second degree hemorrhoids	Diagnosis	ICD-10-CM
K64.2	Third degree hemorrhoids	Diagnosis	ICD-10-CM
K64.3	Fourth degree hemorrhoids	Diagnosis	ICD-10-CM
K64.4	Residual hemorrhoidal skin tags	Diagnosis	ICD-10-CM
K64.8	Other hemorrhoids	Diagnosis	ICD-10-CM
K66.1	Hemoperitoneum	Diagnosis	ICD-10-CM
K92.0	Hematemesis	Diagnosis	ICD-10-CM
K92.1	Melena	Diagnosis	ICD-10-CM
K92.2	Gastrointestinal hemorrhage, unspecified	Diagnosis	ICD-10-CM
M25.00	Hemarthrosis, unspecified joint	Diagnosis	ICD-10-CM
M25.011	Hemarthrosis, right shoulder	Diagnosis	ICD-10-CM
M25.012	Hemarthrosis, left shoulder	Diagnosis	ICD-10-CM
M25.019	Hemarthrosis, unspecified shoulder	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
M25.021	Hemarthrosis, right elbow	Diagnosis	ICD-10-CM
M25.022	Hemarthrosis, left elbow	Diagnosis	ICD-10-CM
M25.029	Hemarthrosis, unspecified elbow	Diagnosis	ICD-10-CM
M25.031	Hemarthrosis, right wrist	Diagnosis	ICD-10-CM
M25.032	Hemarthrosis, left wrist	Diagnosis	ICD-10-CM
M25.039	Hemarthrosis, unspecified wrist	Diagnosis	ICD-10-CM
M25.041	Hemarthrosis, right hand	Diagnosis	ICD-10-CM
M25.042	Hemarthrosis, left hand	Diagnosis	ICD-10-CM
M25.049	Hemarthrosis, unspecified hand	Diagnosis	ICD-10-CM
M25.051	Hemarthrosis, right hip	Diagnosis	ICD-10-CM
M25.052	Hemarthrosis, left hip	Diagnosis	ICD-10-CM
M25.059	Hemarthrosis, unspecified hip	Diagnosis	ICD-10-CM
M25.061	Hemarthrosis, right knee	Diagnosis	ICD-10-CM
M25.062	Hemarthrosis, left knee	Diagnosis	ICD-10-CM
M25.069	Hemarthrosis, unspecified knee	Diagnosis	ICD-10-CM
M25.071	Hemarthrosis, right ankle	Diagnosis	ICD-10-CM
M25.072	Hemarthrosis, left ankle	Diagnosis	ICD-10-CM
M25.073	Hemarthrosis, unspecified ankle	Diagnosis	ICD-10-CM
M25.074	Hemarthrosis, right foot	Diagnosis	ICD-10-CM
M25.075	Hemarthrosis, left foot	Diagnosis	ICD-10-CM
M25.076	Hemarthrosis, unspecified foot	Diagnosis	ICD-10-CM
M25.08	Hemarthrosis, other specified site	Diagnosis	ICD-10-CM
N28.0	Ischemia and infarction of kidney	Diagnosis	ICD-10-CM
N89.8	Other specified noninflammatory disorders of vagina	Diagnosis	ICD-10-CM
N92.0	Excessive and frequent menstruation with regular cycle	Diagnosis	ICD-10-CM
N92.1	Excessive and frequent menstruation with irregular cycle	Diagnosis	ICD-10-CM
R04.0	Epistaxis	Diagnosis	ICD-10-CM
R04.1	Hemorrhage from throat	Diagnosis	ICD-10-CM
R58	Hemorrhage, not elsewhere classified	Diagnosis	ICD-10-CM
531.60	Chronic or unspecified gastric ulcer with hemorrhage and perforation	Diagnosis	ICD-10-CM
Major Extracranial Bleeding - List 2			
280.0	Iron deficiency anemia secondary to blood loss (chronic)	Diagnosis	ICD-9-CM
285.1	Acute posthemorrhagic anemia	Diagnosis	ICD-9-CM
285.9	Unspecified anemia	Diagnosis	ICD-9-CM
455.0	Internal hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.1	Internal thrombosed hemorrhoids	Diagnosis	ICD-9-CM
455.2	Internal hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.3	External hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.4	External thrombosed hemorrhoids	Diagnosis	ICD-9-CM
455.5	External hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.6	Unspecified hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.7	Unspecified thrombosed hemorrhoids	Diagnosis	ICD-9-CM
455.8	Unspecified hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.9	Residual hemorrhoidal skin tags	Diagnosis	ICD-9-CM
530.1	Esophagitis	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
531.1	Acute gastric ulcer with perforation	Diagnosis	ICD-9-CM
531.3	Acute gastric ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
531.5	Chronic or unspecified gastric ulcer with perforation	Diagnosis	ICD-9-CM
531.7	Chronic gastric ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
531.9	Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.1	Acute duodenal ulcer with perforation	Diagnosis	ICD-9-CM
532.3	Acute duodenal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.5	Chronic or unspecified duodenal ulcer with perforation	Diagnosis	ICD-9-CM
532.7	Chronic duodenal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.9	Duodenal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
533.1	Acute peptic ulcer, unspecified site, with perforation	Diagnosis	ICD-9-CM
533.3	Acute peptic ulcer, unspecified site, without mention of hemorrhage and perforation	Diagnosis	ICD-9-CM
533.5	Chronic or unspecified peptic ulcer, unspecified site, with perforation	Diagnosis	ICD-9-CM
533.7	Chronic peptic ulcer, unspecified site, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
533.9	Peptic ulcer, unspecified site, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.1	Acute gastrojejunal ulcer with perforation	Diagnosis	ICD-9-CM
534.3	Acute gastrojejunal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.5	Chronic or unspecified gastrojejunal ulcer with perforation	Diagnosis	ICD-9-CM
534.7	Chronic gastrojejunal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.9	Gastrojejunal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
535.00	Acute gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.10	Atrophic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.20	Gastric mucosal hypertrophy without mention of hemorrhage	Diagnosis	ICD-9-CM
535.30	Alcoholic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.40	Other specified gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.50	Unspecified gastritis and gastroduodenitis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.60	Duodenitis without mention of hemorrhage	Diagnosis	ICD-9-CM
562.00	Diverticulosis of small intestine (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.01	Diverticulitis of small intestine (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.10	Diverticulosis of colon (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.11	Diverticulitis of colon (without mention of hemorrhage)	Diagnosis	ICD-9-CM
790.92	Abnormal coagulation profile	Diagnosis	ICD-9-CM
D50.0	Iron deficiency anemia secondary to blood loss (chronic)	Diagnosis	ICD-10-CM
D62	Acute posthemorrhagic anemia	Diagnosis	ICD-10-CM
D64.9	Anemia, unspecified	Diagnosis	ICD-10-CM
K29.00	Acute gastritis without bleeding	Diagnosis	ICD-10-CM
K29.20	Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.30	Chronic superficial gastritis without bleeding	Diagnosis	ICD-10-CM
K29.40	Chronic atrophic gastritis without bleeding	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
K29.50	Unspecified chronic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.60	Other gastritis without bleeding	Diagnosis	ICD-10-CM
K29.70	Gastritis, unspecified, without bleeding	Diagnosis	ICD-10-CM
K29.80	Duodenitis without bleeding	Diagnosis	ICD-10-CM
K29.90	Gastroduodenitis, unspecified, without bleeding	Diagnosis	ICD-10-CM
K57.00	Diverticulitis of small intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.10	Diverticulosis of small intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.12	Diverticulitis of small intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.20	Diverticulitis of large intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.30	Diverticulosis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.32	Diverticulitis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.40	Diverticulitis of both small and large intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.50	Diverticulosis of both small and large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.52	Diverticulitis of both small and large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.80	Diverticulitis of intestine, part unspecified, with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.90	Diverticulosis of intestine, part unspecified, without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.92	Diverticulitis of intestine, part unspecified, without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K64.0	First degree hemorrhoids	Diagnosis	ICD-10-CM
K64.1	Second degree hemorrhoids	Diagnosis	ICD-10-CM
K64.2	Third degree hemorrhoids	Diagnosis	ICD-10-CM
K64.3	Fourth degree hemorrhoids	Diagnosis	ICD-10-CM
K64.4	Residual hemorrhoidal skin tags	Diagnosis	ICD-10-CM
K64.5	Perianal venous thrombosis	Diagnosis	ICD-10-CM
K64.8	Other hemorrhoids	Diagnosis	ICD-10-CM
K64.9	Unspecified hemorrhoids	Diagnosis	ICD-10-CM
R79.1	Abnormal coagulation profile	Diagnosis	ICD-10-CM
Major Extracranial Bleeding - List 3			
62000	Elevation of depressed skull fracture; simple, extradural	Procedure	CPT-4
62005	Elevation of depressed skull fracture; compound or comminuted, extradural	Procedure	CPT-4
62010	Elevation of depressed skull fracture; with repair of dura and/or debridement of brain	Procedure	CPT-4
800	Fracture of vault of skull	Diagnosis	ICD-9-CM
800.0	Closed fracture of vault of skull without mention of intracranial injury	Diagnosis	ICD-9-CM
800.00	Closed fracture of vault of skull without mention of intracranial injury, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.01	Closed fracture of vault of skull without mention of intracranial injury, no loss of consciousness	Diagnosis	ICD-9-CM
800.02	Closed fracture of vault of skull without mention of intracranial injury, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
800.03	Closed fracture of vault of skull without mention of intracranial injury, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.04	Closed fracture of vault of skull without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.05	Closed fracture of vault of skull without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.06	Closed fracture of vault of skull without mention of intracranial injury, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.09	Closed fracture of vault of skull without mention of intracranial injury, unspecified concussion	Diagnosis	ICD-9-CM
800.1	Closed fracture of vault of skull with cerebral laceration and contusion	Diagnosis	ICD-9-CM
800.10	Closed fracture of vault of skull with cerebral laceration and contusion, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.11	Closed fracture of vault of skull with cerebral laceration and contusion, no loss of consciousness	Diagnosis	ICD-9-CM
800.12	Closed fracture of vault of skull with cerebral laceration and contusion, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.13	Closed fracture of vault of skull with cerebral laceration and contusion, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.14	Closed fracture of vault of skull with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.15	Closed fracture of vault of skull with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.16	Closed fracture of vault of skull with cerebral laceration and contusion, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.19	Closed fracture of vault of skull with cerebral laceration and contusion, unspecified concussion	Diagnosis	ICD-9-CM
800.2	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage	Diagnosis	ICD-9-CM
800.20	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.21	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
800.22	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.23	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.24	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
800.25	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.26	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.29	Closed fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
800.3	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
800.30	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.31	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
800.32	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.33	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.34	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.35	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.36	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.39	Closed fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
800.4	Closed fracture of vault of skull with intercranial injury of other and unspecified nature	Diagnosis	ICD-9-CM
800.40	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.41	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, no loss of consciousness	Diagnosis	ICD-9-CM
800.42	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.43	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.44	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.45	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.46	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
800.49	Closed fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified concussion	Diagnosis	ICD-9-CM
800.5	Open fracture of vault of skull without mention of intracranial injury	Diagnosis	ICD-9-CM
800.50	Open fracture of vault of skull without mention of intracranial injury, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.51	Open fracture of vault of skull without mention of intracranial injury, no loss of consciousness	Diagnosis	ICD-9-CM
800.52	Open fracture of vault of skull without mention of intracranial injury, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.53	Open fracture of vault of skull without mention of intracranial injury, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.54	Open fracture of vault of skull without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.55	Open fracture of vault of skull without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.56	Open fracture of vault of skull without mention of intracranial injury, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.59	Open fracture of vault of skull without mention of intracranial injury, unspecified concussion	Diagnosis	ICD-9-CM
800.6	Open fracture of vault of skull with cerebral laceration and contusion	Diagnosis	ICD-9-CM
800.60	Open fracture of vault of skull with cerebral laceration and contusion, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.61	Open fracture of vault of skull with cerebral laceration and contusion, no loss of consciousness	Diagnosis	ICD-9-CM
800.62	Open fracture of vault of skull with cerebral laceration and contusion, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.63	Open fracture of vault of skull with cerebral laceration and contusion, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.64	Open fracture of vault of skull with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.65	Open fracture of vault of skull with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.66	Open fracture of vault of skull with cerebral laceration and contusion, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.69	Open fracture of vault of skull with cerebral laceration and contusion, unspecified concussion	Diagnosis	ICD-9-CM
800.7	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage	Diagnosis	ICD-9-CM
800.70	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
800.71	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
800.72	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.73	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.74	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.75	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.76	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.79	Open fracture of vault of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
800.8	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.80	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.81	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
800.82	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.83	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
800.84	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.85	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.86	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.89	Open fracture of vault of skull with other and unspecified intracranial hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
800.9	Open fracture of vault of skull with intracranial injury of other and unspecified nature	Diagnosis	ICD-9-CM
800.90	Open fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	Diagnosis	ICD-9-CM
800.91	Open fracture of vault of skull with intracranial injury of other and unspecified nature, no loss of consciousness	Diagnosis	ICD-9-CM
800.92	Open fracture of vault of skull with intracranial injury of other and unspecified nature, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
800.93	Open fracture of vault of skull with intracranial injury of other and unspecified nature, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
800.94	Open fracture of vault of skull with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.95	Open fracture of vault of skull with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
800.96	Open fracture of vault of skull with intracranial injury of other and unspecified nature, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
800.99	Open fracture of vault of skull with intracranial injury of other and unspecified nature, unspecified concussion	Diagnosis	ICD-9-CM
801	Fracture of base of skull	Diagnosis	ICD-9-CM
801.0	Closed fracture of base of skull without mention of intracranial injury	Diagnosis	ICD-9-CM
801.00	Closed fracture of base of skull without mention of intracranial injury, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.01	Closed fracture of base of skull without mention of intracranial injury, no loss of consciousness	Diagnosis	ICD-9-CM
801.02	Closed fracture of base of skull without mention of intracranial injury, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.03	Closed fracture of base of skull without mention of intracranial injury, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.04	Closed fracture of base of skull without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.05	Closed fracture of base of skull without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.06	Closed fracture of base of skull without mention of intracranial injury, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.09	Closed fracture of base of skull without mention of intracranial injury, unspecified concussion	Diagnosis	ICD-9-CM
801.1	Closed fracture of base of skull with cerebral laceration and contusion	Diagnosis	ICD-9-CM
801.10	Closed fracture of base of skull with cerebral laceration and contusion, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.11	Closed fracture of base of skull with cerebral laceration and contusion, no loss of consciousness	Diagnosis	ICD-9-CM
801.12	Closed fracture of base of skull with cerebral laceration and contusion, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.13	Closed fracture of base of skull with cerebral laceration and contusion, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.14	Closed fracture of base of skull with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.15	Closed fracture of base of skull with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
801.16	Closed fracture of base of skull with cerebral laceration and contusion, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.19	Closed fracture of base of skull with cerebral laceration and contusion, unspecified concussion	Diagnosis	ICD-9-CM
801.2	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage	Diagnosis	ICD-9-CM
801.20	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.21	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
801.22	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.23	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.24	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.25	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.26	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.29	Closed fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
801.3	Closed fracture of base of skull with other and unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
801.30	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.31	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
801.32	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.33	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.34	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.35	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.36	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.39	Closed fracture of base of skull with other and unspecified intracranial hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
801.4	Closed fracture of base of skull with intracranial injury of other and unspecified nature	Diagnosis	ICD-9-CM
801.40	Closed fracture of base of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.41	Closed fracture of base of skull with intracranial injury of other and unspecified nature, no loss of consciousness	Diagnosis	ICD-9-CM
801.42	Closed fracture of base of skull with intracranial injury of other and unspecified nature, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.43	Closed fracture of base of skull with intracranial injury of other and unspecified nature, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.44	Closed fracture of base of skull with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.45	Closed fracture of base of skull with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.46	Closed fracture of base of skull with intracranial injury of other and unspecified nature, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.49	Closed fracture of base of skull with intracranial injury of other and unspecified nature, unspecified concussion	Diagnosis	ICD-9-CM
801.5	Open fracture of base of skull without mention of intracranial injury	Diagnosis	ICD-9-CM
801.50	Open fracture of base of skull without mention of intracranial injury, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.51	Open fracture of base of skull without mention of intracranial injury, no loss of consciousness	Diagnosis	ICD-9-CM
801.52	Open fracture of base of skull without mention of intracranial injury, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.53	Open fracture of base of skull without mention of intracranial injury, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.54	Open fracture of base of skull without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.55	Open fracture of base of skull without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.56	Open fracture of base of skull without mention of intracranial injury, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.59	Open fracture of base of skull without mention of intracranial injury, unspecified concussion	Diagnosis	ICD-9-CM
801.6	Open fracture of base of skull with cerebral laceration and contusion	Diagnosis	ICD-9-CM
801.60	Open fracture of base of skull with cerebral laceration and contusion, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.61	Open fracture of base of skull with cerebral laceration and contusion, no loss of consciousness	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
801.62	Open fracture of base of skull with cerebral laceration and contusion, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.63	Open fracture of base of skull with cerebral laceration and contusion, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.64	Open fracture of base of skull with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.65	Open fracture of base of skull with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.66	Open fracture of base of skull with cerebral laceration and contusion, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.69	Open fracture of base of skull with cerebral laceration and contusion, unspecified concussion	Diagnosis	ICD-9-CM
801.7	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage	Diagnosis	ICD-9-CM
801.70	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.71	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
801.72	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.73	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.74	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.75	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.76	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.79	Open fracture of base of skull with subarachnoid, subdural, and extradural hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
801.8	Open fracture of base of skull with other and unspecified intracranial	Diagnosis	ICD-9-CM
801.80	Open fracture of base of skull with other and unspecified intracranial hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.81	Open fracture of base of skull with other and unspecified intracranial hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
801.82	Open fracture of base of skull with other and unspecified intracranial hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.83	Open fracture of base of skull with other and unspecified intracranial hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
801.84	Open fracture of base of skull with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.85	Open fracture of base of skull with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.86	Open fracture of base of skull with other and unspecified intracranial hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.89	Open fracture of base of skull with other and unspecified intracranial hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
801.9	Open fracture of base of skull with intracranial injury of other and unspecified nature	Diagnosis	ICD-9-CM
801.90	Open fracture of base of skull with intracranial injury of other and unspecified nature, unspecified state of consciousness	Diagnosis	ICD-9-CM
801.91	Open fracture of base of skull with intracranial injury of other and unspecified nature, no loss of consciousness	Diagnosis	ICD-9-CM
801.92	Open fracture of base of skull with intracranial injury of other and unspecified nature, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
801.93	Open fracture of base of skull with intracranial injury of other and unspecified nature, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
801.94	Open fracture of base of skull with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.95	Open fracture of base of skull with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
801.96	Open fracture of base of skull with intracranial injury of other and unspecified nature, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
801.99	Open fracture of base of skull with intracranial injury of other and unspecified nature, unspecified concussion	Diagnosis	ICD-9-CM
802	Fracture of face bones	Diagnosis	ICD-9-CM
802.0	Nasal bones, closed fracture	Diagnosis	ICD-9-CM
802.1	Nasal bones, open fracture	Diagnosis	ICD-9-CM
802.2	Mandible, closed fracture	Diagnosis	ICD-9-CM
802.20	Closed fracture of unspecified site of mandible	Diagnosis	ICD-9-CM
802.21	Closed fracture of condylar process of mandible	Diagnosis	ICD-9-CM
802.22	Closed fracture of subcondylar process of mandible	Diagnosis	ICD-9-CM
802.23	Closed fracture of coronoid process of mandible	Diagnosis	ICD-9-CM
802.24	Closed fracture of unspecified part of ramus of mandible	Diagnosis	ICD-9-CM
802.25	Closed fracture of angle of jaw	Diagnosis	ICD-9-CM
802.26	Closed fracture of symphysis of body of mandible	Diagnosis	ICD-9-CM
802.27	Closed fracture of alveolar border of body of mandible	Diagnosis	ICD-9-CM
802.28	Closed fracture of other and unspecified part of body of mandible	Diagnosis	ICD-9-CM
802.29	Closed fracture of multiple sites of mandible	Diagnosis	ICD-9-CM
802.3	Mandible, open fracture	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
802.30	Open fracture of unspecified site of mandible	Diagnosis	ICD-9-CM
802.31	Open fracture of condylar process of mandible	Diagnosis	ICD-9-CM
802.32	Open fracture of subcondylar process of mandible	Diagnosis	ICD-9-CM
802.33	Open fracture of coronoid process of mandible	Diagnosis	ICD-9-CM
802.34	Open fracture of unspecified part of ramus of mandible	Diagnosis	ICD-9-CM
802.35	Open fracture of angle of jaw	Diagnosis	ICD-9-CM
802.36	Open fracture of symphysis of body of mandible	Diagnosis	ICD-9-CM
802.37	Open fracture of alveolar border of body of mandible	Diagnosis	ICD-9-CM
802.38	Open fracture of other and unspecified part of body of mandible	Diagnosis	ICD-9-CM
802.39	Open fracture of multiple sites of mandible	Diagnosis	ICD-9-CM
802.4	Malar and maxillary bones, closed fracture	Diagnosis	ICD-9-CM
802.5	Malar and maxillary bones, open fracture	Diagnosis	ICD-9-CM
802.6	Orbital floor (blow-out), closed fracture	Diagnosis	ICD-9-CM
802.7	Orbital floor (blow-out), open fracture	Diagnosis	ICD-9-CM
802.8	Other facial bones, closed fracture	Diagnosis	ICD-9-CM
802.9	Other facial bones, open fracture	Diagnosis	ICD-9-CM
803	Other and unqualified skull fractures	Diagnosis	ICD-9-CM
803.0	Other closed skull fracture without mention of intracranial injury	Diagnosis	ICD-9-CM
803.00	Other closed skull fracture without mention of intracranial injury, unspecified state of consciousness	Diagnosis	ICD-9-CM
803.01	Other closed skull fracture without mention of intracranial injury, no loss of consciousness	Diagnosis	ICD-9-CM
803.02	Other closed skull fracture without mention of intracranial injury, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.03	Other closed skull fracture without mention of intracranial injury, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
803.04	Other closed skull fracture without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.05	Other closed skull fracture without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.06	Other closed skull fracture without mention of intracranial injury, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.09	Other closed skull fracture without mention of intracranial injury, unspecified concussion	Diagnosis	ICD-9-CM
803.1	Other closed skull fracture with cerebral laceration and contusion	Diagnosis	ICD-9-CM
803.10	Other closed skull fracture with cerebral laceration and contusion, unspecified state of consciousness	Diagnosis	ICD-9-CM
803.11	Other closed skull fracture with cerebral laceration and contusion, no loss of consciousness	Diagnosis	ICD-9-CM
803.12	Other closed skull fracture with cerebral laceration and contusion, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.13	Other closed skull fracture with cerebral laceration and contusion, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
803.14	Other closed skull fracture with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.15	Other closed skull fracture with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.16	Other closed skull fracture with cerebral laceration and contusion, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.19	Other closed skull fracture with cerebral laceration and contusion, unspecified concussion	Diagnosis	ICD-9-CM
803.2	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage	Diagnosis	ICD-9-CM
803.20	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
803.21	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
803.22	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.23	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
803.24	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.25	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.26	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.29	Other closed skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
803.3	Closed skull fracture with other and unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
803.30	Other closed skull fracture with other and unspecified intracranial hemorrhage, unspecified state of unconsciousness	Diagnosis	ICD-9-CM
803.31	Other closed skull fracture with other and unspecified intracranial hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
803.32	Other closed skull fracture with other and unspecified intracranial hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.33	Other closed skull fracture with other and unspecified intracranial hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
803.34	Other closed skull fracture with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.35	Other closed skull fracture with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
803.36	Other closed skull fracture with other and unspecified intracranial hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.39	Other closed skull fracture with other and unspecified intracranial hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
803.4	Other closed skull fracture with intracranial injury of other and unspecified	Diagnosis	ICD-9-CM
803.40	Other closed skull fracture with intracranial injury of other and unspecified nature, unspecified state of consciousness	Diagnosis	ICD-9-CM
803.41	Other closed skull fracture with intracranial injury of other and unspecified nature, no loss of consciousness	Diagnosis	ICD-9-CM
803.42	Other closed skull fracture with intracranial injury of other and unspecified nature, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.43	Other closed skull fracture with intracranial injury of other and unspecified nature, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
803.44	Other closed skull fracture with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.45	Other closed skull fracture with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.46	Other closed skull fracture with intracranial injury of other and unspecified nature, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.49	Other closed skull fracture with intracranial injury of other and unspecified nature, unspecified concussion	Diagnosis	ICD-9-CM
803.5	Other open skull fracture without mention of intracranial injury	Diagnosis	ICD-9-CM
803.50	Other open skull fracture without mention of injury, state of consciousness unspecified	Diagnosis	ICD-9-CM
803.51	Other open skull fracture without mention of intracranial injury, no loss of consciousness	Diagnosis	ICD-9-CM
803.52	Other open skull fracture without mention of intracranial injury, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.53	Other open skull fracture without mention of intracranial injury, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
803.54	Other open skull fracture without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.55	Other open skull fracture without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.56	Other open skull fracture without mention of intracranial injury, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.59	Other open skull fracture without mention of intracranial injury, unspecified concussion	Diagnosis	ICD-9-CM
803.6	Other open skull fracture with cerebral laceration and contusion	Diagnosis	ICD-9-CM
803.60	Other open skull fracture with cerebral laceration and contusion, unspecified state of consciousness	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
803.61	Other open skull fracture with cerebral laceration and contusion, no loss of consciousness	Diagnosis	ICD-9-CM
803.62	Other open skull fracture with cerebral laceration and contusion, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.63	Other open skull fracture with cerebral laceration and contusion, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
803.64	Other open skull fracture with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious	Diagnosis	ICD-9-CM
803.65	Other open skull fracture with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.66	Other open skull fracture with cerebral laceration and contusion, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.69	Other open skull fracture with cerebral laceration and contusion, unspecified concussion	Diagnosis	ICD-9-CM
803.7	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage	Diagnosis	ICD-9-CM
803.70	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
803.71	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
803.72	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.73	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
803.74	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.75	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.76	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.79	Other open skull fracture with subarachnoid, subdural, and extradural hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
803.8	Other open skull fracture with other and unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
803.80	Other open skull fracture with other and unspecified intracranial hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
803.81	Other open skull fracture with other and unspecified intracranial hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
803.82	Other open skull fracture with other and unspecified intracranial hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.83	Other open skull fracture with other and unspecified intracranial hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
803.84	Other open skull fracture with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.85	Other open skull fracture with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.86	Other open skull fracture with other and unspecified intracranial hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.89	Other open skull fracture with other and unspecified intracranial hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
803.9	Other open skull fracture with intracranial injury of other and unspecified nature	Diagnosis	ICD-9-CM
803.90	Other open skull fracture with intracranial injury of other and unspecified nature, unspecified state of consciousness	Diagnosis	ICD-9-CM
803.91	Other open skull fracture with intracranial injury of other and unspecified nature, no loss of consciousness	Diagnosis	ICD-9-CM
803.92	Other open skull fracture with intracranial injury of other and unspecified nature, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
803.93	Other open skull fracture with intracranial injury of other and unspecified nature, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
803.94	Other open skull fracture with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.95	Other open skull fracture with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
803.96	Other open skull fracture with intracranial injury of other and unspecified nature, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
803.99	Other open skull fracture with intracranial injury of other and unspecified nature, unspecified concussion	Diagnosis	ICD-9-CM
804	Multiple fractures involving skull or face with other bones	Diagnosis	ICD-9-CM
804.0	Closed fractures involving skull or face with other bones, without mention of intracranial injury	Diagnosis	ICD-9-CM
804.00	Closed fractures involving skull or face with other bones, without mention of intracranial injury, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.01	Closed fractures involving skull or face with other bones, without mention of intracranial injury, no loss of consciousness	Diagnosis	ICD-9-CM
804.02	Closed fractures involving skull or face with other bones, without mention of intracranial injury, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.03	Closed fractures involving skull or face with other bones, without mention of intracranial injury, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.04	Closed fractures involving skull or face with other bones, without mention or intracranial injury, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
804.05	Closed fractures involving skull of face with other bones, without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.06	Closed fractures involving skull of face with other bones, without mention of intracranial injury, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.09	Closed fractures involving skull of face with other bones, without mention of intracranial injury, unspecified concussion	Diagnosis	ICD-9-CM
804.1	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion	Diagnosis	ICD-9-CM
804.10	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.11	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, no loss of consciousness	Diagnosis	ICD-9-CM
804.12	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.13	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.14	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.15	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.16	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.19	Closed fractures involving skull or face with other bones, with cerebral laceration and contusion, unspecified concussion	Diagnosis	ICD-9-CM
804.2	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage	Diagnosis	ICD-9-CM
804.20	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.21	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
804.22	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.23	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.24	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.25	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
804.26	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.29	Closed fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
804.3	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
804.30	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.31	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
804.32	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.33	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.34	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to preexisting conscious level	Diagnosis	ICD-9-CM
804.35	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.36	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.39	Closed fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
804.4	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature	Diagnosis	ICD-9-CM
804.40	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.41	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, no loss of consciousness	Diagnosis	ICD-9-CM
804.42	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.43	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.44	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.45	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.46	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
804.49	Closed fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified concussion	Diagnosis	ICD-9-CM
804.5	Open fractures involving skull or face with other bones, without mention of intracranial injury	Diagnosis	ICD-9-CM
804.50	Open fractures involving skull or face with other bones, without mention of intracranial injury, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.51	Open fractures involving skull or face with other bones, without mention of intracranial injury, no loss of consciousness	Diagnosis	ICD-9-CM
804.52	Open fractures involving skull or face with other bones, without mention of intracranial injury, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.53	Open fractures involving skull or face with other bones, without mention of intracranial injury, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.54	Open fractures involving skull or face with other bones, without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.55	Open fractures involving skull or face with other bones, without mention of intracranial injury, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.56	Open fractures involving skull or face with other bones, without mention of intracranial injury, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.59	Open fractures involving skull or face with other bones, without mention of intracranial injury, unspecified concussion	Diagnosis	ICD-9-CM
804.6	Open fractures involving skull or face with other bones, with cerebral laceration and contusion	Diagnosis	ICD-9-CM
804.60	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.61	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, no loss of consciousness	Diagnosis	ICD-9-CM
804.62	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.63	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.64	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.65	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.66	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.69	Open fractures involving skull or face with other bones, with cerebral laceration and contusion, unspecified concussion	Diagnosis	ICD-9-CM
804.7	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
804.70	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.71	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
804.72	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.73	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.74	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.75	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.76	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.79	Open fractures involving skull or face with other bones with subarachnoid, subdural, and extradural hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
804.8	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
804.80	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.81	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, no loss of consciousness	Diagnosis	ICD-9-CM
804.82	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.83	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.84	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.85	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.86	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.89	Open fractures involving skull or face with other bones, with other and unspecified intracranial hemorrhage, unspecified concussion	Diagnosis	ICD-9-CM
804.9	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
804.90	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified state of consciousness	Diagnosis	ICD-9-CM
804.91	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, no loss of consciousness	Diagnosis	ICD-9-CM
804.92	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
804.93	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
804.94	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
804.95	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing level	Diagnosis	ICD-9-CM
804.96	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
804.99	Open fractures involving skull or face with other bones, with intracranial injury of other and unspecified nature, unspecified concussion	Diagnosis	ICD-9-CM
805	Fracture of vertebral column without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.0	Closed fracture of cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.00	Closed fracture of cervical vertebra, unspecified level without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.01	Closed fracture of first cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.02	Closed fracture of second cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.03	Closed fracture of third cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.04	Closed fracture of fourth cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.05	Closed fracture of fifth cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.06	Closed fracture of sixth cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.07	Closed fracture of seventh cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.08	Closed fracture of multiple cervical vertebrae without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.1	Open fracture of cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.10	Open fracture of cervical vertebra, unspecified level without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.11	Open fracture of first cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.12	Open fracture of second cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.13	Open fracture of third cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.14	Open fracture of fourth cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.15	Open fracture of fifth cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.16	Open fracture of sixth cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.17	Open fracture of seventh cervical vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.18	Open fracture of multiple cervical vertebrae without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.2	Closed fracture of dorsal (thoracic) vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.3	Open fracture of dorsal (thoracic) vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.4	Closed fracture of lumbar vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
805.5	Open fracture of lumbar vertebra without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.6	Closed fracture of sacrum and coccyx without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.7	Open fracture of sacrum and coccyx without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.8	Closed fracture of unspecified part of vertebral column without mention of spinal cord injury	Diagnosis	ICD-9-CM
805.9	Open fracture of unspecified part of vertebral column without mention of spinal cord injury	Diagnosis	ICD-9-CM
806	Fracture of vertebral column with spinal cord injury	Diagnosis	ICD-9-CM
806.0	Closed fracture of cervical vertebra with spinal cord injury	Diagnosis	ICD-9-CM
806.00	Closed fracture of C1-C4 level with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.01	Closed fracture of C1-C4 level with complete lesion of cord	Diagnosis	ICD-9-CM
806.02	Closed fracture of C1-C4 level with anterior cord syndrome	Diagnosis	ICD-9-CM
806.03	Closed fracture of C1-C4 level with central cord syndrome	Diagnosis	ICD-9-CM
806.04	Closed fracture of C1-C4 level with other specified spinal cord injury	Diagnosis	ICD-9-CM
806.05	Closed fracture of C5-C7 level with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.06	Closed fracture of C5-C7 level with complete lesion of cord	Diagnosis	ICD-9-CM
806.07	Closed fracture of C5-C7 level with anterior cord syndrome	Diagnosis	ICD-9-CM
806.08	Closed fracture of C5-C7 level with central cord syndrome	Diagnosis	ICD-9-CM
806.09	Closed fracture of C5-C7 level with other specified spinal cord injury	Diagnosis	ICD-9-CM
806.1	Open fracture of cervical vertebra with spinal cord injury	Diagnosis	ICD-9-CM
806.10	Open fracture of C1-C4 level with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.11	Open fracture of C1-C4 level with complete lesion of cord	Diagnosis	ICD-9-CM
806.12	Open fracture of C1-C4 level with anterior cord syndrome	Diagnosis	ICD-9-CM
806.13	Open fracture of C1-C4 level with central cord syndrome	Diagnosis	ICD-9-CM
806.14	Open fracture of C1-C4 level with other specified spinal cord injury	Diagnosis	ICD-9-CM
806.15	Open fracture of C5-C7 level with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.16	Open fracture of C5-C7 level with complete lesion of cord	Diagnosis	ICD-9-CM
806.17	Open fracture of C5-C7 level with anterior cord syndrome	Diagnosis	ICD-9-CM
806.18	Open fracture of C5-C7 level with central cord syndrome	Diagnosis	ICD-9-CM
806.19	Open fracture of C5-C7 level with other specified spinal cord injury	Diagnosis	ICD-9-CM
806.2	Closed fracture of dorsal (thoracic) vertebra with spinal cord injury	Diagnosis	ICD-9-CM
806.20	Closed fracture of T1-T6 level with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.21	Closed fracture of T1-T6 level with complete lesion of cord	Diagnosis	ICD-9-CM
806.22	Closed fracture of T1-T6 level with anterior cord syndrome	Diagnosis	ICD-9-CM
806.23	Closed fracture of T1-T6 level with central cord syndrome	Diagnosis	ICD-9-CM
806.24	Closed fracture of T1-T6 level with other specified spinal cord injury	Diagnosis	ICD-9-CM
806.25	Closed fracture of T7-T12 level with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.26	Closed fracture of T7-T12 level with complete lesion of cord	Diagnosis	ICD-9-CM
806.27	Closed fracture of T7-T12 level with anterior cord syndrome	Diagnosis	ICD-9-CM
806.28	Closed fracture of T7-T12 level with central cord syndrome	Diagnosis	ICD-9-CM
806.29	Closed fracture of T7-T12 level with other specified spinal cord injury	Diagnosis	ICD-9-CM
806.3	Open fracture of dorsal vertebra with spinal cord injury	Diagnosis	ICD-9-CM
806.30	Open fracture of T1-T6 level with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.31	Open fracture of T1-T6 level with complete lesion of cord	Diagnosis	ICD-9-CM
806.32	Open fracture of T1-T6 level with anterior cord syndrome	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
806.33	Open fracture of T1-T6 level with central cord syndrome	Diagnosis	ICD-9-CM
806.34	Open fracture of T1-T6 level with other specified spinal cord injury	Diagnosis	ICD-9-CM
806.35	Open fracture of T7-T12 level with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.36	Open fracture of T7-T12 level with complete lesion of cord	Diagnosis	ICD-9-CM
806.37	Open fracture of T7-T12 level with anterior cord syndrome	Diagnosis	ICD-9-CM
806.38	Open fracture of T7-T12 level with central cord syndrome	Diagnosis	ICD-9-CM
806.39	Open fracture of T7-T12 level with other specified spinal cord injury	Diagnosis	ICD-9-CM
806.4	Closed fracture of lumbar spine with spinal cord injury	Diagnosis	ICD-9-CM
806.5	Open fracture of lumbar spine with spinal cord injury	Diagnosis	ICD-9-CM
806.6	Closed fracture of sacrum and coccyx with spinal cord injury	Diagnosis	ICD-9-CM
806.60	Closed fracture of sacrum and coccyx with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.61	Closed fracture of sacrum and coccyx with complete cauda equina lesion	Diagnosis	ICD-9-CM
806.62	Closed fracture of sacrum and coccyx with other cauda equina injury	Diagnosis	ICD-9-CM
806.69	Closed fracture of sacrum and coccyx with other spinal cord injury	Diagnosis	ICD-9-CM
806.7	Open fracture of sacrum and coccyx with spinal cord injury	Diagnosis	ICD-9-CM
806.70	Open fracture of sacrum and coccyx with unspecified spinal cord injury	Diagnosis	ICD-9-CM
806.71	Open fracture of sacrum and coccyx with complete cauda equina lesion	Diagnosis	ICD-9-CM
806.72	Open fracture of sacrum and coccyx with other cauda equina injury	Diagnosis	ICD-9-CM
806.79	Open fracture of sacrum and coccyx with other spinal cord injury	Diagnosis	ICD-9-CM
806.8	Closed fracture of unspecified vertebra with spinal cord injury	Diagnosis	ICD-9-CM
806.9	Open fracture of unspecified vertebra with spinal cord injury	Diagnosis	ICD-9-CM
807	Fracture of rib(s), sternum, larynx, and trachea	Diagnosis	ICD-9-CM
807.0	Closed fracture of rib(s)	Diagnosis	ICD-9-CM
807.00	Closed fracture of rib(s), unspecified	Diagnosis	ICD-9-CM
807.01	Closed fracture of one rib	Diagnosis	ICD-9-CM
807.02	Closed fracture of two ribs	Diagnosis	ICD-9-CM
807.03	Closed fracture of three ribs	Diagnosis	ICD-9-CM
807.04	Closed fracture of four ribs	Diagnosis	ICD-9-CM
807.05	Closed fracture of five ribs	Diagnosis	ICD-9-CM
807.06	Closed fracture of six ribs	Diagnosis	ICD-9-CM
807.07	Closed fracture of seven ribs	Diagnosis	ICD-9-CM
807.08	Closed fracture of eight or more ribs	Diagnosis	ICD-9-CM
807.09	Closed fracture of multiple ribs, unspecified	Diagnosis	ICD-9-CM
807.1	Open fracture of rib(s)	Diagnosis	ICD-9-CM
807.10	Open fracture of rib(s), unspecified	Diagnosis	ICD-9-CM
807.11	Open fracture of one rib	Diagnosis	ICD-9-CM
807.12	Open fracture of two ribs	Diagnosis	ICD-9-CM
807.13	Open fracture of three ribs	Diagnosis	ICD-9-CM
807.14	Open fracture of four ribs	Diagnosis	ICD-9-CM
807.15	Open fracture of five ribs	Diagnosis	ICD-9-CM
807.16	Open fracture of six ribs	Diagnosis	ICD-9-CM
807.17	Open fracture of seven ribs	Diagnosis	ICD-9-CM
807.18	Open fracture of eight or more ribs	Diagnosis	ICD-9-CM
807.19	Open fracture of multiple ribs, unspecified	Diagnosis	ICD-9-CM
807.2	Closed fracture of sternum	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
807.3	Open fracture of sternum	Diagnosis	ICD-9-CM
807.4	Flail chest	Diagnosis	ICD-9-CM
807.5	Closed fracture of larynx and trachea	Diagnosis	ICD-9-CM
807.6	Open fracture of larynx and trachea	Diagnosis	ICD-9-CM
808	Fracture of pelvis	Diagnosis	ICD-9-CM
808.0	Closed fracture of acetabulum	Diagnosis	ICD-9-CM
808.1	Open fracture of acetabulum	Diagnosis	ICD-9-CM
808.2	Closed fracture of pubis	Diagnosis	ICD-9-CM
808.3	Open fracture of pubis	Diagnosis	ICD-9-CM
808.4	Closed fracture of other specified part of pelvis	Diagnosis	ICD-9-CM
808.41	Closed fracture of ilium	Diagnosis	ICD-9-CM
808.42	Closed fracture of ischium	Diagnosis	ICD-9-CM
808.43	Multiple closed pelvic fractures with disruption of pelvic circle	Diagnosis	ICD-9-CM
808.44	Multiple closed pelvic fractures without disruption of pelvic circle	Diagnosis	ICD-9-CM
808.49	Closed fracture of other specified part of pelvis	Diagnosis	ICD-9-CM
808.5	Open fracture of other specified part of pelvis	Diagnosis	ICD-9-CM
808.51	Open fracture of ilium	Diagnosis	ICD-9-CM
808.52	Open fracture of ischium	Diagnosis	ICD-9-CM
808.53	Multiple open pelvic fractures with disruption of pelvic circle	Diagnosis	ICD-9-CM
808.54	Multiple open pelvic fractures without disruption of pelvic circle	Diagnosis	ICD-9-CM
808.59	Open fracture of other specified part of pelvis	Diagnosis	ICD-9-CM
808.8	Unspecified closed fracture of pelvis	Diagnosis	ICD-9-CM
808.9	Unspecified open fracture of pelvis	Diagnosis	ICD-9-CM
809	Ill-defined fractures of bones of trunk	Diagnosis	ICD-9-CM
809.0	Fracture of bones of trunk, closed	Diagnosis	ICD-9-CM
809.1	Fracture of bones of trunk, open	Diagnosis	ICD-9-CM
810	Fracture of clavicle	Diagnosis	ICD-9-CM
810.0	Closed fracture of clavicle	Diagnosis	ICD-9-CM
810.00	Unspecified part of closed fracture of clavicle	Diagnosis	ICD-9-CM
810.01	Closed fracture of sternal end of clavicle	Diagnosis	ICD-9-CM
810.02	Closed fracture of shaft of clavicle	Diagnosis	ICD-9-CM
810.03	Closed fracture of acromial end of clavicle	Diagnosis	ICD-9-CM
810.1	Open fracture of clavicle	Diagnosis	ICD-9-CM
810.10	Unspecified part of open fracture of clavicle	Diagnosis	ICD-9-CM
810.11	Open fracture of sternal end of clavicle	Diagnosis	ICD-9-CM
810.12	Open fracture of shaft of clavicle	Diagnosis	ICD-9-CM
810.13	Open fracture of acromial end of clavicle	Diagnosis	ICD-9-CM
811	Fracture of scapula	Diagnosis	ICD-9-CM
811.0	Closed fracture of scapula	Diagnosis	ICD-9-CM
811.00	Closed fracture of unspecified part of scapula	Diagnosis	ICD-9-CM
811.01	Closed fracture of acromial process of scapula	Diagnosis	ICD-9-CM
811.02	Closed fracture of coracoid process of scapula	Diagnosis	ICD-9-CM
811.03	Closed fracture of glenoid cavity and neck of scapula	Diagnosis	ICD-9-CM
811.09	Closed fracture of other part of scapula	Diagnosis	ICD-9-CM
811.1	Open fracture of scapula	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
811.10	Open fracture of unspecified part of scapula	Diagnosis	ICD-9-CM
811.11	Open fracture of acromial process of scapula	Diagnosis	ICD-9-CM
811.12	Open fracture of coracoid process	Diagnosis	ICD-9-CM
811.13	Open fracture of glenoid cavity and neck of scapula	Diagnosis	ICD-9-CM
811.19	Open fracture of other part of scapula	Diagnosis	ICD-9-CM
812	Fracture of humerus	Diagnosis	ICD-9-CM
812.0	Closed fracture of upper end of humerus	Diagnosis	ICD-9-CM
812.00	Closed fracture of unspecified part of upper end of humerus	Diagnosis	ICD-9-CM
812.01	Closed fracture of surgical neck of humerus	Diagnosis	ICD-9-CM
812.02	Closed fracture of anatomical neck of humerus	Diagnosis	ICD-9-CM
812.03	Closed fracture of greater tuberosity of humerus	Diagnosis	ICD-9-CM
812.09	Other closed fractures of upper end of humerus	Diagnosis	ICD-9-CM
812.1	Open fracture of upper end of humerus	Diagnosis	ICD-9-CM
812.10	Open fracture of unspecified part of upper end of humerus	Diagnosis	ICD-9-CM
812.11	Open fracture of surgical neck of humerus	Diagnosis	ICD-9-CM
812.12	Open fracture of anatomical neck of humerus	Diagnosis	ICD-9-CM
812.13	Open fracture of greater tuberosity of humerus	Diagnosis	ICD-9-CM
812.19	Other open fracture of upper end of humerus	Diagnosis	ICD-9-CM
812.2	Closed fracture of shaft or unspecified part of humerus	Diagnosis	ICD-9-CM
812.20	Closed fracture of unspecified part of humerus	Diagnosis	ICD-9-CM
812.21	Closed fracture of shaft of humerus	Diagnosis	ICD-9-CM
812.3	Open fracture of shaft or unspecified part of humerus	Diagnosis	ICD-9-CM
812.30	Open fracture of unspecified part of humerus	Diagnosis	ICD-9-CM
812.31	Open fracture of shaft of humerus	Diagnosis	ICD-9-CM
812.4	Closed fracture of lower end of humerus	Diagnosis	ICD-9-CM
812.40	Closed fracture of unspecified part of lower end of humerus	Diagnosis	ICD-9-CM
812.41	Closed fracture of supracondylar humerus	Diagnosis	ICD-9-CM
812.42	Closed fracture of lateral condyle of humerus	Diagnosis	ICD-9-CM
812.43	Closed fracture of medial condyle of humerus	Diagnosis	ICD-9-CM
812.44	Closed fracture of unspecified condyle(s) of humerus	Diagnosis	ICD-9-CM
812.49	Other closed fracture of lower end of humerus	Diagnosis	ICD-9-CM
812.5	Open fracture of lower end of humerus	Diagnosis	ICD-9-CM
812.50	Open fracture of unspecified part of lower end of humerus	Diagnosis	ICD-9-CM
812.51	Open fracture of supracondylar humerus	Diagnosis	ICD-9-CM
812.52	Open fracture of lateral condyle of humerus	Diagnosis	ICD-9-CM
812.53	Open fracture of medial condyle of humerus	Diagnosis	ICD-9-CM
812.54	Open fracture of unspecified condyle(s) of humerus	Diagnosis	ICD-9-CM
812.59	Other open fracture of lower end of humerus	Diagnosis	ICD-9-CM
813	Fracture of radius and ulna	Diagnosis	ICD-9-CM
813.0	Closed fracture of upper end of radius and ulna	Diagnosis	ICD-9-CM
813.00	Unspecified fracture of radius and ulna, upper end of forearm, closed	Diagnosis	ICD-9-CM
813.01	Closed fracture of olecranon process of ulna	Diagnosis	ICD-9-CM
813.02	Closed fracture of coronoid process of ulna	Diagnosis	ICD-9-CM
813.03	Closed Monteggia's fracture	Diagnosis	ICD-9-CM
813.04	Other and unspecified closed fractures of proximal end of ulna (alone)	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
813.05	Closed fracture of head of radius	Diagnosis	ICD-9-CM
813.06	Closed fracture of neck of radius	Diagnosis	ICD-9-CM
813.07	Other and unspecified closed fractures of proximal end of radius (alone)	Diagnosis	ICD-9-CM
813.08	Closed fracture of radius with ulna, upper end (any part)	Diagnosis	ICD-9-CM
813.1	Open fracture of upper end of radius and ulna	Diagnosis	ICD-9-CM
813.10	Unspecified open fracture of upper end of forearm	Diagnosis	ICD-9-CM
813.11	Open fracture of olecranon process of ulna	Diagnosis	ICD-9-CM
813.12	Open fracture of coronoid process of ulna	Diagnosis	ICD-9-CM
813.13	Open Monteggia's fracture	Diagnosis	ICD-9-CM
813.14	Other and unspecified open fractures of proximal end of ulna (alone)	Diagnosis	ICD-9-CM
813.15	Open fracture of head of radius	Diagnosis	ICD-9-CM
813.16	Open fracture of neck of radius	Diagnosis	ICD-9-CM
813.17	Other and unspecified open fractures of proximal end of radius (alone)	Diagnosis	ICD-9-CM
813.18	Open fracture of radius with ulna, upper end (any part)	Diagnosis	ICD-9-CM
813.2	Closed fracture of shaft of radius and ulna	Diagnosis	ICD-9-CM
813.20	Unspecified closed fracture of shaft of radius or ulna	Diagnosis	ICD-9-CM
813.21	Closed fracture of shaft of radius (alone)	Diagnosis	ICD-9-CM
813.22	Closed fracture of shaft of ulna (alone)	Diagnosis	ICD-9-CM
813.23	Closed fracture of shaft of radius with ulna	Diagnosis	ICD-9-CM
813.3	Open fracture of shaft of radius and ulna	Diagnosis	ICD-9-CM
813.30	Unspecified open fracture of shaft of radius or ulna	Diagnosis	ICD-9-CM
813.31	Open fracture of shaft of radius (alone)	Diagnosis	ICD-9-CM
813.32	Open fracture of shaft of ulna (alone)	Diagnosis	ICD-9-CM
813.33	Open fracture of shaft of radius with ulna	Diagnosis	ICD-9-CM
813.4	Closed fracture of lower end of radius and ulna	Diagnosis	ICD-9-CM
813.40	Unspecified closed fracture of lower end of forearm	Diagnosis	ICD-9-CM
813.41	Closed Colles' fracture	Diagnosis	ICD-9-CM
813.42	Other closed fractures of distal end of radius (alone)	Diagnosis	ICD-9-CM
813.43	Closed fracture of distal end of ulna (alone)	Diagnosis	ICD-9-CM
813.44	Closed fracture of lower end of radius with ulna	Diagnosis	ICD-9-CM
813.45	Torus fracture of radius (alone)	Diagnosis	ICD-9-CM
813.46	Torus fracture of ulna (alone)	Diagnosis	ICD-9-CM
813.47	Torus fracture of radius and ulna	Diagnosis	ICD-9-CM
813.5	Open fracture of lower end of radius and ulna	Diagnosis	ICD-9-CM
813.50	Unspecified open fracture of lower end of forearm	Diagnosis	ICD-9-CM
813.51	Open Colles' fracture	Diagnosis	ICD-9-CM
813.52	Other open fractures of distal end of radius (alone)	Diagnosis	ICD-9-CM
813.53	Open fracture of distal end of ulna (alone)	Diagnosis	ICD-9-CM
813.54	Open fracture of lower end of radius with ulna	Diagnosis	ICD-9-CM
813.8	Closed fracture of unspecified part of radius with ulna	Diagnosis	ICD-9-CM
813.80	Closed fracture of unspecified part of forearm	Diagnosis	ICD-9-CM
813.81	Closed fracture of unspecified part of radius (alone)	Diagnosis	ICD-9-CM
813.82	Closed fracture of unspecified part of ulna (alone)	Diagnosis	ICD-9-CM
813.83	Closed fracture of unspecified part of radius with ulna	Diagnosis	ICD-9-CM
813.9	Open fracture of unspecified part of radius with ulna	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
813.90	Open fracture of unspecified part of forearm	Diagnosis	ICD-9-CM
813.91	Open fracture of unspecified part of radius (alone)	Diagnosis	ICD-9-CM
813.92	Open fracture of unspecified part of ulna (alone)	Diagnosis	ICD-9-CM
813.93	Open fracture of unspecified part of radius with ulna	Diagnosis	ICD-9-CM
818	Ill-defined fractures of upper limb	Diagnosis	ICD-9-CM
818.0	Ill-defined closed fractures of upper limb	Diagnosis	ICD-9-CM
818.1	Ill-defined open fractures of upper limb	Diagnosis	ICD-9-CM
819	Multiple fractures involving both upper limbs, and upper limb with rib(s) and sternum	Diagnosis	ICD-9-CM
819.0	Multiple closed fractures involving both upper limbs, and upper limb with rib(s) and sternum	Diagnosis	ICD-9-CM
819.1	Multiple open fractures involving both upper limbs, and upper limb with rib(s) and sternum	Diagnosis	ICD-9-CM
820	Fracture of neck of femur	Diagnosis	ICD-9-CM
820.0	Closed transcervical fracture	Diagnosis	ICD-9-CM
820.00	Closed fracture of unspecified intracapsular section of neck of femur	Diagnosis	ICD-9-CM
820.01	Closed fracture of epiphysis (separation) (upper) of neck of femur	Diagnosis	ICD-9-CM
820.02	Closed fracture of midcervical section of femur	Diagnosis	ICD-9-CM
820.03	Closed fracture of base of neck of femur	Diagnosis	ICD-9-CM
820.09	Other closed transcervical fracture of femur	Diagnosis	ICD-9-CM
820.1	Open transcervical fracture	Diagnosis	ICD-9-CM
820.10	Open fracture of unspecified intracapsular section of neck of femur	Diagnosis	ICD-9-CM
820.11	Open fracture of epiphysis (separation) (upper) of neck of femur	Diagnosis	ICD-9-CM
820.12	Open fracture of midcervical section of femur	Diagnosis	ICD-9-CM
820.13	Open fracture of base of neck of femur	Diagnosis	ICD-9-CM
820.19	Other open transcervical fracture of femur	Diagnosis	ICD-9-CM
820.2	Closed pertrochanteric fracture of femur	Diagnosis	ICD-9-CM
820.20	Closed fracture of unspecified trochanteric section of femur	Diagnosis	ICD-9-CM
820.21	Closed fracture of intertrochanteric section of femur	Diagnosis	ICD-9-CM
820.22	Closed fracture of subtrochanteric section of femur	Diagnosis	ICD-9-CM
820.3	Open pertrochanteric fracture of femur	Diagnosis	ICD-9-CM
820.30	Open fracture of unspecified trochanteric section of femur	Diagnosis	ICD-9-CM
820.31	Open fracture of intertrochanteric section of femur	Diagnosis	ICD-9-CM
820.32	Open fracture of subtrochanteric section of femur	Diagnosis	ICD-9-CM
820.8	Closed fracture of unspecified part of neck of femur	Diagnosis	ICD-9-CM
820.9	Open fracture of unspecified part of neck of femur	Diagnosis	ICD-9-CM
821	Fracture of other and unspecified parts of femur	Diagnosis	ICD-9-CM
821.0	Closed fracture of shaft or unspecified part of femur	Diagnosis	ICD-9-CM
821.00	Closed fracture of unspecified part of femur	Diagnosis	ICD-9-CM
821.01	Closed fracture of shaft of femur	Diagnosis	ICD-9-CM
821.1	Open fracture of shaft or unspecified part of femur	Diagnosis	ICD-9-CM
821.10	Open fracture of unspecified part of femur	Diagnosis	ICD-9-CM
821.11	Open fracture of shaft of femur	Diagnosis	ICD-9-CM
821.2	Closed fracture of lower end of femur	Diagnosis	ICD-9-CM
821.20	Closed fracture of unspecified part of lower end of femur	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
821.21	Closed fracture of femoral condyle	Diagnosis	ICD-9-CM
821.22	Closed fracture of lower epiphysis of femur	Diagnosis	ICD-9-CM
821.23	Closed supracondylar fracture of femur	Diagnosis	ICD-9-CM
821.29	Other closed fracture of lower end of femur	Diagnosis	ICD-9-CM
821.3	Open fracture of lower end of femur	Diagnosis	ICD-9-CM
821.30	Open fracture of unspecified part of lower end of femur	Diagnosis	ICD-9-CM
821.31	Open fracture of femoral condyle	Diagnosis	ICD-9-CM
821.32	Open fracture of lower epiphysis of femur	Diagnosis	ICD-9-CM
821.33	Open supracondylar fracture of femur	Diagnosis	ICD-9-CM
821.39	Other open fracture of lower end of femur	Diagnosis	ICD-9-CM
822	Fracture of patella	Diagnosis	ICD-9-CM
822.0	Closed fracture of patella	Diagnosis	ICD-9-CM
822.1	Open fracture of patella	Diagnosis	ICD-9-CM
823	Fracture of tibia and fibula	Diagnosis	ICD-9-CM
823.0	Closed fracture of upper end of tibia and fibula	Diagnosis	ICD-9-CM
823.00	Closed fracture of upper end of tibia	Diagnosis	ICD-9-CM
823.01	Closed fracture of upper end of fibula	Diagnosis	ICD-9-CM
823.02	Closed fracture of upper end of fibula with tibia	Diagnosis	ICD-9-CM
823.1	Open fracture of upper end of tibia and fibula	Diagnosis	ICD-9-CM
823.10	Open fracture of upper end of tibia	Diagnosis	ICD-9-CM
823.11	Open fracture of upper end of fibula	Diagnosis	ICD-9-CM
823.12	Open fracture of upper end of fibula with tibia	Diagnosis	ICD-9-CM
823.2	Closed fracture of shaft of tibia and fibula	Diagnosis	ICD-9-CM
823.20	Closed fracture of shaft of tibia	Diagnosis	ICD-9-CM
823.21	Closed fracture of shaft of fibula	Diagnosis	ICD-9-CM
823.22	Closed fracture of shaft of fibula with tibia	Diagnosis	ICD-9-CM
823.3	Open fracture of shaft of tibia and fibula	Diagnosis	ICD-9-CM
823.30	Open fracture of shaft of tibia	Diagnosis	ICD-9-CM
823.31	Open fracture of shaft of fibula	Diagnosis	ICD-9-CM
823.32	Open fracture of shaft of fibula with tibia	Diagnosis	ICD-9-CM
823.4	Torus fracture of tibia and fibula	Diagnosis	ICD-9-CM
823.40	Torus fracture of tibia alone	Diagnosis	ICD-9-CM
823.41	Torus fracture of fibula alone	Diagnosis	ICD-9-CM
823.42	Torus fracture of fibula with tibia	Diagnosis	ICD-9-CM
823.8	Closed fracture of unspecified part of tibia and fibula	Diagnosis	ICD-9-CM
823.80	Closed fracture of unspecified part of tibia	Diagnosis	ICD-9-CM
823.81	Closed fracture of unspecified part of fibula	Diagnosis	ICD-9-CM
823.82	Closed fracture of unspecified part of fibula with tibia	Diagnosis	ICD-9-CM
823.9	Open fracture of unspecified part of tibia and fibula	Diagnosis	ICD-9-CM
823.90	Open fracture of unspecified part of tibia	Diagnosis	ICD-9-CM
823.91	Open fracture of unspecified part of fibula	Diagnosis	ICD-9-CM
823.92	Open fracture of unspecified part of fibula with tibia	Diagnosis	ICD-9-CM
824	Fracture of ankle	Diagnosis	ICD-9-CM
824.0	Closed fracture of medial malleolus	Diagnosis	ICD-9-CM
824.1	Open fracture of medial malleolus	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
824.2	Closed fracture of lateral malleolus	Diagnosis	ICD-9-CM
824.3	Open fracture of lateral malleolus	Diagnosis	ICD-9-CM
824.4	Closed bimalleolar fracture	Diagnosis	ICD-9-CM
824.5	Open bimalleolar fracture	Diagnosis	ICD-9-CM
824.6	Closed trimalleolar fracture	Diagnosis	ICD-9-CM
824.7	Open trimalleolar fracture	Diagnosis	ICD-9-CM
824.8	Unspecified closed fracture of ankle	Diagnosis	ICD-9-CM
824.9	Unspecified open fracture of ankle	Diagnosis	ICD-9-CM
827	Other, multiple, and ill-defined fractures of lower limb	Diagnosis	ICD-9-CM
827.0	Other, multiple and ill-defined closed fractures of lower limb	Diagnosis	ICD-9-CM
827.1	Other, multiple and ill-defined open fractures of lower limb	Diagnosis	ICD-9-CM
828	Multiple fractures involving both lower limbs, lower with upper limb, and lower limb(s) with rib(s) and sternum	Diagnosis	ICD-9-CM
828.0	Multiple closed fractures involving both lower limbs, lower with upper limb, and lower limb(s) with rib(s) and sternum	Diagnosis	ICD-9-CM
828.1	Multiple fractures involving both lower limbs, lower with upper limb, and lower limb(s) with rib(s) and sternum, open	Diagnosis	ICD-9-CM
829	Fracture of unspecified bones	Diagnosis	ICD-9-CM
829.0	Closed fracture of unspecified bone	Diagnosis	ICD-9-CM
829.1	Open fracture of unspecified bone	Diagnosis	ICD-9-CM
860	Traumatic pneumothorax and hemothorax	Diagnosis	ICD-9-CM
860.0	Traumatic pneumothorax without mention of open wound into thorax	Diagnosis	ICD-9-CM
860.1	Traumatic pneumothorax with open wound into thorax	Diagnosis	ICD-9-CM
860.2	Traumatic hemothorax without mention of open wound into thorax	Diagnosis	ICD-9-CM
860.3	Traumatic hemothorax with open wound into thorax	Diagnosis	ICD-9-CM
860.4	Traumatic pneumohemothorax without mention of open wound into thorax	Diagnosis	ICD-9-CM
860.5	Traumatic pneumohemothorax with open wound into thorax	Diagnosis	ICD-9-CM
862.0	Diaphragm injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
862.1	Diaphragm injury with open wound into cavity	Diagnosis	ICD-9-CM
862.8	Injury to multiple and unspecified intrathoracic organs without mention of open wound into cavity	Diagnosis	ICD-9-CM
862.9	Injury to multiple and unspecified intrathoracic organs with open wound into cavity	Diagnosis	ICD-9-CM
863.0	Stomach injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.1	Stomach injury with open wound into cavity	Diagnosis	ICD-9-CM
863.2	Small intestine injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.20	Small intestine injury, unspecified site, without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.21	Duodenum injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.29	Other injury to small intestine without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.3	Small intestine injury with open wound into cavity	Diagnosis	ICD-9-CM
863.30	Small intestine injury, unspecified site, with open wound into cavity	Diagnosis	ICD-9-CM
863.31	Duodenum injury with open wound into cavity	Diagnosis	ICD-9-CM
863.39	Other injury to small intestine with open wound into cavity	Diagnosis	ICD-9-CM
863.4	Colon or rectal injury without mention of open wound into cavity	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
863.40	Colon injury unspecified site, without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.41	Ascending (right) colon injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.42	Transverse colon injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.43	Descending (left) colon injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.44	Sigmoid colon injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.45	Rectum injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.46	Injury to multiple sites in colon and rectum without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.49	Other colon and rectum injury, without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.5	Injury to colon or rectum with open wound into cavity	Diagnosis	ICD-9-CM
863.50	Colon injury, unspecified site, with open wound into cavity	Diagnosis	ICD-9-CM
863.51	Ascending (right) colon injury with open wound into cavity	Diagnosis	ICD-9-CM
863.52	Transverse colon injury with open wound into cavity	Diagnosis	ICD-9-CM
863.53	Descending (left) colon injury with open wound into cavity	Diagnosis	ICD-9-CM
863.54	Sigmoid colon injury with open wound into cavity	Diagnosis	ICD-9-CM
863.55	Rectum injury with open wound into cavity	Diagnosis	ICD-9-CM
863.56	Injury to multiple sites in colon and rectum with open wound into cavity	Diagnosis	ICD-9-CM
863.59	Other injury to colon and rectum with open wound into cavity	Diagnosis	ICD-9-CM
863.8	Injury to other and unspecified gastrointestinal sites without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.80	Gastrointestinal tract injury, unspecified site, without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.81	Pancreas head injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.82	Pancreas body injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.83	Pancreas tail injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.84	Pancreas injury, multiple and unspecified sites, without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.85	Appendix injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.89	Injury to other and unspecified gastrointestinal sites without mention of open wound into cavity	Diagnosis	ICD-9-CM
863.9	Injury to other and unspecified gastrointestinal sites, with open wound into	Diagnosis	ICD-9-CM
863.90	Gastrointestinal tract injury, unspecified site, with open wound into cavity	Diagnosis	ICD-9-CM
863.91	Pancreas head injury with open wound into cavity	Diagnosis	ICD-9-CM
863.92	Pancreas body injury with open wound into cavity	Diagnosis	ICD-9-CM
863.93	Pancreas tail injury with open wound into cavity	Diagnosis	ICD-9-CM
863.94	Pancreas injury, multiple and unspecified sites, with open wound into cavity	Diagnosis	ICD-9-CM
863.95	Appendix injury with open wound into cavity	Diagnosis	ICD-9-CM
863.99	Injury to other and unspecified gastrointestinal sites with open wound into cavity	Diagnosis	ICD-9-CM
864.1	Liver injury with open wound into cavity	Diagnosis	ICD-9-CM
864.10	Unspecified liver injury with open wound into cavity	Diagnosis	ICD-9-CM
864.11	Liver hematoma and contusion with open wound into cavity	Diagnosis	ICD-9-CM
864.12	Liver laceration, minor, with open wound into cavity	Diagnosis	ICD-9-CM
864.13	Liver laceration, moderate, with open wound into cavity	Diagnosis	ICD-9-CM
864.14	Liver laceration, major, with open wound into cavity	Diagnosis	ICD-9-CM
864.15	Liver injury with open wound into cavity, unspecified laceration	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
864.19	Other liver injury with open wound into cavity	Diagnosis	ICD-9-CM
865.1	Spleen injury with open wound into cavity	Diagnosis	ICD-9-CM
865.10	Unspecified spleen injury with open wound into cavity	Diagnosis	ICD-9-CM
865.11	Spleen hematoma, without rupture of capsule, with open wound into cavity	Diagnosis	ICD-9-CM
865.12	Capsular tears to spleen, without major disruption of parenchyma, with open wound into cavity	Diagnosis	ICD-9-CM
865.13	Spleen laceration extending into parenchyma, with open wound into cavity	Diagnosis	ICD-9-CM
865.14	Massive parenchyma disruption of spleen with open wound into cavity	Diagnosis	ICD-9-CM
865.19	Other spleen injury with open wound into cavity	Diagnosis	ICD-9-CM
866	Injury to kidney	Diagnosis	ICD-9-CM
866.0	Kidney injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
866.00	Unspecified kidney injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
866.01	Kidney hematoma without rupture of capsule or mention of open wound into cavity	Diagnosis	ICD-9-CM
866.02	Kidney laceration without mention of open wound into cavity	Diagnosis	ICD-9-CM
866.03	Complete disruption of kidney parenchyma, without mention of open wound into cavity	Diagnosis	ICD-9-CM
866.1	Kidney injury with open wound into cavity	Diagnosis	ICD-9-CM
866.10	Unspecified kidney injury with open wound into cavity	Diagnosis	ICD-9-CM
866.11	Kidney hematoma, without rupture of capsule, with open wound into cavity	Diagnosis	ICD-9-CM
866.12	Kidney laceration with open wound into cavity	Diagnosis	ICD-9-CM
866.13	Complete disruption of kidney parenchyma, with open wound into cavity	Diagnosis	ICD-9-CM
867	Injury to pelvic organs	Diagnosis	ICD-9-CM
867.0	Bladder and urethra injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
867.1	Bladder and urethra injury with open wound into cavity	Diagnosis	ICD-9-CM
867.2	Ureter injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
867.3	Ureter injury with open wound into cavity	Diagnosis	ICD-9-CM
867.4	Uterus injury without mention of open wound into cavity	Diagnosis	ICD-9-CM
867.5	Uterus injury with open wound into cavity	Diagnosis	ICD-9-CM
867.6	Injury to other specified pelvic organs without mention of open wound into	Diagnosis	ICD-9-CM
867.7	Injury to other specified pelvic organs with open wound into cavity	Diagnosis	ICD-9-CM
867.8	Injury to unspecified pelvic organ without mention of open wound into cavity	Diagnosis	ICD-9-CM
867.9	Injury to unspecified pelvic organ with open wound into cavity	Diagnosis	ICD-9-CM
873.0	Open wound of scalp, without mention of complication	Diagnosis	ICD-9-CM
873.1	Open wound of scalp, complicated	Diagnosis	ICD-9-CM
875.0	Open wound of chest (wall), without mention of complication	Diagnosis	ICD-9-CM
875.1	Open wound of chest (wall), complicated	Diagnosis	ICD-9-CM
902.4	Renal blood vessel injury	Diagnosis	ICD-9-CM
902.40	Renal vessel(s) injury, unspecified	Diagnosis	ICD-9-CM
902.41	Renal artery injury	Diagnosis	ICD-9-CM
902.42	Renal vein injury	Diagnosis	ICD-9-CM
902.49	Renal blood vessel injury, other	Diagnosis	ICD-9-CM
902.55	Uterine artery injury	Diagnosis	ICD-9-CM
902.56	Uterine vein injury	Diagnosis	ICD-9-CM
902.81	Ovarian artery injury	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
902.82	Ovarian vein injury	Diagnosis	ICD-9-CM
925	Crushing injury of face, scalp, and neck	Diagnosis	ICD-9-CM
925.1	Crushing injury of face and scalp	Diagnosis	ICD-9-CM
925.2	Crushing injury of neck	Diagnosis	ICD-9-CM
926	Crushing injury of trunk	Diagnosis	ICD-9-CM
926.0	Crushing injury of external genitalia	Diagnosis	ICD-9-CM
926.1	Crushing injury of other specified sites of trunk	Diagnosis	ICD-9-CM
926.11	Crushing injury of back	Diagnosis	ICD-9-CM
926.12	Crushing injury of buttock	Diagnosis	ICD-9-CM
926.19	Crushing injury of other specified sites of trunk	Diagnosis	ICD-9-CM
926.8	Crushing injury of multiple sites of trunk	Diagnosis	ICD-9-CM
926.9	Crushing injury of unspecified site of trunk	Diagnosis	ICD-9-CM
927	Crushing injury of upper limb	Diagnosis	ICD-9-CM
927.0	Crushing injury of shoulder and upper arm	Diagnosis	ICD-9-CM
927.00	Crushing injury of shoulder region	Diagnosis	ICD-9-CM
927.01	Crushing injury of scapular region	Diagnosis	ICD-9-CM
927.02	Crushing injury of axillary region	Diagnosis	ICD-9-CM
927.03	Crushing injury of upper arm	Diagnosis	ICD-9-CM
927.09	Crushing injury of multiple sites of upper arm	Diagnosis	ICD-9-CM
927.1	Crushing injury of elbow and forearm	Diagnosis	ICD-9-CM
927.10	Crushing injury of forearm	Diagnosis	ICD-9-CM
927.11	Crushing injury of elbow	Diagnosis	ICD-9-CM
927.2	Crushing injury of wrist and hand(s), except finger(s) alone	Diagnosis	ICD-9-CM
927.20	Crushing injury of hand(s)	Diagnosis	ICD-9-CM
927.21	Crushing injury of wrist	Diagnosis	ICD-9-CM
927.3	Crushing injury of finger(s)	Diagnosis	ICD-9-CM
927.8	Crushing injury of multiple sites of upper limb	Diagnosis	ICD-9-CM
927.9	Crushing injury of unspecified site of upper limb	Diagnosis	ICD-9-CM
928	Crushing injury of lower limb	Diagnosis	ICD-9-CM
928.0	Crushing injury of hip and thigh	Diagnosis	ICD-9-CM
928.00	Crushing injury of thigh	Diagnosis	ICD-9-CM
928.01	Crushing injury of hip	Diagnosis	ICD-9-CM
928.1	Crushing injury of knee and lower leg	Diagnosis	ICD-9-CM
928.10	Crushing injury of lower leg	Diagnosis	ICD-9-CM
928.11	Crushing injury of knee	Diagnosis	ICD-9-CM
928.2	Crushing injury of ankle and foot, excluding toe(s) alone	Diagnosis	ICD-9-CM
928.20	Crushing injury of foot	Diagnosis	ICD-9-CM
928.21	Crushing injury of ankle	Diagnosis	ICD-9-CM
928.3	Crushing injury of toe(s)	Diagnosis	ICD-9-CM
928.8	Crushing injury of multiple sites of lower limb	Diagnosis	ICD-9-CM
928.9	Crushing injury of unspecified site of lower limb	Diagnosis	ICD-9-CM
929	Crushing injury of multiple and unspecified sites	Diagnosis	ICD-9-CM
929.0	Crushing injury of multiple sites, not elsewhere classified	Diagnosis	ICD-9-CM
929.9	Crushing injury of unspecified site	Diagnosis	ICD-9-CM
958.4	Traumatic shock	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
958.5	Traumatic anuria	Diagnosis	ICD-9-CM
958.7	Traumatic subcutaneous emphysema	Diagnosis	ICD-9-CM
996.7	Other complications of internal prosthetic device, implant, and graft	Diagnosis	ICD-9-CM
996.70	Other complications due to unspecified device, implant, and graft	Diagnosis	ICD-9-CM
996.71	Other complications due to heart valve prosthesis	Diagnosis	ICD-9-CM
996.72	Other complications due to other cardiac device, implant, and graft	Diagnosis	ICD-9-CM
996.73	Other complications due to renal dialysis device, implant, and graft	Diagnosis	ICD-9-CM
996.74	Other complications due to other vascular device, implant, and graft	Diagnosis	ICD-9-CM
996.75	Other complications due to nervous system device, implant, and graft	Diagnosis	ICD-9-CM
996.76	Other complications due to genitourinary device, implant, and graft	Diagnosis	ICD-9-CM
996.77	Other complications due to internal joint prosthesis	Diagnosis	ICD-9-CM
996.78	Other complications due to other internal orthopedic device, implant, and graft	Diagnosis	ICD-9-CM
996.79	Other complications due to other internal prosthetic device, implant, and graft	Diagnosis	ICD-9-CM
998.11	Hemorrhage complicating a procedure	Diagnosis	ICD-9-CM
998.12	Hematoma complicating a procedure	Diagnosis	ICD-9-CM
998.2	Accidental puncture or laceration during procedure	Diagnosis	ICD-9-CM
E805	Hit by rolling stock	Diagnosis	ICD-9-CM
E805.0	Railway employee hit by rolling stock	Diagnosis	ICD-9-CM
E805.1	Passenger on railway hit by rolling stock	Diagnosis	ICD-9-CM
E805.2	Pedestrian hit by rolling stock	Diagnosis	ICD-9-CM
E805.3	Pedal cyclist hit by rolling stock	Diagnosis	ICD-9-CM
E805.8	Other specified person hit by rolling stock	Diagnosis	ICD-9-CM
E805.9	Unspecified person hit by rolling stock	Diagnosis	ICD-9-CM
E870	Accidental cut, puncture, perforation, or hemorrhage during medical care	Diagnosis	ICD-9-CM
E870.0	Accidental cut, puncture, perforation, or hemorrhage during surgical operation	Diagnosis	ICD-9-CM
E870.1	Accidental cut, puncture, perforation, or hemorrhage during infusion or transfusion	Diagnosis	ICD-9-CM
E870.2	Accidental cut, puncture, perforation, or hemorrhage during kidney dialysis or other perfusion	Diagnosis	ICD-9-CM
E870.3	Accidental cut, puncture, perforation, or hemorrhage during injection or vaccination	Diagnosis	ICD-9-CM
E870.4	Accidental cut, puncture, perforation, or hemorrhage during endoscopic examination	Diagnosis	ICD-9-CM
E870.5	Accidental cut, puncture, perforation, or hemorrhage during aspiration of fluid or tissue, puncture, and catheterization	Diagnosis	ICD-9-CM
E870.6	Accidental cut, puncture, perforation, or hemorrhage during heart	Diagnosis	ICD-9-CM
E870.7	Accidental cut, puncture, perforation, or hemorrhage during administration of enema	Diagnosis	ICD-9-CM
E870.8	Accidental cut, puncture, perforation, or hemorrhage during other specified medical care	Diagnosis	ICD-9-CM
E870.9	Accidental cut, puncture, perforation, or hemorrhage during unspecified medical care	Diagnosis	ICD-9-CM
E881	Accidental fall on or from ladders or scaffolding	Diagnosis	ICD-9-CM
E881.0	Accidental fall from ladder	Diagnosis	ICD-9-CM
E881.1	Accidental fall from scaffolding	Diagnosis	ICD-9-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
E882	Accidental fall from or out of building or other structure	Diagnosis	ICD-9-CM
E883	Accidental fall into hole or other opening in surface	Diagnosis	ICD-9-CM
E883.0	Accident from diving or jumping into water (swimming pool)	Diagnosis	ICD-9-CM
E883.1	Accidental fall into well	Diagnosis	ICD-9-CM
E883.2	Accidental fall into storm drain or manhole	Diagnosis	ICD-9-CM
E883.9	Accidental fall into other hole or other opening in surface	Diagnosis	ICD-9-CM
E922	Accident caused by firearm, and air gun missiles	Diagnosis	ICD-9-CM
E922.0	Accident caused by handgun	Diagnosis	ICD-9-CM
E922.1	Accident caused by shotgun (automatic)	Diagnosis	ICD-9-CM
E922.2	Accident caused by hunting rifle	Diagnosis	ICD-9-CM
E922.3	Accident caused by military firearms	Diagnosis	ICD-9-CM
E922.4	Accident caused by air gun	Diagnosis	ICD-9-CM
E922.5	Accident caused by paintball gun	Diagnosis	ICD-9-CM
E922.8	Accident caused by other specified firearm missile	Diagnosis	ICD-9-CM
E922.9	Accident caused by unspecified firearm missile	Diagnosis	ICD-9-CM
E923	Accident caused by explosive material	Diagnosis	ICD-9-CM
E923.0	Accident caused by fireworks	Diagnosis	ICD-9-CM
E923.1	Accident caused by blasting materials	Diagnosis	ICD-9-CM
E923.2	Accident caused by explosive gases	Diagnosis	ICD-9-CM
E923.8	Accident caused by other explosive materials	Diagnosis	ICD-9-CM
E923.9	Accident caused by unspecified explosive material	Diagnosis	ICD-9-CM
E955	Suicide and self-inflicted injury by firearms, air guns and explosives	Diagnosis	ICD-9-CM
E955.0	Suicide and self-inflicted injury by handgun	Diagnosis	ICD-9-CM
E955.1	Suicide and self-inflicted injury by shotgun	Diagnosis	ICD-9-CM
E955.2	Suicide and self-inflicted injury by hunting rifle	Diagnosis	ICD-9-CM
E955.3	Suicide and self-inflicted injury by military firearms	Diagnosis	ICD-9-CM
E955.4	Suicide and self-inflicted injury by other and unspecified firearm	Diagnosis	ICD-9-CM
E955.5	Suicide and self-inflicted injury by explosives	Diagnosis	ICD-9-CM
E955.6	Suicide and self-inflicted injury by air gun	Diagnosis	ICD-9-CM
E955.7	Suicide and self-inflicted injury by paintball gun	Diagnosis	ICD-9-CM
E955.9	Suicide and self-inflicted injury by firearms and explosives, unspecified	Diagnosis	ICD-9-CM
E960	Fight, brawl, rape	Diagnosis	ICD-9-CM
E960.0	Unarmed fight or brawl	Diagnosis	ICD-9-CM
E960.1	Rape	Diagnosis	ICD-9-CM
E965	Assault by firearms and explosives	Diagnosis	ICD-9-CM
E965.0	Assault by handgun	Diagnosis	ICD-9-CM
E965.1	Assault by shotgun	Diagnosis	ICD-9-CM
E965.2	Assault by hunting rifle	Diagnosis	ICD-9-CM
E965.3	Assault by military firearms	Diagnosis	ICD-9-CM
E965.4	Assault by other and unspecified firearm	Diagnosis	ICD-9-CM
E965.5	Assault by antipersonnel bomb	Diagnosis	ICD-9-CM
E965.6	Assault by gasoline bomb	Diagnosis	ICD-9-CM
E965.7	Assault by letter bomb	Diagnosis	ICD-9-CM
E965.8	Assault by other specified explosive	Diagnosis	ICD-9-CM
E965.9	Assault by unspecified explosive	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
E970	Injury due to legal intervention by firearms	Diagnosis	ICD-9-CM
E985	Injury by firearms, air guns and explosives, undetermined whether accidentally or purposely inflicted	Diagnosis	ICD-9-CM
E985.0	Injury by handgun, undetermined whether accidentally or purposely inflicted	Diagnosis	ICD-9-CM
E985.1	Injury by shotgun, undetermined whether accidentally or purposely inflicted	Diagnosis	ICD-9-CM
E985.2	Injury by hunting rifle, undetermined whether accidentally or purposely inflicted	Diagnosis	ICD-9-CM
E985.3	Injury by military firearms, undetermined whether accidentally or purposely inflicted	Diagnosis	ICD-9-CM
E985.4	Injury by other and unspecified firearm, undetermined whether accidentally or purposely inflicted	Diagnosis	ICD-9-CM
E985.5	Injury by explosives, undetermined whether accidentally or purposely inflicted	Diagnosis	ICD-9-CM
E985.6	Injury by air gun, undetermined whether accidental, or purposefully inflicted	Diagnosis	ICD-9-CM
E985.7	Injury by paintball gun, undetermined whether accidentally or purposefully inflicted	Diagnosis	ICD-9-CM
D78.01	Intraoperative hemorrhage and hematoma of the spleen complicating a procedure on the spleen	Diagnosis	ICD-10-CM
D78.02	Intraoperative hemorrhage and hematoma of the spleen complicating other procedure	Diagnosis	ICD-10-CM
D78.11	Accidental puncture and laceration of the spleen during a procedure on the	Diagnosis	ICD-10-CM
D78.12	Accidental puncture and laceration of the spleen during other procedure	Diagnosis	ICD-10-CM
D78.21	Postprocedural hemorrhage of the spleen following a procedure on the spleen	Diagnosis	ICD-10-CM
D78.22	Postprocedural hemorrhage of the spleen following other procedure	Diagnosis	ICD-10-CM
D78.31	Postprocedural hematoma of the spleen following a procedure on the spleen	Diagnosis	ICD-10-CM
D78.32	Postprocedural hematoma of the spleen following other procedure	Diagnosis	ICD-10-CM
E36.01	Intraoperative hemorrhage and hematoma of an endocrine system organ or structure complicating an endocrine system procedure	Diagnosis	ICD-10-CM
E36.02	Intraoperative hemorrhage and hematoma of an endocrine system organ or structure complicating other procedure	Diagnosis	ICD-10-CM
E36.11	Accidental puncture and laceration of an endocrine system organ or structure during an endocrine system procedure	Diagnosis	ICD-10-CM
E36.12	Accidental puncture and laceration of an endocrine system organ or structure during other procedure	Diagnosis	ICD-10-CM
E89.810	Postprocedural hemorrhage of an endocrine system organ or structure following an endocrine system procedure	Diagnosis	ICD-10-CM
E89.811	Postprocedural hemorrhage of an endocrine system organ or structure following other procedure	Diagnosis	ICD-10-CM
E89.820	Postprocedural hematoma of an endocrine system organ or structure following an endocrine system procedure	Diagnosis	ICD-10-CM
E89.821	Postprocedural hematoma of an endocrine system organ or structure following other procedure	Diagnosis	ICD-10-CM
G97.31	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating a nervous system procedure	Diagnosis	ICD-10-CM
G97.32	Intraoperative hemorrhage and hematoma of a nervous system organ or structure complicating other procedure	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
G97.48	Accidental puncture and laceration of other nervous system organ or structure during a nervous system procedure	Diagnosis	ICD-10-CM
G97.49	Accidental puncture and laceration of other nervous system organ or structure during other procedure	Diagnosis	ICD-10-CM
G97.51	Postprocedural hemorrhage of a nervous system organ or structure following a nervous system procedure	Diagnosis	ICD-10-CM
G97.52	Postprocedural hemorrhage of a nervous system organ or structure following other procedure	Diagnosis	ICD-10-CM
G97.61	Postprocedural hematoma of a nervous system organ or structure following a nervous system procedure	Diagnosis	ICD-10-CM
G97.62	Postprocedural hematoma of a nervous system organ or structure following other procedure	Diagnosis	ICD-10-CM
H59.111	Intraoperative hemorrhage and hematoma of right eye and adnexa complicating an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.112	Intraoperative hemorrhage and hematoma of left eye and adnexa complicating an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.113	Intraoperative hemorrhage and hematoma of eye and adnexa complicating an ophthalmic procedure, bilateral	Diagnosis	ICD-10-CM
H59.119	Intraoperative hemorrhage and hematoma of unspecified eye and adnexa complicating an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.121	Intraoperative hemorrhage and hematoma of right eye and adnexa complicating other procedure	Diagnosis	ICD-10-CM
H59.122	Intraoperative hemorrhage and hematoma of left eye and adnexa complicating other procedure	Diagnosis	ICD-10-CM
H59.123	Intraoperative hemorrhage and hematoma of eye and adnexa complicating other procedure, bilateral	Diagnosis	ICD-10-CM
H59.129	Intraoperative hemorrhage and hematoma of unspecified eye and adnexa complicating other procedure	Diagnosis	ICD-10-CM
H59.211	Accidental puncture and laceration of right eye and adnexa during an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.212	Accidental puncture and laceration of left eye and adnexa during an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.213	Accidental puncture and laceration of eye and adnexa during an ophthalmic procedure, bilateral	Diagnosis	ICD-10-CM
H59.219	Accidental puncture and laceration of unspecified eye and adnexa during an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.221	Accidental puncture and laceration of right eye and adnexa during other procedure	Diagnosis	ICD-10-CM
H59.222	Accidental puncture and laceration of left eye and adnexa during other procedure	Diagnosis	ICD-10-CM
H59.223	Accidental puncture and laceration of eye and adnexa during other procedure, bilateral	Diagnosis	ICD-10-CM
H59.229	Accidental puncture and laceration of unspecified eye and adnexa during other procedure	Diagnosis	ICD-10-CM
H59.311	Postprocedural hemorrhage of right eye and adnexa following an ophthalmic procedure	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H59.312	Postprocedural hemorrhage of left eye and adnexa following an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.313	Postprocedural hemorrhage of eye and adnexa following an ophthalmic procedure, bilateral	Diagnosis	ICD-10-CM
H59.319	Postprocedural hemorrhage of unspecified eye and adnexa following an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.321	Postprocedural hemorrhage of right eye and adnexa following other procedure	Diagnosis	ICD-10-CM
H59.322	Postprocedural hemorrhage of left eye and adnexa following other procedure	Diagnosis	ICD-10-CM
H59.323	Postprocedural hemorrhage of eye and adnexa following other procedure, bilateral	Diagnosis	ICD-10-CM
H59.329	Postprocedural hemorrhage of unspecified eye and adnexa following other procedure	Diagnosis	ICD-10-CM
H59.331	Postprocedural hematoma of right eye and adnexa following an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.332	Postprocedural hematoma of left eye and adnexa following an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.333	Postprocedural hematoma of eye and adnexa following an ophthalmic procedure, bilateral	Diagnosis	ICD-10-CM
H59.339	Postprocedural hematoma of unspecified eye and adnexa following an ophthalmic procedure	Diagnosis	ICD-10-CM
H59.341	Postprocedural hematoma of right eye and adnexa following other procedure	Diagnosis	ICD-10-CM
H59.342	Postprocedural hematoma of left eye and adnexa following other procedure	Diagnosis	ICD-10-CM
H59.343	Postprocedural hematoma of eye and adnexa following other procedure,	Diagnosis	ICD-10-CM
H59.349	Postprocedural hematoma of unspecified eye and adnexa following other procedure	Diagnosis	ICD-10-CM
H95.21	Intraoperative hemorrhage and hematoma of ear and mastoid process complicating a procedure on the ear and mastoid process	Diagnosis	ICD-10-CM
H95.22	Intraoperative hemorrhage and hematoma of ear and mastoid process complicating other procedure	Diagnosis	ICD-10-CM
H95.31	Accidental puncture and laceration of the ear and mastoid process during a procedure on the ear and mastoid process	Diagnosis	ICD-10-CM
H95.32	Accidental puncture and laceration of the ear and mastoid process during other procedure	Diagnosis	ICD-10-CM
H95.41	Postprocedural hemorrhage of ear and mastoid process following a procedure on the ear and mastoid process	Diagnosis	ICD-10-CM
H95.42	Postprocedural hemorrhage of ear and mastoid process following other procedure	Diagnosis	ICD-10-CM
H95.51	Postprocedural hematoma of ear and mastoid process following a procedure on the ear and mastoid process	Diagnosis	ICD-10-CM
H95.52	Postprocedural hematoma of ear and mastoid process following other procedure	Diagnosis	ICD-10-CM
I97.410	Intraoperative hemorrhage and hematoma of a circulatory system organ or structure complicating a cardiac catheterization	Diagnosis	ICD-10-CM
I97.411	Intraoperative hemorrhage and hematoma of a circulatory system organ or structure complicating a cardiac bypass	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I97.418	Intraoperative hemorrhage and hematoma of a circulatory system organ or structure complicating other circulatory system procedure	Diagnosis	ICD-10-CM
I97.42	Intraoperative hemorrhage and hematoma of a circulatory system organ or structure complicating other procedure	Diagnosis	ICD-10-CM
I97.51	Accidental puncture and laceration of a circulatory system organ or structure during a circulatory system procedure	Diagnosis	ICD-10-CM
I97.52	Accidental puncture and laceration of a circulatory system organ or structure during other procedure	Diagnosis	ICD-10-CM
I97.610	Postprocedural hemorrhage of a circulatory system organ or structure following a cardiac catheterization	Diagnosis	ICD-10-CM
I97.611	Postprocedural hemorrhage of a circulatory system organ or structure following cardiac bypass	Diagnosis	ICD-10-CM
I97.618	Postprocedural hemorrhage of a circulatory system organ or structure following other circulatory system procedure	Diagnosis	ICD-10-CM
I97.620	Postprocedural hemorrhage of a circulatory system organ or structure following other procedure	Diagnosis	ICD-10-CM
I97.621	Postprocedural hematoma of a circulatory system organ or structure following other procedure	Diagnosis	ICD-10-CM
I97.630	Postprocedural hematoma of a circulatory system organ or structure following a cardiac catheterization	Diagnosis	ICD-10-CM
I97.631	Postprocedural hematoma of a circulatory system organ or structure following cardiac bypass	Diagnosis	ICD-10-CM
I97.638	Postprocedural hematoma of a circulatory system organ or structure following other circulatory system procedure	Diagnosis	ICD-10-CM
J95.61	Intraoperative hemorrhage and hematoma of a respiratory system organ or structure complicating a respiratory system procedure	Diagnosis	ICD-10-CM
J95.62	Intraoperative hemorrhage and hematoma of a respiratory system organ or structure complicating other procedure	Diagnosis	ICD-10-CM
J95.71	Accidental puncture and laceration of a respiratory system organ or structure during a respiratory system procedure	Diagnosis	ICD-10-CM
J95.72	Accidental puncture and laceration of a respiratory system organ or structure during other procedure	Diagnosis	ICD-10-CM
J95.830	Postprocedural hemorrhage of a respiratory system organ or structure following a respiratory system procedure	Diagnosis	ICD-10-CM
J95.831	Postprocedural hemorrhage of a respiratory system organ or structure following other procedure	Diagnosis	ICD-10-CM
J95.860	Postprocedural hematoma of a respiratory system organ or structure following a respiratory system procedure	Diagnosis	ICD-10-CM
J95.861	Postprocedural hematoma of a respiratory system organ or structure following other procedure	Diagnosis	ICD-10-CM
K91.61	Intraoperative hemorrhage and hematoma of a digestive system organ or structure complicating a digestive system procedure	Diagnosis	ICD-10-CM
K91.62	Intraoperative hemorrhage and hematoma of a digestive system organ or structure complicating other procedure	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
K91.71	Accidental puncture and laceration of a digestive system organ or structure during a digestive system procedure	Diagnosis	ICD-10-CM
K91.72	Accidental puncture and laceration of a digestive system organ or structure during other procedure	Diagnosis	ICD-10-CM
K91.840	Postprocedural hemorrhage of a digestive system organ or structure following a digestive system procedure	Diagnosis	ICD-10-CM
K91.841	Postprocedural hemorrhage of a digestive system organ or structure following other procedure	Diagnosis	ICD-10-CM
K91.870	Postprocedural hematoma of a digestive system organ or structure following a digestive system procedure	Diagnosis	ICD-10-CM
K91.871	Postprocedural hematoma of a digestive system organ or structure following other procedure	Diagnosis	ICD-10-CM
L76.01	Intraoperative hemorrhage and hematoma of skin and subcutaneous tissue complicating a dermatologic procedure	Diagnosis	ICD-10-CM
L76.02	Intraoperative hemorrhage and hematoma of skin and subcutaneous tissue complicating other procedure	Diagnosis	ICD-10-CM
L76.11	Accidental puncture and laceration of skin and subcutaneous tissue during a dermatologic procedure	Diagnosis	ICD-10-CM
L76.12	Accidental puncture and laceration of skin and subcutaneous tissue during other procedure	Diagnosis	ICD-10-CM
L76.21	Postprocedural hemorrhage of skin and subcutaneous tissue following a dermatologic procedure	Diagnosis	ICD-10-CM
L76.22	Postprocedural hemorrhage of skin and subcutaneous tissue following other procedure	Diagnosis	ICD-10-CM
L76.31	Postprocedural hematoma of skin and subcutaneous tissue following a dermatologic procedure	Diagnosis	ICD-10-CM
L76.32	Postprocedural hematoma of skin and subcutaneous tissue following other procedure	Diagnosis	ICD-10-CM
M96.810	Intraoperative hemorrhage and hematoma of a musculoskeletal structure complicating a musculoskeletal system procedure	Diagnosis	ICD-10-CM
M96.811	Intraoperative hemorrhage and hematoma of a musculoskeletal structure complicating other procedure	Diagnosis	ICD-10-CM
M96.820	Accidental puncture and laceration of a musculoskeletal structure during a musculoskeletal system procedure	Diagnosis	ICD-10-CM
M96.821	Accidental puncture and laceration of a musculoskeletal structure during other procedure	Diagnosis	ICD-10-CM
M96.830	Postprocedural hemorrhage of a musculoskeletal structure following a musculoskeletal system procedure	Diagnosis	ICD-10-CM
M96.831	Postprocedural hemorrhage of a musculoskeletal structure following other procedure	Diagnosis	ICD-10-CM
M96.840	Postprocedural hematoma of a musculoskeletal structure following a musculoskeletal system procedure	Diagnosis	ICD-10-CM
M96.841	Postprocedural hematoma of a musculoskeletal structure following other procedure	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
N99.61	Intraoperative hemorrhage and hematoma of a genitourinary system organ or structure complicating a genitourinary system procedure	Diagnosis	ICD-10-CM
N99.62	Intraoperative hemorrhage and hematoma of a genitourinary system organ or structure complicating other procedure	Diagnosis	ICD-10-CM
N99.71	Accidental puncture and laceration of a genitourinary system organ or structure during a genitourinary system procedure	Diagnosis	ICD-10-CM
N99.72	Accidental puncture and laceration of a genitourinary system organ or structure during other procedure	Diagnosis	ICD-10-CM
N99.820	Postprocedural hemorrhage of a genitourinary system organ or structure following a genitourinary system procedure	Diagnosis	ICD-10-CM
N99.821	Postprocedural hemorrhage of a genitourinary system organ or structure following other procedure	Diagnosis	ICD-10-CM
N99.840	Postprocedural hematoma of a genitourinary system organ or structure following a genitourinary system procedure	Diagnosis	ICD-10-CM
N99.841	Postprocedural hematoma of a genitourinary system organ or structure following other procedure	Diagnosis	ICD-10-CM
S01.00XA	Unspecified open wound of scalp, initial encounter	Diagnosis	ICD-10-CM
S01.01XA	Laceration without foreign body of scalp, initial encounter	Diagnosis	ICD-10-CM
S01.02XA	Laceration with foreign body of scalp, initial encounter	Diagnosis	ICD-10-CM
S01.03XA	Puncture wound without foreign body of scalp, initial encounter	Diagnosis	ICD-10-CM
S01.04XA	Puncture wound with foreign body of scalp, initial encounter	Diagnosis	ICD-10-CM
S01.05XA	Open bite of scalp, initial encounter	Diagnosis	ICD-10-CM
S02.0XXA	Fracture of vault of skull, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.0XXB	Fracture of vault of skull, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.101A	Fracture of base of skull, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.101B	Fracture of base of skull, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.102A	Fracture of base of skull, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.102B	Fracture of base of skull, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.109A	Fracture of base of skull, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.109B	Fracture of base of skull, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.110A	Type I occipital condyle fracture, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.110B	Type I occipital condyle fracture, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.111A	Type II occipital condyle fracture, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.111B	Type II occipital condyle fracture, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.112A	Type III occipital condyle fracture, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.112B	Type III occipital condyle fracture, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.113A	Unspecified occipital condyle fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.113B	Unspecified occipital condyle fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.118A	Other fracture of occiput, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S02.118B	Other fracture of occiput, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.119A	Unspecified fracture of occiput, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.119B	Unspecified fracture of occiput, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.11AA	Type I occipital condyle fracture, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.11AB	Type I occipital condyle fracture, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.11BA	Type I occipital condyle fracture, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.11BB	Type I occipital condyle fracture, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.11CA	Type II occipital condyle fracture, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.11CB	Type II occipital condyle fracture, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.11DA	Type II occipital condyle fracture, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.11DB	Type II occipital condyle fracture, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.11EA	Type III occipital condyle fracture, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.11EB	Type III occipital condyle fracture, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.11FA	Type III occipital condyle fracture, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.11FB	Type III occipital condyle fracture, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.11GA	Other fracture of occiput, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.11GB	Other fracture of occiput, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.11HA	Other fracture of occiput, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.11HB	Other fracture of occiput, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.19XA	Other fracture of base of skull, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.19XB	Other fracture of base of skull, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.2XXA	Fracture of nasal bones, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.2XXB	Fracture of nasal bones, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.30XA	Fracture of orbital floor, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.30XB	Fracture of orbital floor, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.31XA	Fracture of orbital floor, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.31XB	Fracture of orbital floor, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.32XA	Fracture of orbital floor, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.32XB	Fracture of orbital floor, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.400A	Malar fracture, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.400B	Malar fracture, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.401A	Maxillary fracture, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.401B	Maxillary fracture, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.402A	Zygomatic fracture, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.402B	Zygomatic fracture, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.40AA	Malar fracture, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.40AB	Malar fracture, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.40BA	Malar fracture, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.40BB	Malar fracture, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.40CA	Maxillary fracture, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.40CB	Maxillary fracture, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.40DA	Maxillary fracture, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.40DB	Maxillary fracture, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.40EA	Zygomatic fracture, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.40EB	Zygomatic fracture, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S02.40FA	Zygomatic fracture, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.40FB	Zygomatic fracture, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.411A	LeFort I fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.411B	LeFort I fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.412A	LeFort II fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.412B	LeFort II fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.413A	LeFort III fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.413B	LeFort III fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.42XA	Fracture of alveolus of maxilla, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.42XB	Fracture of alveolus of maxilla, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.600A	Fracture of unspecified part of body of mandible, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.600B	Fracture of unspecified part of body of mandible, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.601A	Fracture of unspecified part of body of right mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.601B	Fracture of unspecified part of body of right mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.602A	Fracture of unspecified part of body of left mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.602B	Fracture of unspecified part of body of left mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.609A	Fracture of mandible, unspecified, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.609B	Fracture of mandible, unspecified, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.610A	Fracture of condylar process of mandible, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.610B	Fracture of condylar process of mandible, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.611A	Fracture of condylar process of right mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.611B	Fracture of condylar process of right mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.612A	Fracture of condylar process of left mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.612B	Fracture of condylar process of left mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.620A	Fracture of subcondylar process of mandible, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.620B	Fracture of subcondylar process of mandible, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.621A	Fracture of subcondylar process of right mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.621B	Fracture of subcondylar process of right mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.622A	Fracture of subcondylar process of left mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.622B	Fracture of subcondylar process of left mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S02.630A	Fracture of coronoid process of mandible, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.630B	Fracture of coronoid process of mandible, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.631A	Fracture of coronoid process of right mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.631B	Fracture of coronoid process of right mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.632A	Fracture of coronoid process of left mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.632B	Fracture of coronoid process of left mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.640A	Fracture of ramus of mandible, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.640B	Fracture of ramus of mandible, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.641A	Fracture of ramus of right mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.641B	Fracture of ramus of right mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.642A	Fracture of ramus of left mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.642B	Fracture of ramus of left mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.650A	Fracture of angle of mandible, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.650B	Fracture of angle of mandible, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.651A	Fracture of angle of right mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.651B	Fracture of angle of right mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.652A	Fracture of angle of left mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.652B	Fracture of angle of left mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.66XA	Fracture of symphysis of mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.66XB	Fracture of symphysis of mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.670A	Fracture of alveolus of mandible, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.670B	Fracture of alveolus of mandible, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.671A	Fracture of alveolus of right mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.671B	Fracture of alveolus of right mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.672A	Fracture of alveolus of left mandible, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.672B	Fracture of alveolus of left mandible, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.69XA	Fracture of mandible of other specified site, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.69XB	Fracture of mandible of other specified site, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.80XA	Fracture of other specified skull and facial bones, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.80XB	Fracture of other specified skull and facial bones, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.81XA	Fracture of other specified skull and facial bones, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.81XB	Fracture of other specified skull and facial bones, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S02.82XA	Fracture of other specified skull and facial bones, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.82XB	Fracture of other specified skull and facial bones, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.91XA	Unspecified fracture of skull, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.91XB	Unspecified fracture of skull, initial encounter for open fracture	Diagnosis	ICD-10-CM
S02.92XA	Unspecified fracture of facial bones, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S02.92XB	Unspecified fracture of facial bones, initial encounter for open fracture	Diagnosis	ICD-10-CM
S06.330A	Contusion and laceration of cerebrum, unspecified, without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.331A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.332A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.333A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.334A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.335A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial	Diagnosis	ICD-10-CM
S06.336A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.337A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.338A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.339A	Contusion and laceration of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.360A	Traumatic hemorrhage of cerebrum, unspecified, without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.361A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.362A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.363A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.364A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.365A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S06.366A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.367A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.368A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.369A	Traumatic hemorrhage of cerebrum, unspecified, with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.890A	Other specified intracranial injury without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.891A	Other specified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.892A	Other specified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.893A	Other specified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.894A	Other specified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.895A	Other specified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.896A	Other specified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.897A	Other specified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.898A	Other specified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S06.899A	Other specified intracranial injury with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.9X0A	Unspecified intracranial injury without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.9X1A	Unspecified intracranial injury with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.9X2A	Unspecified intracranial injury with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.9X3A	Unspecified intracranial injury with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.9X4A	Unspecified intracranial injury with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.9X5A	Unspecified intracranial injury with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.9X6A	Unspecified intracranial injury with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.9X7A	Unspecified intracranial injury with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.9X8A	Unspecified intracranial injury with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.9X9A	Unspecified intracranial injury with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S07.0XXA	Crushing injury of face, initial encounter	Diagnosis	ICD-10-CM
S07.1XXA	Crushing injury of skull, initial encounter	Diagnosis	ICD-10-CM
S07.8XXA	Crushing injury of other parts of head, initial encounter	Diagnosis	ICD-10-CM
S07.9XXA	Crushing injury of head, part unspecified, initial encounter	Diagnosis	ICD-10-CM
S08.0XXA	Avulsion of scalp, initial encounter	Diagnosis	ICD-10-CM
S12.000A	Unspecified displaced fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.000B	Unspecified displaced fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.001A	Unspecified nondisplaced fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.001B	Unspecified nondisplaced fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.01XA	Stable burst fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.01XB	Stable burst fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.02XA	Unstable burst fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.02XB	Unstable burst fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.030A	Displaced posterior arch fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.030B	Displaced posterior arch fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S12.031A	Nondisplaced posterior arch fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.031B	Nondisplaced posterior arch fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.040A	Displaced lateral mass fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.040B	Displaced lateral mass fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.041A	Nondisplaced lateral mass fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.041B	Nondisplaced lateral mass fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.090A	Other displaced fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.090B	Other displaced fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.091A	Other nondisplaced fracture of first cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.091B	Other nondisplaced fracture of first cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.100A	Unspecified displaced fracture of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.100B	Unspecified displaced fracture of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.101A	Unspecified nondisplaced fracture of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.101B	Unspecified nondisplaced fracture of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.110A	Anterior displaced Type II dens fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.110B	Anterior displaced Type II dens fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.111A	Posterior displaced Type II dens fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.111B	Posterior displaced Type II dens fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.112A	Nondisplaced Type II dens fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.112B	Nondisplaced Type II dens fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.120A	Other displaced dens fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.120B	Other displaced dens fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.121A	Other nondisplaced dens fracture, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.121B	Other nondisplaced dens fracture, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.130A	Unspecified traumatic displaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.130B	Unspecified traumatic displaced spondylolisthesis of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.131A	Unspecified traumatic nondisplaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S12.131B	Unspecified traumatic nondisplaced spondylolisthesis of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.14XA	Type III traumatic spondylolisthesis of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.14XB	Type III traumatic spondylolisthesis of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.150A	Other traumatic displaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.150B	Other traumatic displaced spondylolisthesis of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.151A	Other traumatic nondisplaced spondylolisthesis of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.151B	Other traumatic nondisplaced spondylolisthesis of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.190A	Other displaced fracture of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.190B	Other displaced fracture of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.191A	Other nondisplaced fracture of second cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.191B	Other nondisplaced fracture of second cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.200A	Unspecified displaced fracture of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.200B	Unspecified displaced fracture of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.201A	Unspecified nondisplaced fracture of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.201B	Unspecified nondisplaced fracture of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.230A	Unspecified traumatic displaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.230B	Unspecified traumatic displaced spondylolisthesis of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.231A	Unspecified traumatic nondisplaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.231B	Unspecified traumatic nondisplaced spondylolisthesis of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.24XA	Type III traumatic spondylolisthesis of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.24XB	Type III traumatic spondylolisthesis of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.250A	Other traumatic displaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S12.250B	Other traumatic displaced spondylolisthesis of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.251A	Other traumatic nondisplaced spondylolisthesis of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.251B	Other traumatic nondisplaced spondylolisthesis of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.290A	Other displaced fracture of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.290B	Other displaced fracture of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.291A	Other nondisplaced fracture of third cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.291B	Other nondisplaced fracture of third cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.300A	Unspecified displaced fracture of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.300B	Unspecified displaced fracture of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.301A	Unspecified nondisplaced fracture of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.301B	Unspecified nondisplaced fracture of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.330A	Unspecified traumatic displaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.330B	Unspecified traumatic displaced spondylolisthesis of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.331A	Unspecified traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.331B	Unspecified traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.34XA	Type III traumatic spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.34XB	Type III traumatic spondylolisthesis of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.350A	Other traumatic displaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.350B	Other traumatic displaced spondylolisthesis of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.351A	Other traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.351B	Other traumatic nondisplaced spondylolisthesis of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.390A	Other displaced fracture of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S12.390B	Other displaced fracture of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.391A	Other nondisplaced fracture of fourth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.391B	Other nondisplaced fracture of fourth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.400A	Unspecified displaced fracture of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.400B	Unspecified displaced fracture of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.401A	Unspecified nondisplaced fracture of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.401B	Unspecified nondisplaced fracture of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.430A	Unspecified traumatic displaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.430B	Unspecified traumatic displaced spondylolisthesis of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.431A	Unspecified traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.431B	Unspecified traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.44XA	Type III traumatic spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.44XB	Type III traumatic spondylolisthesis of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.450A	Other traumatic displaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.450B	Other traumatic displaced spondylolisthesis of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.451A	Other traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.451B	Other traumatic nondisplaced spondylolisthesis of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.490A	Other displaced fracture of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.490B	Other displaced fracture of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.491A	Other nondisplaced fracture of fifth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.491B	Other nondisplaced fracture of fifth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.500A	Unspecified displaced fracture of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S12.500B	Unspecified displaced fracture of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.501A	Unspecified nondisplaced fracture of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.501B	Unspecified nondisplaced fracture of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.530A	Unspecified traumatic displaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.530B	Unspecified traumatic displaced spondylolisthesis of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.531A	Unspecified traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.531B	Unspecified traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.54XA	Type III traumatic spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.54XB	Type III traumatic spondylolisthesis of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.550A	Other traumatic displaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.550B	Other traumatic displaced spondylolisthesis of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.551A	Other traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.551B	Other traumatic nondisplaced spondylolisthesis of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.590A	Other displaced fracture of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.590B	Other displaced fracture of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.591A	Other nondisplaced fracture of sixth cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.591B	Other nondisplaced fracture of sixth cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.600A	Unspecified displaced fracture of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.600B	Unspecified displaced fracture of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.601A	Unspecified nondisplaced fracture of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.601B	Unspecified nondisplaced fracture of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.630A	Unspecified traumatic displaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S12.630B	Unspecified traumatic displaced spondylolisthesis of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.631A	Unspecified traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.631B	Unspecified traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.64XA	Type III traumatic spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.64XB	Type III traumatic spondylolisthesis of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.650A	Other traumatic displaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.650B	Other traumatic displaced spondylolisthesis of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.651A	Other traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.651B	Other traumatic nondisplaced spondylolisthesis of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.690A	Other displaced fracture of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.690B	Other displaced fracture of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.691A	Other nondisplaced fracture of seventh cervical vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S12.691B	Other nondisplaced fracture of seventh cervical vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S12.8XXA	Fracture of other parts of neck, initial encounter	Diagnosis	ICD-10-CM
S12.9XXA	Fracture of neck, unspecified, initial encounter	Diagnosis	ICD-10-CM
S14.101A	Unspecified injury at C1 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.102A	Unspecified injury at C2 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.103A	Unspecified injury at C3 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.104A	Unspecified injury at C4 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.105A	Unspecified injury at C5 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.106A	Unspecified injury at C6 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.107A	Unspecified injury at C7 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.109A	Unspecified injury at unspecified level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.111A	Complete lesion at C1 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.112A	Complete lesion at C2 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.113A	Complete lesion at C3 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.114A	Complete lesion at C4 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.115A	Complete lesion at C5 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.116A	Complete lesion at C6 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.117A	Complete lesion at C7 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.121A	Central cord syndrome at C1 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.122A	Central cord syndrome at C2 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S14.123A	Central cord syndrome at C3 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.124A	Central cord syndrome at C4 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.125A	Central cord syndrome at C5 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.126A	Central cord syndrome at C6 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.127A	Central cord syndrome at C7 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.131A	Anterior cord syndrome at C1 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.132A	Anterior cord syndrome at C2 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.133A	Anterior cord syndrome at C3 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.134A	Anterior cord syndrome at C4 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.135A	Anterior cord syndrome at C5 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.136A	Anterior cord syndrome at C6 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.137A	Anterior cord syndrome at C7 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.151A	Other incomplete lesion at C1 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.152A	Other incomplete lesion at C2 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.153A	Other incomplete lesion at C3 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.154A	Other incomplete lesion at C4 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.155A	Other incomplete lesion at C5 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.156A	Other incomplete lesion at C6 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S14.157A	Other incomplete lesion at C7 level of cervical spinal cord, initial encounter	Diagnosis	ICD-10-CM
S17.0XXA	Crushing injury of larynx and trachea, initial encounter	Diagnosis	ICD-10-CM
S17.8XXA	Crushing injury of other specified parts of neck, initial encounter	Diagnosis	ICD-10-CM
S17.9XXA	Crushing injury of neck, part unspecified, initial encounter	Diagnosis	ICD-10-CM
S21.101A	Unspecified open wound of right front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.102A	Unspecified open wound of left front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.109A	Unspecified open wound of unspecified front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.111A	Laceration without foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.112A	Laceration without foreign body of left front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.119A	Laceration without foreign body of unspecified front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.121A	Laceration with foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.122A	Laceration with foreign body of left front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.129A	Laceration with foreign body of unspecified front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.131A	Puncture wound without foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.132A	Puncture wound without foreign body of left front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S21.139A	Puncture wound without foreign body of unspecified front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.141A	Puncture wound with foreign body of right front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.142A	Puncture wound with foreign body of left front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.149A	Puncture wound with foreign body of unspecified front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.151A	Open bite of right front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.152A	Open bite of left front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.159A	Open bite of unspecified front wall of thorax without penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.301A	Unspecified open wound of right front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.302A	Unspecified open wound of left front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.309A	Unspecified open wound of unspecified front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.311A	Laceration without foreign body of right front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.312A	Laceration without foreign body of left front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.319A	Laceration without foreign body of unspecified front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.321A	Laceration with foreign body of right front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.322A	Laceration with foreign body of left front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.329A	Laceration with foreign body of unspecified front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.331A	Puncture wound without foreign body of right front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.332A	Puncture wound without foreign body of left front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.339A	Puncture wound without foreign body of unspecified front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.341A	Puncture wound with foreign body of right front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.342A	Puncture wound with foreign body of left front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.349A	Puncture wound with foreign body of unspecified front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S21.351A	Open bite of right front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.352A	Open bite of left front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.359A	Open bite of unspecified front wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.401A	Unspecified open wound of right back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.402A	Unspecified open wound of left back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.409A	Unspecified open wound of unspecified back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.411A	Laceration without foreign body of right back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.412A	Laceration without foreign body of left back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.419A	Laceration without foreign body of unspecified back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.421A	Laceration with foreign body of right back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.422A	Laceration with foreign body of left back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.429A	Laceration with foreign body of unspecified back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.431A	Puncture wound without foreign body of right back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.432A	Puncture wound without foreign body of left back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.439A	Puncture wound without foreign body of unspecified back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.441A	Puncture wound with foreign body of right back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.442A	Puncture wound with foreign body of left back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.449A	Puncture wound with foreign body of unspecified back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.451A	Open bite of right back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.452A	Open bite of left back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.459A	Open bite of unspecified back wall of thorax with penetration into thoracic cavity, initial encounter	Diagnosis	ICD-10-CM
S21.90XA	Unspecified open wound of unspecified part of thorax, initial encounter	Diagnosis	ICD-10-CM
S21.91XA	Laceration without foreign body of unspecified part of thorax, initial encounter	Diagnosis	ICD-10-CM
S21.92XA	Laceration with foreign body of unspecified part of thorax, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S21.93XA	Puncture wound without foreign body of unspecified part of thorax, initial encounter	Diagnosis	ICD-10-CM
S21.94XA	Puncture wound with foreign body of unspecified part of thorax, initial encounter	Diagnosis	ICD-10-CM
S21.95XA	Open bite of unspecified part of thorax, initial encounter	Diagnosis	ICD-10-CM
S22.000A	Wedge compression fracture of unspecified thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.000B	Wedge compression fracture of unspecified thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.001A	Stable burst fracture of unspecified thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.001B	Stable burst fracture of unspecified thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.002A	Unstable burst fracture of unspecified thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.002B	Unstable burst fracture of unspecified thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.008A	Other fracture of unspecified thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.008B	Other fracture of unspecified thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.009A	Unspecified fracture of unspecified thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.009B	Unspecified fracture of unspecified thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.010A	Wedge compression fracture of first thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.010B	Wedge compression fracture of first thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.011A	Stable burst fracture of first thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.011B	Stable burst fracture of first thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.012A	Unstable burst fracture of first thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.012B	Unstable burst fracture of first thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.018A	Other fracture of first thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.018B	Other fracture of first thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.019A	Unspecified fracture of first thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.019B	Unspecified fracture of first thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.020A	Wedge compression fracture of second thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.020B	Wedge compression fracture of second thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.021A	Stable burst fracture of second thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.021B	Stable burst fracture of second thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S22.022A	Unstable burst fracture of second thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.022B	Unstable burst fracture of second thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.028A	Other fracture of second thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.028B	Other fracture of second thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.029A	Unspecified fracture of second thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.029B	Unspecified fracture of second thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.030A	Wedge compression fracture of third thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.030B	Wedge compression fracture of third thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.031A	Stable burst fracture of third thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.031B	Stable burst fracture of third thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.032A	Unstable burst fracture of third thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.032B	Unstable burst fracture of third thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.038A	Other fracture of third thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.038B	Other fracture of third thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.039A	Unspecified fracture of third thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.039B	Unspecified fracture of third thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.040A	Wedge compression fracture of fourth thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.040B	Wedge compression fracture of fourth thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.041A	Stable burst fracture of fourth thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.041B	Stable burst fracture of fourth thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.042A	Unstable burst fracture of fourth thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.042B	Unstable burst fracture of fourth thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.048A	Other fracture of fourth thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.048B	Other fracture of fourth thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.049A	Unspecified fracture of fourth thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.049B	Unspecified fracture of fourth thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S22.050A	Wedge compression fracture of T5-T6 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.050B	Wedge compression fracture of T5-T6 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.051A	Stable burst fracture of T5-T6 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.051B	Stable burst fracture of T5-T6 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.052A	Unstable burst fracture of T5-T6 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.052B	Unstable burst fracture of T5-T6 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.058A	Other fracture of T5-T6 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.058B	Other fracture of T5-T6 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.059A	Unspecified fracture of T5-T6 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.059B	Unspecified fracture of T5-T6 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.060A	Wedge compression fracture of T7-T8 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.060B	Wedge compression fracture of T7-T8 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.061A	Stable burst fracture of T7-T8 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.061B	Stable burst fracture of T7-T8 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.062A	Unstable burst fracture of T7-T8 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.062B	Unstable burst fracture of T7-T8 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.068A	Other fracture of T7-T8 thoracic vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.068B	Other fracture of T7-T8 thoracic vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.069A	Unspecified fracture of T7-T8 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.069B	Unspecified fracture of T7-T8 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.070A	Wedge compression fracture of T9-T10 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.070B	Wedge compression fracture of T9-T10 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.071A	Stable burst fracture of T9-T10 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.071B	Stable burst fracture of T9-T10 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.072A	Unstable burst fracture of T9-T10 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.072B	Unstable burst fracture of T9-T10 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.078A	Other fracture of T9-T10 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.078B	Other fracture of T9-T10 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.079A	Unspecified fracture of T9-T10 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.079B	Unspecified fracture of T9-T10 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.080A	Wedge compression fracture of T11-T12 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.080B	Wedge compression fracture of T11-T12 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.081A	Stable burst fracture of T11-T12 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.081B	Stable burst fracture of T11-T12 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.082A	Unstable burst fracture of T11-T12 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.082B	Unstable burst fracture of T11-T12 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.088A	Other fracture of T11-T12 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.088B	Other fracture of T11-T12 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.089A	Unspecified fracture of T11-T12 vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S22.089B	Unspecified fracture of T11-T12 vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.20XA	Unspecified fracture of sternum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.20XB	Unspecified fracture of sternum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.21XA	Fracture of manubrium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.21XB	Fracture of manubrium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.22XA	Fracture of body of sternum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.22XB	Fracture of body of sternum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.23XA	Sternal manubrial dissociation, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.23XB	Sternal manubrial dissociation, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.24XA	Fracture of xiphoid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.24XB	Fracture of xiphoid process, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.31XA	Fracture of one rib, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.31XB	Fracture of one rib, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.32XA	Fracture of one rib, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.32XB	Fracture of one rib, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.39XA	Fracture of one rib, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.39XB	Fracture of one rib, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.41XA	Multiple fractures of ribs, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.41XB	Multiple fractures of ribs, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.42XA	Multiple fractures of ribs, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.42XB	Multiple fractures of ribs, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.43XA	Multiple fractures of ribs, bilateral, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.43XB	Multiple fractures of ribs, bilateral, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.49XA	Multiple fractures of ribs, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.49XB	Multiple fractures of ribs, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.5XXA	Flail chest, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.5XXB	Flail chest, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.9XXA	Fracture of bony thorax, part unspecified, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.9XXB	Fracture of bony thorax, part unspecified, initial encounter for open fracture	Diagnosis	ICD-10-CM
S24.101A	Unspecified injury at T1 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.102A	Unspecified injury at T2-T6 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.103A	Unspecified injury at T7-T10 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.104A	Unspecified injury at T11-T12 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.109A	Unspecified injury at unspecified level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.111A	Complete lesion at T1 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.112A	Complete lesion at T2-T6 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.113A	Complete lesion at T7-T10 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.114A	Complete lesion at T11-T12 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.131A	Anterior cord syndrome at T1 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.132A	Anterior cord syndrome at T2-T6 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.133A	Anterior cord syndrome at T7-T10 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.134A	Anterior cord syndrome at T11-T12 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.151A	Other incomplete lesion at T1 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.152A	Other incomplete lesion at T2-T6 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S24.153A	Other incomplete lesion at T7-T10 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S24.154A	Other incomplete lesion at T11-T12 level of thoracic spinal cord, initial encounter	Diagnosis	ICD-10-CM
S27.0XXA	Traumatic pneumothorax, initial encounter	Diagnosis	ICD-10-CM
S27.1XXA	Traumatic hemothorax, initial encounter	Diagnosis	ICD-10-CM
S27.2XXA	Traumatic hemopneumothorax, initial encounter	Diagnosis	ICD-10-CM
S27.802A	Contusion of diaphragm, initial encounter	Diagnosis	ICD-10-CM
S27.803A	Laceration of diaphragm, initial encounter	Diagnosis	ICD-10-CM
S27.808A	Other injury of diaphragm, initial encounter	Diagnosis	ICD-10-CM
S27.809A	Unspecified injury of diaphragm, initial encounter	Diagnosis	ICD-10-CM
S27.9XXA	Injury of unspecified intrathoracic organ, initial encounter	Diagnosis	ICD-10-CM
S28.0XXA	Crushed chest, initial encounter	Diagnosis	ICD-10-CM
S28.1XXA	Traumatic amputation (partial) of part of thorax, except breast, initial encounter	Diagnosis	ICD-10-CM
S29.021A	Laceration of muscle and tendon of front wall of thorax, initial encounter	Diagnosis	ICD-10-CM
S29.029A	Laceration of muscle and tendon of unspecified wall of thorax, initial encounter	Diagnosis	ICD-10-CM
S31.001A	Unspecified open wound of lower back and pelvis with penetration into retroperitoneum, initial encounter	Diagnosis	ICD-10-CM
S31.609A	Unspecified open wound of abdominal wall, unspecified quadrant with penetration into peritoneal cavity, initial encounter	Diagnosis	ICD-10-CM
S32.000A	Wedge compression fracture of unspecified lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.000B	Wedge compression fracture of unspecified lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.001A	Stable burst fracture of unspecified lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.001B	Stable burst fracture of unspecified lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.002A	Unstable burst fracture of unspecified lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.002B	Unstable burst fracture of unspecified lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.008A	Other fracture of unspecified lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.008B	Other fracture of unspecified lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.009A	Unspecified fracture of unspecified lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.009B	Unspecified fracture of unspecified lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.010A	Wedge compression fracture of first lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.010B	Wedge compression fracture of first lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.011A	Stable burst fracture of first lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.011B	Stable burst fracture of first lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.012A	Unstable burst fracture of first lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.012B	Unstable burst fracture of first lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S32.018A	Other fracture of first lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.018B	Other fracture of first lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.019A	Unspecified fracture of first lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.019B	Unspecified fracture of first lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.020A	Wedge compression fracture of second lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.020B	Wedge compression fracture of second lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.021A	Stable burst fracture of second lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.021B	Stable burst fracture of second lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.022A	Unstable burst fracture of second lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.022B	Unstable burst fracture of second lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.028A	Other fracture of second lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.028B	Other fracture of second lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.029A	Unspecified fracture of second lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.029B	Unspecified fracture of second lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.030A	Wedge compression fracture of third lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.030B	Wedge compression fracture of third lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.031A	Stable burst fracture of third lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.031B	Stable burst fracture of third lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.032A	Unstable burst fracture of third lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.032B	Unstable burst fracture of third lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.038A	Other fracture of third lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.038B	Other fracture of third lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.039A	Unspecified fracture of third lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.039B	Unspecified fracture of third lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.040A	Wedge compression fracture of fourth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.040B	Wedge compression fracture of fourth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.041A	Stable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.041B	Stable burst fracture of fourth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.042A	Unstable burst fracture of fourth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S32.042B	Unstable burst fracture of fourth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.048A	Other fracture of fourth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.048B	Other fracture of fourth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.049A	Unspecified fracture of fourth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.049B	Unspecified fracture of fourth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.050A	Wedge compression fracture of fifth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.050B	Wedge compression fracture of fifth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.051A	Stable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.051B	Stable burst fracture of fifth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.052A	Unstable burst fracture of fifth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.052B	Unstable burst fracture of fifth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.058A	Other fracture of fifth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.058B	Other fracture of fifth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.059A	Unspecified fracture of fifth lumbar vertebra, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.059B	Unspecified fracture of fifth lumbar vertebra, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.10XA	Unspecified fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.10XB	Unspecified fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.110A	Nondisplaced Zone I fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.110B	Nondisplaced Zone I fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.111A	Minimally displaced Zone I fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.111B	Minimally displaced Zone I fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.112A	Severely displaced Zone I fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.112B	Severely displaced Zone I fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.119A	Unspecified Zone I fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.119B	Unspecified Zone I fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.120A	Nondisplaced Zone II fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.120B	Nondisplaced Zone II fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.121A	Minimally displaced Zone II fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.121B	Minimally displaced Zone II fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.122A	Severely displaced Zone II fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.122B	Severely displaced Zone II fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.129A	Unspecified Zone II fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.129B	Unspecified Zone II fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.130A	Nondisplaced Zone III fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.130B	Nondisplaced Zone III fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.131A	Minimally displaced Zone III fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.131B	Minimally displaced Zone III fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S32.132A	Severely displaced Zone III fracture of sacrum, initial encounter for closed	Diagnosis	ICD-10-CM
S32.132B	Severely displaced Zone III fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.139A	Unspecified Zone III fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.139B	Unspecified Zone III fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.14XA	Type 1 fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.14XB	Type 1 fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.15XA	Type 2 fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.15XB	Type 2 fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.16XA	Type 3 fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.16XB	Type 3 fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.17XA	Type 4 fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.17XB	Type 4 fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.19XA	Other fracture of sacrum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.19XB	Other fracture of sacrum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.2XXA	Fracture of coccyx, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.2XXB	Fracture of coccyx, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.301A	Unspecified fracture of right ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.301B	Unspecified fracture of right ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.302A	Unspecified fracture of left ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.302B	Unspecified fracture of left ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.309A	Unspecified fracture of unspecified ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.309B	Unspecified fracture of unspecified ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.311A	Displaced avulsion fracture of right ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.311B	Displaced avulsion fracture of right ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.312A	Displaced avulsion fracture of left ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.312B	Displaced avulsion fracture of left ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.313A	Displaced avulsion fracture of unspecified ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.313B	Displaced avulsion fracture of unspecified ilium, initial encounter for open	Diagnosis	ICD-10-CM
S32.314A	Nondisplaced avulsion fracture of right ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.314B	Nondisplaced avulsion fracture of right ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.315A	Nondisplaced avulsion fracture of left ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.315B	Nondisplaced avulsion fracture of left ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.316A	Nondisplaced avulsion fracture of unspecified ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.316B	Nondisplaced avulsion fracture of unspecified ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.391A	Other fracture of right ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.391B	Other fracture of right ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.392A	Other fracture of left ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.392B	Other fracture of left ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.399A	Other fracture of unspecified ilium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.399B	Other fracture of unspecified ilium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.401A	Unspecified fracture of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.401B	Unspecified fracture of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S32.402A	Unspecified fracture of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.402B	Unspecified fracture of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.409A	Unspecified fracture of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.409B	Unspecified fracture of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.411A	Displaced fracture of anterior wall of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.411B	Displaced fracture of anterior wall of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.412A	Displaced fracture of anterior wall of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.412B	Displaced fracture of anterior wall of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.413A	Displaced fracture of anterior wall of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.413B	Displaced fracture of anterior wall of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.414A	Nondisplaced fracture of anterior wall of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.414B	Nondisplaced fracture of anterior wall of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.415A	Nondisplaced fracture of anterior wall of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.415B	Nondisplaced fracture of anterior wall of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.416A	Nondisplaced fracture of anterior wall of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.416B	Nondisplaced fracture of anterior wall of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.421A	Displaced fracture of posterior wall of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.421B	Displaced fracture of posterior wall of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.422A	Displaced fracture of posterior wall of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.422B	Displaced fracture of posterior wall of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.423A	Displaced fracture of posterior wall of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.423B	Displaced fracture of posterior wall of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.424A	Nondisplaced fracture of posterior wall of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.424B	Nondisplaced fracture of posterior wall of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S32.425A	Nondisplaced fracture of posterior wall of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.425B	Nondisplaced fracture of posterior wall of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.426A	Nondisplaced fracture of posterior wall of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.426B	Nondisplaced fracture of posterior wall of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.431A	Displaced fracture of anterior column [iliopubic] of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.431B	Displaced fracture of anterior column [iliopubic] of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.432A	Displaced fracture of anterior column [iliopubic] of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.432B	Displaced fracture of anterior column [iliopubic] of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.433A	Displaced fracture of anterior column [iliopubic] of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.433B	Displaced fracture of anterior column [iliopubic] of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.434A	Nondisplaced fracture of anterior column [iliopubic] of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.434B	Nondisplaced fracture of anterior column [iliopubic] of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.435A	Nondisplaced fracture of anterior column [iliopubic] of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.435B	Nondisplaced fracture of anterior column [iliopubic] of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.436A	Nondisplaced fracture of anterior column [iliopubic] of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.436B	Nondisplaced fracture of anterior column [iliopubic] of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.441A	Displaced fracture of posterior column [ilioischial] of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.441B	Displaced fracture of posterior column [ilioischial] of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.442A	Displaced fracture of posterior column [ilioischial] of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.442B	Displaced fracture of posterior column [ilioischial] of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.443A	Displaced fracture of posterior column [ilioischial] of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.443B	Displaced fracture of posterior column [ilioischial] of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S32.444A	Nondisplaced fracture of posterior column [ilioischial] of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.444B	Nondisplaced fracture of posterior column [ilioischial] of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.445A	Nondisplaced fracture of posterior column [ilioischial] of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.445B	Nondisplaced fracture of posterior column [ilioischial] of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.446A	Nondisplaced fracture of posterior column [ilioischial] of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.446B	Nondisplaced fracture of posterior column [ilioischial] of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.451A	Displaced transverse fracture of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.451B	Displaced transverse fracture of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.452A	Displaced transverse fracture of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.452B	Displaced transverse fracture of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.453A	Displaced transverse fracture of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.453B	Displaced transverse fracture of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.454A	Nondisplaced transverse fracture of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.454B	Nondisplaced transverse fracture of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.455A	Nondisplaced transverse fracture of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.455B	Nondisplaced transverse fracture of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.456A	Nondisplaced transverse fracture of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.456B	Nondisplaced transverse fracture of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.461A	Displaced associated transverse-posterior fracture of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.461B	Displaced associated transverse-posterior fracture of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.462A	Displaced associated transverse-posterior fracture of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.462B	Displaced associated transverse-posterior fracture of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S32.463A	Displaced associated transverse-posterior fracture of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.463B	Displaced associated transverse-posterior fracture of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.464A	Nondisplaced associated transverse-posterior fracture of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.464B	Nondisplaced associated transverse-posterior fracture of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.465A	Nondisplaced associated transverse-posterior fracture of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.465B	Nondisplaced associated transverse-posterior fracture of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.466A	Nondisplaced associated transverse-posterior fracture of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.466B	Nondisplaced associated transverse-posterior fracture of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.471A	Displaced fracture of medial wall of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.471B	Displaced fracture of medial wall of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.472A	Displaced fracture of medial wall of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.472B	Displaced fracture of medial wall of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.473A	Displaced fracture of medial wall of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.473B	Displaced fracture of medial wall of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.474A	Nondisplaced fracture of medial wall of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.474B	Nondisplaced fracture of medial wall of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.475A	Nondisplaced fracture of medial wall of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.475B	Nondisplaced fracture of medial wall of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.476A	Nondisplaced fracture of medial wall of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.476B	Nondisplaced fracture of medial wall of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.481A	Displaced dome fracture of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.481B	Displaced dome fracture of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.482A	Displaced dome fracture of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.482B	Displaced dome fracture of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S32.483A	Displaced dome fracture of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.483B	Displaced dome fracture of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.484A	Nondisplaced dome fracture of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.484B	Nondisplaced dome fracture of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.485A	Nondisplaced dome fracture of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.485B	Nondisplaced dome fracture of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.486A	Nondisplaced dome fracture of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.486B	Nondisplaced dome fracture of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.491A	Other specified fracture of right acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.491B	Other specified fracture of right acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.492A	Other specified fracture of left acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.492B	Other specified fracture of left acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.499A	Other specified fracture of unspecified acetabulum, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.499B	Other specified fracture of unspecified acetabulum, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.501A	Unspecified fracture of right pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.501B	Unspecified fracture of right pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.502A	Unspecified fracture of left pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.502B	Unspecified fracture of left pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.509A	Unspecified fracture of unspecified pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.509B	Unspecified fracture of unspecified pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.511A	Fracture of superior rim of right pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.511B	Fracture of superior rim of right pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.512A	Fracture of superior rim of left pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.512B	Fracture of superior rim of left pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.519A	Fracture of superior rim of unspecified pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.519B	Fracture of superior rim of unspecified pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.591A	Other specified fracture of right pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.591B	Other specified fracture of right pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.592A	Other specified fracture of left pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.592B	Other specified fracture of left pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.599A	Other specified fracture of unspecified pubis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.599B	Other specified fracture of unspecified pubis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.601A	Unspecified fracture of right ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.601B	Unspecified fracture of right ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.602A	Unspecified fracture of left ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S32.602B	Unspecified fracture of left ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.609A	Unspecified fracture of unspecified ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.609B	Unspecified fracture of unspecified ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.611A	Displaced avulsion fracture of right ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.611B	Displaced avulsion fracture of right ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.612A	Displaced avulsion fracture of left ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.612B	Displaced avulsion fracture of left ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.613A	Displaced avulsion fracture of unspecified ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.613B	Displaced avulsion fracture of unspecified ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.614A	Nondisplaced avulsion fracture of right ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.614B	Nondisplaced avulsion fracture of right ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.615A	Nondisplaced avulsion fracture of left ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.615B	Nondisplaced avulsion fracture of left ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.616A	Nondisplaced avulsion fracture of unspecified ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.616B	Nondisplaced avulsion fracture of unspecified ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.691A	Other specified fracture of right ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.691B	Other specified fracture of right ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.692A	Other specified fracture of left ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.692B	Other specified fracture of left ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.699A	Other specified fracture of unspecified ischium, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.699B	Other specified fracture of unspecified ischium, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.810A	Multiple fractures of pelvis with stable disruption of pelvic ring, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.810B	Multiple fractures of pelvis with stable disruption of pelvic ring, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.811A	Multiple fractures of pelvis with unstable disruption of pelvic ring, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.811B	Multiple fractures of pelvis with unstable disruption of pelvic ring, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.82XA	Multiple fractures of pelvis without disruption of pelvic ring, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.82XB	Multiple fractures of pelvis without disruption of pelvic ring, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.89XA	Fracture of other parts of pelvis, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S32.89XB	Fracture of other parts of pelvis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S32.9XXA	Fracture of unspecified parts of lumbosacral spine and pelvis, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S32.9XXB	Fracture of unspecified parts of lumbosacral spine and pelvis, initial encounter for open fracture	Diagnosis	ICD-10-CM
S34.101A	Unspecified injury to L1 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.102A	Unspecified injury to L2 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.103A	Unspecified injury to L3 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.104A	Unspecified injury to L4 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.105A	Unspecified injury to L5 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.109A	Unspecified injury to unspecified level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.111A	Complete lesion of L1 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.112A	Complete lesion of L2 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.113A	Complete lesion of L3 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.114A	Complete lesion of L4 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.115A	Complete lesion of L5 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.119A	Complete lesion of unspecified level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.121A	Incomplete lesion of L1 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.122A	Incomplete lesion of L2 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.123A	Incomplete lesion of L3 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.124A	Incomplete lesion of L4 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.125A	Incomplete lesion of L5 level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.129A	Incomplete lesion of unspecified level of lumbar spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.131A	Complete lesion of sacral spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.132A	Incomplete lesion of sacral spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.139A	Unspecified injury to sacral spinal cord, initial encounter	Diagnosis	ICD-10-CM
S34.3XXA	Injury of cauda equina, initial encounter	Diagnosis	ICD-10-CM
S35.401A	Unspecified injury of right renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.402A	Unspecified injury of left renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.403A	Unspecified injury of unspecified renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.404A	Unspecified injury of right renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.405A	Unspecified injury of left renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.406A	Unspecified injury of unspecified renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.411A	Laceration of right renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.412A	Laceration of left renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.413A	Laceration of unspecified renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.414A	Laceration of right renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.415A	Laceration of left renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.416A	Laceration of unspecified renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.491A	Other specified injury of right renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.492A	Other specified injury of left renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.493A	Other specified injury of unspecified renal artery, initial encounter	Diagnosis	ICD-10-CM
S35.494A	Other specified injury of right renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.495A	Other specified injury of left renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.496A	Other specified injury of unspecified renal vein, initial encounter	Diagnosis	ICD-10-CM
S35.531A	Injury of right uterine artery, initial encounter	Diagnosis	ICD-10-CM
S35.532A	Injury of left uterine artery, initial encounter	Diagnosis	ICD-10-CM
S35.533A	Injury of unspecified uterine artery, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S35.534A	Injury of right uterine vein, initial encounter	Diagnosis	ICD-10-CM
S35.535A	Injury of left uterine vein, initial encounter	Diagnosis	ICD-10-CM
S35.536A	Injury of unspecified uterine vein, initial encounter	Diagnosis	ICD-10-CM
S35.8X1A	Laceration of other blood vessels at abdomen, lower back and pelvis level, initial encounter	Diagnosis	ICD-10-CM
S35.8X8A	Other specified injury of other blood vessels at abdomen, lower back and pelvis level, initial encounter	Diagnosis	ICD-10-CM
S35.8X9A	Unspecified injury of other blood vessels at abdomen, lower back and pelvis level, initial encounter	Diagnosis	ICD-10-CM
S36.00XA	Unspecified injury of spleen, initial encounter	Diagnosis	ICD-10-CM
S36.020A	Minor contusion of spleen, initial encounter	Diagnosis	ICD-10-CM
S36.021A	Major contusion of spleen, initial encounter	Diagnosis	ICD-10-CM
S36.029A	Unspecified contusion of spleen, initial encounter	Diagnosis	ICD-10-CM
S36.030A	Superficial (capsular) laceration of spleen, initial encounter	Diagnosis	ICD-10-CM
S36.031A	Moderate laceration of spleen, initial encounter	Diagnosis	ICD-10-CM
S36.032A	Major laceration of spleen, initial encounter	Diagnosis	ICD-10-CM
S36.09XA	Other injury of spleen, initial encounter	Diagnosis	ICD-10-CM
S36.112A	Contusion of liver, initial encounter	Diagnosis	ICD-10-CM
S36.113A	Laceration of liver, unspecified degree, initial encounter	Diagnosis	ICD-10-CM
S36.114A	Minor laceration of liver, initial encounter	Diagnosis	ICD-10-CM
S36.115A	Moderate laceration of liver, initial encounter	Diagnosis	ICD-10-CM
S36.116A	Major laceration of liver, initial encounter	Diagnosis	ICD-10-CM
S36.118A	Other injury of liver, initial encounter	Diagnosis	ICD-10-CM
S36.119A	Unspecified injury of liver, initial encounter	Diagnosis	ICD-10-CM
S36.200A	Unspecified injury of head of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.201A	Unspecified injury of body of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.202A	Unspecified injury of tail of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.209A	Unspecified injury of unspecified part of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.220A	Contusion of head of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.221A	Contusion of body of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.222A	Contusion of tail of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.229A	Contusion of unspecified part of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.230A	Laceration of head of pancreas, unspecified degree, initial encounter	Diagnosis	ICD-10-CM
S36.231A	Laceration of body of pancreas, unspecified degree, initial encounter	Diagnosis	ICD-10-CM
S36.232A	Laceration of tail of pancreas, unspecified degree, initial encounter	Diagnosis	ICD-10-CM
S36.239A	Laceration of unspecified part of pancreas, unspecified degree, initial encounter	Diagnosis	ICD-10-CM
S36.240A	Minor laceration of head of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.241A	Minor laceration of body of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.242A	Minor laceration of tail of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.249A	Minor laceration of unspecified part of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.250A	Moderate laceration of head of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.251A	Moderate laceration of body of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.252A	Moderate laceration of tail of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.259A	Moderate laceration of unspecified part of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.260A	Major laceration of head of pancreas, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S36.261A	Major laceration of body of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.262A	Major laceration of tail of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.269A	Major laceration of unspecified part of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.290A	Other injury of head of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.291A	Other injury of body of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.292A	Other injury of tail of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.299A	Other injury of unspecified part of pancreas, initial encounter	Diagnosis	ICD-10-CM
S36.30XA	Unspecified injury of stomach, initial encounter	Diagnosis	ICD-10-CM
S36.32XA	Contusion of stomach, initial encounter	Diagnosis	ICD-10-CM
S36.33XA	Laceration of stomach, initial encounter	Diagnosis	ICD-10-CM
S36.39XA	Other injury of stomach, initial encounter	Diagnosis	ICD-10-CM
S36.400A	Unspecified injury of duodenum, initial encounter	Diagnosis	ICD-10-CM
S36.408A	Unspecified injury of other part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.409A	Unspecified injury of unspecified part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.410A	Primary blast injury of duodenum, initial encounter	Diagnosis	ICD-10-CM
S36.418A	Primary blast injury of other part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.419A	Primary blast injury of unspecified part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.420A	Contusion of duodenum, initial encounter	Diagnosis	ICD-10-CM
S36.428A	Contusion of other part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.429A	Contusion of unspecified part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.430A	Laceration of duodenum, initial encounter	Diagnosis	ICD-10-CM
S36.438A	Laceration of other part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.439A	Laceration of unspecified part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.490A	Other injury of duodenum, initial encounter	Diagnosis	ICD-10-CM
S36.498A	Other injury of other part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.499A	Other injury of unspecified part of small intestine, initial encounter	Diagnosis	ICD-10-CM
S36.500A	Unspecified injury of ascending [right] colon, initial encounter	Diagnosis	ICD-10-CM
S36.501A	Unspecified injury of transverse colon, initial encounter	Diagnosis	ICD-10-CM
S36.502A	Unspecified injury of descending [left] colon, initial encounter	Diagnosis	ICD-10-CM
S36.503A	Unspecified injury of sigmoid colon, initial encounter	Diagnosis	ICD-10-CM
S36.508A	Unspecified injury of other part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.509A	Unspecified injury of unspecified part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.510A	Primary blast injury of ascending [right] colon, initial encounter	Diagnosis	ICD-10-CM
S36.511A	Primary blast injury of transverse colon, initial encounter	Diagnosis	ICD-10-CM
S36.512A	Primary blast injury of descending [left] colon, initial encounter	Diagnosis	ICD-10-CM
S36.513A	Primary blast injury of sigmoid colon, initial encounter	Diagnosis	ICD-10-CM
S36.518A	Primary blast injury of other part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.519A	Primary blast injury of unspecified part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.520A	Contusion of ascending [right] colon, initial encounter	Diagnosis	ICD-10-CM
S36.521A	Contusion of transverse colon, initial encounter	Diagnosis	ICD-10-CM
S36.522A	Contusion of descending [left] colon, initial encounter	Diagnosis	ICD-10-CM
S36.523A	Contusion of sigmoid colon, initial encounter	Diagnosis	ICD-10-CM
S36.528A	Contusion of other part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.529A	Contusion of unspecified part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.530A	Laceration of ascending [right] colon, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S36.531A	Laceration of transverse colon, initial encounter	Diagnosis	ICD-10-CM
S36.532A	Laceration of descending [left] colon, initial encounter	Diagnosis	ICD-10-CM
S36.533A	Laceration of sigmoid colon, initial encounter	Diagnosis	ICD-10-CM
S36.538A	Laceration of other part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.539A	Laceration of unspecified part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.590A	Other injury of ascending [right] colon, initial encounter	Diagnosis	ICD-10-CM
S36.591A	Other injury of transverse colon, initial encounter	Diagnosis	ICD-10-CM
S36.592A	Other injury of descending [left] colon, initial encounter	Diagnosis	ICD-10-CM
S36.593A	Other injury of sigmoid colon, initial encounter	Diagnosis	ICD-10-CM
S36.598A	Other injury of other part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.599A	Other injury of unspecified part of colon, initial encounter	Diagnosis	ICD-10-CM
S36.60XA	Unspecified injury of rectum, initial encounter	Diagnosis	ICD-10-CM
S36.61XA	Primary blast injury of rectum, initial encounter	Diagnosis	ICD-10-CM
S36.62XA	Contusion of rectum, initial encounter	Diagnosis	ICD-10-CM
S36.63XA	Laceration of rectum, initial encounter	Diagnosis	ICD-10-CM
S36.69XA	Other injury of rectum, initial encounter	Diagnosis	ICD-10-CM
S36.899A	Unspecified injury of other intra-abdominal organs, initial encounter	Diagnosis	ICD-10-CM
S36.90XA	Unspecified injury of unspecified intra-abdominal organ, initial encounter	Diagnosis	ICD-10-CM
S37.001A	Unspecified injury of right kidney, initial encounter	Diagnosis	ICD-10-CM
S37.002A	Unspecified injury of left kidney, initial encounter	Diagnosis	ICD-10-CM
S37.009A	Unspecified injury of unspecified kidney, initial encounter	Diagnosis	ICD-10-CM
S37.011A	Minor contusion of right kidney, initial encounter	Diagnosis	ICD-10-CM
S37.012A	Minor contusion of left kidney, initial encounter	Diagnosis	ICD-10-CM
S37.019A	Minor contusion of unspecified kidney, initial encounter	Diagnosis	ICD-10-CM
S37.021A	Major contusion of right kidney, initial encounter	Diagnosis	ICD-10-CM
S37.022A	Major contusion of left kidney, initial encounter	Diagnosis	ICD-10-CM
S37.029A	Major contusion of unspecified kidney, initial encounter	Diagnosis	ICD-10-CM
S37.031A	Laceration of right kidney, unspecified degree, initial encounter	Diagnosis	ICD-10-CM
S37.032A	Laceration of left kidney, unspecified degree, initial encounter	Diagnosis	ICD-10-CM
S37.039A	Laceration of unspecified kidney, unspecified degree, initial encounter	Diagnosis	ICD-10-CM
S37.041A	Minor laceration of right kidney, initial encounter	Diagnosis	ICD-10-CM
S37.042A	Minor laceration of left kidney, initial encounter	Diagnosis	ICD-10-CM
S37.049A	Minor laceration of unspecified kidney, initial encounter	Diagnosis	ICD-10-CM
S37.051A	Moderate laceration of right kidney, initial encounter	Diagnosis	ICD-10-CM
S37.052A	Moderate laceration of left kidney, initial encounter	Diagnosis	ICD-10-CM
S37.059A	Moderate laceration of unspecified kidney, initial encounter	Diagnosis	ICD-10-CM
S37.061A	Major laceration of right kidney, initial encounter	Diagnosis	ICD-10-CM
S37.062A	Major laceration of left kidney, initial encounter	Diagnosis	ICD-10-CM
S37.069A	Major laceration of unspecified kidney, initial encounter	Diagnosis	ICD-10-CM
S37.091A	Other injury of right kidney, initial encounter	Diagnosis	ICD-10-CM
S37.092A	Other injury of left kidney, initial encounter	Diagnosis	ICD-10-CM
S37.099A	Other injury of unspecified kidney, initial encounter	Diagnosis	ICD-10-CM
S37.10XA	Unspecified injury of ureter, initial encounter	Diagnosis	ICD-10-CM
S37.12XA	Contusion of ureter, initial encounter	Diagnosis	ICD-10-CM
S37.13XA	Laceration of ureter, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S37.19XA	Other injury of ureter, initial encounter	Diagnosis	ICD-10-CM
S37.20XA	Unspecified injury of bladder, initial encounter	Diagnosis	ICD-10-CM
S37.22XA	Contusion of bladder, initial encounter	Diagnosis	ICD-10-CM
S37.23XA	Laceration of bladder, initial encounter	Diagnosis	ICD-10-CM
S37.29XA	Other injury of bladder, initial encounter	Diagnosis	ICD-10-CM
S37.30XA	Unspecified injury of urethra, initial encounter	Diagnosis	ICD-10-CM
S37.32XA	Contusion of urethra, initial encounter	Diagnosis	ICD-10-CM
S37.33XA	Laceration of urethra, initial encounter	Diagnosis	ICD-10-CM
S37.39XA	Other injury of urethra, initial encounter	Diagnosis	ICD-10-CM
S37.401A	Unspecified injury of ovary, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.402A	Unspecified injury of ovary, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.409A	Unspecified injury of ovary, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.421A	Contusion of ovary, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.422A	Contusion of ovary, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.429A	Contusion of ovary, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.431A	Laceration of ovary, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.432A	Laceration of ovary, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.439A	Laceration of ovary, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.491A	Other injury of ovary, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.492A	Other injury of ovary, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.499A	Other injury of ovary, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.501A	Unspecified injury of fallopian tube, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.502A	Unspecified injury of fallopian tube, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.509A	Unspecified injury of fallopian tube, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.511A	Primary blast injury of fallopian tube, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.512A	Primary blast injury of fallopian tube, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.519A	Primary blast injury of fallopian tube, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.521A	Contusion of fallopian tube, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.522A	Contusion of fallopian tube, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.529A	Contusion of fallopian tube, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.531A	Laceration of fallopian tube, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.532A	Laceration of fallopian tube, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.539A	Laceration of fallopian tube, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.591A	Other injury of fallopian tube, unilateral, initial encounter	Diagnosis	ICD-10-CM
S37.592A	Other injury of fallopian tube, bilateral, initial encounter	Diagnosis	ICD-10-CM
S37.599A	Other injury of fallopian tube, unspecified, initial encounter	Diagnosis	ICD-10-CM
S37.60XA	Unspecified injury of uterus, initial encounter	Diagnosis	ICD-10-CM
S37.62XA	Contusion of uterus, initial encounter	Diagnosis	ICD-10-CM
S37.63XA	Laceration of uterus, initial encounter	Diagnosis	ICD-10-CM
S37.69XA	Other injury of uterus, initial encounter	Diagnosis	ICD-10-CM
S37.822A	Contusion of prostate, initial encounter	Diagnosis	ICD-10-CM
S37.823A	Laceration of prostate, initial encounter	Diagnosis	ICD-10-CM
S37.828A	Other injury of prostate, initial encounter	Diagnosis	ICD-10-CM
S37.829A	Unspecified injury of prostate, initial encounter	Diagnosis	ICD-10-CM
S37.892A	Contusion of other urinary and pelvic organ, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S37.893A	Laceration of other urinary and pelvic organ, initial encounter	Diagnosis	ICD-10-CM
S37.898A	Other injury of other urinary and pelvic organ, initial encounter	Diagnosis	ICD-10-CM
S37.899A	Unspecified injury of other urinary and pelvic organ, initial encounter	Diagnosis	ICD-10-CM
S37.90XA	Unspecified injury of unspecified urinary and pelvic organ, initial encounter	Diagnosis	ICD-10-CM
S37.92XA	Contusion of unspecified urinary and pelvic organ, initial encounter	Diagnosis	ICD-10-CM
S37.93XA	Laceration of unspecified urinary and pelvic organ, initial encounter	Diagnosis	ICD-10-CM
S37.99XA	Other injury of unspecified urinary and pelvic organ, initial encounter	Diagnosis	ICD-10-CM
S38.001A	Crushing injury of unspecified external genital organs, male, initial encounter	Diagnosis	ICD-10-CM
S38.002A	Crushing injury of unspecified external genital organs, female, initial encounter	Diagnosis	ICD-10-CM
S38.01XA	Crushing injury of penis, initial encounter	Diagnosis	ICD-10-CM
S38.02XA	Crushing injury of scrotum and testis, initial encounter	Diagnosis	ICD-10-CM
S38.03XA	Crushing injury of vulva, initial encounter	Diagnosis	ICD-10-CM
S38.1XXA	Crushing injury of abdomen, lower back, and pelvis, initial encounter	Diagnosis	ICD-10-CM
S42.001A	Fracture of unspecified part of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.001B	Fracture of unspecified part of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.002A	Fracture of unspecified part of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.002B	Fracture of unspecified part of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.009A	Fracture of unspecified part of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.009B	Fracture of unspecified part of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.011A	Anterior displaced fracture of sternal end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.011B	Anterior displaced fracture of sternal end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.012A	Anterior displaced fracture of sternal end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.012B	Anterior displaced fracture of sternal end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.013A	Anterior displaced fracture of sternal end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.013B	Anterior displaced fracture of sternal end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.014A	Posterior displaced fracture of sternal end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.014B	Posterior displaced fracture of sternal end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.015A	Posterior displaced fracture of sternal end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.015B	Posterior displaced fracture of sternal end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.016A	Posterior displaced fracture of sternal end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.016B	Posterior displaced fracture of sternal end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S42.017A	Nondisplaced fracture of sternal end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.017B	Nondisplaced fracture of sternal end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.018A	Nondisplaced fracture of sternal end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.018B	Nondisplaced fracture of sternal end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.019A	Nondisplaced fracture of sternal end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.019B	Nondisplaced fracture of sternal end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.021A	Displaced fracture of shaft of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.021B	Displaced fracture of shaft of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.022A	Displaced fracture of shaft of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.022B	Displaced fracture of shaft of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.023A	Displaced fracture of shaft of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.023B	Displaced fracture of shaft of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.024A	Nondisplaced fracture of shaft of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.024B	Nondisplaced fracture of shaft of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.025A	Nondisplaced fracture of shaft of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.025B	Nondisplaced fracture of shaft of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.026A	Nondisplaced fracture of shaft of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.026B	Nondisplaced fracture of shaft of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.031A	Displaced fracture of lateral end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.031B	Displaced fracture of lateral end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.032A	Displaced fracture of lateral end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.032B	Displaced fracture of lateral end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.033A	Displaced fracture of lateral end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.033B	Displaced fracture of lateral end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.034A	Nondisplaced fracture of lateral end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.034B	Nondisplaced fracture of lateral end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.035A	Nondisplaced fracture of lateral end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.035B	Nondisplaced fracture of lateral end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.036A	Nondisplaced fracture of lateral end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.036B	Nondisplaced fracture of lateral end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.101A	Fracture of unspecified part of scapula, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.101B	Fracture of unspecified part of scapula, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.102A	Fracture of unspecified part of scapula, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.102B	Fracture of unspecified part of scapula, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.109A	Fracture of unspecified part of scapula, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.109B	Fracture of unspecified part of scapula, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.111A	Displaced fracture of body of scapula, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.111B	Displaced fracture of body of scapula, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.112A	Displaced fracture of body of scapula, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.112B	Displaced fracture of body of scapula, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.113A	Displaced fracture of body of scapula, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.113B	Displaced fracture of body of scapula, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.114A	Nondisplaced fracture of body of scapula, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.114B	Nondisplaced fracture of body of scapula, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.115A	Nondisplaced fracture of body of scapula, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.115B	Nondisplaced fracture of body of scapula, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.116A	Nondisplaced fracture of body of scapula, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.116B	Nondisplaced fracture of body of scapula, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S42.121A	Displaced fracture of acromial process, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.121B	Displaced fracture of acromial process, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.122A	Displaced fracture of acromial process, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.122B	Displaced fracture of acromial process, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.123A	Displaced fracture of acromial process, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.123B	Displaced fracture of acromial process, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.124A	Nondisplaced fracture of acromial process, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.124B	Nondisplaced fracture of acromial process, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.125A	Nondisplaced fracture of acromial process, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.125B	Nondisplaced fracture of acromial process, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.126A	Nondisplaced fracture of acromial process, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.126B	Nondisplaced fracture of acromial process, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.131A	Displaced fracture of coracoid process, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.131B	Displaced fracture of coracoid process, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.132A	Displaced fracture of coracoid process, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.132B	Displaced fracture of coracoid process, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.133A	Displaced fracture of coracoid process, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.133B	Displaced fracture of coracoid process, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.134A	Nondisplaced fracture of coracoid process, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.134B	Nondisplaced fracture of coracoid process, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.135A	Nondisplaced fracture of coracoid process, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.135B	Nondisplaced fracture of coracoid process, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S42.136A	Nondisplaced fracture of coracoid process, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.136B	Nondisplaced fracture of coracoid process, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.141A	Displaced fracture of glenoid cavity of scapula, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.141B	Displaced fracture of glenoid cavity of scapula, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.142A	Displaced fracture of glenoid cavity of scapula, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.142B	Displaced fracture of glenoid cavity of scapula, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.143A	Displaced fracture of glenoid cavity of scapula, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.143B	Displaced fracture of glenoid cavity of scapula, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.144A	Nondisplaced fracture of glenoid cavity of scapula, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.144B	Nondisplaced fracture of glenoid cavity of scapula, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.145A	Nondisplaced fracture of glenoid cavity of scapula, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.145B	Nondisplaced fracture of glenoid cavity of scapula, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.146A	Nondisplaced fracture of glenoid cavity of scapula, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.146B	Nondisplaced fracture of glenoid cavity of scapula, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.151A	Displaced fracture of neck of scapula, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.151B	Displaced fracture of neck of scapula, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.152A	Displaced fracture of neck of scapula, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.152B	Displaced fracture of neck of scapula, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.153A	Displaced fracture of neck of scapula, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.153B	Displaced fracture of neck of scapula, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.154A	Nondisplaced fracture of neck of scapula, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.154B	Nondisplaced fracture of neck of scapula, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S42.155A	Nondisplaced fracture of neck of scapula, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.155B	Nondisplaced fracture of neck of scapula, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.156A	Nondisplaced fracture of neck of scapula, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.156B	Nondisplaced fracture of neck of scapula, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.191A	Fracture of other part of scapula, right shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.191B	Fracture of other part of scapula, right shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.192A	Fracture of other part of scapula, left shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.192B	Fracture of other part of scapula, left shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.199A	Fracture of other part of scapula, unspecified shoulder, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.199B	Fracture of other part of scapula, unspecified shoulder, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.201A	Unspecified fracture of upper end of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.201B	Unspecified fracture of upper end of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.202A	Unspecified fracture of upper end of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.202B	Unspecified fracture of upper end of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.209A	Unspecified fracture of upper end of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.209B	Unspecified fracture of upper end of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.211A	Unspecified displaced fracture of surgical neck of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.211B	Unspecified displaced fracture of surgical neck of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.212A	Unspecified displaced fracture of surgical neck of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.212B	Unspecified displaced fracture of surgical neck of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.213A	Unspecified displaced fracture of surgical neck of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.213B	Unspecified displaced fracture of surgical neck of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.214A	Unspecified nondisplaced fracture of surgical neck of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S42.214B	Unspecified nondisplaced fracture of surgical neck of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.215A	Unspecified nondisplaced fracture of surgical neck of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.215B	Unspecified nondisplaced fracture of surgical neck of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.216A	Unspecified nondisplaced fracture of surgical neck of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.216B	Unspecified nondisplaced fracture of surgical neck of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.221A	2-part displaced fracture of surgical neck of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.221B	2-part displaced fracture of surgical neck of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.222A	2-part displaced fracture of surgical neck of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.222B	2-part displaced fracture of surgical neck of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.223A	2-part displaced fracture of surgical neck of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.223B	2-part displaced fracture of surgical neck of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.224A	2-part nondisplaced fracture of surgical neck of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.224B	2-part nondisplaced fracture of surgical neck of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.225A	2-part nondisplaced fracture of surgical neck of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.225B	2-part nondisplaced fracture of surgical neck of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.226A	2-part nondisplaced fracture of surgical neck of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.226B	2-part nondisplaced fracture of surgical neck of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.231A	3-part fracture of surgical neck of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.231B	3-part fracture of surgical neck of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.232A	3-part fracture of surgical neck of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.232B	3-part fracture of surgical neck of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.239A	3-part fracture of surgical neck of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.239B	3-part fracture of surgical neck of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S42.241A	4-part fracture of surgical neck of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.241B	4-part fracture of surgical neck of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.242A	4-part fracture of surgical neck of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.242B	4-part fracture of surgical neck of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.249A	4-part fracture of surgical neck of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.249B	4-part fracture of surgical neck of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.251A	Displaced fracture of greater tuberosity of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.251B	Displaced fracture of greater tuberosity of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.252A	Displaced fracture of greater tuberosity of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.252B	Displaced fracture of greater tuberosity of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.253A	Displaced fracture of greater tuberosity of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.253B	Displaced fracture of greater tuberosity of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.254A	Nondisplaced fracture of greater tuberosity of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.254B	Nondisplaced fracture of greater tuberosity of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.255A	Nondisplaced fracture of greater tuberosity of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.255B	Nondisplaced fracture of greater tuberosity of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.256A	Nondisplaced fracture of greater tuberosity of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.256B	Nondisplaced fracture of greater tuberosity of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.261A	Displaced fracture of lesser tuberosity of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.261B	Displaced fracture of lesser tuberosity of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.262A	Displaced fracture of lesser tuberosity of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.262B	Displaced fracture of lesser tuberosity of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.263A	Displaced fracture of lesser tuberosity of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.263B	Displaced fracture of lesser tuberosity of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.264A	Nondisplaced fracture of lesser tuberosity of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.264B	Nondisplaced fracture of lesser tuberosity of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.265A	Nondisplaced fracture of lesser tuberosity of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.265B	Nondisplaced fracture of lesser tuberosity of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.266A	Nondisplaced fracture of lesser tuberosity of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.266B	Nondisplaced fracture of lesser tuberosity of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.271A	Torus fracture of upper end of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.272A	Torus fracture of upper end of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.279A	Torus fracture of upper end of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.291A	Other displaced fracture of upper end of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.291B	Other displaced fracture of upper end of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.292A	Other displaced fracture of upper end of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.292B	Other displaced fracture of upper end of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.293A	Other displaced fracture of upper end of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.293B	Other displaced fracture of upper end of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.294A	Other nondisplaced fracture of upper end of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.294B	Other nondisplaced fracture of upper end of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.295A	Other nondisplaced fracture of upper end of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.295B	Other nondisplaced fracture of upper end of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.296A	Other nondisplaced fracture of upper end of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.296B	Other nondisplaced fracture of upper end of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.301A	Unspecified fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.301B	Unspecified fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.302A	Unspecified fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.302B	Unspecified fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.309A	Unspecified fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.309B	Unspecified fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.311A	Greenstick fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.312A	Greenstick fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.319A	Greenstick fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.321A	Displaced transverse fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.321B	Displaced transverse fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.322A	Displaced transverse fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.322B	Displaced transverse fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.323A	Displaced transverse fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.323B	Displaced transverse fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.324A	Nondisplaced transverse fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.324B	Nondisplaced transverse fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.325A	Nondisplaced transverse fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.325B	Nondisplaced transverse fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.326A	Nondisplaced transverse fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.326B	Nondisplaced transverse fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.331A	Displaced oblique fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.331B	Displaced oblique fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.332A	Displaced oblique fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.332B	Displaced oblique fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.333A	Displaced oblique fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.333B	Displaced oblique fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.334A	Nondisplaced oblique fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.334B	Nondisplaced oblique fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.335A	Nondisplaced oblique fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.335B	Nondisplaced oblique fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.336A	Nondisplaced oblique fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.336B	Nondisplaced oblique fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.341A	Displaced spiral fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.341B	Displaced spiral fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.342A	Displaced spiral fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.342B	Displaced spiral fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.343A	Displaced spiral fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.343B	Displaced spiral fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.344A	Nondisplaced spiral fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.344B	Nondisplaced spiral fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.345A	Nondisplaced spiral fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.345B	Nondisplaced spiral fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.346A	Nondisplaced spiral fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.346B	Nondisplaced spiral fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.351A	Displaced comminuted fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.351B	Displaced comminuted fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.352A	Displaced comminuted fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.352B	Displaced comminuted fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.353A	Displaced comminuted fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.353B	Displaced comminuted fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.354A	Nondisplaced comminuted fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.354B	Nondisplaced comminuted fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.355A	Nondisplaced comminuted fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.355B	Nondisplaced comminuted fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.356A	Nondisplaced comminuted fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.356B	Nondisplaced comminuted fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.361A	Displaced segmental fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.361B	Displaced segmental fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.362A	Displaced segmental fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.362B	Displaced segmental fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.363A	Displaced segmental fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.363B	Displaced segmental fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.364A	Nondisplaced segmental fracture of shaft of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.364B	Nondisplaced segmental fracture of shaft of humerus, right arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.365A	Nondisplaced segmental fracture of shaft of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.365B	Nondisplaced segmental fracture of shaft of humerus, left arm, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.366A	Nondisplaced segmental fracture of shaft of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.366B	Nondisplaced segmental fracture of shaft of humerus, unspecified arm, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.391A	Other fracture of shaft of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.391B	Other fracture of shaft of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.392A	Other fracture of shaft of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.392B	Other fracture of shaft of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.399A	Other fracture of shaft of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.399B	Other fracture of shaft of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.401A	Unspecified fracture of lower end of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.401B	Unspecified fracture of lower end of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.402A	Unspecified fracture of lower end of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.402B	Unspecified fracture of lower end of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.409A	Unspecified fracture of lower end of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.409B	Unspecified fracture of lower end of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.411A	Displaced simple supracondylar fracture without intercondylar fracture of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.411B	Displaced simple supracondylar fracture without intercondylar fracture of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.412A	Displaced simple supracondylar fracture without intercondylar fracture of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.412B	Displaced simple supracondylar fracture without intercondylar fracture of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.413A	Displaced simple supracondylar fracture without intercondylar fracture of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.413B	Displaced simple supracondylar fracture without intercondylar fracture of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.414A	Nondisplaced simple supracondylar fracture without intercondylar fracture of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.414B	Nondisplaced simple supracondylar fracture without intercondylar fracture of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.415A	Nondisplaced simple supracondylar fracture without intercondylar fracture of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.415B	Nondisplaced simple supracondylar fracture without intercondylar fracture of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.416A	Nondisplaced simple supracondylar fracture without intercondylar fracture of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.416B	Nondisplaced simple supracondylar fracture without intercondylar fracture of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.421A	Displaced comminuted supracondylar fracture without intercondylar fracture of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.421B	Displaced comminuted supracondylar fracture without intercondylar fracture of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.422A	Displaced comminuted supracondylar fracture without intercondylar fracture of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.422B	Displaced comminuted supracondylar fracture without intercondylar fracture of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.423A	Displaced comminuted supracondylar fracture without intercondylar fracture of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.423B	Displaced comminuted supracondylar fracture without intercondylar fracture of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.424A	Nondisplaced comminuted supracondylar fracture without intercondylar fracture of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.424B	Nondisplaced comminuted supracondylar fracture without intercondylar fracture of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.425A	Nondisplaced comminuted supracondylar fracture without intercondylar fracture of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.425B	Nondisplaced comminuted supracondylar fracture without intercondylar fracture of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.426A	Nondisplaced comminuted supracondylar fracture without intercondylar fracture of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.426B	Nondisplaced comminuted supracondylar fracture without intercondylar fracture of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.431A	Displaced fracture (avulsion) of lateral epicondyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.431B	Displaced fracture (avulsion) of lateral epicondyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.432A	Displaced fracture (avulsion) of lateral epicondyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.432B	Displaced fracture (avulsion) of lateral epicondyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.433A	Displaced fracture (avulsion) of lateral epicondyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.433B	Displaced fracture (avulsion) of lateral epicondyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.434A	Nondisplaced fracture (avulsion) of lateral epicondyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.434B	Nondisplaced fracture (avulsion) of lateral epicondyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.435A	Nondisplaced fracture (avulsion) of lateral epicondyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.435B	Nondisplaced fracture (avulsion) of lateral epicondyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.436A	Nondisplaced fracture (avulsion) of lateral epicondyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.436B	Nondisplaced fracture (avulsion) of lateral epicondyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.441A	Displaced fracture (avulsion) of medial epicondyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.441B	Displaced fracture (avulsion) of medial epicondyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.442A	Displaced fracture (avulsion) of medial epicondyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.442B	Displaced fracture (avulsion) of medial epicondyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.443A	Displaced fracture (avulsion) of medial epicondyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.443B	Displaced fracture (avulsion) of medial epicondyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.444A	Nondisplaced fracture (avulsion) of medial epicondyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.444B	Nondisplaced fracture (avulsion) of medial epicondyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.445A	Nondisplaced fracture (avulsion) of medial epicondyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.445B	Nondisplaced fracture (avulsion) of medial epicondyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.446A	Nondisplaced fracture (avulsion) of medial epicondyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.446B	Nondisplaced fracture (avulsion) of medial epicondyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.447A	Incarcerated fracture (avulsion) of medial epicondyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.447B	Incarcerated fracture (avulsion) of medial epicondyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.448A	Incarcerated fracture (avulsion) of medial epicondyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.448B	Incarcerated fracture (avulsion) of medial epicondyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.449A	Incarcerated fracture (avulsion) of medial epicondyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.449B	Incarcerated fracture (avulsion) of medial epicondyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.451A	Displaced fracture of lateral condyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.451B	Displaced fracture of lateral condyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.452A	Displaced fracture of lateral condyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.452B	Displaced fracture of lateral condyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.453A	Displaced fracture of lateral condyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.453B	Displaced fracture of lateral condyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.454A	Nondisplaced fracture of lateral condyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.454B	Nondisplaced fracture of lateral condyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.455A	Nondisplaced fracture of lateral condyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.455B	Nondisplaced fracture of lateral condyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.456A	Nondisplaced fracture of lateral condyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.456B	Nondisplaced fracture of lateral condyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.461A	Displaced fracture of medial condyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.461B	Displaced fracture of medial condyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.462A	Displaced fracture of medial condyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.462B	Displaced fracture of medial condyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.463A	Displaced fracture of medial condyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.463B	Displaced fracture of medial condyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.464A	Nondisplaced fracture of medial condyle of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.464B	Nondisplaced fracture of medial condyle of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.465A	Nondisplaced fracture of medial condyle of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.465B	Nondisplaced fracture of medial condyle of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.466A	Nondisplaced fracture of medial condyle of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.466B	Nondisplaced fracture of medial condyle of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.471A	Displaced transcondylar fracture of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.471B	Displaced transcondylar fracture of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.472A	Displaced transcondylar fracture of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.472B	Displaced transcondylar fracture of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.473A	Displaced transcondylar fracture of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.473B	Displaced transcondylar fracture of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.474A	Nondisplaced transcondylar fracture of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.474B	Nondisplaced transcondylar fracture of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.475A	Nondisplaced transcondylar fracture of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.475B	Nondisplaced transcondylar fracture of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.476A	Nondisplaced transcondylar fracture of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.476B	Nondisplaced transcondylar fracture of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.481A	Torus fracture of lower end of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.482A	Torus fracture of lower end of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.489A	Torus fracture of lower end of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.491A	Other displaced fracture of lower end of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.491B	Other displaced fracture of lower end of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.492A	Other displaced fracture of lower end of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.492B	Other displaced fracture of lower end of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.493A	Other displaced fracture of lower end of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.493B	Other displaced fracture of lower end of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.494A	Other nondisplaced fracture of lower end of right humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S42.494B	Other nondisplaced fracture of lower end of right humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.495A	Other nondisplaced fracture of lower end of left humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.495B	Other nondisplaced fracture of lower end of left humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.496A	Other nondisplaced fracture of lower end of unspecified humerus, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.496B	Other nondisplaced fracture of lower end of unspecified humerus, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.90XA	Fracture of unspecified shoulder girdle, part unspecified, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.90XB	Fracture of unspecified shoulder girdle, part unspecified, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.91XA	Fracture of right shoulder girdle, part unspecified, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.91XB	Fracture of right shoulder girdle, part unspecified, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.92XA	Fracture of left shoulder girdle, part unspecified, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.92XB	Fracture of left shoulder girdle, part unspecified, initial encounter for open fracture	Diagnosis	ICD-10-CM
S47.1XXA	Crushing injury of right shoulder and upper arm, initial encounter	Diagnosis	ICD-10-CM
S47.2XXA	Crushing injury of left shoulder and upper arm, initial encounter	Diagnosis	ICD-10-CM
S47.9XXA	Crushing injury of shoulder and upper arm, unspecified arm, initial encounter	Diagnosis	ICD-10-CM
S49.001A	Unspecified physeal fracture of upper end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.002A	Unspecified physeal fracture of upper end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.009A	Unspecified physeal fracture of upper end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.011A	Salter-Harris Type I physeal fracture of upper end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.012A	Salter-Harris Type I physeal fracture of upper end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.019A	Salter-Harris Type I physeal fracture of upper end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.021A	Salter-Harris Type II physeal fracture of upper end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.022A	Salter-Harris Type II physeal fracture of upper end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.029A	Salter-Harris Type II physeal fracture of upper end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.031A	Salter-Harris Type III physeal fracture of upper end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S49.032A	Salter-Harris Type III physeal fracture of upper end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.039A	Salter-Harris Type III physeal fracture of upper end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.041A	Salter-Harris Type IV physeal fracture of upper end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.042A	Salter-Harris Type IV physeal fracture of upper end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.049A	Salter-Harris Type IV physeal fracture of upper end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.091A	Other physeal fracture of upper end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.092A	Other physeal fracture of upper end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.099A	Other physeal fracture of upper end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.101A	Unspecified physeal fracture of lower end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.102A	Unspecified physeal fracture of lower end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.109A	Unspecified physeal fracture of lower end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.111A	Salter-Harris Type I physeal fracture of lower end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.112A	Salter-Harris Type I physeal fracture of lower end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.119A	Salter-Harris Type I physeal fracture of lower end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.121A	Salter-Harris Type II physeal fracture of lower end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.122A	Salter-Harris Type II physeal fracture of lower end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.129A	Salter-Harris Type II physeal fracture of lower end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.131A	Salter-Harris Type III physeal fracture of lower end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.132A	Salter-Harris Type III physeal fracture of lower end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.139A	Salter-Harris Type III physeal fracture of lower end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.141A	Salter-Harris Type IV physeal fracture of lower end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.142A	Salter-Harris Type IV physeal fracture of lower end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S49.149A	Salter-Harris Type IV physeal fracture of lower end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.191A	Other physeal fracture of lower end of humerus, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.192A	Other physeal fracture of lower end of humerus, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S49.199A	Other physeal fracture of lower end of humerus, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.001A	Unspecified fracture of upper end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.001B	Unspecified fracture of upper end of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.001C	Unspecified fracture of upper end of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.002A	Unspecified fracture of upper end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.002B	Unspecified fracture of upper end of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.002C	Unspecified fracture of upper end of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.009A	Unspecified fracture of upper end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.009B	Unspecified fracture of upper end of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.009C	Unspecified fracture of upper end of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.011A	Torus fracture of upper end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.012A	Torus fracture of upper end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.019A	Torus fracture of upper end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.021A	Displaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.021B	Displaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.021C	Displaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.022A	Displaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.022B	Displaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.022C	Displaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.023A	Displaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.023B	Displaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.023C	Displaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.024A	Nondisplaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.024B	Nondisplaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.024C	Nondisplaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.025A	Nondisplaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.025B	Nondisplaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.025C	Nondisplaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.026A	Nondisplaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.026B	Nondisplaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.026C	Nondisplaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.031A	Displaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.031B	Displaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.031C	Displaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.032A	Displaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.032B	Displaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.032C	Displaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.033A	Displaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.033B	Displaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.033C	Displaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.034A	Nondisplaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.034B	Nondisplaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.034C	Nondisplaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.035A	Nondisplaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.035B	Nondisplaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.035C	Nondisplaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.036A	Nondisplaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.036B	Nondisplaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.036C	Nondisplaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.041A	Displaced fracture of coronoid process of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.041B	Displaced fracture of coronoid process of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.041C	Displaced fracture of coronoid process of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.042A	Displaced fracture of coronoid process of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.042B	Displaced fracture of coronoid process of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.042C	Displaced fracture of coronoid process of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.043A	Displaced fracture of coronoid process of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.043B	Displaced fracture of coronoid process of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.043C	Displaced fracture of coronoid process of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.044A	Nondisplaced fracture of coronoid process of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.044B	Nondisplaced fracture of coronoid process of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.044C	Nondisplaced fracture of coronoid process of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.045A	Nondisplaced fracture of coronoid process of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.045B	Nondisplaced fracture of coronoid process of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.045C	Nondisplaced fracture of coronoid process of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.046A	Nondisplaced fracture of coronoid process of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.046B	Nondisplaced fracture of coronoid process of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.046C	Nondisplaced fracture of coronoid process of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.091A	Other fracture of upper end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.091B	Other fracture of upper end of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.091C	Other fracture of upper end of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.092A	Other fracture of upper end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.092B	Other fracture of upper end of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.092C	Other fracture of upper end of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.099A	Other fracture of upper end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.099B	Other fracture of upper end of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.099C	Other fracture of upper end of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.101A	Unspecified fracture of upper end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.101B	Unspecified fracture of upper end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.101C	Unspecified fracture of upper end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.102A	Unspecified fracture of upper end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.102B	Unspecified fracture of upper end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.102C	Unspecified fracture of upper end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.109A	Unspecified fracture of upper end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.109B	Unspecified fracture of upper end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.109C	Unspecified fracture of upper end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.111A	Torus fracture of upper end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.112A	Torus fracture of upper end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.119A	Torus fracture of upper end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.121A	Displaced fracture of head of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.121B	Displaced fracture of head of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.121C	Displaced fracture of head of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.122A	Displaced fracture of head of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.122B	Displaced fracture of head of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.122C	Displaced fracture of head of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.123A	Displaced fracture of head of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.123B	Displaced fracture of head of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.123C	Displaced fracture of head of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.124A	Nondisplaced fracture of head of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.124B	Nondisplaced fracture of head of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.124C	Nondisplaced fracture of head of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.125A	Nondisplaced fracture of head of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.125B	Nondisplaced fracture of head of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.125C	Nondisplaced fracture of head of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.126A	Nondisplaced fracture of head of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.126B	Nondisplaced fracture of head of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.126C	Nondisplaced fracture of head of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.131A	Displaced fracture of neck of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.131B	Displaced fracture of neck of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.131C	Displaced fracture of neck of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.132A	Displaced fracture of neck of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.132B	Displaced fracture of neck of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.132C	Displaced fracture of neck of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.133A	Displaced fracture of neck of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.133B	Displaced fracture of neck of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.133C	Displaced fracture of neck of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.134A	Nondisplaced fracture of neck of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.134B	Nondisplaced fracture of neck of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.134C	Nondisplaced fracture of neck of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.135A	Nondisplaced fracture of neck of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.135B	Nondisplaced fracture of neck of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.135C	Nondisplaced fracture of neck of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.136A	Nondisplaced fracture of neck of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.136B	Nondisplaced fracture of neck of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.136C	Nondisplaced fracture of neck of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.181A	Other fracture of upper end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.181B	Other fracture of upper end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.181C	Other fracture of upper end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.182A	Other fracture of upper end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.182B	Other fracture of upper end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.182C	Other fracture of upper end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.189A	Other fracture of upper end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.189B	Other fracture of upper end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.189C	Other fracture of upper end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.201A	Unspecified fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.201B	Unspecified fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.201C	Unspecified fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.202A	Unspecified fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.202B	Unspecified fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.202C	Unspecified fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.209A	Unspecified fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.209B	Unspecified fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.209C	Unspecified fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.211A	Greenstick fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.212A	Greenstick fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.219A	Greenstick fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.221A	Displaced transverse fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.221B	Displaced transverse fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.221C	Displaced transverse fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.222A	Displaced transverse fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.222B	Displaced transverse fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.222C	Displaced transverse fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.223A	Displaced transverse fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.223B	Displaced transverse fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.223C	Displaced transverse fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.224A	Nondisplaced transverse fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.224B	Nondisplaced transverse fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.224C	Nondisplaced transverse fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.225A	Nondisplaced transverse fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.225B	Nondisplaced transverse fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.225C	Nondisplaced transverse fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.226A	Nondisplaced transverse fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.226B	Nondisplaced transverse fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.226C	Nondisplaced transverse fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.231A	Displaced oblique fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.231B	Displaced oblique fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.231C	Displaced oblique fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.232A	Displaced oblique fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.232B	Displaced oblique fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.232C	Displaced oblique fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.233A	Displaced oblique fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.233B	Displaced oblique fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.233C	Displaced oblique fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.234A	Nondisplaced oblique fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.234B	Nondisplaced oblique fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.234C	Nondisplaced oblique fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.235A	Nondisplaced oblique fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.235B	Nondisplaced oblique fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.235C	Nondisplaced oblique fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.236A	Nondisplaced oblique fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.236B	Nondisplaced oblique fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.236C	Nondisplaced oblique fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.241A	Displaced spiral fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.241B	Displaced spiral fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.241C	Displaced spiral fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.242A	Displaced spiral fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.242B	Displaced spiral fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.242C	Displaced spiral fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.243A	Displaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.243B	Displaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.243C	Displaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.244A	Nondisplaced spiral fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.244B	Nondisplaced spiral fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.244C	Nondisplaced spiral fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.245A	Nondisplaced spiral fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.245B	Nondisplaced spiral fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.245C	Nondisplaced spiral fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.246A	Nondisplaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.246B	Nondisplaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.246C	Nondisplaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.251A	Displaced comminuted fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.251B	Displaced comminuted fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.251C	Displaced comminuted fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.252A	Displaced comminuted fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.252B	Displaced comminuted fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.252C	Displaced comminuted fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.253A	Displaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.253B	Displaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.253C	Displaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.254A	Nondisplaced comminuted fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.254B	Nondisplaced comminuted fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.254C	Nondisplaced comminuted fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.255A	Nondisplaced comminuted fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.255B	Nondisplaced comminuted fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.255C	Nondisplaced comminuted fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.256A	Nondisplaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.256B	Nondisplaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.256C	Nondisplaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.261A	Displaced segmental fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.261B	Displaced segmental fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.261C	Displaced segmental fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.262A	Displaced segmental fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.262B	Displaced segmental fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.262C	Displaced segmental fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.263A	Displaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.263B	Displaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.263C	Displaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.264A	Nondisplaced segmental fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.264B	Nondisplaced segmental fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.264C	Nondisplaced segmental fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.265A	Nondisplaced segmental fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.265B	Nondisplaced segmental fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.265C	Nondisplaced segmental fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.266A	Nondisplaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.266B	Nondisplaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.266C	Nondisplaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.271A	Monteggia's fracture of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.271B	Monteggia's fracture of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.271C	Monteggia's fracture of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.272A	Monteggia's fracture of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.272B	Monteggia's fracture of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.272C	Monteggia's fracture of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.279A	Monteggia's fracture of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.279B	Monteggia's fracture of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.279C	Monteggia's fracture of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.281A	Bent bone of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.281B	Bent bone of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.281C	Bent bone of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.282A	Bent bone of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.282B	Bent bone of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.282C	Bent bone of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.283A	Bent bone of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.283B	Bent bone of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.283C	Bent bone of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.291A	Other fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.291B	Other fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.291C	Other fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.292A	Other fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.292B	Other fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.292C	Other fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.299A	Other fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.299B	Other fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.299C	Other fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.301A	Unspecified fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.301B	Unspecified fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.301C	Unspecified fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.302A	Unspecified fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.302B	Unspecified fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.302C	Unspecified fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.309A	Unspecified fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.309B	Unspecified fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.309C	Unspecified fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.311A	Greenstick fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.312A	Greenstick fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.319A	Greenstick fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.321A	Displaced transverse fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.321B	Displaced transverse fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.321C	Displaced transverse fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.322A	Displaced transverse fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.322B	Displaced transverse fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.322C	Displaced transverse fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.323A	Displaced transverse fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.323B	Displaced transverse fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.323C	Displaced transverse fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.324A	Nondisplaced transverse fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.324B	Nondisplaced transverse fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.324C	Nondisplaced transverse fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.325A	Nondisplaced transverse fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.325B	Nondisplaced transverse fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.325C	Nondisplaced transverse fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.326A	Nondisplaced transverse fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.326B	Nondisplaced transverse fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.326C	Nondisplaced transverse fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.331A	Displaced oblique fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.331B	Displaced oblique fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.331C	Displaced oblique fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.332A	Displaced oblique fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.332B	Displaced oblique fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.332C	Displaced oblique fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.333A	Displaced oblique fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.333B	Displaced oblique fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.333C	Displaced oblique fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.334A	Nondisplaced oblique fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.334B	Nondisplaced oblique fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.334C	Nondisplaced oblique fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.335A	Nondisplaced oblique fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.335B	Nondisplaced oblique fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.335C	Nondisplaced oblique fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.336A	Nondisplaced oblique fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.336B	Nondisplaced oblique fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.336C	Nondisplaced oblique fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.341A	Displaced spiral fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.341B	Displaced spiral fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.341C	Displaced spiral fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.342A	Displaced spiral fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.342B	Displaced spiral fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.342C	Displaced spiral fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.343A	Displaced spiral fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.343B	Displaced spiral fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.343C	Displaced spiral fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.344A	Nondisplaced spiral fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.344B	Nondisplaced spiral fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.344C	Nondisplaced spiral fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.345A	Nondisplaced spiral fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.345B	Nondisplaced spiral fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.345C	Nondisplaced spiral fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.346A	Nondisplaced spiral fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.346B	Nondisplaced spiral fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.346C	Nondisplaced spiral fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.351A	Displaced comminuted fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.351B	Displaced comminuted fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.351C	Displaced comminuted fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.352A	Displaced comminuted fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.352B	Displaced comminuted fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.352C	Displaced comminuted fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.353A	Displaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.353B	Displaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.353C	Displaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.354A	Nondisplaced comminuted fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.354B	Nondisplaced comminuted fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.354C	Nondisplaced comminuted fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.355A	Nondisplaced comminuted fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.355B	Nondisplaced comminuted fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.355C	Nondisplaced comminuted fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.356A	Nondisplaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.356B	Nondisplaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.356C	Nondisplaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.361A	Displaced segmental fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.361B	Displaced segmental fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.361C	Displaced segmental fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.362A	Displaced segmental fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.362B	Displaced segmental fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.362C	Displaced segmental fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.363A	Displaced segmental fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.363B	Displaced segmental fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.363C	Displaced segmental fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.364A	Nondisplaced segmental fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.364B	Nondisplaced segmental fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.364C	Nondisplaced segmental fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.365A	Nondisplaced segmental fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.365B	Nondisplaced segmental fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.365C	Nondisplaced segmental fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.366A	Nondisplaced segmental fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.366B	Nondisplaced segmental fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.366C	Nondisplaced segmental fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.371A	Galeazzi's fracture of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.371B	Galeazzi's fracture of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.371C	Galeazzi's fracture of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.372A	Galeazzi's fracture of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.372B	Galeazzi's fracture of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.372C	Galeazzi's fracture of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.379A	Galeazzi's fracture of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.379B	Galeazzi's fracture of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.379C	Galeazzi's fracture of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.381A	Bent bone of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.381B	Bent bone of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.381C	Bent bone of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.382A	Bent bone of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.382B	Bent bone of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.382C	Bent bone of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.389A	Bent bone of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.389B	Bent bone of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.389C	Bent bone of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.391A	Other fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.391B	Other fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.391C	Other fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.392A	Other fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.392B	Other fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.392C	Other fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.399A	Other fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.399B	Other fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.399C	Other fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.501A	Unspecified fracture of the lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.501B	Unspecified fracture of the lower end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.501C	Unspecified fracture of the lower end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.502A	Unspecified fracture of the lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.502B	Unspecified fracture of the lower end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.502C	Unspecified fracture of the lower end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.509A	Unspecified fracture of the lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.509B	Unspecified fracture of the lower end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.509C	Unspecified fracture of the lower end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.511A	Displaced fracture of right radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.511B	Displaced fracture of right radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.511C	Displaced fracture of right radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.512A	Displaced fracture of left radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.512B	Displaced fracture of left radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.512C	Displaced fracture of left radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.513A	Displaced fracture of unspecified radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.513B	Displaced fracture of unspecified radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.513C	Displaced fracture of unspecified radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.514A	Nondisplaced fracture of right radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.514B	Nondisplaced fracture of right radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.514C	Nondisplaced fracture of right radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.515A	Nondisplaced fracture of left radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.515B	Nondisplaced fracture of left radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.515C	Nondisplaced fracture of left radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.516A	Nondisplaced fracture of unspecified radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.516B	Nondisplaced fracture of unspecified radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.516C	Nondisplaced fracture of unspecified radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.521A	Torus fracture of lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.522A	Torus fracture of lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.529A	Torus fracture of lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.531A	Colles' fracture of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.531B	Colles' fracture of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.531C	Colles' fracture of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.532A	Colles' fracture of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.532B	Colles' fracture of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.532C	Colles' fracture of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.539A	Colles' fracture of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.539B	Colles' fracture of unspecified radius, initial encounter for open fracture type I or	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.539C	Colles' fracture of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.541A	Smith's fracture of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.541B	Smith's fracture of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.541C	Smith's fracture of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.542A	Smith's fracture of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.542B	Smith's fracture of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.542C	Smith's fracture of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.549A	Smith's fracture of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.549B	Smith's fracture of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.549C	Smith's fracture of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.551A	Other extraarticular fracture of lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.551B	Other extraarticular fracture of lower end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.551C	Other extraarticular fracture of lower end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.552A	Other extraarticular fracture of lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.552B	Other extraarticular fracture of lower end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.552C	Other extraarticular fracture of lower end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.559A	Other extraarticular fracture of lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.559B	Other extraarticular fracture of lower end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.559C	Other extraarticular fracture of lower end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.561A	Barton's fracture of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.561B	Barton's fracture of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.561C	Barton's fracture of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.562A	Barton's fracture of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.562B	Barton's fracture of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.562C	Barton's fracture of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.569A	Barton's fracture of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.569B	Barton's fracture of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.569C	Barton's fracture of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.571A	Other intraarticular fracture of lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.571B	Other intraarticular fracture of lower end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.571C	Other intraarticular fracture of lower end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.572A	Other intraarticular fracture of lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.572B	Other intraarticular fracture of lower end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.572C	Other intraarticular fracture of lower end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.579A	Other intraarticular fracture of lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.579B	Other intraarticular fracture of lower end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.579C	Other intraarticular fracture of lower end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.591A	Other fractures of lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.591B	Other fractures of lower end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.591C	Other fractures of lower end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.592A	Other fractures of lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.592B	Other fractures of lower end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.592C	Other fractures of lower end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.599A	Other fractures of lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.599B	Other fractures of lower end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.599C	Other fractures of lower end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.601A	Unspecified fracture of lower end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.601B	Unspecified fracture of lower end of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.601C	Unspecified fracture of lower end of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.602A	Unspecified fracture of lower end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.602B	Unspecified fracture of lower end of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.602C	Unspecified fracture of lower end of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.609A	Unspecified fracture of lower end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.609B	Unspecified fracture of lower end of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.609C	Unspecified fracture of lower end of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.611A	Displaced fracture of right ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.611B	Displaced fracture of right ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.611C	Displaced fracture of right ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.612A	Displaced fracture of left ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.612B	Displaced fracture of left ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.612C	Displaced fracture of left ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.613A	Displaced fracture of unspecified ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.613B	Displaced fracture of unspecified ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.613C	Displaced fracture of unspecified ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.614A	Nondisplaced fracture of right ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.614B	Nondisplaced fracture of right ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.614C	Nondisplaced fracture of right ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.615A	Nondisplaced fracture of left ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.615B	Nondisplaced fracture of left ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.615C	Nondisplaced fracture of left ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.616A	Nondisplaced fracture of unspecified ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.616B	Nondisplaced fracture of unspecified ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.616C	Nondisplaced fracture of unspecified ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.621A	Torus fracture of lower end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.622A	Torus fracture of lower end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S52.629A	Torus fracture of lower end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.691A	Other fracture of lower end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.691B	Other fracture of lower end of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.691C	Other fracture of lower end of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.692A	Other fracture of lower end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.692B	Other fracture of lower end of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.692C	Other fracture of lower end of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.699A	Other fracture of lower end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.699B	Other fracture of lower end of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.699C	Other fracture of lower end of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.90XA	Unspecified fracture of unspecified forearm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.90XB	Unspecified fracture of unspecified forearm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.90XC	Unspecified fracture of unspecified forearm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.91XA	Unspecified fracture of right forearm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.91XB	Unspecified fracture of right forearm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.91XC	Unspecified fracture of right forearm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.92XA	Unspecified fracture of left forearm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.92XB	Unspecified fracture of left forearm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.92XC	Unspecified fracture of left forearm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S57.00XA	Crushing injury of unspecified elbow, initial encounter	Diagnosis	ICD-10-CM
S57.01XA	Crushing injury of right elbow, initial encounter	Diagnosis	ICD-10-CM
S57.02XA	Crushing injury of left elbow, initial encounter	Diagnosis	ICD-10-CM
S57.80XA	Crushing injury of unspecified forearm, initial encounter	Diagnosis	ICD-10-CM
S57.81XA	Crushing injury of right forearm, initial encounter	Diagnosis	ICD-10-CM
S57.82XA	Crushing injury of left forearm, initial encounter	Diagnosis	ICD-10-CM
S59.001A	Unspecified physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.002A	Unspecified physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.009A	Unspecified physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S59.011A	Salter-Harris Type I physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.012A	Salter-Harris Type I physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.019A	Salter-Harris Type I physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.021A	Salter-Harris Type II physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.022A	Salter-Harris Type II physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.029A	Salter-Harris Type II physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.031A	Salter-Harris Type III physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.032A	Salter-Harris Type III physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.039A	Salter-Harris Type III physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.041A	Salter-Harris Type IV physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.042A	Salter-Harris Type IV physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.049A	Salter-Harris Type IV physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.091A	Other physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.092A	Other physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.099A	Other physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.101A	Unspecified physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.102A	Unspecified physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.109A	Unspecified physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.111A	Salter-Harris Type I physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.112A	Salter-Harris Type I physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.119A	Salter-Harris Type I physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.121A	Salter-Harris Type II physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S59.122A	Salter-Harris Type II physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.129A	Salter-Harris Type II physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.131A	Salter-Harris Type III physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.132A	Salter-Harris Type III physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.139A	Salter-Harris Type III physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.141A	Salter-Harris Type IV physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.142A	Salter-Harris Type IV physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.149A	Salter-Harris Type IV physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.191A	Other physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.192A	Other physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.199A	Other physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.201A	Unspecified physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.202A	Unspecified physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.209A	Unspecified physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.211A	Salter-Harris Type I physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.212A	Salter-Harris Type I physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.219A	Salter-Harris Type I physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.221A	Salter-Harris Type II physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.222A	Salter-Harris Type II physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.229A	Salter-Harris Type II physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.231A	Salter-Harris Type III physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.232A	Salter-Harris Type III physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S59.239A	Salter-Harris Type III physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.241A	Salter-Harris Type IV physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.242A	Salter-Harris Type IV physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.249A	Salter-Harris Type IV physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.291A	Other physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.292A	Other physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.299A	Other physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S62.90XA	Unspecified fracture of unspecified wrist and hand, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S62.90XB	Unspecified fracture of unspecified wrist and hand, initial encounter for open fracture	Diagnosis	ICD-10-CM
S67.00XA	Crushing injury of unspecified thumb, initial encounter	Diagnosis	ICD-10-CM
S67.01XA	Crushing injury of right thumb, initial encounter	Diagnosis	ICD-10-CM
S67.02XA	Crushing injury of left thumb, initial encounter	Diagnosis	ICD-10-CM
S67.10XA	Crushing injury of unspecified finger(s), initial encounter	Diagnosis	ICD-10-CM
S67.190A	Crushing injury of right index finger, initial encounter	Diagnosis	ICD-10-CM
S67.191A	Crushing injury of left index finger, initial encounter	Diagnosis	ICD-10-CM
S67.192A	Crushing injury of right middle finger, initial encounter	Diagnosis	ICD-10-CM
S67.193A	Crushing injury of left middle finger, initial encounter	Diagnosis	ICD-10-CM
S67.194A	Crushing injury of right ring finger, initial encounter	Diagnosis	ICD-10-CM
S67.195A	Crushing injury of left ring finger, initial encounter	Diagnosis	ICD-10-CM
S67.196A	Crushing injury of right little finger, initial encounter	Diagnosis	ICD-10-CM
S67.197A	Crushing injury of left little finger, initial encounter	Diagnosis	ICD-10-CM
S67.198A	Crushing injury of other finger, initial encounter	Diagnosis	ICD-10-CM
S67.20XA	Crushing injury of unspecified hand, initial encounter	Diagnosis	ICD-10-CM
S67.21XA	Crushing injury of right hand, initial encounter	Diagnosis	ICD-10-CM
S67.22XA	Crushing injury of left hand, initial encounter	Diagnosis	ICD-10-CM
S67.30XA	Crushing injury of unspecified wrist, initial encounter	Diagnosis	ICD-10-CM
S67.31XA	Crushing injury of right wrist, initial encounter	Diagnosis	ICD-10-CM
S67.32XA	Crushing injury of left wrist, initial encounter	Diagnosis	ICD-10-CM
S67.40XA	Crushing injury of unspecified wrist and hand, initial encounter	Diagnosis	ICD-10-CM
S67.41XA	Crushing injury of right wrist and hand, initial encounter	Diagnosis	ICD-10-CM
S67.42XA	Crushing injury of left wrist and hand, initial encounter	Diagnosis	ICD-10-CM
S67.90XA	Crushing injury of unspecified part(s) of unspecified wrist, hand and fingers, initial encounter	Diagnosis	ICD-10-CM
S67.91XA	Crushing injury of unspecified part(s) of right wrist, hand and fingers, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S67.92XA	Crushing injury of unspecified part(s) of left wrist, hand and fingers, initial encounter	Diagnosis	ICD-10-CM
S72.001A	Fracture of unspecified part of neck of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.001B	Fracture of unspecified part of neck of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.001C	Fracture of unspecified part of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.002A	Fracture of unspecified part of neck of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.002B	Fracture of unspecified part of neck of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.002C	Fracture of unspecified part of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.009A	Fracture of unspecified part of neck of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.009B	Fracture of unspecified part of neck of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.009C	Fracture of unspecified part of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.011A	Unspecified intracapsular fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.011B	Unspecified intracapsular fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.011C	Unspecified intracapsular fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.012A	Unspecified intracapsular fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.012B	Unspecified intracapsular fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.012C	Unspecified intracapsular fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.019A	Unspecified intracapsular fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.019B	Unspecified intracapsular fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.019C	Unspecified intracapsular fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.021A	Displaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.021B	Displaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.021C	Displaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.022A	Displaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.022B	Displaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.022C	Displaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.023A	Displaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.023B	Displaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.023C	Displaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.024A	Nondisplaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.024B	Nondisplaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.024C	Nondisplaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.025A	Nondisplaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.025B	Nondisplaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.025C	Nondisplaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.026A	Nondisplaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.026B	Nondisplaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.026C	Nondisplaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.031A	Displaced midcervical fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.031B	Displaced midcervical fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.031C	Displaced midcervical fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.032A	Displaced midcervical fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.032B	Displaced midcervical fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.032C	Displaced midcervical fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.033A	Displaced midcervical fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.033B	Displaced midcervical fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.033C	Displaced midcervical fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.034A	Nondisplaced midcervical fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.034B	Nondisplaced midcervical fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.034C	Nondisplaced midcervical fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.035A	Nondisplaced midcervical fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.035B	Nondisplaced midcervical fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.035C	Nondisplaced midcervical fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.036A	Nondisplaced midcervical fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.036B	Nondisplaced midcervical fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.036C	Nondisplaced midcervical fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.041A	Displaced fracture of base of neck of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.041B	Displaced fracture of base of neck of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.041C	Displaced fracture of base of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.042A	Displaced fracture of base of neck of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.042B	Displaced fracture of base of neck of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.042C	Displaced fracture of base of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.043A	Displaced fracture of base of neck of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.043B	Displaced fracture of base of neck of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.043C	Displaced fracture of base of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.044A	Nondisplaced fracture of base of neck of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.044B	Nondisplaced fracture of base of neck of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.044C	Nondisplaced fracture of base of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.045A	Nondisplaced fracture of base of neck of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.045B	Nondisplaced fracture of base of neck of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.045C	Nondisplaced fracture of base of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.046A	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.046B	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.046C	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.051A	Unspecified fracture of head of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.051B	Unspecified fracture of head of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.051C	Unspecified fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.052A	Unspecified fracture of head of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.052B	Unspecified fracture of head of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.052C	Unspecified fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.059A	Unspecified fracture of head of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.059B	Unspecified fracture of head of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.059C	Unspecified fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.061A	Displaced articular fracture of head of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.061B	Displaced articular fracture of head of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.061C	Displaced articular fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.062A	Displaced articular fracture of head of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.062B	Displaced articular fracture of head of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.062C	Displaced articular fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.063A	Displaced articular fracture of head of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.063B	Displaced articular fracture of head of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.063C	Displaced articular fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.064A	Nondisplaced articular fracture of head of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.064B	Nondisplaced articular fracture of head of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.064C	Nondisplaced articular fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.065A	Nondisplaced articular fracture of head of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.065B	Nondisplaced articular fracture of head of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.065C	Nondisplaced articular fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.066A	Nondisplaced articular fracture of head of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.066B	Nondisplaced articular fracture of head of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.066C	Nondisplaced articular fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.091A	Other fracture of head and neck of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.091B	Other fracture of head and neck of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.091C	Other fracture of head and neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.092A	Other fracture of head and neck of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.092B	Other fracture of head and neck of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.092C	Other fracture of head and neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.099A	Other fracture of head and neck of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.099B	Other fracture of head and neck of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.099C	Other fracture of head and neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.101A	Unspecified trochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.101B	Unspecified trochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.101C	Unspecified trochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.102A	Unspecified trochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.102B	Unspecified trochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.102C	Unspecified trochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.109A	Unspecified trochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.109B	Unspecified trochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.109C	Unspecified trochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.111A	Displaced fracture of greater trochanter of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.111B	Displaced fracture of greater trochanter of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.111C	Displaced fracture of greater trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.112A	Displaced fracture of greater trochanter of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.112B	Displaced fracture of greater trochanter of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.112C	Displaced fracture of greater trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.113A	Displaced fracture of greater trochanter of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.113B	Displaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.113C	Displaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.114A	Nondisplaced fracture of greater trochanter of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.114B	Nondisplaced fracture of greater trochanter of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.114C	Nondisplaced fracture of greater trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.115A	Nondisplaced fracture of greater trochanter of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.115B	Nondisplaced fracture of greater trochanter of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.115C	Nondisplaced fracture of greater trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.116A	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.116B	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.116C	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.121A	Displaced fracture of lesser trochanter of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.121B	Displaced fracture of lesser trochanter of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.121C	Displaced fracture of lesser trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.122A	Displaced fracture of lesser trochanter of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.122B	Displaced fracture of lesser trochanter of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.122C	Displaced fracture of lesser trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.123A	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.123B	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.123C	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.124A	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.124B	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.124C	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.125A	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.125B	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.125C	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.126A	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.126B	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.126C	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.131A	Displaced apophyseal fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.131B	Displaced apophyseal fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.131C	Displaced apophyseal fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.132A	Displaced apophyseal fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.132B	Displaced apophyseal fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.132C	Displaced apophyseal fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.133A	Displaced apophyseal fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.133B	Displaced apophyseal fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.133C	Displaced apophyseal fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.134A	Nondisplaced apophyseal fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.134B	Nondisplaced apophyseal fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.134C	Nondisplaced apophyseal fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.135A	Nondisplaced apophyseal fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.135B	Nondisplaced apophyseal fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.135C	Nondisplaced apophyseal fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.136A	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.136B	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.136C	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.141A	Displaced intertrochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.141B	Displaced intertrochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.141C	Displaced intertrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.142A	Displaced intertrochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.142B	Displaced intertrochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.142C	Displaced intertrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.143A	Displaced intertrochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.143B	Displaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.143C	Displaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.144A	Nondisplaced intertrochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.144B	Nondisplaced intertrochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.144C	Nondisplaced intertrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.145A	Nondisplaced intertrochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.145B	Nondisplaced intertrochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.145C	Nondisplaced intertrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.146A	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.146B	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.146C	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.21XA	Displaced subtrochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.21XB	Displaced subtrochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.21XC	Displaced subtrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.22XA	Displaced subtrochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.22XB	Displaced subtrochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.22XC	Displaced subtrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.23XA	Displaced subtrochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.23XB	Displaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.23XC	Displaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.24XA	Nondisplaced subtrochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.24XB	Nondisplaced subtrochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.24XC	Nondisplaced subtrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.25XA	Nondisplaced subtrochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.25XB	Nondisplaced subtrochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.25XC	Nondisplaced subtrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.26XA	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.26XB	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.26XC	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.301A	Unspecified fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.301B	Unspecified fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.301C	Unspecified fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.302A	Unspecified fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.302B	Unspecified fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.302C	Unspecified fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.309A	Unspecified fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.309B	Unspecified fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.309C	Unspecified fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.321A	Displaced transverse fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.321B	Displaced transverse fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.321C	Displaced transverse fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.322A	Displaced transverse fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.322B	Displaced transverse fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.322C	Displaced transverse fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.323A	Displaced transverse fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.323B	Displaced transverse fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.323C	Displaced transverse fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.324A	Nondisplaced transverse fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.324B	Nondisplaced transverse fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.324C	Nondisplaced transverse fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.325A	Nondisplaced transverse fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.325B	Nondisplaced transverse fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.325C	Nondisplaced transverse fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.326A	Nondisplaced transverse fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.326B	Nondisplaced transverse fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.326C	Nondisplaced transverse fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.331A	Displaced oblique fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.331B	Displaced oblique fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.331C	Displaced oblique fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.332A	Displaced oblique fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.332B	Displaced oblique fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.332C	Displaced oblique fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.333A	Displaced oblique fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.333B	Displaced oblique fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.333C	Displaced oblique fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.334A	Nondisplaced oblique fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.334B	Nondisplaced oblique fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.334C	Nondisplaced oblique fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.335A	Nondisplaced oblique fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.335B	Nondisplaced oblique fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.335C	Nondisplaced oblique fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.336A	Nondisplaced oblique fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.336B	Nondisplaced oblique fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.336C	Nondisplaced oblique fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.341A	Displaced spiral fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.341B	Displaced spiral fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.341C	Displaced spiral fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.342A	Displaced spiral fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.342B	Displaced spiral fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.342C	Displaced spiral fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.343A	Displaced spiral fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.343B	Displaced spiral fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.343C	Displaced spiral fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.344A	Nondisplaced spiral fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.344B	Nondisplaced spiral fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.344C	Nondisplaced spiral fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.345A	Nondisplaced spiral fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.345B	Nondisplaced spiral fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.345C	Nondisplaced spiral fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.346A	Nondisplaced spiral fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.346B	Nondisplaced spiral fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.346C	Nondisplaced spiral fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.351A	Displaced comminuted fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.351B	Displaced comminuted fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.351C	Displaced comminuted fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.352A	Displaced comminuted fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.352B	Displaced comminuted fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.352C	Displaced comminuted fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.353A	Displaced comminuted fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.353B	Displaced comminuted fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.353C	Displaced comminuted fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.354A	Nondisplaced comminuted fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.354B	Nondisplaced comminuted fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.354C	Nondisplaced comminuted fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.355A	Nondisplaced comminuted fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.355B	Nondisplaced comminuted fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.355C	Nondisplaced comminuted fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.356A	Nondisplaced comminuted fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.356B	Nondisplaced comminuted fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.356C	Nondisplaced comminuted fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.361A	Displaced segmental fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.361B	Displaced segmental fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.361C	Displaced segmental fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.362A	Displaced segmental fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.362B	Displaced segmental fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.362C	Displaced segmental fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.363A	Displaced segmental fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.363B	Displaced segmental fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.363C	Displaced segmental fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.364A	Nondisplaced segmental fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.364B	Nondisplaced segmental fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.364C	Nondisplaced segmental fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.365A	Nondisplaced segmental fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.365B	Nondisplaced segmental fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.365C	Nondisplaced segmental fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.366A	Nondisplaced segmental fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.366B	Nondisplaced segmental fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.366C	Nondisplaced segmental fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.391A	Other fracture of shaft of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.391B	Other fracture of shaft of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.391C	Other fracture of shaft of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.392A	Other fracture of shaft of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.392B	Other fracture of shaft of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.392C	Other fracture of shaft of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.399A	Other fracture of shaft of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.399B	Other fracture of shaft of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.399C	Other fracture of shaft of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.401A	Unspecified fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.401B	Unspecified fracture of lower end of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.401C	Unspecified fracture of lower end of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.402A	Unspecified fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.402B	Unspecified fracture of lower end of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.402C	Unspecified fracture of lower end of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.409A	Unspecified fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.409B	Unspecified fracture of lower end of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.409C	Unspecified fracture of lower end of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.411A	Displaced unspecified condyle fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.411B	Displaced unspecified condyle fracture of lower end of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.411C	Displaced unspecified condyle fracture of lower end of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.412A	Displaced unspecified condyle fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.412B	Displaced unspecified condyle fracture of lower end of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.412C	Displaced unspecified condyle fracture of lower end of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.413A	Displaced unspecified condyle fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.413B	Displaced unspecified condyle fracture of lower end of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.413C	Displaced unspecified condyle fracture of lower end of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.414A	Nondisplaced unspecified condyle fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.414B	Nondisplaced unspecified condyle fracture of lower end of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.414C	Nondisplaced unspecified condyle fracture of lower end of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.415A	Nondisplaced unspecified condyle fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.415B	Nondisplaced unspecified condyle fracture of lower end of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.415C	Nondisplaced unspecified condyle fracture of lower end of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.416A	Nondisplaced unspecified condyle fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.416B	Nondisplaced unspecified condyle fracture of lower end of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.416C	Nondisplaced unspecified condyle fracture of lower end of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.421A	Displaced fracture of lateral condyle of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.421B	Displaced fracture of lateral condyle of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.421C	Displaced fracture of lateral condyle of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.422A	Displaced fracture of lateral condyle of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.422B	Displaced fracture of lateral condyle of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.422C	Displaced fracture of lateral condyle of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.423A	Displaced fracture of lateral condyle of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.423B	Displaced fracture of lateral condyle of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.423C	Displaced fracture of lateral condyle of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.424A	Nondisplaced fracture of lateral condyle of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.424B	Nondisplaced fracture of lateral condyle of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.424C	Nondisplaced fracture of lateral condyle of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.425A	Nondisplaced fracture of lateral condyle of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.425B	Nondisplaced fracture of lateral condyle of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.425C	Nondisplaced fracture of lateral condyle of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.426A	Nondisplaced fracture of lateral condyle of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.426B	Nondisplaced fracture of lateral condyle of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.426C	Nondisplaced fracture of lateral condyle of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.431A	Displaced fracture of medial condyle of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.431B	Displaced fracture of medial condyle of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.431C	Displaced fracture of medial condyle of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.432A	Displaced fracture of medial condyle of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.432B	Displaced fracture of medial condyle of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.432C	Displaced fracture of medial condyle of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.433A	Displaced fracture of medial condyle of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.433B	Displaced fracture of medial condyle of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.433C	Displaced fracture of medial condyle of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.434A	Nondisplaced fracture of medial condyle of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.434B	Nondisplaced fracture of medial condyle of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.434C	Nondisplaced fracture of medial condyle of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.435A	Nondisplaced fracture of medial condyle of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.435B	Nondisplaced fracture of medial condyle of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.435C	Nondisplaced fracture of medial condyle of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.436A	Nondisplaced fracture of medial condyle of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.436B	Nondisplaced fracture of medial condyle of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.436C	Nondisplaced fracture of medial condyle of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.441A	Displaced fracture of lower epiphysis (separation) of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.441B	Displaced fracture of lower epiphysis (separation) of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.441C	Displaced fracture of lower epiphysis (separation) of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.442A	Displaced fracture of lower epiphysis (separation) of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.442B	Displaced fracture of lower epiphysis (separation) of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.442C	Displaced fracture of lower epiphysis (separation) of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.443A	Displaced fracture of lower epiphysis (separation) of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.443B	Displaced fracture of lower epiphysis (separation) of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.443C	Displaced fracture of lower epiphysis (separation) of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.444A	Nondisplaced fracture of lower epiphysis (separation) of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.444B	Nondisplaced fracture of lower epiphysis (separation) of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.444C	Nondisplaced fracture of lower epiphysis (separation) of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.445A	Nondisplaced fracture of lower epiphysis (separation) of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.445B	Nondisplaced fracture of lower epiphysis (separation) of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.445C	Nondisplaced fracture of lower epiphysis (separation) of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.446A	Nondisplaced fracture of lower epiphysis (separation) of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.446B	Nondisplaced fracture of lower epiphysis (separation) of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.446C	Nondisplaced fracture of lower epiphysis (separation) of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.451A	Displaced supracondylar fracture without intracondylar extension of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.451B	Displaced supracondylar fracture without intracondylar extension of lower end of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.451C	Displaced supracondylar fracture without intracondylar extension of lower end of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.452A	Displaced supracondylar fracture without intracondylar extension of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.452B	Displaced supracondylar fracture without intracondylar extension of lower end of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.452C	Displaced supracondylar fracture without intracondylar extension of lower end of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.453A	Displaced supracondylar fracture without intracondylar extension of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.453B	Displaced supracondylar fracture without intracondylar extension of lower end of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.453C	Displaced supracondylar fracture without intracondylar extension of lower end of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.454A	Nondisplaced supracondylar fracture without intracondylar extension of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.454B	Nondisplaced supracondylar fracture without intracondylar extension of lower end of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.454C	Nondisplaced supracondylar fracture without intracondylar extension of lower end of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.455A	Nondisplaced supracondylar fracture without intracondylar extension of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.455B	Nondisplaced supracondylar fracture without intracondylar extension of lower end of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.455C	Nondisplaced supracondylar fracture without intracondylar extension of lower end of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.456A	Nondisplaced supracondylar fracture without intracondylar extension of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.456B	Nondisplaced supracondylar fracture without intracondylar extension of lower end of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.456C	Nondisplaced supracondylar fracture without intracondylar extension of lower end of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.461A	Displaced supracondylar fracture with intracondylar extension of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.461B	Displaced supracondylar fracture with intracondylar extension of lower end of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.461C	Displaced supracondylar fracture with intracondylar extension of lower end of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.462A	Displaced supracondylar fracture with intracondylar extension of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.462B	Displaced supracondylar fracture with intracondylar extension of lower end of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.462C	Displaced supracondylar fracture with intracondylar extension of lower end of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.463A	Displaced supracondylar fracture with intracondylar extension of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.463B	Displaced supracondylar fracture with intracondylar extension of lower end of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.463C	Displaced supracondylar fracture with intracondylar extension of lower end of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.464A	Nondisplaced supracondylar fracture with intracondylar extension of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.464B	Nondisplaced supracondylar fracture with intracondylar extension of lower end of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.464C	Nondisplaced supracondylar fracture with intracondylar extension of lower end of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.465A	Nondisplaced supracondylar fracture with intracondylar extension of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.465B	Nondisplaced supracondylar fracture with intracondylar extension of lower end of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.465C	Nondisplaced supracondylar fracture with intracondylar extension of lower end of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.466A	Nondisplaced supracondylar fracture with intracondylar extension of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.466B	Nondisplaced supracondylar fracture with intracondylar extension of lower end of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.466C	Nondisplaced supracondylar fracture with intracondylar extension of lower end of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.471A	Torus fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.472A	Torus fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.479A	Torus fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.491A	Other fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.491B	Other fracture of lower end of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.491C	Other fracture of lower end of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.492A	Other fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.492B	Other fracture of lower end of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.492C	Other fracture of lower end of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.499A	Other fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.499B	Other fracture of lower end of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.499C	Other fracture of lower end of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.8X1A	Other fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.8X1B	Other fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.8X1C	Other fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.8X2A	Other fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.8X2B	Other fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.8X2C	Other fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.8X9A	Other fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.8X9B	Other fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S72.8X9C	Other fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.90XA	Unspecified fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.90XB	Unspecified fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.90XC	Unspecified fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.90XE	Unspecified fracture of unspecified femur, subsequent encounter for open fracture type I or II with routine healing	Diagnosis	ICD-10-CM
S72.91XA	Unspecified fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.91XB	Unspecified fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.91XC	Unspecified fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.91XE	Unspecified fracture of right femur, subsequent encounter for open fracture type I or II with routine healing	Diagnosis	ICD-10-CM
S72.92XA	Unspecified fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.92XB	Unspecified fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.92XC	Unspecified fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.92XE	Unspecified fracture of left femur, subsequent encounter for open fracture type I or II with routine healing	Diagnosis	ICD-10-CM
S77.00XA	Crushing injury of unspecified hip, initial encounter	Diagnosis	ICD-10-CM
S77.01XA	Crushing injury of right hip, initial encounter	Diagnosis	ICD-10-CM
S77.02XA	Crushing injury of left hip, initial encounter	Diagnosis	ICD-10-CM
S77.10XA	Crushing injury of unspecified thigh, initial encounter	Diagnosis	ICD-10-CM
S77.11XA	Crushing injury of right thigh, initial encounter	Diagnosis	ICD-10-CM
S77.12XA	Crushing injury of left thigh, initial encounter	Diagnosis	ICD-10-CM
S77.20XA	Crushing injury of unspecified hip with thigh, initial encounter	Diagnosis	ICD-10-CM
S77.21XA	Crushing injury of right hip with thigh, initial encounter	Diagnosis	ICD-10-CM
S77.22XA	Crushing injury of left hip with thigh, initial encounter	Diagnosis	ICD-10-CM
S79.001A	Unspecified physeal fracture of upper end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.002A	Unspecified physeal fracture of upper end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.009A	Unspecified physeal fracture of upper end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.011A	Salter-Harris Type I physeal fracture of upper end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.012A	Salter-Harris Type I physeal fracture of upper end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.019A	Salter-Harris Type I physeal fracture of upper end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.091A	Other physeal fracture of upper end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S79.092A	Other physeal fracture of upper end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.099A	Other physeal fracture of upper end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.101A	Unspecified physeal fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.102A	Unspecified physeal fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.109A	Unspecified physeal fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.111A	Salter-Harris Type I physeal fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.112A	Salter-Harris Type I physeal fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.119A	Salter-Harris Type I physeal fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.121A	Salter-Harris Type II physeal fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.122A	Salter-Harris Type II physeal fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.129A	Salter-Harris Type II physeal fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.131A	Salter-Harris Type III physeal fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.132A	Salter-Harris Type III physeal fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.139A	Salter-Harris Type III physeal fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.141A	Salter-Harris Type IV physeal fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.142A	Salter-Harris Type IV physeal fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.149A	Salter-Harris Type IV physeal fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.191A	Other physeal fracture of lower end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.192A	Other physeal fracture of lower end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.199A	Other physeal fracture of lower end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.001A	Unspecified fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.001B	Unspecified fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.001C	Unspecified fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.002A	Unspecified fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.002B	Unspecified fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.002C	Unspecified fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.009A	Unspecified fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.009B	Unspecified fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.009C	Unspecified fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.011A	Displaced osteochondral fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.011B	Displaced osteochondral fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.011C	Displaced osteochondral fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.012A	Displaced osteochondral fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.012B	Displaced osteochondral fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.012C	Displaced osteochondral fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.013A	Displaced osteochondral fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.013B	Displaced osteochondral fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.013C	Displaced osteochondral fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.014A	Nondisplaced osteochondral fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.014B	Nondisplaced osteochondral fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.014C	Nondisplaced osteochondral fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.015A	Nondisplaced osteochondral fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.015B	Nondisplaced osteochondral fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.015C	Nondisplaced osteochondral fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.016A	Nondisplaced osteochondral fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.016B	Nondisplaced osteochondral fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.016C	Nondisplaced osteochondral fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.021A	Displaced longitudinal fracture of right patella, initial encounter for closed	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.021B	Displaced longitudinal fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.021C	Displaced longitudinal fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.022A	Displaced longitudinal fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.022B	Displaced longitudinal fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.022C	Displaced longitudinal fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.023A	Displaced longitudinal fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.023B	Displaced longitudinal fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.023C	Displaced longitudinal fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.024A	Nondisplaced longitudinal fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.024B	Nondisplaced longitudinal fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.024C	Nondisplaced longitudinal fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.025A	Nondisplaced longitudinal fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.025B	Nondisplaced longitudinal fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.025C	Nondisplaced longitudinal fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.026A	Nondisplaced longitudinal fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.026B	Nondisplaced longitudinal fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.026C	Nondisplaced longitudinal fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.031A	Displaced transverse fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.031B	Displaced transverse fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.031C	Displaced transverse fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.032A	Displaced transverse fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.032B	Displaced transverse fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.032C	Displaced transverse fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.033A	Displaced transverse fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.033B	Displaced transverse fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.033C	Displaced transverse fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.034A	Nondisplaced transverse fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.034B	Nondisplaced transverse fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.034C	Nondisplaced transverse fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.035A	Nondisplaced transverse fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.035B	Nondisplaced transverse fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.035C	Nondisplaced transverse fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.036A	Nondisplaced transverse fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.036B	Nondisplaced transverse fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.036C	Nondisplaced transverse fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.041A	Displaced comminuted fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.041B	Displaced comminuted fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.041C	Displaced comminuted fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.042A	Displaced comminuted fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.042B	Displaced comminuted fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.042C	Displaced comminuted fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.043A	Displaced comminuted fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.043B	Displaced comminuted fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.043C	Displaced comminuted fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.044A	Nondisplaced comminuted fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.044B	Nondisplaced comminuted fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.044C	Nondisplaced comminuted fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.045A	Nondisplaced comminuted fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.045B	Nondisplaced comminuted fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.045C	Nondisplaced comminuted fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.046A	Nondisplaced comminuted fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.046B	Nondisplaced comminuted fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.046C	Nondisplaced comminuted fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.091A	Other fracture of right patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.091B	Other fracture of right patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.091C	Other fracture of right patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.092A	Other fracture of left patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.092B	Other fracture of left patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.092C	Other fracture of left patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.099A	Other fracture of unspecified patella, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.099B	Other fracture of unspecified patella, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.099C	Other fracture of unspecified patella, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.101A	Unspecified fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.101B	Unspecified fracture of upper end of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.101C	Unspecified fracture of upper end of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.102A	Unspecified fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.102B	Unspecified fracture of upper end of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.102C	Unspecified fracture of upper end of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.109A	Unspecified fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.109B	Unspecified fracture of upper end of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.109C	Unspecified fracture of upper end of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.111A	Displaced fracture of right tibial spine, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.111B	Displaced fracture of right tibial spine, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.111C	Displaced fracture of right tibial spine, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.112A	Displaced fracture of left tibial spine, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.112B	Displaced fracture of left tibial spine, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.112C	Displaced fracture of left tibial spine, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.113A	Displaced fracture of unspecified tibial spine, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.113B	Displaced fracture of unspecified tibial spine, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.113C	Displaced fracture of unspecified tibial spine, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.114A	Nondisplaced fracture of right tibial spine, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.114B	Nondisplaced fracture of right tibial spine, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.114C	Nondisplaced fracture of right tibial spine, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.115A	Nondisplaced fracture of left tibial spine, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.115B	Nondisplaced fracture of left tibial spine, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.115C	Nondisplaced fracture of left tibial spine, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.116A	Nondisplaced fracture of unspecified tibial spine, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.116B	Nondisplaced fracture of unspecified tibial spine, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.116C	Nondisplaced fracture of unspecified tibial spine, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.121A	Displaced fracture of lateral condyle of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.121B	Displaced fracture of lateral condyle of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.121C	Displaced fracture of lateral condyle of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.122A	Displaced fracture of lateral condyle of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.122B	Displaced fracture of lateral condyle of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.122C	Displaced fracture of lateral condyle of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.123A	Displaced fracture of lateral condyle of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.123B	Displaced fracture of lateral condyle of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.123C	Displaced fracture of lateral condyle of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.124A	Nondisplaced fracture of lateral condyle of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.124B	Nondisplaced fracture of lateral condyle of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.124C	Nondisplaced fracture of lateral condyle of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.125A	Nondisplaced fracture of lateral condyle of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.125B	Nondisplaced fracture of lateral condyle of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.125C	Nondisplaced fracture of lateral condyle of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.126A	Nondisplaced fracture of lateral condyle of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.126B	Nondisplaced fracture of lateral condyle of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.126C	Nondisplaced fracture of lateral condyle of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.131A	Displaced fracture of medial condyle of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.131B	Displaced fracture of medial condyle of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.131C	Displaced fracture of medial condyle of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.132A	Displaced fracture of medial condyle of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.132B	Displaced fracture of medial condyle of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.132C	Displaced fracture of medial condyle of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.133A	Displaced fracture of medial condyle of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.133B	Displaced fracture of medial condyle of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.133C	Displaced fracture of medial condyle of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.134A	Nondisplaced fracture of medial condyle of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.134B	Nondisplaced fracture of medial condyle of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.134C	Nondisplaced fracture of medial condyle of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.135A	Nondisplaced fracture of medial condyle of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.135B	Nondisplaced fracture of medial condyle of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.135C	Nondisplaced fracture of medial condyle of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.136A	Nondisplaced fracture of medial condyle of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.136B	Nondisplaced fracture of medial condyle of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.136C	Nondisplaced fracture of medial condyle of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.141A	Displaced bicondylar fracture of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.141B	Displaced bicondylar fracture of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.141C	Displaced bicondylar fracture of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.142A	Displaced bicondylar fracture of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.142B	Displaced bicondylar fracture of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.142C	Displaced bicondylar fracture of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.143A	Displaced bicondylar fracture of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.143B	Displaced bicondylar fracture of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.143C	Displaced bicondylar fracture of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.144A	Nondisplaced bicondylar fracture of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.144B	Nondisplaced bicondylar fracture of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.144C	Nondisplaced bicondylar fracture of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.145A	Nondisplaced bicondylar fracture of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.145B	Nondisplaced bicondylar fracture of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.145C	Nondisplaced bicondylar fracture of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.146A	Nondisplaced bicondylar fracture of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.146B	Nondisplaced bicondylar fracture of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.146C	Nondisplaced bicondylar fracture of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.151A	Displaced fracture of right tibial tuberosity, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.151B	Displaced fracture of right tibial tuberosity, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.151C	Displaced fracture of right tibial tuberosity, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.152A	Displaced fracture of left tibial tuberosity, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.152B	Displaced fracture of left tibial tuberosity, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.152C	Displaced fracture of left tibial tuberosity, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.153A	Displaced fracture of unspecified tibial tuberosity, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.153B	Displaced fracture of unspecified tibial tuberosity, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.153C	Displaced fracture of unspecified tibial tuberosity, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.154A	Nondisplaced fracture of right tibial tuberosity, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.154B	Nondisplaced fracture of right tibial tuberosity, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.154C	Nondisplaced fracture of right tibial tuberosity, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.155A	Nondisplaced fracture of left tibial tuberosity, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.155B	Nondisplaced fracture of left tibial tuberosity, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.155C	Nondisplaced fracture of left tibial tuberosity, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.156A	Nondisplaced fracture of unspecified tibial tuberosity, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.156B	Nondisplaced fracture of unspecified tibial tuberosity, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.156C	Nondisplaced fracture of unspecified tibial tuberosity, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.161A	Torus fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.162A	Torus fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.169A	Torus fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.191A	Other fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.191B	Other fracture of upper end of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.191C	Other fracture of upper end of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.192A	Other fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.192B	Other fracture of upper end of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.192C	Other fracture of upper end of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.199A	Other fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.199B	Other fracture of upper end of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.199C	Other fracture of upper end of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.201A	Unspecified fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.201B	Unspecified fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.201C	Unspecified fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.202A	Unspecified fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.202B	Unspecified fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.202C	Unspecified fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.209A	Unspecified fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.209B	Unspecified fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.209C	Unspecified fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.221A	Displaced transverse fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.221B	Displaced transverse fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.221C	Displaced transverse fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.222A	Displaced transverse fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.222B	Displaced transverse fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.222C	Displaced transverse fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.223A	Displaced transverse fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.223B	Displaced transverse fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.223C	Displaced transverse fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.224A	Nondisplaced transverse fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.224B	Nondisplaced transverse fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.224C	Nondisplaced transverse fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.225A	Nondisplaced transverse fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.225B	Nondisplaced transverse fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.225C	Nondisplaced transverse fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.226A	Nondisplaced transverse fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.226B	Nondisplaced transverse fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.226C	Nondisplaced transverse fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.231A	Displaced oblique fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.231B	Displaced oblique fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.231C	Displaced oblique fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.232A	Displaced oblique fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.232B	Displaced oblique fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.232C	Displaced oblique fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.233A	Displaced oblique fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.233B	Displaced oblique fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.233C	Displaced oblique fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.234A	Nondisplaced oblique fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.234B	Nondisplaced oblique fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.234C	Nondisplaced oblique fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.235A	Nondisplaced oblique fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.235B	Nondisplaced oblique fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.235C	Nondisplaced oblique fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.236A	Nondisplaced oblique fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.236B	Nondisplaced oblique fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.236C	Nondisplaced oblique fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.241A	Displaced spiral fracture of shaft of right tibia, initial encounter for closed	Diagnosis	ICD-10-CM
S82.241B	Displaced spiral fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.241C	Displaced spiral fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.242A	Displaced spiral fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.242B	Displaced spiral fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.242C	Displaced spiral fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.243A	Displaced spiral fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.243B	Displaced spiral fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.243C	Displaced spiral fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.244A	Nondisplaced spiral fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.244B	Nondisplaced spiral fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.244C	Nondisplaced spiral fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.245A	Nondisplaced spiral fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.245B	Nondisplaced spiral fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.245C	Nondisplaced spiral fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.246A	Nondisplaced spiral fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.246B	Nondisplaced spiral fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.246C	Nondisplaced spiral fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.251A	Displaced comminuted fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.251B	Displaced comminuted fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.251C	Displaced comminuted fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.252A	Displaced comminuted fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.252B	Displaced comminuted fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.252C	Displaced comminuted fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.253A	Displaced comminuted fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.253B	Displaced comminuted fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.253C	Displaced comminuted fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.254A	Nondisplaced comminuted fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.254B	Nondisplaced comminuted fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.254C	Nondisplaced comminuted fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.255A	Nondisplaced comminuted fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.255B	Nondisplaced comminuted fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.255C	Nondisplaced comminuted fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.256A	Nondisplaced comminuted fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.256B	Nondisplaced comminuted fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.256C	Nondisplaced comminuted fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.261A	Displaced segmental fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.261B	Displaced segmental fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.261C	Displaced segmental fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.262A	Displaced segmental fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.262B	Displaced segmental fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.262C	Displaced segmental fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.263A	Displaced segmental fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.263B	Displaced segmental fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.263C	Displaced segmental fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.264A	Nondisplaced segmental fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.264B	Nondisplaced segmental fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.264C	Nondisplaced segmental fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.265A	Nondisplaced segmental fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.265B	Nondisplaced segmental fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.265C	Nondisplaced segmental fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.266A	Nondisplaced segmental fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.266B	Nondisplaced segmental fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.266C	Nondisplaced segmental fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.291A	Other fracture of shaft of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.291B	Other fracture of shaft of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.291C	Other fracture of shaft of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.292A	Other fracture of shaft of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.292B	Other fracture of shaft of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.292C	Other fracture of shaft of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.299A	Other fracture of shaft of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.299B	Other fracture of shaft of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.299C	Other fracture of shaft of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.301A	Unspecified fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.301B	Unspecified fracture of lower end of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.301C	Unspecified fracture of lower end of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.302A	Unspecified fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.302B	Unspecified fracture of lower end of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.302C	Unspecified fracture of lower end of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.309A	Unspecified fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.309B	Unspecified fracture of lower end of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.309C	Unspecified fracture of lower end of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.311A	Torus fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.312A	Torus fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.319A	Torus fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.391A	Other fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.391B	Other fracture of lower end of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.391C	Other fracture of lower end of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.392A	Other fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.392B	Other fracture of lower end of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.392C	Other fracture of lower end of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.399A	Other fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.399B	Other fracture of lower end of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.399C	Other fracture of lower end of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.401A	Unspecified fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.401B	Unspecified fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.401C	Unspecified fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.402A	Unspecified fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.402B	Unspecified fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.402C	Unspecified fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.409A	Unspecified fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.409B	Unspecified fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.409C	Unspecified fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.421A	Displaced transverse fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.421B	Displaced transverse fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.421C	Displaced transverse fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.422A	Displaced transverse fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.422B	Displaced transverse fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.422C	Displaced transverse fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.423A	Displaced transverse fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.423B	Displaced transverse fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.423C	Displaced transverse fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.424A	Nondisplaced transverse fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.424B	Nondisplaced transverse fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.424C	Nondisplaced transverse fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.425A	Nondisplaced transverse fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.425B	Nondisplaced transverse fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.425C	Nondisplaced transverse fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.426A	Nondisplaced transverse fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.426B	Nondisplaced transverse fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.426C	Nondisplaced transverse fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.431A	Displaced oblique fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.431B	Displaced oblique fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.431C	Displaced oblique fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.432A	Displaced oblique fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.432B	Displaced oblique fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.432C	Displaced oblique fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.433A	Displaced oblique fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.433B	Displaced oblique fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.433C	Displaced oblique fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.434A	Nondisplaced oblique fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.434B	Nondisplaced oblique fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.434C	Nondisplaced oblique fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.435A	Nondisplaced oblique fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.435B	Nondisplaced oblique fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.435C	Nondisplaced oblique fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.436A	Nondisplaced oblique fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.436B	Nondisplaced oblique fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.436C	Nondisplaced oblique fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.441A	Displaced spiral fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.441B	Displaced spiral fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.441C	Displaced spiral fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.442A	Displaced spiral fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.442B	Displaced spiral fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.442C	Displaced spiral fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.443A	Displaced spiral fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.443B	Displaced spiral fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.443C	Displaced spiral fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.444A	Nondisplaced spiral fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.444B	Nondisplaced spiral fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.444C	Nondisplaced spiral fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.445A	Nondisplaced spiral fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.445B	Nondisplaced spiral fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.445C	Nondisplaced spiral fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.446A	Nondisplaced spiral fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.446B	Nondisplaced spiral fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.446C	Nondisplaced spiral fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.451A	Displaced comminuted fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.451B	Displaced comminuted fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.451C	Displaced comminuted fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.452A	Displaced comminuted fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.452B	Displaced comminuted fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.452C	Displaced comminuted fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.453A	Displaced comminuted fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.453B	Displaced comminuted fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.453C	Displaced comminuted fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.454A	Nondisplaced comminuted fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.454B	Nondisplaced comminuted fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.454C	Nondisplaced comminuted fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.455A	Nondisplaced comminuted fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.455B	Nondisplaced comminuted fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.455C	Nondisplaced comminuted fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.456A	Nondisplaced comminuted fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.456B	Nondisplaced comminuted fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.456C	Nondisplaced comminuted fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.461A	Displaced segmental fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.461B	Displaced segmental fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.461C	Displaced segmental fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.462A	Displaced segmental fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.462B	Displaced segmental fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.462C	Displaced segmental fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.463A	Displaced segmental fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.463B	Displaced segmental fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.463C	Displaced segmental fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.464A	Nondisplaced segmental fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.464B	Nondisplaced segmental fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.464C	Nondisplaced segmental fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.465A	Nondisplaced segmental fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.465B	Nondisplaced segmental fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.465C	Nondisplaced segmental fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.466A	Nondisplaced segmental fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.466B	Nondisplaced segmental fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.466C	Nondisplaced segmental fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.491A	Other fracture of shaft of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.491B	Other fracture of shaft of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.491C	Other fracture of shaft of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.492A	Other fracture of shaft of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.492B	Other fracture of shaft of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.492C	Other fracture of shaft of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.499A	Other fracture of shaft of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.499B	Other fracture of shaft of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.499C	Other fracture of shaft of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.51XA	Displaced fracture of medial malleolus of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.51XB	Displaced fracture of medial malleolus of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.51XC	Displaced fracture of medial malleolus of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.52XA	Displaced fracture of medial malleolus of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.52XB	Displaced fracture of medial malleolus of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.52XC	Displaced fracture of medial malleolus of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.53XA	Displaced fracture of medial malleolus of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.53XB	Displaced fracture of medial malleolus of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.53XC	Displaced fracture of medial malleolus of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.54XA	Nondisplaced fracture of medial malleolus of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.54XB	Nondisplaced fracture of medial malleolus of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.54XC	Nondisplaced fracture of medial malleolus of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.55XA	Nondisplaced fracture of medial malleolus of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.55XB	Nondisplaced fracture of medial malleolus of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.55XC	Nondisplaced fracture of medial malleolus of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.56XA	Nondisplaced fracture of medial malleolus of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.56XB	Nondisplaced fracture of medial malleolus of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.56XC	Nondisplaced fracture of medial malleolus of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.61XA	Displaced fracture of lateral malleolus of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.61XB	Displaced fracture of lateral malleolus of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.61XC	Displaced fracture of lateral malleolus of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.62XA	Displaced fracture of lateral malleolus of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.62XB	Displaced fracture of lateral malleolus of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.62XC	Displaced fracture of lateral malleolus of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.63XA	Displaced fracture of lateral malleolus of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.63XB	Displaced fracture of lateral malleolus of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.63XC	Displaced fracture of lateral malleolus of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.64XA	Nondisplaced fracture of lateral malleolus of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.64XB	Nondisplaced fracture of lateral malleolus of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.64XC	Nondisplaced fracture of lateral malleolus of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.65XA	Nondisplaced fracture of lateral malleolus of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.65XB	Nondisplaced fracture of lateral malleolus of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.65XC	Nondisplaced fracture of lateral malleolus of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.66XA	Nondisplaced fracture of lateral malleolus of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.66XB	Nondisplaced fracture of lateral malleolus of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.66XC	Nondisplaced fracture of lateral malleolus of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.811A	Torus fracture of upper end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.812A	Torus fracture of upper end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.819A	Torus fracture of upper end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.821A	Torus fracture of lower end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.822A	Torus fracture of lower end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.829A	Torus fracture of lower end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.831A	Other fracture of upper and lower end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.831B	Other fracture of upper and lower end of right fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.831C	Other fracture of upper and lower end of right fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.832A	Other fracture of upper and lower end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.832B	Other fracture of upper and lower end of left fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.832C	Other fracture of upper and lower end of left fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.839A	Other fracture of upper and lower end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.839B	Other fracture of upper and lower end of unspecified fibula, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.839C	Other fracture of upper and lower end of unspecified fibula, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.841A	Displaced bimalleolar fracture of right lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.841B	Displaced bimalleolar fracture of right lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.841C	Displaced bimalleolar fracture of right lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.842A	Displaced bimalleolar fracture of left lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.842B	Displaced bimalleolar fracture of left lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.842C	Displaced bimalleolar fracture of left lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.843A	Displaced bimalleolar fracture of unspecified lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.843B	Displaced bimalleolar fracture of unspecified lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.843C	Displaced bimalleolar fracture of unspecified lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.844A	Nondisplaced bimalleolar fracture of right lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.844B	Nondisplaced bimalleolar fracture of right lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.844C	Nondisplaced bimalleolar fracture of right lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.845A	Nondisplaced bimalleolar fracture of left lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.845B	Nondisplaced bimalleolar fracture of left lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.845C	Nondisplaced bimalleolar fracture of left lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.846A	Nondisplaced bimalleolar fracture of unspecified lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.846B	Nondisplaced bimalleolar fracture of unspecified lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.846C	Nondisplaced bimalleolar fracture of unspecified lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.851A	Displaced trimalleolar fracture of right lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.851B	Displaced trimalleolar fracture of right lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.851C	Displaced trimalleolar fracture of right lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.852A	Displaced trimalleolar fracture of left lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.852B	Displaced trimalleolar fracture of left lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.852C	Displaced trimalleolar fracture of left lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.853A	Displaced trimalleolar fracture of unspecified lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.853B	Displaced trimalleolar fracture of unspecified lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.853C	Displaced trimalleolar fracture of unspecified lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.854A	Nondisplaced trimalleolar fracture of right lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.854B	Nondisplaced trimalleolar fracture of right lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.854C	Nondisplaced trimalleolar fracture of right lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.855A	Nondisplaced trimalleolar fracture of left lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.855B	Nondisplaced trimalleolar fracture of left lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.855C	Nondisplaced trimalleolar fracture of left lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.856A	Nondisplaced trimalleolar fracture of unspecified lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.856B	Nondisplaced trimalleolar fracture of unspecified lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.856C	Nondisplaced trimalleolar fracture of unspecified lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.861A	Displaced Maisonneuve's fracture of right leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.861B	Displaced Maisonneuve's fracture of right leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.861C	Displaced Maisonneuve's fracture of right leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.862A	Displaced Maisonneuve's fracture of left leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.862B	Displaced Maisonneuve's fracture of left leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.862C	Displaced Maisonneuve's fracture of left leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.863A	Displaced Maisonneuve's fracture of unspecified leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.863B	Displaced Maisonneuve's fracture of unspecified leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.863C	Displaced Maisonneuve's fracture of unspecified leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.864A	Nondisplaced Maisonneuve's fracture of right leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.864B	Nondisplaced Maisonneuve's fracture of right leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.864C	Nondisplaced Maisonneuve's fracture of right leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.865A	Nondisplaced Maisonneuve's fracture of left leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.865B	Nondisplaced Maisonneuve's fracture of left leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.865C	Nondisplaced Maisonneuve's fracture of left leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.866A	Nondisplaced Maisonneuve's fracture of unspecified leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.866B	Nondisplaced Maisonneuve's fracture of unspecified leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S82.866C	Nondisplaced Maisonneuve's fracture of unspecified leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.871A	Displaced pilon fracture of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.871B	Displaced pilon fracture of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.871C	Displaced pilon fracture of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.872A	Displaced pilon fracture of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.872B	Displaced pilon fracture of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.872C	Displaced pilon fracture of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.873A	Displaced pilon fracture of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.873B	Displaced pilon fracture of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.873C	Displaced pilon fracture of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.874A	Nondisplaced pilon fracture of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.874B	Nondisplaced pilon fracture of right tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.874C	Nondisplaced pilon fracture of right tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.875A	Nondisplaced pilon fracture of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.875B	Nondisplaced pilon fracture of left tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.875C	Nondisplaced pilon fracture of left tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.876A	Nondisplaced pilon fracture of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.876B	Nondisplaced pilon fracture of unspecified tibia, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.876C	Nondisplaced pilon fracture of unspecified tibia, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.891A	Other fracture of right lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.891B	Other fracture of right lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.891C	Other fracture of right lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.892A	Other fracture of left lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.892B	Other fracture of left lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.892C	Other fracture of left lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.899A	Other fracture of unspecified lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.899B	Other fracture of unspecified lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.899C	Other fracture of unspecified lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S82.90XA	Unspecified fracture of unspecified lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.90XB	Unspecified fracture of unspecified lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.90XC	Unspecified fracture of unspecified lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.91XA	Unspecified fracture of right lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.91XB	Unspecified fracture of right lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.91XC	Unspecified fracture of right lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S82.92XA	Unspecified fracture of left lower leg, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S82.92XB	Unspecified fracture of left lower leg, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S82.92XC	Unspecified fracture of left lower leg, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S87.00XA	Crushing injury of unspecified knee, initial encounter	Diagnosis	ICD-10-CM
S87.01XA	Crushing injury of right knee, initial encounter	Diagnosis	ICD-10-CM
S87.02XA	Crushing injury of left knee, initial encounter	Diagnosis	ICD-10-CM
S87.80XA	Crushing injury of unspecified lower leg, initial encounter	Diagnosis	ICD-10-CM
S87.81XA	Crushing injury of right lower leg, initial encounter	Diagnosis	ICD-10-CM
S87.82XA	Crushing injury of left lower leg, initial encounter	Diagnosis	ICD-10-CM
S89.001A	Unspecified physeal fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.002A	Unspecified physeal fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.009A	Unspecified physeal fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.011A	Salter-Harris Type I physeal fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.012A	Salter-Harris Type I physeal fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.019A	Salter-Harris Type I physeal fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.021A	Salter-Harris Type II physeal fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.022A	Salter-Harris Type II physeal fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.029A	Salter-Harris Type II physeal fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.031A	Salter-Harris Type III physeal fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.032A	Salter-Harris Type III physeal fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.039A	Salter-Harris Type III physeal fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
S89.041A	Salter-Harris Type IV physeal fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.042A	Salter-Harris Type IV physeal fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.049A	Salter-Harris Type IV physeal fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.091A	Other physeal fracture of upper end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.092A	Other physeal fracture of upper end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.099A	Other physeal fracture of upper end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.101A	Unspecified physeal fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.102A	Unspecified physeal fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.109A	Unspecified physeal fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.111A	Salter-Harris Type I physeal fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.112A	Salter-Harris Type I physeal fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.119A	Salter-Harris Type I physeal fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.121A	Salter-Harris Type II physeal fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.122A	Salter-Harris Type II physeal fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.129A	Salter-Harris Type II physeal fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.131A	Salter-Harris Type III physeal fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.132A	Salter-Harris Type III physeal fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.139A	Salter-Harris Type III physeal fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.141A	Salter-Harris Type IV physeal fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.142A	Salter-Harris Type IV physeal fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.149A	Salter-Harris Type IV physeal fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.191A	Other physeal fracture of lower end of right tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S89.192A	Other physeal fracture of lower end of left tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.199A	Other physeal fracture of lower end of unspecified tibia, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.201A	Unspecified physeal fracture of upper end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.202A	Unspecified physeal fracture of upper end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.209A	Unspecified physeal fracture of upper end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.211A	Salter-Harris Type I physeal fracture of upper end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.212A	Salter-Harris Type I physeal fracture of upper end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.219A	Salter-Harris Type I physeal fracture of upper end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.221A	Salter-Harris Type II physeal fracture of upper end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.222A	Salter-Harris Type II physeal fracture of upper end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.229A	Salter-Harris Type II physeal fracture of upper end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.291A	Other physeal fracture of upper end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.292A	Other physeal fracture of upper end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.299A	Other physeal fracture of upper end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.301A	Unspecified physeal fracture of lower end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.302A	Unspecified physeal fracture of lower end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.309A	Unspecified physeal fracture of lower end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.311A	Salter-Harris Type I physeal fracture of lower end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.312A	Salter-Harris Type I physeal fracture of lower end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.319A	Salter-Harris Type I physeal fracture of lower end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.321A	Salter-Harris Type II physeal fracture of lower end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.322A	Salter-Harris Type II physeal fracture of lower end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S89.329A	Salter-Harris Type II physeal fracture of lower end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.391A	Other physeal fracture of lower end of right fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.392A	Other physeal fracture of lower end of left fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S89.399A	Other physeal fracture of lower end of unspecified fibula, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S97.00XA	Crushing injury of unspecified ankle, initial encounter	Diagnosis	ICD-10-CM
S97.01XA	Crushing injury of right ankle, initial encounter	Diagnosis	ICD-10-CM
S97.02XA	Crushing injury of left ankle, initial encounter	Diagnosis	ICD-10-CM
S97.101A	Crushing injury of unspecified right toe(s), initial encounter	Diagnosis	ICD-10-CM
S97.102A	Crushing injury of unspecified left toe(s), initial encounter	Diagnosis	ICD-10-CM
S97.109A	Crushing injury of unspecified toe(s), initial encounter	Diagnosis	ICD-10-CM
S97.111A	Crushing injury of right great toe, initial encounter	Diagnosis	ICD-10-CM
S97.112A	Crushing injury of left great toe, initial encounter	Diagnosis	ICD-10-CM
S97.119A	Crushing injury of unspecified great toe, initial encounter	Diagnosis	ICD-10-CM
S97.121A	Crushing injury of right lesser toe(s), initial encounter	Diagnosis	ICD-10-CM
S97.122A	Crushing injury of left lesser toe(s), initial encounter	Diagnosis	ICD-10-CM
S97.129A	Crushing injury of unspecified lesser toe(s), initial encounter	Diagnosis	ICD-10-CM
S97.80XA	Crushing injury of unspecified foot, initial encounter	Diagnosis	ICD-10-CM
S97.81XA	Crushing injury of right foot, initial encounter	Diagnosis	ICD-10-CM
S97.82XA	Crushing injury of left foot, initial encounter	Diagnosis	ICD-10-CM
T14.8XXA	Other injury of unspecified body region, initial encounter	Diagnosis	ICD-10-CM
T79.4XXA	Traumatic shock, initial encounter	Diagnosis	ICD-10-CM
T79.5XXA	Traumatic anuria, initial encounter	Diagnosis	ICD-10-CM
T79.7XXA	Traumatic subcutaneous emphysema, initial encounter	Diagnosis	ICD-10-CM
T82.817A	Embolism due to cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.818A	Embolism due to vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.827A	Fibrosis due to cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.828A	Fibrosis due to vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.837A	Hemorrhage due to cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.838A	Hemorrhage due to vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.847A	Pain due to cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.848A	Pain due to vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.855A	Stenosis of coronary artery stent, initial encounter	Diagnosis	ICD-10-CM
T82.856A	Stenosis of peripheral vascular stent, initial encounter	Diagnosis	ICD-10-CM
T82.857A	Stenosis of other cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.858A	Stenosis of other vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.867A	Thrombosis due to cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
T82.868A	Thrombosis due to vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.897A	Other specified complication of cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.898A	Other specified complication of vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.9XXA	Unspecified complication of cardiac and vascular prosthetic device, implant and graft, initial encounter	Diagnosis	ICD-10-CM
T83.81XA	Embolism due to genitourinary prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T83.82XA	Fibrosis due to genitourinary prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T83.83XA	Hemorrhage due to genitourinary prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T83.84XA	Pain due to genitourinary prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T83.85XA	Stenosis due to genitourinary prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T83.86XA	Thrombosis due to genitourinary prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T83.89XA	Other specified complication of genitourinary prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T83.9XXA	Unspecified complication of genitourinary prosthetic device, implant and graft, initial encounter	Diagnosis	ICD-10-CM
T84.81XA	Embolism due to internal orthopedic prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T84.82XA	Fibrosis due to internal orthopedic prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T84.83XA	Hemorrhage due to internal orthopedic prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T84.84XA	Pain due to internal orthopedic prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T84.85XA	Stenosis due to internal orthopedic prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T84.86XA	Thrombosis due to internal orthopedic prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T84.89XA	Other specified complication of internal orthopedic prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T84.9XXA	Unspecified complication of internal orthopedic prosthetic device, implant and graft, initial encounter	Diagnosis	ICD-10-CM
T85.810A	Embolism due to nervous system prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.818A	Embolism due to other internal prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
T85.820A	Fibrosis due to nervous system prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.828A	Fibrosis due to other internal prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.830A	Hemorrhage due to nervous system prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.838A	Hemorrhage due to other internal prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.840A	Pain due to nervous system prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.848A	Pain due to other internal prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.850A	Stenosis due to nervous system prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.858A	Stenosis due to other internal prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.860A	Thrombosis due to nervous system prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.868A	Thrombosis due to other internal prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.890A	Other specified complication of nervous system prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.898A	Other specified complication of other internal prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T85.9XXA	Unspecified complication of internal prosthetic device, implant and graft, initial encounter	Diagnosis	ICD-10-CM
T86.848	Other complications of corneal transplant	Diagnosis	ICD-10-CM
T86.849	Unspecified complication of corneal transplant	Diagnosis	ICD-10-CM
T88.8XXA	Other specified complications of surgical and medical care, not elsewhere classified, initial encounter	Diagnosis	ICD-10-CM
V05.00XA	Pedestrian on foot injured in collision with railway train or railway vehicle in nontraffic accident, initial encounter	Diagnosis	ICD-10-CM
V05.00XD	Pedestrian on foot injured in collision with railway train or railway vehicle in nontraffic accident, subsequent encounter	Diagnosis	ICD-10-CM
V05.01XA	Pedestrian on roller-skates injured in collision with railway train or railway vehicle in nontraffic accident, initial encounter	Diagnosis	ICD-10-CM
V05.01XD	Pedestrian on roller-skates injured in collision with railway train or railway vehicle in nontraffic accident, subsequent encounter	Diagnosis	ICD-10-CM
V05.02XA	Pedestrian on skateboard injured in collision with railway train or railway vehicle in nontraffic accident, initial encounter	Diagnosis	ICD-10-CM
V05.02XD	Pedestrian on skateboard injured in collision with railway train or railway vehicle in nontraffic accident, subsequent encounter	Diagnosis	ICD-10-CM
V05.09XA	Pedestrian with other conveyance injured in collision with railway train or railway vehicle in nontraffic accident, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
V05.09XD	Pedestrian with other conveyance injured in collision with railway train or railway vehicle in nontraffic accident, subsequent encounter	Diagnosis	ICD-10-CM
V15.2XXA	Unspecified pedal cyclist injured in collision with railway train or railway vehicle in nontraffic accident, initial encounter	Diagnosis	ICD-10-CM
V81.2XXA	Occupant of railway train or railway vehicle injured in collision with or hit by rolling stock, initial encounter	Diagnosis	ICD-10-CM
W11.XXXA	Fall on and from ladder, initial encounter	Diagnosis	ICD-10-CM
W11.XXXD	Fall on and from ladder, subsequent encounter	Diagnosis	ICD-10-CM
W12.XXXA	Fall on and from scaffolding, initial encounter	Diagnosis	ICD-10-CM
W12.XXXD	Fall on and from scaffolding, subsequent encounter	Diagnosis	ICD-10-CM
W13.0XXA	Fall from, out of or through balcony, initial encounter	Diagnosis	ICD-10-CM
W13.0XXD	Fall from, out of or through balcony, subsequent encounter	Diagnosis	ICD-10-CM
W13.1XXA	Fall from, out of or through bridge, initial encounter	Diagnosis	ICD-10-CM
W13.1XXD	Fall from, out of or through bridge, subsequent encounter	Diagnosis	ICD-10-CM
W13.2XXA	Fall from, out of or through roof, initial encounter	Diagnosis	ICD-10-CM
W13.2XXD	Fall from, out of or through roof, subsequent encounter	Diagnosis	ICD-10-CM
W13.3XXA	Fall through floor, initial encounter	Diagnosis	ICD-10-CM
W13.3XXD	Fall through floor, subsequent encounter	Diagnosis	ICD-10-CM
W13.4XXA	Fall from, out of or through window, initial encounter	Diagnosis	ICD-10-CM
W13.4XXD	Fall from, out of or through window, subsequent encounter	Diagnosis	ICD-10-CM
W13.8XXA	Fall from, out of or through other building or structure, initial encounter	Diagnosis	ICD-10-CM
W13.8XXD	Fall from, out of or through other building or structure, subsequent encounter	Diagnosis	ICD-10-CM
W13.9XXA	Fall from, out of or through building, not otherwise specified, initial encounter	Diagnosis	ICD-10-CM
W13.9XXD	Fall from, out of or through building, not otherwise specified, subsequent encounter	Diagnosis	ICD-10-CM
W16.011A	Fall into swimming pool striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.011D	Fall into swimming pool striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.012A	Fall into swimming pool striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.012D	Fall into swimming pool striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.021A	Fall into swimming pool striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.021D	Fall into swimming pool striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.022A	Fall into swimming pool striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.022D	Fall into swimming pool striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.031A	Fall into swimming pool striking wall causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.031D	Fall into swimming pool striking wall causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.032A	Fall into swimming pool striking wall causing other injury, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
W16.032D	Fall into swimming pool striking wall causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.111A	Fall into natural body of water striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.111D	Fall into natural body of water striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.112A	Fall into natural body of water striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.112D	Fall into natural body of water striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.121A	Fall into natural body of water striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.121D	Fall into natural body of water striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.122A	Fall into natural body of water striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.122D	Fall into natural body of water striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.131A	Fall into natural body of water striking side causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.131D	Fall into natural body of water striking side causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.132A	Fall into natural body of water striking side causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.132D	Fall into natural body of water striking side causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.211A	Fall in (into) filled bathtub causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.211D	Fall in (into) filled bathtub causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.212A	Fall in (into) filled bathtub causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.212D	Fall in (into) filled bathtub causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.221A	Fall in (into) bucket of water causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.221D	Fall in (into) bucket of water causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.222A	Fall in (into) bucket of water causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.222D	Fall in (into) bucket of water causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.311A	Fall into other water striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.311D	Fall into other water striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.312A	Fall into other water striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.312D	Fall into other water striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.321A	Fall into other water striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.321D	Fall into other water striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
W16.322A	Fall into other water striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.322D	Fall into other water striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.331A	Fall into other water striking wall causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.331D	Fall into other water striking wall causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.332A	Fall into other water striking wall causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.332D	Fall into other water striking wall causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.41XA	Fall into unspecified water causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.41XD	Fall into unspecified water causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.42XA	Fall into unspecified water causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.42XD	Fall into unspecified water causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.511A	Jumping or diving into swimming pool striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.511D	Jumping or diving into swimming pool striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.512A	Jumping or diving into swimming pool striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.512D	Jumping or diving into swimming pool striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.521A	Jumping or diving into swimming pool striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.521D	Jumping or diving into swimming pool striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.522A	Jumping or diving into swimming pool striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.522D	Jumping or diving into swimming pool striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.531A	Jumping or diving into swimming pool striking wall causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.531D	Jumping or diving into swimming pool striking wall causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.532A	Jumping or diving into swimming pool striking wall causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.532D	Jumping or diving into swimming pool striking wall causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.611A	Jumping or diving into natural body of water striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.611D	Jumping or diving into natural body of water striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.612A	Jumping or diving into natural body of water striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.612D	Jumping or diving into natural body of water striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
W16.621A	Jumping or diving into natural body of water striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.621D	Jumping or diving into natural body of water striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.622A	Jumping or diving into natural body of water striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.622D	Jumping or diving into natural body of water striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.711A	Jumping or diving from boat striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.711D	Jumping or diving from boat striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.712A	Jumping or diving from boat striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.712D	Jumping or diving from boat striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.721A	Jumping or diving from boat striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.721D	Jumping or diving from boat striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.722A	Jumping or diving from boat striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.722D	Jumping or diving from boat striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.811A	Jumping or diving into other water striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.811D	Jumping or diving into other water striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.812A	Jumping or diving into other water striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.812D	Jumping or diving into other water striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.821A	Jumping or diving into other water striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.821D	Jumping or diving into other water striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.822A	Jumping or diving into other water striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.822D	Jumping or diving into other water striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.831A	Jumping or diving into other water striking wall causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.831D	Jumping or diving into other water striking wall causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
W16.832A	Jumping or diving into other water striking wall causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.832D	Jumping or diving into other water striking wall causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.91XA	Jumping or diving into unspecified water causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.91XD	Jumping or diving into unspecified water causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.92XA	Jumping or diving into unspecified water causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.92XD	Jumping or diving into unspecified water causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W17.0XXA	Fall into well, initial encounter	Diagnosis	ICD-10-CM
W17.0XXD	Fall into well, subsequent encounter	Diagnosis	ICD-10-CM
W17.1XXA	Fall into storm drain or manhole, initial encounter	Diagnosis	ICD-10-CM
W17.1XXD	Fall into storm drain or manhole, subsequent encounter	Diagnosis	ICD-10-CM
W17.2XXA	Fall into hole, initial encounter	Diagnosis	ICD-10-CM
W17.2XXD	Fall into hole, subsequent encounter	Diagnosis	ICD-10-CM
W17.3XXA	Fall into empty swimming pool, initial encounter	Diagnosis	ICD-10-CM
W17.3XXD	Fall into empty swimming pool, subsequent encounter	Diagnosis	ICD-10-CM
W17.4XXA	Fall from dock, initial encounter	Diagnosis	ICD-10-CM
W17.4XXD	Fall from dock, subsequent encounter	Diagnosis	ICD-10-CM
W32.0XXA	Accidental handgun discharge, initial encounter	Diagnosis	ICD-10-CM
W32.0XXD	Accidental handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
W32.1XXA	Accidental handgun malfunction, initial encounter	Diagnosis	ICD-10-CM
W32.1XXD	Accidental handgun malfunction, subsequent encounter	Diagnosis	ICD-10-CM
W33.00XA	Accidental discharge of unspecified larger firearm, initial encounter	Diagnosis	ICD-10-CM
W33.00XD	Accidental discharge of unspecified larger firearm, subsequent encounter	Diagnosis	ICD-10-CM
W33.01XA	Accidental discharge of shotgun, initial encounter	Diagnosis	ICD-10-CM
W33.01XD	Accidental discharge of shotgun, subsequent encounter	Diagnosis	ICD-10-CM
W33.02XA	Accidental discharge of hunting rifle, initial encounter	Diagnosis	ICD-10-CM
W33.02XD	Accidental discharge of hunting rifle, subsequent encounter	Diagnosis	ICD-10-CM
W33.03XA	Accidental discharge of machine gun, initial encounter	Diagnosis	ICD-10-CM
W33.03XD	Accidental discharge of machine gun, subsequent encounter	Diagnosis	ICD-10-CM
W33.09XA	Accidental discharge of other larger firearm, initial encounter	Diagnosis	ICD-10-CM
W33.09XD	Accidental discharge of other larger firearm, subsequent encounter	Diagnosis	ICD-10-CM
W33.10XA	Accidental malfunction of unspecified larger firearm, initial encounter	Diagnosis	ICD-10-CM
W33.10XD	Accidental malfunction of unspecified larger firearm, subsequent encounter	Diagnosis	ICD-10-CM
W33.11XA	Accidental malfunction of shotgun, initial encounter	Diagnosis	ICD-10-CM
W33.11XD	Accidental malfunction of shotgun, subsequent encounter	Diagnosis	ICD-10-CM
W33.12XA	Accidental malfunction of hunting rifle, initial encounter	Diagnosis	ICD-10-CM
W33.12XD	Accidental malfunction of hunting rifle, subsequent encounter	Diagnosis	ICD-10-CM
W33.13XA	Accidental malfunction of machine gun, initial encounter	Diagnosis	ICD-10-CM
W33.13XD	Accidental malfunction of machine gun, subsequent encounter	Diagnosis	ICD-10-CM
W33.19XA	Accidental malfunction of other larger firearm, initial encounter	Diagnosis	ICD-10-CM
W33.19XD	Accidental malfunction of other larger firearm, subsequent encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
W34.00XA	Accidental discharge from unspecified firearms or gun, initial encounter	Diagnosis	ICD-10-CM
W34.00XD	Accidental discharge from unspecified firearms or gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.010A	Accidental discharge of airgun, initial encounter	Diagnosis	ICD-10-CM
W34.010D	Accidental discharge of airgun, subsequent encounter	Diagnosis	ICD-10-CM
W34.011A	Accidental discharge of paintball gun, initial encounter	Diagnosis	ICD-10-CM
W34.011D	Accidental discharge of paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.018A	Accidental discharge of other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
W34.018D	Accidental discharge of other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.09XA	Accidental discharge from other specified firearms, initial encounter	Diagnosis	ICD-10-CM
W34.09XD	Accidental discharge from other specified firearms, subsequent encounter	Diagnosis	ICD-10-CM
W34.10XA	Accidental malfunction from unspecified firearms or gun, initial encounter	Diagnosis	ICD-10-CM
W34.10XD	Accidental malfunction from unspecified firearms or gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.110A	Accidental malfunction of airgun, initial encounter	Diagnosis	ICD-10-CM
W34.110D	Accidental malfunction of airgun, subsequent encounter	Diagnosis	ICD-10-CM
W34.111A	Accidental malfunction of paintball gun, initial encounter	Diagnosis	ICD-10-CM
W34.111D	Accidental malfunction of paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.118A	Accidental malfunction of other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
W34.118D	Accidental malfunction of other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.19XA	Accidental malfunction from other specified firearms, initial encounter	Diagnosis	ICD-10-CM
W34.19XD	Accidental malfunction from other specified firearms, subsequent encounter	Diagnosis	ICD-10-CM
W39.XXXA	Discharge of firework, initial encounter	Diagnosis	ICD-10-CM
W39.XXXD	Discharge of firework, subsequent encounter	Diagnosis	ICD-10-CM
W40.0XXA	Explosion of blasting material, initial encounter	Diagnosis	ICD-10-CM
W40.0XXD	Explosion of blasting material, subsequent encounter	Diagnosis	ICD-10-CM
W40.1XXA	Explosion of explosive gases, initial encounter	Diagnosis	ICD-10-CM
W40.1XXD	Explosion of explosive gases, subsequent encounter	Diagnosis	ICD-10-CM
W40.8XXA	Explosion of other specified explosive materials, initial encounter	Diagnosis	ICD-10-CM
W40.8XXD	Explosion of other specified explosive materials, subsequent encounter	Diagnosis	ICD-10-CM
W40.9XXA	Explosion of unspecified explosive materials, initial encounter	Diagnosis	ICD-10-CM
W40.9XXD	Explosion of unspecified explosive materials, subsequent encounter	Diagnosis	ICD-10-CM
X72.XXXA	Intentional self-harm by handgun discharge, initial encounter	Diagnosis	ICD-10-CM
X72.XXXD	Intentional self-harm by handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.0XXA	Intentional self-harm by shotgun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.0XXD	Intentional self-harm by shotgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.1XXA	Intentional self-harm by hunting rifle discharge, initial encounter	Diagnosis	ICD-10-CM
X73.1XXD	Intentional self-harm by hunting rifle discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.2XXA	Intentional self-harm by machine gun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.2XXD	Intentional self-harm by machine gun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.8XXA	Intentional self-harm by other larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.8XXD	Intentional self-harm by other larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.9XXA	Intentional self-harm by unspecified larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.9XXD	Intentional self-harm by unspecified larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
X74.01XA	Intentional self-harm by airgun, initial encounter	Diagnosis	ICD-10-CM
X74.01XD	Intentional self-harm by airgun, subsequent encounter	Diagnosis	ICD-10-CM
X74.02XA	Intentional self-harm by paintball gun, initial encounter	Diagnosis	ICD-10-CM
X74.02XD	Intentional self-harm by paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.09XA	Intentional self-harm by other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
X74.09XD	Intentional self-harm by other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.8XXA	Intentional self-harm by other firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.8XXD	Intentional self-harm by other firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.9XXA	Intentional self-harm by unspecified firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.9XXD	Intentional self-harm by unspecified firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X75.XXXA	Intentional self-harm by explosive material, initial encounter	Diagnosis	ICD-10-CM
X75.XXXD	Intentional self-harm by explosive material, subsequent encounter	Diagnosis	ICD-10-CM
X93.XXXA	Assault by handgun discharge, initial encounter	Diagnosis	ICD-10-CM
X93.XXXD	Assault by handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X94.0XXA	Assault by shotgun, initial encounter	Diagnosis	ICD-10-CM
X94.0XXD	Assault by shotgun, subsequent encounter	Diagnosis	ICD-10-CM
X94.1XXA	Assault by hunting rifle, initial encounter	Diagnosis	ICD-10-CM
X94.1XXD	Assault by hunting rifle, subsequent encounter	Diagnosis	ICD-10-CM
X94.2XXA	Assault by machine gun, initial encounter	Diagnosis	ICD-10-CM
X94.2XXD	Assault by machine gun, subsequent encounter	Diagnosis	ICD-10-CM
X94.8XXA	Assault by other larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X94.8XXD	Assault by other larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X94.9XXA	Assault by unspecified larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X94.9XXD	Assault by unspecified larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X95.02XA	Assault by paintball gun discharge, initial encounter	Diagnosis	ICD-10-CM
X95.02XD	Assault by paintball gun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X95.09XA	Assault by other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
X95.09XD	Assault by other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
X95.8XXA	Assault by other firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X95.8XXD	Assault by other firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X95.9XXA	Assault by unspecified firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X95.9XXD	Assault by unspecified firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X96.0XXA	Assault by antipersonnel bomb, initial encounter	Diagnosis	ICD-10-CM
X96.0XXD	Assault by antipersonnel bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.1XXA	Assault by gasoline bomb, initial encounter	Diagnosis	ICD-10-CM
X96.1XXD	Assault by gasoline bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.2XXA	Assault by letter bomb, initial encounter	Diagnosis	ICD-10-CM
X96.2XXD	Assault by letter bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.3XXA	Assault by fertilizer bomb, initial encounter	Diagnosis	ICD-10-CM
X96.3XXD	Assault by fertilizer bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.4XXA	Assault by pipe bomb, initial encounter	Diagnosis	ICD-10-CM
X96.4XXD	Assault by pipe bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.8XXA	Assault by other specified explosive, initial encounter	Diagnosis	ICD-10-CM
X96.8XXD	Assault by other specified explosive, subsequent encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
X96.9XXA	Assault by unspecified explosive, initial encounter	Diagnosis	ICD-10-CM
X96.9XXD	Assault by unspecified explosive, subsequent encounter	Diagnosis	ICD-10-CM
Y04.0XXA	Assault by unarmed brawl or fight, initial encounter	Diagnosis	ICD-10-CM
Y04.0XXD	Assault by unarmed brawl or fight, subsequent encounter	Diagnosis	ICD-10-CM
Y04.2XXA	Assault by strike against or bumped into by another person, initial encounter	Diagnosis	ICD-10-CM
Y04.2XXD	Assault by strike against or bumped into by another person, subsequent encounter	Diagnosis	ICD-10-CM
Y04.8XXA	Assault by other bodily force, initial encounter	Diagnosis	ICD-10-CM
Y04.8XXD	Assault by other bodily force, subsequent encounter	Diagnosis	ICD-10-CM
Y22.XXXA	Handgun discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y22.XXXD	Handgun discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.0XXA	Shotgun discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.0XXD	Shotgun discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.1XXA	Hunting rifle discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.1XXD	Hunting rifle discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.2XXA	Military firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.2XXD	Military firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.3XXA	Machine gun discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.3XXD	Machine gun discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.8XXA	Other larger firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.8XXD	Other larger firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.9XXA	Unspecified larger firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.9XXD	Unspecified larger firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y24.0XXA	Airgun discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y24.0XXD	Airgun discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y24.8XXA	Other firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y24.8XXD	Other firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y24.9XXA	Unspecified firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y24.9XXD	Unspecified firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y25.XXXA	Contact with explosive material, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y25.XXXD	Contact with explosive material, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y35.001A	Legal intervention involving unspecified firearm discharge, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.001D	Legal intervention involving unspecified firearm discharge, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.002A	Legal intervention involving unspecified firearm discharge, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.002D	Legal intervention involving unspecified firearm discharge, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.003A	Legal intervention involving unspecified firearm discharge, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.003D	Legal intervention involving unspecified firearm discharge, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.011A	Legal intervention involving injury by machine gun, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
Y35.011D	Legal intervention involving injury by machine gun, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.012A	Legal intervention involving injury by machine gun, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.012D	Legal intervention involving injury by machine gun, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.013A	Legal intervention involving injury by machine gun, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.013D	Legal intervention involving injury by machine gun, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.021A	Legal intervention involving injury by handgun, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.021D	Legal intervention involving injury by handgun, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.022A	Legal intervention involving injury by handgun, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.022D	Legal intervention involving injury by handgun, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.023A	Legal intervention involving injury by handgun, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.023D	Legal intervention involving injury by handgun, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.031A	Legal intervention involving injury by rifle pellet, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.031D	Legal intervention involving injury by rifle pellet, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.032A	Legal intervention involving injury by rifle pellet, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.032D	Legal intervention involving injury by rifle pellet, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.033A	Legal intervention involving injury by rifle pellet, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.033D	Legal intervention involving injury by rifle pellet, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.041A	Legal intervention involving injury by rubber bullet, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.041D	Legal intervention involving injury by rubber bullet, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.042A	Legal intervention involving injury by rubber bullet, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.042D	Legal intervention involving injury by rubber bullet, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.043A	Legal intervention involving injury by rubber bullet, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.043D	Legal intervention involving injury by rubber bullet, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
Y35.091A	Legal intervention involving other firearm discharge, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.091D	Legal intervention involving other firearm discharge, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.092A	Legal intervention involving other firearm discharge, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.092D	Legal intervention involving other firearm discharge, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.093A	Legal intervention involving other firearm discharge, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.093D	Legal intervention involving other firearm discharge, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
W17.4XXA	Fall from dock, initial encounter	Diagnosis	ICD-10-CM
W17.4XXD	Fall from dock, subsequent encounter	Diagnosis	ICD-10-CM
W32.0XXA	Accidental handgun discharge, initial encounter	Diagnosis	ICD-10-CM
W32.0XXD	Accidental handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
W32.1XXA	Accidental handgun malfunction, initial encounter	Diagnosis	ICD-10-CM
W32.1XXD	Accidental handgun malfunction, subsequent encounter	Diagnosis	ICD-10-CM
W33.00XA	Accidental discharge of unspecified larger firearm, initial encounter	Diagnosis	ICD-10-CM
W33.00XD	Accidental discharge of unspecified larger firearm, subsequent encounter	Diagnosis	ICD-10-CM
W33.01XA	Accidental discharge of shotgun, initial encounter	Diagnosis	ICD-10-CM
W33.01XD	Accidental discharge of shotgun, subsequent encounter	Diagnosis	ICD-10-CM
W33.02XA	Accidental discharge of hunting rifle, initial encounter	Diagnosis	ICD-10-CM
W33.02XD	Accidental discharge of hunting rifle, subsequent encounter	Diagnosis	ICD-10-CM
W33.03XA	Accidental discharge of machine gun, initial encounter	Diagnosis	ICD-10-CM
W33.03XD	Accidental discharge of machine gun, subsequent encounter	Diagnosis	ICD-10-CM
W33.09XA	Accidental discharge of other larger firearm, initial encounter	Diagnosis	ICD-10-CM
W33.09XD	Accidental discharge of other larger firearm, subsequent encounter	Diagnosis	ICD-10-CM
W33.10XA	Accidental malfunction of unspecified larger firearm, initial encounter	Diagnosis	ICD-10-CM
W33.10XD	Accidental malfunction of unspecified larger firearm, subsequent encounter	Diagnosis	ICD-10-CM
W33.11XA	Accidental malfunction of shotgun, initial encounter	Diagnosis	ICD-10-CM
W33.11XD	Accidental malfunction of shotgun, subsequent encounter	Diagnosis	ICD-10-CM
W33.12XA	Accidental malfunction of hunting rifle, initial encounter	Diagnosis	ICD-10-CM
W33.12XD	Accidental malfunction of hunting rifle, subsequent encounter	Diagnosis	ICD-10-CM
W33.13XA	Accidental malfunction of machine gun, initial encounter	Diagnosis	ICD-10-CM
W33.13XD	Accidental malfunction of machine gun, subsequent encounter	Diagnosis	ICD-10-CM
W33.19XA	Accidental malfunction of other larger firearm, initial encounter	Diagnosis	ICD-10-CM
W33.19XD	Accidental malfunction of other larger firearm, subsequent encounter	Diagnosis	ICD-10-CM
W34.00XA	Accidental discharge from unspecified firearms or gun, initial encounter	Diagnosis	ICD-10-CM
W34.00XD	Accidental discharge from unspecified firearms or gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.010A	Accidental discharge of airgun, initial encounter	Diagnosis	ICD-10-CM
W34.010D	Accidental discharge of airgun, subsequent encounter	Diagnosis	ICD-10-CM
W34.011A	Accidental discharge of paintball gun, initial encounter	Diagnosis	ICD-10-CM
W34.011D	Accidental discharge of paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.018A	Accidental discharge of other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
W34.018D	Accidental discharge of other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.09XA	Accidental discharge from other specified firearms, initial encounter	Diagnosis	ICD-10-CM
W34.09XD	Accidental discharge from other specified firearms, subsequent encounter	Diagnosis	ICD-10-CM
W34.10XA	Accidental malfunction from unspecified firearms or gun, initial encounter	Diagnosis	ICD-10-CM
W34.10XD	Accidental malfunction from unspecified firearms or gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.110A	Accidental malfunction of airgun, initial encounter	Diagnosis	ICD-10-CM
W34.110D	Accidental malfunction of airgun, subsequent encounter	Diagnosis	ICD-10-CM
W34.111A	Accidental malfunction of paintball gun, initial encounter	Diagnosis	ICD-10-CM
W34.111D	Accidental malfunction of paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.118A	Accidental malfunction of other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
W34.118D	Accidental malfunction of other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
W34.19XA	Accidental malfunction from other specified firearms, initial encounter	Diagnosis	ICD-10-CM
W34.19XD	Accidental malfunction from other specified firearms, subsequent encounter	Diagnosis	ICD-10-CM
W39.XXXA	Discharge of firework, initial encounter	Diagnosis	ICD-10-CM
W39.XXXD	Discharge of firework, subsequent encounter	Diagnosis	ICD-10-CM
W40.0XXA	Explosion of blasting material, initial encounter	Diagnosis	ICD-10-CM
W40.0XXD	Explosion of blasting material, subsequent encounter	Diagnosis	ICD-10-CM
W40.1XXA	Explosion of explosive gases, initial encounter	Diagnosis	ICD-10-CM
W40.1XXD	Explosion of explosive gases, subsequent encounter	Diagnosis	ICD-10-CM
W40.8XXA	Explosion of other specified explosive materials, initial encounter	Diagnosis	ICD-10-CM
W40.8XXD	Explosion of other specified explosive materials, subsequent encounter	Diagnosis	ICD-10-CM
W40.9XXA	Explosion of unspecified explosive materials, initial encounter	Diagnosis	ICD-10-CM
W40.9XXD	Explosion of unspecified explosive materials, subsequent encounter	Diagnosis	ICD-10-CM
X72.XXXA	Intentional self-harm by handgun discharge, initial encounter	Diagnosis	ICD-10-CM
X72.XXXD	Intentional self-harm by handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.0XXA	Intentional self-harm by shotgun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.0XXD	Intentional self-harm by shotgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.1XXA	Intentional self-harm by hunting rifle discharge, initial encounter	Diagnosis	ICD-10-CM
X73.1XXD	Intentional self-harm by hunting rifle discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.2XXA	Intentional self-harm by machine gun discharge, initial encounter	Diagnosis	ICD-10-CM
X73.2XXD	Intentional self-harm by machine gun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.8XXA	Intentional self-harm by other larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.8XXD	Intentional self-harm by other larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X73.9XXA	Intentional self-harm by unspecified larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X73.9XXD	Intentional self-harm by unspecified larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.01XA	Intentional self-harm by airgun, initial encounter	Diagnosis	ICD-10-CM
X74.01XD	Intentional self-harm by airgun, subsequent encounter	Diagnosis	ICD-10-CM
X74.02XA	Intentional self-harm by paintball gun, initial encounter	Diagnosis	ICD-10-CM
X74.02XD	Intentional self-harm by paintball gun, subsequent encounter	Diagnosis	ICD-10-CM
X74.09XA	Intentional self-harm by other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
X74.09XD	Intentional self-harm by other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
X74.8XXA	Intentional self-harm by other firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.8XXD	Intentional self-harm by other firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X74.9XXA	Intentional self-harm by unspecified firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X74.9XXD	Intentional self-harm by unspecified firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X75.XXXA	Intentional self-harm by explosive material, initial encounter	Diagnosis	ICD-10-CM
X75.XXXD	Intentional self-harm by explosive material, subsequent encounter	Diagnosis	ICD-10-CM
X93.XXXA	Assault by handgun discharge, initial encounter	Diagnosis	ICD-10-CM
X93.XXXD	Assault by handgun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X94.0XXA	Assault by shotgun, initial encounter	Diagnosis	ICD-10-CM
X94.0XXD	Assault by shotgun, subsequent encounter	Diagnosis	ICD-10-CM
X94.1XXA	Assault by hunting rifle, initial encounter	Diagnosis	ICD-10-CM
X94.1XXD	Assault by hunting rifle, subsequent encounter	Diagnosis	ICD-10-CM
X94.2XXA	Assault by machine gun, initial encounter	Diagnosis	ICD-10-CM
X94.2XXD	Assault by machine gun, subsequent encounter	Diagnosis	ICD-10-CM
X94.8XXA	Assault by other larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X94.8XXD	Assault by other larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X94.9XXA	Assault by unspecified larger firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X94.9XXD	Assault by unspecified larger firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X95.02XA	Assault by paintball gun discharge, initial encounter	Diagnosis	ICD-10-CM
X95.02XD	Assault by paintball gun discharge, subsequent encounter	Diagnosis	ICD-10-CM
X95.09XA	Assault by other gas, air or spring-operated gun, initial encounter	Diagnosis	ICD-10-CM
X95.09XD	Assault by other gas, air or spring-operated gun, subsequent encounter	Diagnosis	ICD-10-CM
X95.8XXA	Assault by other firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X95.8XXD	Assault by other firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X95.9XXA	Assault by unspecified firearm discharge, initial encounter	Diagnosis	ICD-10-CM
X95.9XXD	Assault by unspecified firearm discharge, subsequent encounter	Diagnosis	ICD-10-CM
X96.0XXA	Assault by antipersonnel bomb, initial encounter	Diagnosis	ICD-10-CM
X96.0XXD	Assault by antipersonnel bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.1XXA	Assault by gasoline bomb, initial encounter	Diagnosis	ICD-10-CM
X96.1XXD	Assault by gasoline bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.2XXA	Assault by letter bomb, initial encounter	Diagnosis	ICD-10-CM
X96.2XXD	Assault by letter bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.3XXA	Assault by fertilizer bomb, initial encounter	Diagnosis	ICD-10-CM
X96.3XXD	Assault by fertilizer bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.4XXA	Assault by pipe bomb, initial encounter	Diagnosis	ICD-10-CM
X96.4XXD	Assault by pipe bomb, subsequent encounter	Diagnosis	ICD-10-CM
X96.8XXA	Assault by other specified explosive, initial encounter	Diagnosis	ICD-10-CM
X96.8XXD	Assault by other specified explosive, subsequent encounter	Diagnosis	ICD-10-CM
X96.9XXA	Assault by unspecified explosive, initial encounter	Diagnosis	ICD-10-CM
X96.9XXD	Assault by unspecified explosive, subsequent encounter	Diagnosis	ICD-10-CM
Y04.0XXA	Assault by unarmed brawl or fight, initial encounter	Diagnosis	ICD-10-CM
Y04.0XXD	Assault by unarmed brawl or fight, subsequent encounter	Diagnosis	ICD-10-CM
Y04.2XXA	Assault by strike against or bumped into by another person, initial encounter	Diagnosis	ICD-10-CM
Y04.2XXD	Assault by strike against or bumped into by another person, subsequent encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
Y04.8XXA	Assault by other bodily force, initial encounter	Diagnosis	ICD-10-CM
Y04.8XXD	Assault by other bodily force, subsequent encounter	Diagnosis	ICD-10-CM
Y22.XXXA	Handgun discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y22.XXXD	Handgun discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.0XXA	Shotgun discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.0XXD	Shotgun discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.1XXA	Hunting rifle discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.1XXD	Hunting rifle discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.2XXA	Military firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.2XXD	Military firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.3XXA	Machine gun discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.3XXD	Machine gun discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.8XXA	Other larger firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.8XXD	Other larger firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y23.9XXA	Unspecified larger firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y23.9XXD	Unspecified larger firearm discharge, undetermined intent, subsequent	Diagnosis	ICD-10-CM
Y24.0XXA	Airgun discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y24.0XXD	Airgun discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y24.8XXA	Other firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y24.8XXD	Other firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y24.9XXA	Unspecified firearm discharge, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y24.9XXD	Unspecified firearm discharge, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y25.XXXA	Contact with explosive material, undetermined intent, initial encounter	Diagnosis	ICD-10-CM
Y25.XXXD	Contact with explosive material, undetermined intent, subsequent encounter	Diagnosis	ICD-10-CM
Y35.001A	Legal intervention involving unspecified firearm discharge, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.001D	Legal intervention involving unspecified firearm discharge, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.002A	Legal intervention involving unspecified firearm discharge, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.002D	Legal intervention involving unspecified firearm discharge, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.003A	Legal intervention involving unspecified firearm discharge, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.003D	Legal intervention involving unspecified firearm discharge, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.011A	Legal intervention involving injury by machine gun, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.011D	Legal intervention involving injury by machine gun, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.012A	Legal intervention involving injury by machine gun, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.012D	Legal intervention involving injury by machine gun, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
Y35.013A	Legal intervention involving injury by machine gun, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.013D	Legal intervention involving injury by machine gun, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.021A	Legal intervention involving injury by handgun, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.021D	Legal intervention involving injury by handgun, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.022A	Legal intervention involving injury by handgun, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.022D	Legal intervention involving injury by handgun, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.023A	Legal intervention involving injury by handgun, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.023D	Legal intervention involving injury by handgun, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.031A	Legal intervention involving injury by rifle pellet, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.031D	Legal intervention involving injury by rifle pellet, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.032A	Legal intervention involving injury by rifle pellet, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.032D	Legal intervention involving injury by rifle pellet, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.033A	Legal intervention involving injury by rifle pellet, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.033D	Legal intervention involving injury by rifle pellet, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.041A	Legal intervention involving injury by rubber bullet, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.041D	Legal intervention involving injury by rubber bullet, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.042A	Legal intervention involving injury by rubber bullet, bystander injured, initial encounter	Diagnosis	ICD-10-CM
Y35.042D	Legal intervention involving injury by rubber bullet, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.043A	Legal intervention involving injury by rubber bullet, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.043D	Legal intervention involving injury by rubber bullet, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.091A	Legal intervention involving other firearm discharge, law enforcement official injured, initial encounter	Diagnosis	ICD-10-CM
Y35.091D	Legal intervention involving other firearm discharge, law enforcement official injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.092A	Legal intervention involving other firearm discharge, bystander injured, initial encounter	Diagnosis	ICD-10-CM

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Censoring Criteria and Outcomes in this Request

Code	Description	Code Category	Code Type
Y35.092D	Legal intervention involving other firearm discharge, bystander injured, subsequent encounter	Diagnosis	ICD-10-CM
Y35.093A	Legal intervention involving other firearm discharge, suspect injured, initial encounter	Diagnosis	ICD-10-CM
Y35.093D	Legal intervention involving other firearm discharge, suspect injured, subsequent encounter	Diagnosis	ICD-10-CM

Appendix D. List of Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request

Generic Name	Brand Name
Anti-coagulants	
apixaban	Eliquis
apixaban	Eliquis DVT-PE Treat 30D Start
dabigatran etexilate mesylate	Pradaxa
dabigatran etexilate mesylate	dabigatran etexilate
edoxaban tosylate	Savaysa
rivaroxaban	Xarelto
rivaroxaban	Xarelto DVT-PE Treat 30d Start
warfarin sodium	Coumadin
warfarin sodium	warfarin
warfarin sodium	Jantoven

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
Dialysis			
792.5	Cloudy (hemodialysis) (peritoneal) dialysis affluent	Diagnosis	ICD-9-CM
V45.1	Renal dialysis status	Diagnosis	ICD-9-CM
V45.11	Renal dialysis status	Diagnosis	ICD-9-CM
V45.12	Noncompliance with renal dialysis	Diagnosis	ICD-9-CM
V56.0	Encounter for extracorporeal dialysis	Diagnosis	ICD-9-CM
V56.1	Fitting and adjustment of extracorporeal dialysis catheter	Diagnosis	ICD-9-CM
V56.2	Fitting and adjustment of peritoneal dialysis catheter	Diagnosis	ICD-9-CM
V56.3	Encounter for adequacy testing for dialysis	Diagnosis	ICD-9-CM
V56.31	Encounter for adequacy testing for hemodialysis	Diagnosis	ICD-9-CM
V56.32	Encounter for adequacy testing for peritoneal dialysis	Diagnosis	ICD-9-CM
V56.8	Encounter other dialysis	Diagnosis	ICD-9-CM
R88.0	Cloudy (hemodialysis) (peritoneal) dialysis effluent	Diagnosis	ICD-10-CM
Z49.01	Encounter for fitting and adjustment of extracorporeal dialysis catheter	Diagnosis	ICD-10-CM
Z49.02	Encounter for fitting and adjustment of peritoneal dialysis catheter	Diagnosis	ICD-10-CM
Z49.31	Encounter for adequacy testing for hemodialysis	Diagnosis	ICD-10-CM
Z49.32	Encounter for adequacy testing for peritoneal dialysis	Diagnosis	ICD-10-CM
Z91.15	Patient's noncompliance with renal dialysis	Diagnosis	ICD-10-CM
Z99.2	Dependence on renal dialysis	Diagnosis	ICD-10-CM
90935	Hemodialysis procedure with single evaluation by a physician or other qualified health care professional	Procedure	CPT-4
90937	Hemodialysis procedure requiring repeated evaluation(s) with or without substantial revision of dialysis prescription	Procedure	CPT-4
90939	Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator dilution method, hook-up; transcutaneous measurement and disconnection	Procedure	CPT-4
90940	Hemodialysis access flow study to determine blood flow in grafts and arteriovenous fistulae by an indicator method	Procedure	CPT-4
90941	Hemodialysis, For Acute Renal Failure And Or Intoxication,	Procedure	CPT-4
90942	Hemodialysis, For Acute Renal Failure And Or Intoxication,	Procedure	CPT-4
90943	Hemodialysis, For Acute Renal Failure And Or Intoxication,	Procedure	CPT-4
90944	Hemodialysis, For Acute Renal Failure And Or Intoxication,	Procedure	CPT-4
90945	Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies), with single evaluation by a physician or other qualified health care professional	Procedure	CPT-4
90947	Dialysis procedure other than hemodialysis (eg, peritoneal dialysis, hemofiltration, or other continuous renal replacement therapies) requiring repeated evaluations by a physician or other qualified health care professional, with or without substantial revision of dialysis prescription	Procedure	CPT-4
90951	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 4 or more face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
90952	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 2-3 face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90953	End-stage renal disease (ESRD) related services monthly, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 1 face-to-face visit by a physician or other qualified health care professional per month	Procedure	CPT-4
90954	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 4 or more face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90955	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 2-3 face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90956	End-stage renal disease (ESRD) related services monthly, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 1 face-to-face visit by a physician or other qualified health care professional per month	Procedure	CPT-4
90957	End-stage renal disease (ESRD) related services monthly, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 4 or more face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90958	End-stage renal disease (ESRD) related services monthly, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 2-3 face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90959	End-stage renal disease (ESRD) related services monthly, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents; with 1 face-to-face visit by a physician or other qualified health care professional per month	Procedure	CPT-4
90960	End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 4 or more face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90961	End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 2-3 face-to-face visits by a physician or other qualified health care professional per month	Procedure	CPT-4
90962	End-stage renal disease (ESRD) related services monthly, for patients 20 years of age and older; with 1 face-to-face visit by a physician or other qualified health care professional per month	Procedure	CPT-4
90963	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients younger than 2 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents	Procedure	CPT-4

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
90964	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 2-11 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents	Procedure	CPT-4
90965	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 12-19 years of age to include monitoring for the adequacy of nutrition, assessment of growth and development, and counseling of parents	Procedure	CPT-4
90966	End-stage renal disease (ESRD) related services for home dialysis per full month, for patients 20 years of age and older	Procedure	CPT-4
90967	End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients younger than 2 years of age	Procedure	CPT-4
90968	End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 2-11 years of age	Procedure	CPT-4
90969	End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 12-19 years of age	Procedure	CPT-4
90970	End-stage renal disease (ESRD) related services for dialysis less than a full month of service, per day; for patients 20 years of age and older	Procedure	CPT-4
90976	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90977	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90978	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90979	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90982	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90983	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90984	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90985	Peritoneal Dialysis For End-stage Renal Disease (esrd),	Procedure	CPT-4
90988	Supervision Of Hemodialysis In Hospital Or Other Facility (excluding Home Dialysis), On Monthly Basis	Procedure	CPT-4
90989	Dialysis training, patient, including helper where applicable, any mode, completed course	Procedure	CPT-4
90990	Hemodialysis Training And/or Counseling	Procedure	CPT-4
90991	Home Hemodialysis Care, Outpatient, For Those Services Either Provided By The Physician Primarily Responsible	Procedure	CPT-4
90992	Peritoneal Dialysis Training And/or Counseling	Procedure	CPT-4
90993	Dialysis training, patient, including helper where applicable, any mode, course not completed, per training session	Procedure	CPT-4
90994	Supervision Of Chronic Ambulatory Peritoneal Dialysis (capd), Home Or Out-patient	Procedure	CPT-4
90995	End Stage Renal Disease (esrd) Related Services, Per Full Month	Procedure	CPT-4
90996	Continuous Arteriovenous Hemofiltration (cavh) (per Day)	Procedure	CPT-4
90997	Hemoperfusion (eg, with activated charcoal or resin)	Procedure	CPT-4
90998	End Stage Renal Disease (esrd) Related Services (less Than Full Month), Per Day	Procedure	CPT-4
90999	Unlisted dialysis procedure, inpatient or outpatient	Procedure	CPT-4
Kidney replacement			
556	Transplant of kidney	Procedure	ICD-9-CM
5561	Renal autotransplantation	Procedure	ICD-9-CM
5569	Other kidney transplantation	Procedure	ICD-9-CM
99681	Complications of transplanted kidney	Diagnosis	ICD-9-CM

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
V420	Kidney replaced by transplant	Diagnosis	ICD-9-CM
T86.10	Unspecified complication of kidney transplant	Diagnosis	ICD-10-CM
T86.11	Kidney transplant rejection	Diagnosis	ICD-10-CM
T86.12	Kidney transplant failure	Diagnosis	ICD-10-CM
T86.13	Kidney transplant infection	Diagnosis	ICD-10-CM
T86.19	Other complication of kidney transplant	Diagnosis	ICD-10-CM
Z48.22	Encounter for aftercare following kidney transplant	Diagnosis	ICD-10-CM
Z94.0	Kidney transplant status	Diagnosis	ICD-10-CM
OTS00ZZ	Reposition Right Kidney, Open Approach	Procedure	ICD-10-PCS
OTS10ZZ	Reposition Left Kidney, Open Approach	Procedure	ICD-10-PCS
OTY00Z0	Transplantation of Right Kidney, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OTY00Z1	Transplantation of Right Kidney, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OTY00Z2	Transplantation of Right Kidney, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OTY10Z0	Transplantation of Left Kidney, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OTY10Z1	Transplantation of Left Kidney, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OTY10Z2	Transplantation of Left Kidney, Zooplastic, Open Approach	Procedure	ICD-10-PCS
Deep vein thrombosis			
4534	Acute venous embolism and thrombosis of deep vessels of lower extremity	Diagnosis	ICD-9-CM
45340	Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity	Diagnosis	ICD-9-CM
45341	Acute venous embolism and thrombosis of deep vessels of proximal lower extremity	Diagnosis	ICD-9-CM
45342	Acute venous embolism and thrombosis of deep vessels of distal lower extremity	Diagnosis	ICD-9-CM
4511	Phlebitis and thrombophlebitis of deep veins of lower extremities	Diagnosis	ICD-9-CM
45111	Phlebitis and thrombophlebitis of femoral vein (deep) (superficial)	Diagnosis	ICD-9-CM
45119	Phlebitis and thrombophlebitis of deep veins of lower extremities, other	Diagnosis	ICD-9-CM
4512	Phlebitis and thrombophlebitis of lower extremities, unspecified	Diagnosis	ICD-9-CM
45181	Phlebitis and thrombophlebitis of iliac vein	Diagnosis	ICD-9-CM
45183	Phlebitis and thrombophlebitis of deep veins of upper extremities	Diagnosis	ICD-9-CM
45384	Phlebitis and thrombophlebitis of upper extremities, unspecified	Diagnosis	ICD-9-CM
I80.10	Phlebitis and thrombophlebitis of unspecified femoral vein	Diagnosis	ICD-10-CM
I80.11	Phlebitis and thrombophlebitis of right femoral vein	Diagnosis	ICD-10-CM
I80.12	Phlebitis and thrombophlebitis of left femoral vein	Diagnosis	ICD-10-CM
I80.13	Phlebitis and thrombophlebitis of femoral vein, bilateral	Diagnosis	ICD-10-CM
I80.201	Phlebitis and thrombophlebitis of unspecified deep vessels of right lower extremity	Diagnosis	ICD-10-CM
I80.202	Phlebitis and thrombophlebitis of unspecified deep vessels of left lower extremity	Diagnosis	ICD-10-CM
I80.203	Phlebitis and thrombophlebitis of unspecified deep vessels of lower extremities, bilateral	Diagnosis	ICD-10-CM
I80.209	Phlebitis and thrombophlebitis of unspecified deep vessels of unspecified lower extremity	Diagnosis	ICD-10-CM
I80.211	Phlebitis and thrombophlebitis of right iliac vein	Diagnosis	ICD-10-CM
I80.212	Phlebitis and thrombophlebitis of left iliac vein	Diagnosis	ICD-10-CM
I80.213	Phlebitis and thrombophlebitis of iliac vein, bilateral	Diagnosis	ICD-10-CM
I80.219	Phlebitis and thrombophlebitis of unspecified iliac vein	Diagnosis	ICD-10-CM
I80.221	Phlebitis and thrombophlebitis of right popliteal vein	Diagnosis	ICD-10-CM
I80.222	Phlebitis and thrombophlebitis of left popliteal vein	Diagnosis	ICD-10-CM
I80.223	Phlebitis and thrombophlebitis of popliteal vein, bilateral	Diagnosis	ICD-10-CM
I80.229	Phlebitis and thrombophlebitis of unspecified popliteal vein	Diagnosis	ICD-10-CM

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
I80.231	Phlebitis and thrombophlebitis of right tibial vein	Diagnosis	ICD-10-CM
I80.232	Phlebitis and thrombophlebitis of left tibial vein	Diagnosis	ICD-10-CM
I80.233	Phlebitis and thrombophlebitis of tibial vein, bilateral	Diagnosis	ICD-10-CM
I80.239	Phlebitis and thrombophlebitis of unspecified tibial vein	Diagnosis	ICD-10-CM
I80.291	Phlebitis and thrombophlebitis of other deep vessels of right lower extremity	Diagnosis	ICD-10-CM
I80.292	Phlebitis and thrombophlebitis of other deep vessels of left lower extremity	Diagnosis	ICD-10-CM
I80.293	Phlebitis and thrombophlebitis of other deep vessels of lower extremity, bilateral	Diagnosis	ICD-10-CM
I80.299	Phlebitis and thrombophlebitis of other deep vessels of unspecified lower extremity	Diagnosis	ICD-10-CM
I80.3	Phlebitis and thrombophlebitis of lower extremities, unspecified	Diagnosis	ICD-10-CM
I80.8	Phlebitis and thrombophlebitis of other sites	Diagnosis	ICD-10-CM
I82.401	Acute embolism and thrombosis of unspecified deep veins of right lower extremity	Diagnosis	ICD-10-CM
I82.402	Acute embolism and thrombosis of unspecified deep veins of left lower extremity	Diagnosis	ICD-10-CM
I82.403	Acute embolism and thrombosis of unspecified deep veins of lower extremity, bilateral	Diagnosis	ICD-10-CM
I82.409	Acute embolism and thrombosis of unspecified deep veins of unspecified lower extremity	Diagnosis	ICD-10-CM
I82.411	Acute embolism and thrombosis of right femoral vein	Diagnosis	ICD-10-CM
I82.412	Acute embolism and thrombosis of left femoral vein	Diagnosis	ICD-10-CM
I82.413	Acute embolism and thrombosis of femoral vein, bilateral	Diagnosis	ICD-10-CM
I82.419	Acute embolism and thrombosis of unspecified femoral vein	Diagnosis	ICD-10-CM
I82.421	Acute embolism and thrombosis of right iliac vein	Diagnosis	ICD-10-CM
I82.422	Acute embolism and thrombosis of left iliac vein	Diagnosis	ICD-10-CM
I82.423	Acute embolism and thrombosis of iliac vein, bilateral	Diagnosis	ICD-10-CM
I82.429	Acute embolism and thrombosis of unspecified iliac vein	Diagnosis	ICD-10-CM
I82.431	Acute embolism and thrombosis of right popliteal vein	Diagnosis	ICD-10-CM
I82.432	Acute embolism and thrombosis of left popliteal vein	Diagnosis	ICD-10-CM
I82.433	Acute embolism and thrombosis of popliteal vein, bilateral	Diagnosis	ICD-10-CM
I82.439	Acute embolism and thrombosis of unspecified popliteal vein	Diagnosis	ICD-10-CM
I82.441	Acute embolism and thrombosis of right tibial vein	Diagnosis	ICD-10-CM
I82.442	Acute embolism and thrombosis of left tibial vein	Diagnosis	ICD-10-CM
I82.443	Acute embolism and thrombosis of tibial vein, bilateral	Diagnosis	ICD-10-CM
I82.449	Acute embolism and thrombosis of unspecified tibial vein	Diagnosis	ICD-10-CM
I82.491	Acute embolism and thrombosis of other specified deep vein of right lower extremity	Diagnosis	ICD-10-CM
I82.492	Acute embolism and thrombosis of other specified deep vein of left lower extremity	Diagnosis	ICD-10-CM
I82.493	Acute embolism and thrombosis of other specified deep vein of lower extremity, bilateral	Diagnosis	ICD-10-CM
I82.499	Acute embolism and thrombosis of other specified deep vein of unspecified lower extremity	Diagnosis	ICD-10-CM
I82.4Y1	Acute embolism and thrombosis of unspecified deep veins of right proximal lower extremity	Diagnosis	ICD-10-CM
I82.4Y2	Acute embolism and thrombosis of unspecified deep veins of left proximal lower extremity	Diagnosis	ICD-10-CM
I82.4Y3	Acute embolism and thrombosis of unspecified deep veins of proximal lower extremity, bilateral	Diagnosis	ICD-10-CM
I82.4Y9	Acute embolism and thrombosis of unspecified deep veins of unspecified proximal lower extremity	Diagnosis	ICD-10-CM
I82.4Z1	Acute embolism and thrombosis of unspecified deep veins of right distal lower extremity	Diagnosis	ICD-10-CM
I82.4Z2	Acute embolism and thrombosis of unspecified deep veins of left distal lower extremity	Diagnosis	ICD-10-CM
I82.4Z3	Acute embolism and thrombosis of unspecified deep veins of distal lower extremity, bilateral	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I82.4Z9	Acute embolism and thrombosis of unspecified deep veins of unspecified distal lower extremity	Diagnosis	ICD-10-CM
I82.A11	Acute embolism and thrombosis of right axillary vein	Diagnosis	ICD-10-CM
I82.A12	Acute embolism and thrombosis of left axillary vein	Diagnosis	ICD-10-CM
I82.A13	Acute embolism and thrombosis of axillary vein, bilateral	Diagnosis	ICD-10-CM
I82.A19	Acute embolism and thrombosis of unspecified axillary vein	Diagnosis	ICD-10-CM
Deep vein thrombosis			
4534	Acute venous embolism and thrombosis of deep vessels of lower extremity	Diagnosis	ICD-9-CM
45340	Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity	Diagnosis	ICD-9-CM
45341	Acute venous embolism and thrombosis of deep vessels of proximal lower extremity	Diagnosis	ICD-9-CM
45342	Acute venous embolism and thrombosis of deep vessels of distal lower extremity	Diagnosis	ICD-9-CM
4511	Phlebitis and thrombophlebitis of deep veins of lower extremities	Diagnosis	ICD-9-CM
45111	Phlebitis and thrombophlebitis of femoral vein (deep) (superficial)	Diagnosis	ICD-9-CM
45119	Phlebitis and thrombophlebitis of deep veins of lower extremities, other	Diagnosis	ICD-9-CM
4512	Phlebitis and thrombophlebitis of lower extremities, unspecified	Diagnosis	ICD-9-CM
45181	Phlebitis and thrombophlebitis of iliac vein	Diagnosis	ICD-9-CM
45183	Phlebitis and thrombophlebitis of deep veins of upper extremities	Diagnosis	ICD-9-CM
45384	Phlebitis and thrombophlebitis of upper extremities, unspecified	Diagnosis	ICD-9-CM
I80.10	Phlebitis and thrombophlebitis of unspecified femoral vein	Diagnosis	ICD-10-CM
I80.11	Phlebitis and thrombophlebitis of right femoral vein	Diagnosis	ICD-10-CM
I80.12	Phlebitis and thrombophlebitis of left femoral vein	Diagnosis	ICD-10-CM
I80.13	Phlebitis and thrombophlebitis of femoral vein, bilateral	Diagnosis	ICD-10-CM
I80.201	Phlebitis and thrombophlebitis of unspecified deep vessels of right lower extremity	Diagnosis	ICD-10-CM
I80.202	Phlebitis and thrombophlebitis of unspecified deep vessels of left lower extremity	Diagnosis	ICD-10-CM
I80.203	Phlebitis and thrombophlebitis of unspecified deep vessels of lower extremities, bilateral	Diagnosis	ICD-10-CM
I80.209	Phlebitis and thrombophlebitis of unspecified deep vessels of unspecified lower extremity	Diagnosis	ICD-10-CM
I80.211	Phlebitis and thrombophlebitis of right iliac vein	Diagnosis	ICD-10-CM
I80.212	Phlebitis and thrombophlebitis of left iliac vein	Diagnosis	ICD-10-CM
I80.213	Phlebitis and thrombophlebitis of iliac vein, bilateral	Diagnosis	ICD-10-CM
I80.219	Phlebitis and thrombophlebitis of unspecified iliac vein	Diagnosis	ICD-10-CM
I80.221	Phlebitis and thrombophlebitis of right popliteal vein	Diagnosis	ICD-10-CM
I80.222	Phlebitis and thrombophlebitis of left popliteal vein	Diagnosis	ICD-10-CM
I80.223	Phlebitis and thrombophlebitis of popliteal vein, bilateral	Diagnosis	ICD-10-CM
I80.229	Phlebitis and thrombophlebitis of unspecified popliteal vein	Diagnosis	ICD-10-CM
I80.231	Phlebitis and thrombophlebitis of right tibial vein	Diagnosis	ICD-10-CM
I80.232	Phlebitis and thrombophlebitis of left tibial vein	Diagnosis	ICD-10-CM
I80.233	Phlebitis and thrombophlebitis of tibial vein, bilateral	Diagnosis	ICD-10-CM
I80.239	Phlebitis and thrombophlebitis of unspecified tibial vein	Diagnosis	ICD-10-CM
I80.291	Phlebitis and thrombophlebitis of other deep vessels of right lower extremity	Diagnosis	ICD-10-CM
I80.292	Phlebitis and thrombophlebitis of other deep vessels of left lower extremity	Diagnosis	ICD-10-CM
I80.293	Phlebitis and thrombophlebitis of other deep vessels of lower extremity, bilateral	Diagnosis	ICD-10-CM
I80.299	Phlebitis and thrombophlebitis of other deep vessels of unspecified lower extremity	Diagnosis	ICD-10-CM
I80.3	Phlebitis and thrombophlebitis of lower extremities, unspecified	Diagnosis	ICD-10-CM
I80.8	Phlebitis and thrombophlebitis of other sites	Diagnosis	ICD-10-CM

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
I82.401	Acute embolism and thrombosis of unspecified deep veins of right lower extremity	Diagnosis	ICD-10-CM
I82.402	Acute embolism and thrombosis of unspecified deep veins of left lower extremity	Diagnosis	ICD-10-CM
I82.403	Acute embolism and thrombosis of unspecified deep veins of lower extremity, bilateral	Diagnosis	ICD-10-CM
I82.409	Acute embolism and thrombosis of unspecified deep veins of unspecified lower extremity	Diagnosis	ICD-10-CM
I82.411	Acute embolism and thrombosis of right femoral vein	Diagnosis	ICD-10-CM
I82.412	Acute embolism and thrombosis of left femoral vein	Diagnosis	ICD-10-CM
I82.413	Acute embolism and thrombosis of femoral vein, bilateral	Diagnosis	ICD-10-CM
I82.419	Acute embolism and thrombosis of unspecified femoral vein	Diagnosis	ICD-10-CM
I82.421	Acute embolism and thrombosis of right iliac vein	Diagnosis	ICD-10-CM
I82.422	Acute embolism and thrombosis of left iliac vein	Diagnosis	ICD-10-CM
I82.423	Acute embolism and thrombosis of iliac vein, bilateral	Diagnosis	ICD-10-CM
I82.429	Acute embolism and thrombosis of unspecified iliac vein	Diagnosis	ICD-10-CM
I82.431	Acute embolism and thrombosis of right popliteal vein	Diagnosis	ICD-10-CM
I82.432	Acute embolism and thrombosis of left popliteal vein	Diagnosis	ICD-10-CM
I82.433	Acute embolism and thrombosis of popliteal vein, bilateral	Diagnosis	ICD-10-CM
I82.439	Acute embolism and thrombosis of unspecified popliteal vein	Diagnosis	ICD-10-CM
I82.441	Acute embolism and thrombosis of right tibial vein	Diagnosis	ICD-10-CM
I82.442	Acute embolism and thrombosis of left tibial vein	Diagnosis	ICD-10-CM
I82.443	Acute embolism and thrombosis of tibial vein, bilateral	Diagnosis	ICD-10-CM
I82.449	Acute embolism and thrombosis of unspecified tibial vein	Diagnosis	ICD-10-CM
I82.491	Acute embolism and thrombosis of other specified deep vein of right lower extremity	Diagnosis	ICD-10-CM
I82.492	Acute embolism and thrombosis of other specified deep vein of left lower extremity	Diagnosis	ICD-10-CM
I82.493	Acute embolism and thrombosis of other specified deep vein of lower extremity, bilateral	Diagnosis	ICD-10-CM
I82.499	Acute embolism and thrombosis of other specified deep vein of unspecified lower extremity	Diagnosis	ICD-10-CM
I82.4Y1	Acute embolism and thrombosis of unspecified deep veins of right proximal lower extremity	Diagnosis	ICD-10-CM
I82.4Y2	Acute embolism and thrombosis of unspecified deep veins of left proximal lower extremity	Diagnosis	ICD-10-CM
I82.4Y3	Acute embolism and thrombosis of unspecified deep veins of proximal lower extremity, bilateral	Diagnosis	ICD-10-CM
I82.4Y9	Acute embolism and thrombosis of unspecified deep veins of unspecified proximal lower extremity	Diagnosis	ICD-10-CM
I82.4Z1	Acute embolism and thrombosis of unspecified deep veins of right distal lower extremity	Diagnosis	ICD-10-CM
I82.4Z2	Acute embolism and thrombosis of unspecified deep veins of left distal lower extremity	Diagnosis	ICD-10-CM
I82.4Z3	Acute embolism and thrombosis of unspecified deep veins of distal lower extremity, bilateral	Diagnosis	ICD-10-CM
I82.4Z9	Acute embolism and thrombosis of unspecified deep veins of unspecified distal lower extremity	Diagnosis	ICD-10-CM
I82.A11	Acute embolism and thrombosis of right axillary vein	Diagnosis	ICD-10-CM
I82.A12	Acute embolism and thrombosis of left axillary vein	Diagnosis	ICD-10-CM
I82.A13	Acute embolism and thrombosis of axillary vein, bilateral	Diagnosis	ICD-10-CM
I82.A19	Acute embolism and thrombosis of unspecified axillary vein	Diagnosis	ICD-10-CM
Pulmonary embolism			
4151	Pulmonary embolism and infarction	Diagnosis	ICD-9-CM
41511	Iatrogenic pulmonary embolism and infarction	Diagnosis	ICD-9-CM
41512	Septic pulmonary embolism	Diagnosis	ICD-9-CM
41519	Other pulmonary embolism and infarction	Diagnosis	ICD-9-CM

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
I26.01	Septic pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.09	Other pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.90	Septic pulmonary embolism without acute cor pulmonale	Diagnosis	ICD-10-CM
I26.99	Other pulmonary embolism without acute cor pulmonale	Diagnosis	ICD-10-CM
T80.0XXA	Air embolism following infusion, transfusion and therapeutic injection, initial encounter	Diagnosis	ICD-10-CM
T81.718A	Complication of other artery following a procedure, not elsewhere classified, initial	Diagnosis	ICD-10-CM
T81.72XA	Complication of vein following a procedure, not elsewhere classified, initial encounter	Diagnosis	ICD-10-CM
T82.817A	Embolism due to cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.818A	Embolism due to vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
Joint replacement			
V436	Joint replaced by other means	Diagnosis	ICD-9-CM
V4360	Unspecified joint replacement	Diagnosis	ICD-9-CM
V4361	Shoulder joint replacement	Diagnosis	ICD-9-CM
V4362	Elbow joint replacement	Diagnosis	ICD-9-CM
V4363	Wrist joint replacement	Diagnosis	ICD-9-CM
V4364	Hip joint replacement	Diagnosis	ICD-9-CM
V4365	Knee joint replacement	Diagnosis	ICD-9-CM
V4366	Ankle joint replacement	Diagnosis	ICD-9-CM
V4369	Other joint replacement	Diagnosis	ICD-9-CM
815	JOINT REPLACEMENT LOWER EXTREMITY	Procedure	ICD-9-CM
8151	TOTAL HIP REPLACEMENT	Procedure	ICD-9-CM
8152	PARTIAL HIP REPLACEMENT	Procedure	ICD-9-CM
8153	REVISION OF HIP REPLACEMENT NOS	Procedure	ICD-9-CM
8154	TOTAL KNEE REPLACEMENT	Procedure	ICD-9-CM
8155	REVISION OF KNEE REPLACEMENT NOS	Procedure	ICD-9-CM
8156	TOTAL ANKLE REPLACEMENT	Procedure	ICD-9-CM
8157	REPLACEMENT OF JOINT OF FOOT&TOE	Procedure	ICD-9-CM
8159	REV JOINT REPLCMT LOWER EXTREM NEC	Procedure	ICD-9-CM
818	ARTHROPLASTY&REPAIR SHOULDER&ELBOW	Procedure	ICD-9-CM
8180	OTHER TOTAL SHOULDER REPLACEMENT	Procedure	ICD-9-CM
8181	PARTIAL SHOULDER REPLACEMENT	Procedure	ICD-9-CM
8182	REPAIR RECURRENT DISLOC SHOULDER	Procedure	ICD-9-CM
8183	OTHER REPAIR OF SHOULDER	Procedure	ICD-9-CM
8184	TOTAL ELBOW REPLACEMENT	Procedure	ICD-9-CM
8185	OTHER REPAIR OF ELBOW	Procedure	ICD-9-CM
24363	REPLACE ELBOW JOINT	Procedure	CPT-4
27130	TOTAL HIP ARTHROPLASTY	Procedure	CPT-4
27132	TOTAL HIP ARTHROPLASTY	Procedure	CPT-4
27134	REVISE HIP JOINT REPLACEMENT	Procedure	CPT-4
27137	REVISE HIP JOINT REPLACEMENT	Procedure	CPT-4
27138	REVISE HIP JOINT REPLACEMENT	Procedure	CPT-4
27447	TOTAL KNEE ARTHROPLASTY	Procedure	CPT-4
Z96.60	Presence of unspecified orthopedic joint implant	Diagnosis	ICD-10-CM
Z96.611	Presence of right artificial shoulder joint	Diagnosis	ICD-10-CM

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
Z96.612	Presence of left artificial shoulder joint	Diagnosis	ICD-10-CM
Z96.619	Presence of unspecified artificial shoulder joint	Diagnosis	ICD-10-CM
Z96.621	Presence of right artificial elbow joint	Diagnosis	ICD-10-CM
Z96.622	Presence of left artificial elbow joint	Diagnosis	ICD-10-CM
Z96.629	Presence of unspecified artificial elbow joint	Diagnosis	ICD-10-CM
Z96.631	Presence of right artificial wrist joint	Diagnosis	ICD-10-CM
Z96.632	Presence of left artificial wrist joint	Diagnosis	ICD-10-CM
Z96.639	Presence of unspecified artificial wrist joint	Diagnosis	ICD-10-CM
Z96.641	Presence of right artificial hip joint	Diagnosis	ICD-10-CM
Z96.642	Presence of left artificial hip joint	Diagnosis	ICD-10-CM
Z96.643	Presence of artificial hip joint, bilateral	Diagnosis	ICD-10-CM
Z96.649	Presence of unspecified artificial hip joint	Diagnosis	ICD-10-CM
Z96.651	Presence of right artificial knee joint	Diagnosis	ICD-10-CM
Z96.652	Presence of left artificial knee joint	Diagnosis	ICD-10-CM
Z96.653	Presence of artificial knee joint, bilateral	Diagnosis	ICD-10-CM
Z96.659	Presence of unspecified artificial knee joint	Diagnosis	ICD-10-CM
Z96.661	Presence of right artificial ankle joint	Diagnosis	ICD-10-CM
Z96.662	Presence of left artificial ankle joint	Diagnosis	ICD-10-CM
Z96.669	Presence of unspecified artificial ankle joint	Diagnosis	ICD-10-CM
Z96.691	Finger-joint replacement of right hand	Diagnosis	ICD-10-CM
Z96.692	Finger-joint replacement of left hand	Diagnosis	ICD-10-CM
Z96.693	Finger-joint replacement, bilateral	Diagnosis	ICD-10-CM
Z96.698	Presence of other orthopedic joint implants	Diagnosis	ICD-10-CM
Z96.7	Presence of other bone and tendon implants	Diagnosis	ICD-10-CM
ORQE0ZZ	Repair Right Sternoclavicular Joint, Open Approach	Procedure	ICD-10-PCS
ORQE3ZZ	Repair Right Sternoclavicular Joint, Percutaneous Approach	Procedure	ICD-10-PCS
ORQE4ZZ	Repair Right Sternoclavicular Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORQEXZZ	Repair Right Sternoclavicular Joint, External Approach	Procedure	ICD-10-PCS
ORQF0ZZ	Repair Left Sternoclavicular Joint, Open Approach	Procedure	ICD-10-PCS
ORQF3ZZ	Repair Left Sternoclavicular Joint, Percutaneous Approach	Procedure	ICD-10-PCS
ORQF4ZZ	Repair Left Sternoclavicular Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORQFXZZ	Repair Left Sternoclavicular Joint, External Approach	Procedure	ICD-10-PCS
ORQG0ZZ	Repair Right Acromioclavicular Joint, Open Approach	Procedure	ICD-10-PCS
ORQG3ZZ	Repair Right Acromioclavicular Joint, Percutaneous Approach	Procedure	ICD-10-PCS
ORQG4ZZ	Repair Right Acromioclavicular Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORQGXZZ	Repair Right Acromioclavicular Joint, External Approach	Procedure	ICD-10-PCS
ORQH0ZZ	Repair Left Acromioclavicular Joint, Open Approach	Procedure	ICD-10-PCS
ORQH3ZZ	Repair Left Acromioclavicular Joint, Percutaneous Approach	Procedure	ICD-10-PCS
ORQH4ZZ	Repair Left Acromioclavicular Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORQHZZ	Repair Left Acromioclavicular Joint, External Approach	Procedure	ICD-10-PCS
ORQJ0ZZ	Repair Right Shoulder Joint, Open Approach	Procedure	ICD-10-PCS
ORQJ3ZZ	Repair Right Shoulder Joint, Percutaneous Approach	Procedure	ICD-10-PCS
ORQJ4ZZ	Repair Right Shoulder Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORQJXZZ	Repair Right Shoulder Joint, External Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
ORQK0ZZ	Repair Left Shoulder Joint, Open Approach	Procedure	ICD-10-PCS
ORQK3ZZ	Repair Left Shoulder Joint, Percutaneous Approach	Procedure	ICD-10-PCS
ORQK4ZZ	Repair Left Shoulder Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORQKXZZ	Repair Left Shoulder Joint, External Approach	Procedure	ICD-10-PCS
ORQL0ZZ	Repair Right Elbow Joint, Open Approach	Procedure	ICD-10-PCS
ORQL3ZZ	Repair Right Elbow Joint, Percutaneous Approach	Procedure	ICD-10-PCS
ORQL4ZZ	Repair Right Elbow Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORQLXZZ	Repair Right Elbow Joint, External Approach	Procedure	ICD-10-PCS
ORQM0ZZ	Repair Left Elbow Joint, Open Approach	Procedure	ICD-10-PCS
ORQM3ZZ	Repair Left Elbow Joint, Percutaneous Approach	Procedure	ICD-10-PCS
ORQM4ZZ	Repair Left Elbow Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORQMXZZ	Repair Left Elbow Joint, External Approach	Procedure	ICD-10-PCS
ORRE07Z	Replacement of Right Sternoclavicular Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRE0JZ	Replacement of Right Sternoclavicular Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORRE0KZ	Replacement of Right Sternoclavicular Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRF07Z	Replacement of Left Sternoclavicular Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRF0JZ	Replacement of Left Sternoclavicular Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORRF0KZ	Replacement of Left Sternoclavicular Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRG07Z	Replacement of Right Acromioclavicular Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRG0JZ	Replacement of Right Acromioclavicular Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORRG0KZ	Replacement of Right Acromioclavicular Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRH07Z	Replacement of Left Acromioclavicular Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRH0JZ	Replacement of Left Acromioclavicular Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORRH0KZ	Replacement of Left Acromioclavicular Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRJ07Z	Replacement of Right Shoulder Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRJ0J6	Replacement of Right Shoulder Joint with Synthetic Substitute, Humeral Surface, Open Approach	Procedure	ICD-10-PCS
ORRJ0J7	Replacement of Right Shoulder Joint with Synthetic Substitute, Glenoid Surface, Open Approach	Procedure	ICD-10-PCS
ORRJ0JZ	Replacement of Right Shoulder Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORRJ0KZ	Replacement of Right Shoulder Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRK07Z	Replacement of Left Shoulder Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRK0J6	Replacement of Left Shoulder Joint with Synthetic Substitute, Humeral Surface, Open Approach	Procedure	ICD-10-PCS
ORRK0J7	Replacement of Left Shoulder Joint with Synthetic Substitute, Glenoid Surface, Open Approach	Procedure	ICD-10-PCS
ORRK0JZ	Replacement of Left Shoulder Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
ORRK0KZ	Replacement of Left Shoulder Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRL07Z	Replacement of Right Elbow Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRL0JZ	Replacement of Right Elbow Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORRL0KZ	Replacement of Right Elbow Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRM07Z	Replacement of Left Elbow Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORRM0JZ	Replacement of Left Elbow Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORRM0KZ	Replacement of Left Elbow Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORSE04Z	Reposition Right Sternoclavicular Joint with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
ORSE0ZZ	Reposition Right Sternoclavicular Joint, Open Approach	Procedure	ICD-10-PCS
ORSF04Z	Reposition Left Sternoclavicular Joint with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
ORSF0ZZ	Reposition Left Sternoclavicular Joint, Open Approach	Procedure	ICD-10-PCS
ORSG04Z	Reposition Right Acromioclavicular Joint with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
ORSG0ZZ	Reposition Right Acromioclavicular Joint, Open Approach	Procedure	ICD-10-PCS
ORSH04Z	Reposition Left Acromioclavicular Joint with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
ORSH0ZZ	Reposition Left Acromioclavicular Joint, Open Approach	Procedure	ICD-10-PCS
ORSJ04Z	Reposition Right Shoulder Joint with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
ORSJ0ZZ	Reposition Right Shoulder Joint, Open Approach	Procedure	ICD-10-PCS
ORSK04Z	Reposition Left Shoulder Joint with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
ORSK0ZZ	Reposition Left Shoulder Joint, Open Approach	Procedure	ICD-10-PCS
ORUE07Z	Supplement Right Sternoclavicular Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUE0JZ	Supplement Right Sternoclavicular Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORUE0KZ	Supplement Right Sternoclavicular Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUE37Z	Supplement Right Sternoclavicular Joint with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUE3JZ	Supplement Right Sternoclavicular Joint with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUE3KZ	Supplement Right Sternoclavicular Joint with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUE47Z	Supplement Right Sternoclavicular Joint with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUE4JZ	Supplement Right Sternoclavicular Joint with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUE4KZ	Supplement Right Sternoclavicular Joint with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUF07Z	Supplement Left Sternoclavicular Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUF0JZ	Supplement Left Sternoclavicular Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORUF0KZ	Supplement Left Sternoclavicular Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUF37Z	Supplement Left Sternoclavicular Joint with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUF3JZ	Supplement Left Sternoclavicular Joint with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUF3KZ	Supplement Left Sternoclavicular Joint with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUF47Z	Supplement Left Sternoclavicular Joint with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
ORUF4JZ	Supplement Left Sternoclavicular Joint with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUF4KZ	Supplement Left Sternoclavicular Joint with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUG07Z	Supplement Right Acromioclavicular Joint with Autologous Tissue Substitute, Open	Procedure	ICD-10-PCS
ORUG0JZ	Supplement Right Acromioclavicular Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORUG0KZ	Supplement Right Acromioclavicular Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUG37Z	Supplement Right Acromioclavicular Joint with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUG3JZ	Supplement Right Acromioclavicular Joint with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUG3KZ	Supplement Right Acromioclavicular Joint with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUG47Z	Supplement Right Acromioclavicular Joint with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUG4JZ	Supplement Right Acromioclavicular Joint with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUG4KZ	Supplement Right Acromioclavicular Joint with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUH07Z	Supplement Left Acromioclavicular Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUH0JZ	Supplement Left Acromioclavicular Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORUH0KZ	Supplement Left Acromioclavicular Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUH37Z	Supplement Left Acromioclavicular Joint with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUH3JZ	Supplement Left Acromioclavicular Joint with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUH3KZ	Supplement Left Acromioclavicular Joint with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUH47Z	Supplement Left Acromioclavicular Joint with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUH4JZ	Supplement Left Acromioclavicular Joint with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUH4KZ	Supplement Left Acromioclavicular Joint with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUJ07Z	Supplement Right Shoulder Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUJ0JZ	Supplement Right Shoulder Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORUJ0KZ	Supplement Right Shoulder Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUJ37Z	Supplement Right Shoulder Joint with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUJ3JZ	Supplement Right Shoulder Joint with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUJ3KZ	Supplement Right Shoulder Joint with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUJ47Z	Supplement Right Shoulder Joint with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
ORUJ4JZ	Supplement Right Shoulder Joint with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUJ4KZ	Supplement Right Shoulder Joint with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUK07Z	Supplement Left Shoulder Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUK0JZ	Supplement Left Shoulder Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORUK0KZ	Supplement Left Shoulder Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUK37Z	Supplement Left Shoulder Joint with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUK3JZ	Supplement Left Shoulder Joint with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUK3KZ	Supplement Left Shoulder Joint with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUK47Z	Supplement Left Shoulder Joint with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUK4JZ	Supplement Left Shoulder Joint with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUK4KZ	Supplement Left Shoulder Joint with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUL07Z	Supplement Right Elbow Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUL0JZ	Supplement Right Elbow Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORUL0KZ	Supplement Right Elbow Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUL37Z	Supplement Right Elbow Joint with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUL3JZ	Supplement Right Elbow Joint with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUL3KZ	Supplement Right Elbow Joint with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUL47Z	Supplement Right Elbow Joint with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUL4JZ	Supplement Right Elbow Joint with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUL4KZ	Supplement Right Elbow Joint with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUM07Z	Supplement Left Elbow Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUM0JZ	Supplement Left Elbow Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
ORUM0KZ	Supplement Left Elbow Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
ORUM37Z	Supplement Left Elbow Joint with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUM3JZ	Supplement Left Elbow Joint with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUM3KZ	Supplement Left Elbow Joint with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
ORUM47Z	Supplement Left Elbow Joint with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUM4JZ	Supplement Left Elbow Joint with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ORUM4KZ	Supplement Left Elbow Joint with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSR9019	Replacement of Right Hip Joint with Metal Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSR901A	Replacement of Right Hip Joint with Metal Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSR901Z	Replacement of Right Hip Joint with Metal Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSR9029	Replacement of Right Hip Joint with Metal on Polyethylene Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
OSR902A	Replacement of Right Hip Joint with Metal on Polyethylene Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSR902Z	Replacement of Right Hip Joint with Metal on Polyethylene Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSR9039	Replacement of Right Hip Joint with Ceramic Synthetic Substitute, Cemented, Open	Procedure	ICD-10-PCS
OSR903A	Replacement of Right Hip Joint with Ceramic Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSR903Z	Replacement of Right Hip Joint with Ceramic Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSR9049	Replacement of Right Hip Joint with Ceramic on Polyethylene Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSR904A	Replacement of Right Hip Joint with Ceramic on Polyethylene Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSR904Z	Replacement of Right Hip Joint with Ceramic on Polyethylene Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSR907Z	Replacement of Right Hip Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSR90J9	Replacement of Right Hip Joint with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSR90JA	Replacement of Right Hip Joint with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSR90JZ	Replacement of Right Hip Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSR90KZ	Replacement of Right Hip Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRA009	Replacement of Right Hip Joint, Acetabular Surface with Polyethylene Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRA00A	Replacement of Right Hip Joint, Acetabular Surface with Polyethylene Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRA00Z	Replacement of Right Hip Joint, Acetabular Surface with Polyethylene Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRA019	Replacement of Right Hip Joint, Acetabular Surface with Metal Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRA01A	Replacement of Right Hip Joint, Acetabular Surface with Metal Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRA01Z	Replacement of Right Hip Joint, Acetabular Surface with Metal Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRA039	Replacement of Right Hip Joint, Acetabular Surface with Ceramic Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRA03A	Replacement of Right Hip Joint, Acetabular Surface with Ceramic Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRA03Z	Replacement of Right Hip Joint, Acetabular Surface with Ceramic Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRA07Z	Replacement of Right Hip Joint, Acetabular Surface with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRA0J9	Replacement of Right Hip Joint, Acetabular Surface with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRA0JA	Replacement of Right Hip Joint, Acetabular Surface with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRA0JZ	Replacement of Right Hip Joint, Acetabular Surface with Synthetic Substitute, Open	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
OSRA0KZ	Replacement of Right Hip Joint, Acetabular Surface with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRB019	Replacement of Left Hip Joint with Metal Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRB01A	Replacement of Left Hip Joint with Metal Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRB01Z	Replacement of Left Hip Joint with Metal Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRB029	Replacement of Left Hip Joint with Metal on Polyethylene Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRB02A	Replacement of Left Hip Joint with Metal on Polyethylene Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRB02Z	Replacement of Left Hip Joint with Metal on Polyethylene Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRB039	Replacement of Left Hip Joint with Ceramic Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRB03A	Replacement of Left Hip Joint with Ceramic Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRB03Z	Replacement of Left Hip Joint with Ceramic Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRB049	Replacement of Left Hip Joint with Ceramic on Polyethylene Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRB04A	Replacement of Left Hip Joint with Ceramic on Polyethylene Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRB04Z	Replacement of Left Hip Joint with Ceramic on Polyethylene Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRB07Z	Replacement of Left Hip Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRB0J9	Replacement of Left Hip Joint with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRB0JA	Replacement of Left Hip Joint with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRB0JZ	Replacement of Left Hip Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRB0KZ	Replacement of Left Hip Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRC07Z	Replacement of Right Knee Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRC0J9	Replacement of Right Knee Joint with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRC0JA	Replacement of Right Knee Joint with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRC0JZ	Replacement of Right Knee Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRC0KZ	Replacement of Right Knee Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRC0L9	Replacement of Right Knee Joint with Unicondylar Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRC0LA	Replacement of Right Knee Joint with Unicondylar Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRC0LZ	Replacement of Right Knee Joint with Unicondylar Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRD07Z	Replacement of Left Knee Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRD0J9	Replacement of Left Knee Joint with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRD0JA	Replacement of Left Knee Joint with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRD0JZ	Replacement of Left Knee Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRD0KZ	Replacement of Left Knee Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRD0L9	Replacement of Left Knee Joint with Unicondylar Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
OSRD0LA	Replacement of Left Knee Joint with Unicondylar Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRD0LZ	Replacement of Left Knee Joint with Unicondylar Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRE009	Replacement of Left Hip Joint, Acetabular Surface with Polyethylene Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRE00A	Replacement of Left Hip Joint, Acetabular Surface with Polyethylene Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRE00Z	Replacement of Left Hip Joint, Acetabular Surface with Polyethylene Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRE019	Replacement of Left Hip Joint, Acetabular Surface with Metal Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRE01A	Replacement of Left Hip Joint, Acetabular Surface with Metal Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRE01Z	Replacement of Left Hip Joint, Acetabular Surface with Metal Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRE039	Replacement of Left Hip Joint, Acetabular Surface with Ceramic Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRE03A	Replacement of Left Hip Joint, Acetabular Surface with Ceramic Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRE03Z	Replacement of Left Hip Joint, Acetabular Surface with Ceramic Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRE07Z	Replacement of Left Hip Joint, Acetabular Surface with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRE0J9	Replacement of Left Hip Joint, Acetabular Surface with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRE0JA	Replacement of Left Hip Joint, Acetabular Surface with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRE0JZ	Replacement of Left Hip Joint, Acetabular Surface with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRE0KZ	Replacement of Left Hip Joint, Acetabular Surface with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRF07Z	Replacement of Right Ankle Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRF0J9	Replacement of Right Ankle Joint with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRF0JA	Replacement of Right Ankle Joint with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRF0JZ	Replacement of Right Ankle Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRF0KZ	Replacement of Right Ankle Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRG07Z	Replacement of Left Ankle Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRG0J9	Replacement of Left Ankle Joint with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRG0JA	Replacement of Left Ankle Joint with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRG0JZ	Replacement of Left Ankle Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRG0KZ	Replacement of Left Ankle Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRH07Z	Replacement of Right Tarsal Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRH0JZ	Replacement of Right Tarsal Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRH0KZ	Replacement of Right Tarsal Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRJ07Z	Replacement of Left Tarsal Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
OSRJ0JZ	Replacement of Left Tarsal Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRJ0KZ	Replacement of Left Tarsal Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRK07Z	Replacement of Right Metatarsal-Tarsal Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRK0JZ	Replacement of Right Metatarsal-Tarsal Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRK0KZ	Replacement of Right Metatarsal-Tarsal Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRL07Z	Replacement of Left Metatarsal-Tarsal Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRL0JZ	Replacement of Left Metatarsal-Tarsal Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRL0KZ	Replacement of Left Metatarsal-Tarsal Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRM07Z	Replacement of Right Metatarsal-Phalangeal Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRM0JZ	Replacement of Right Metatarsal-Phalangeal Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRM0KZ	Replacement of Right Metatarsal-Phalangeal Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRN07Z	Replacement of Left Metatarsal-Phalangeal Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRN0JZ	Replacement of Left Metatarsal-Phalangeal Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRN0KZ	Replacement of Left Metatarsal-Phalangeal Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRP07Z	Replacement of Right Toe Phalangeal Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRP0JZ	Replacement of Right Toe Phalangeal Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRP0KZ	Replacement of Right Toe Phalangeal Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRQ07Z	Replacement of Left Toe Phalangeal Joint with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRQ0JZ	Replacement of Left Toe Phalangeal Joint with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRQ0KZ	Replacement of Left Toe Phalangeal Joint with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRR019	Replacement of Right Hip Joint, Femoral Surface with Metal Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRR01A	Replacement of Right Hip Joint, Femoral Surface with Metal Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRR01Z	Replacement of Right Hip Joint, Femoral Surface with Metal Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRR039	Replacement of Right Hip Joint, Femoral Surface with Ceramic Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRR03A	Replacement of Right Hip Joint, Femoral Surface with Ceramic Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRR03Z	Replacement of Right Hip Joint, Femoral Surface with Ceramic Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRR07Z	Replacement of Right Hip Joint, Femoral Surface with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
OSRR0J9	Replacement of Right Hip Joint, Femoral Surface with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRR0JA	Replacement of Right Hip Joint, Femoral Surface with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRR0JZ	Replacement of Right Hip Joint, Femoral Surface with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRR0KZ	Replacement of Right Hip Joint, Femoral Surface with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRS019	Replacement of Left Hip Joint, Femoral Surface with Metal Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRS01A	Replacement of Left Hip Joint, Femoral Surface with Metal Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRS01Z	Replacement of Left Hip Joint, Femoral Surface with Metal Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRS039	Replacement of Left Hip Joint, Femoral Surface with Ceramic Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRS03A	Replacement of Left Hip Joint, Femoral Surface with Ceramic Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRS03Z	Replacement of Left Hip Joint, Femoral Surface with Ceramic Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRS07Z	Replacement of Left Hip Joint, Femoral Surface with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRS0J9	Replacement of Left Hip Joint, Femoral Surface with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRS0JA	Replacement of Left Hip Joint, Femoral Surface with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRS0JZ	Replacement of Left Hip Joint, Femoral Surface with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRS0KZ	Replacement of Left Hip Joint, Femoral Surface with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRT07Z	Replacement of Right Knee Joint, Femoral Surface with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRT0J9	Replacement of Right Knee Joint, Femoral Surface with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRT0JA	Replacement of Right Knee Joint, Femoral Surface with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRT0JZ	Replacement of Right Knee Joint, Femoral Surface with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRT0KZ	Replacement of Right Knee Joint, Femoral Surface with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRU07Z	Replacement of Left Knee Joint, Femoral Surface with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRU0J9	Replacement of Left Knee Joint, Femoral Surface with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRU0JA	Replacement of Left Knee Joint, Femoral Surface with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRU0JZ	Replacement of Left Knee Joint, Femoral Surface with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
OSRU0KZ	Replacement of Left Knee Joint, Femoral Surface with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRV07Z	Replacement of Right Knee Joint, Tibial Surface with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRV0J9	Replacement of Right Knee Joint, Tibial Surface with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRV0JA	Replacement of Right Knee Joint, Tibial Surface with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRV0JZ	Replacement of Right Knee Joint, Tibial Surface with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRV0KZ	Replacement of Right Knee Joint, Tibial Surface with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRW07Z	Replacement of Left Knee Joint, Tibial Surface with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSRW0J9	Replacement of Left Knee Joint, Tibial Surface with Synthetic Substitute, Cemented, Open Approach	Procedure	ICD-10-PCS
OSRW0JA	Replacement of Left Knee Joint, Tibial Surface with Synthetic Substitute, Uncemented, Open Approach	Procedure	ICD-10-PCS
OSRW0JZ	Replacement of Left Knee Joint, Tibial Surface with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OSRW0KZ	Replacement of Left Knee Joint, Tibial Surface with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
OSW90JZ	Revision of Synthetic Substitute in Right Hip Joint, Open Approach	Procedure	ICD-10-PCS
OSW93JZ	Revision of Synthetic Substitute in Right Hip Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSW94JZ	Revision of Synthetic Substitute in Right Hip Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWA0JZ	Revision of Synthetic Substitute in Right Hip Joint, Acetabular Surface, Open Approach	Procedure	ICD-10-PCS
OSWA3JZ	Revision of Synthetic Substitute in Right Hip Joint, Acetabular Surface, Percutaneous Approach	Procedure	ICD-10-PCS
OSWA4JZ	Revision of Synthetic Substitute in Right Hip Joint, Acetabular Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWB0JZ	Revision of Synthetic Substitute in Left Hip Joint, Open Approach	Procedure	ICD-10-PCS
OSWB3JZ	Revision of Synthetic Substitute in Left Hip Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWB4JZ	Revision of Synthetic Substitute in Left Hip Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWC0JC	Revision of Synthetic Substitute in Right Knee Joint, Patellar Surface, Open Approach	Procedure	ICD-10-PCS
OSWC0JZ	Revision of Synthetic Substitute in Right Knee Joint, Open Approach	Procedure	ICD-10-PCS
OSWC3JC	Revision of Synthetic Substitute in Right Knee Joint, Patellar Surface, Percutaneous Approach	Procedure	ICD-10-PCS
OSWC3JZ	Revision of Synthetic Substitute in Right Knee Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWC4JC	Revision of Synthetic Substitute in Right Knee Joint, Patellar Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWC4JZ	Revision of Synthetic Substitute in Right Knee Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWD0JC	Revision of Synthetic Substitute in Left Knee Joint, Patellar Surface, Open Approach	Procedure	ICD-10-PCS
OSWD0JZ	Revision of Synthetic Substitute in Left Knee Joint, Open Approach	Procedure	ICD-10-PCS
OSWD3JC	Revision of Synthetic Substitute in Left Knee Joint, Patellar Surface, Percutaneous Approach	Procedure	ICD-10-PCS
OSWD3JZ	Revision of Synthetic Substitute in Left Knee Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWD4JC	Revision of Synthetic Substitute in Left Knee Joint, Patellar Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
OSWD4JZ	Revision of Synthetic Substitute in Left Knee Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWE0JZ	Revision of Synthetic Substitute in Left Hip Joint, Acetabular Surface, Open Approach	Procedure	ICD-10-PCS
OSWE3JZ	Revision of Synthetic Substitute in Left Hip Joint, Acetabular Surface, Percutaneous	Procedure	ICD-10-PCS
OSWE4JZ	Revision of Synthetic Substitute in Left Hip Joint, Acetabular Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWF0JZ	Revision of Synthetic Substitute in Right Ankle Joint, Open Approach	Procedure	ICD-10-PCS
OSWF3JZ	Revision of Synthetic Substitute in Right Ankle Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWF4JZ	Revision of Synthetic Substitute in Right Ankle Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWG0JZ	Revision of Synthetic Substitute in Left Ankle Joint, Open Approach	Procedure	ICD-10-PCS
OSWG3JZ	Revision of Synthetic Substitute in Left Ankle Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWG4JZ	Revision of Synthetic Substitute in Left Ankle Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWH0JZ	Revision of Synthetic Substitute in Right Tarsal Joint, Open Approach	Procedure	ICD-10-PCS
OSWH3JZ	Revision of Synthetic Substitute in Right Tarsal Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWH4JZ	Revision of Synthetic Substitute in Right Tarsal Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWJ0JZ	Revision of Synthetic Substitute in Left Tarsal Joint, Open Approach	Procedure	ICD-10-PCS
OSWJ3JZ	Revision of Synthetic Substitute in Left Tarsal Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWJ4JZ	Revision of Synthetic Substitute in Left Tarsal Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWK0JZ	Revision of Synthetic Substitute in Right Metatarsal-Tarsal Joint, Open Approach	Procedure	ICD-10-PCS
OSWK3JZ	Revision of Synthetic Substitute in Right Metatarsal-Tarsal Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWK4JZ	Revision of Synthetic Substitute in Right Metatarsal-Tarsal Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWL0JZ	Revision of Synthetic Substitute in Left Metatarsal-Tarsal Joint, Open Approach	Procedure	ICD-10-PCS
OSWL3JZ	Revision of Synthetic Substitute in Left Metatarsal-Tarsal Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWL4JZ	Revision of Synthetic Substitute in Left Metatarsal-Tarsal Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWM0JZ	Revision of Synthetic Substitute in Right Metatarsal-Phalangeal Joint, Open Approach	Procedure	ICD-10-PCS
OSWM3JZ	Revision of Synthetic Substitute in Right Metatarsal-Phalangeal Joint, Percutaneous	Procedure	ICD-10-PCS
OSWM4JZ	Revision of Synthetic Substitute in Right Metatarsal-Phalangeal Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWN0JZ	Revision of Synthetic Substitute in Left Metatarsal-Phalangeal Joint, Open Approach	Procedure	ICD-10-PCS
OSWN3JZ	Revision of Synthetic Substitute in Left Metatarsal-Phalangeal Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWN4JZ	Revision of Synthetic Substitute in Left Metatarsal-Phalangeal Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWP0JZ	Revision of Synthetic Substitute in Right Toe Phalangeal Joint, Open Approach	Procedure	ICD-10-PCS
OSWP3JZ	Revision of Synthetic Substitute in Right Toe Phalangeal Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWP4JZ	Revision of Synthetic Substitute in Right Toe Phalangeal Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWQ0JZ	Revision of Synthetic Substitute in Left Toe Phalangeal Joint, Open Approach	Procedure	ICD-10-PCS
OSWQ3JZ	Revision of Synthetic Substitute in Left Toe Phalangeal Joint, Percutaneous Approach	Procedure	ICD-10-PCS
OSWQ4JZ	Revision of Synthetic Substitute in Left Toe Phalangeal Joint, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWR0JZ	Revision of Synthetic Substitute in Right Hip Joint, Femoral Surface, Open Approach	Procedure	ICD-10-PCS
OSWR3JZ	Revision of Synthetic Substitute in Right Hip Joint, Femoral Surface, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
OSWR4JZ	Revision of Synthetic Substitute in Right Hip Joint, Femoral Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWS0JZ	Revision of Synthetic Substitute in Left Hip Joint, Femoral Surface, Open Approach	Procedure	ICD-10-PCS
OSWS3JZ	Revision of Synthetic Substitute in Left Hip Joint, Femoral Surface, Percutaneous Approach	Procedure	ICD-10-PCS
OSWS4JZ	Revision of Synthetic Substitute in Left Hip Joint, Femoral Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWT0JZ	Revision of Synthetic Substitute in Right Knee Joint, Femoral Surface, Open Approach	Procedure	ICD-10-PCS
OSWT3JZ	Revision of Synthetic Substitute in Right Knee Joint, Femoral Surface, Percutaneous	Procedure	ICD-10-PCS
OSWT4JZ	Revision of Synthetic Substitute in Right Knee Joint, Femoral Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWU0JZ	Revision of Synthetic Substitute in Left Knee Joint, Femoral Surface, Open Approach	Procedure	ICD-10-PCS
OSWU3JZ	Revision of Synthetic Substitute in Left Knee Joint, Femoral Surface, Percutaneous Approach	Procedure	ICD-10-PCS
OSWU4JZ	Revision of Synthetic Substitute in Left Knee Joint, Femoral Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWV0JZ	Revision of Synthetic Substitute in Right Knee Joint, Tibial Surface, Open Approach	Procedure	ICD-10-PCS
OSWV3JZ	Revision of Synthetic Substitute in Right Knee Joint, Tibial Surface, Percutaneous Approach	Procedure	ICD-10-PCS
OSWV4JZ	Revision of Synthetic Substitute in Right Knee Joint, Tibial Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OSWW0JZ	Revision of Synthetic Substitute in Left Knee Joint, Tibial Surface, Open Approach	Procedure	ICD-10-PCS
OSWW3JZ	Revision of Synthetic Substitute in Left Knee Joint, Tibial Surface, Percutaneous Approach	Procedure	ICD-10-PCS
OSWW4JZ	Revision of Synthetic Substitute in Left Knee Joint, Tibial Surface, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
Mitral valve disease			
394.0	Mitral stenosis	Diagnosis	ICD-9-CM
394.1	Rheumatic mitral insufficiency	Diagnosis	ICD-9-CM
394.2	Mitral stenosis with insufficiency	Diagnosis	ICD-9-CM
396.0	Mitral valve stenosis and aortic valve stenosis	Diagnosis	ICD-9-CM
396.1	Mitral valve stenosis and aortic valve insufficiency	Diagnosis	ICD-9-CM
396.2	Mitral valve insufficiency and aortic valve stenosis	Diagnosis	ICD-9-CM
396.3	Mitral valve insufficiency and aortic valve insufficiency	Diagnosis	ICD-9-CM
746.5	Congenital mitral stenosis	Diagnosis	ICD-9-CM
746.6	Congenital mitral insufficiency	Diagnosis	ICD-9-CM
I05.0	Rheumatic mitral stenosis	Diagnosis	ICD-10-CM
I05.1	Rheumatic mitral insufficiency	Diagnosis	ICD-10-CM
I05.2	Rheumatic mitral stenosis with insufficiency	Diagnosis	ICD-10-CM
I08.0	Rheumatic disorders of both mitral and aortic valves	Diagnosis	ICD-10-CM
I08.3	Combined rheumatic disorders of mitral, aortic and tricuspid valves	Diagnosis	ICD-10-CM
I34.2	Nonrheumatic mitral stenosis	Diagnosis	ICD-10-CM
Q23.2	Congenital mitral stenosis	Diagnosis	ICD-10-CM
Q23.3	Congenital mitral insufficiency	Diagnosis	ICD-10-CM
027G04Z	Dilation of Mitral Valve with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027G0DZ	Dilation of Mitral Valve with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027G0ZZ	Dilation of Mitral Valve, Open Approach	Procedure	ICD-10-PCS
02NG0ZZ	Release Mitral Valve, Open Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
02QG0ZZ	Repair Mitral Valve, Open Approach	Procedure	ICD-10-PCS
02VG0ZZ	Restriction of Mitral Valve, Open Approach	Procedure	ICD-10-PCS
Valve replacement			
V422	Heart valve replaced by transplant	Diagnosis	ICD-9-CM
V433	Heart valve replaced by other means	Diagnosis	ICD-9-CM
352	OPEN & OTHR REPLACEMENT HEART VALVE	Procedure	ICD-9-CM
3520	OPEN & OTHER REPL UNS HEART VALVE	Procedure	ICD-9-CM
3521	OPEN OTH REPL AORTIC VALVE TISS GFT	Procedure	ICD-9-CM
3522	OPEN & OTHR REPLACEMENT AORTIC VALVE	Procedure	ICD-9-CM
3523	OPN OTH REPL MITRL VALVE TISS GRAFT	Procedure	ICD-9-CM
3524	OPEN & OTHER REPLACEMENT MITRAL VALVE	Procedure	ICD-9-CM
3525	OPEN OTH REPL PULM VALVE TISS GRAFT	Procedure	ICD-9-CM
3526	OPEN & OTHER REPL PULMONARY VALVE	Procedure	ICD-9-CM
3527	OPEN & OTH REPL TV W/TISSUE GRAFT	Procedure	ICD-9-CM
3528	OPEN & OTHER REPL TRICUSPD VALVE	Procedure	ICD-9-CM
33405	REPLACEMENT OF AORTIC VALVE	Procedure	CPT-4
33406	REPLACEMENT OF AORTIC VALVE	Procedure	CPT-4
33410	REPLACEMENT OF AORTIC VALVE	Procedure	CPT-4
33411	REPLACEMENT OF AORTIC VALVE	Procedure	CPT-4
33412	REPLACEMENT OF AORTIC VALVE	Procedure	CPT-4
33413	REPLACEMENT OF AORTIC VALVE	Procedure	CPT-4
33430	REPLACEMENT OF MITRAL VALVE	Procedure	CPT-4
33465	REPLACE TRICUSPID VALVE	Procedure	CPT-4
33475	REPLACEMENT PULMONARY VALVE	Procedure	CPT-4
33496	REPAIR PROSTH VALVE CLOT	Procedure	CPT-4
Z95.2	Presence of prosthetic heart valve	Diagnosis	ICD-10-CM
Z95.3	Presence of xenogenic heart valve	Diagnosis	ICD-10-CM
Z95.4	Presence of other heart-valve replacement	Diagnosis	ICD-10-CM
02RF07Z	Replacement of Aortic Valve with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02RF08Z	Replacement of Aortic Valve with Zooplasic Tissue, Open Approach	Procedure	ICD-10-PCS
02RF0JZ	Replacement of Aortic Valve with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02RF0KZ	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02RF47Z	Replacement of Aortic Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RF48Z	Replacement of Aortic Valve with Zooplasic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RF4JZ	Replacement of Aortic Valve with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RF4KZ	Replacement of Aortic Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RG07Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02RG08Z	Replacement of Mitral Valve with Zooplasic Tissue, Open Approach	Procedure	ICD-10-PCS
02RG0JZ	Replacement of Mitral Valve with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02RG0KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02RG37Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
02RG38Z	Replacement of Mitral Valve with Zooplasic Tissue, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
02RG3JZ	Replacement of Mitral Valve with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
02RG3KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
02RG47Z	Replacement of Mitral Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RG48Z	Replacement of Mitral Valve with Zooplasic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RG4JZ	Replacement of Mitral Valve with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RG4KZ	Replacement of Mitral Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RH07Z	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02RH08Z	Replacement of Pulmonary Valve with Zooplasic Tissue, Open Approach	Procedure	ICD-10-PCS
02RH0JZ	Replacement of Pulmonary Valve with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02RH0KZ	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02RH47Z	Replacement of Pulmonary Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RH48Z	Replacement of Pulmonary Valve with Zooplasic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RH4JZ	Replacement of Pulmonary Valve with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RH4KZ	Replacement of Pulmonary Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RJ07Z	Replacement of Tricuspid Valve with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02RJ08Z	Replacement of Tricuspid Valve with Zooplasic Tissue, Open Approach	Procedure	ICD-10-PCS
02RJ0JZ	Replacement of Tricuspid Valve with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02RJ0KZ	Replacement of Tricuspid Valve with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02RJ47Z	Replacement of Tricuspid Valve with Autologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RJ48Z	Replacement of Tricuspid Valve with Zooplasic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RJ4JZ	Replacement of Tricuspid Valve with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02RJ4KZ	Replacement of Tricuspid Valve with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
X2RF03Z	Replacement of Aortic Valve using Zooplasic Tissue, Rapid Deployment Technique, Open Approach, New Technology Group 2	Procedure	ICD-10-PCS
X2RF43Z	Replacement of Aortic Valve using Zooplasic Tissue, Rapid Deployment Technique, Percutaneous Endoscopic Approach, New Technology Group 2	Procedure	ICD-10-PCS
Valve repair			
33400	REPAIR OF AORTIC VALVE	Procedure	CPT-4
33401	VALVULOPLASTY OPEN	Procedure	CPT-4
33403	VALVULOPLASTY W/CP BYPASS	Procedure	CPT-4
33420	REVISION OF MITRAL VALVE	Procedure	CPT-4
33422	REVISION OF MITRAL VALVE	Procedure	CPT-4
33425	REPAIR OF MITRAL VALVE	Procedure	CPT-4
33426	REPAIR OF MITRAL VALVE	Procedure	CPT-4
33427	REPAIR OF MITRAL VALVE	Procedure	CPT-4
33463	VALVULOPLASTY TRICUSPID	Procedure	CPT-4
33464	VALVULOPLASTY TRICUSPID	Procedure	CPT-4

Appendix E. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I Procedure Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code	
		Category	Code Type
33465	REPLACE TRICUSPID VALVE	Procedure	CPT-4
33470	REVISION OF PULMONARY VALVE	Procedure	CPT-4
33471	VALVOTOMY PULMONARY VALVE	Procedure	CPT-4
33472	REVISION OF PULMONARY VALVE	Procedure	CPT-4
33474	REVISION OF PULMONARY VALVE	Procedure	CPT-4
92986	REVISION OF AORTIC VALVE	Procedure	CPT-4
92987	REVISION OF MITRAL VALVE	Procedure	CPT-4
92990	REVISION OF PULMONARY VALVE	Procedure	CPT-4

Appendix F. List of Generic and Brand Names of Medical Products Used to Define Censoring Criteria in this Request

Generic Name	Brand Name
Anti-coagulants	
apixaban	Eliquis
apixaban	Eliquis DVT-PE Treat 30D Start
dabigatran etexilate mesylate	Pradaxa
dabigatran etexilate mesylate	dabigatran etexilate
edoxaban tosylate	Savaysa
rivaroxaban	Xarelto
rivaroxaban	Xarelto DVT-PE Treat 30d Start
warfarin sodium	Coumadin
warfarin sodium	warfarin
warfarin sodium	Jantoven

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Estrogen replacement	
drospirenone/estradiol	Angeliq
estradiol	estradiol
estradiol	Estrace
estradiol	Elestrin
estradiol	Vivelle-Dot
estradiol	Estraderm
estradiol	Divigel
estradiol	Evamist
estradiol	Estrasorb
estradiol	EstroGel
estradiol	Climara
estradiol	Menostar
estradiol	Alora
estradiol	Vivelle
estradiol	Estradiol Transdermal Patch
estradiol	Minivelle
estradiol	Estring
estradiol	Vagifem
estradiol	Yuvafem
estradiol	Dotti
estradiol	Lyllana
estradiol acetate	Femtrace
estradiol acetate	Femring
estradiol cypionate	Depo-Estradiol
estradiol valerate	estradiol valerate
estradiol valerate	Delestrogen
estradiol/levonorgestrel	Climara Pro
estradiol/norethindrone acetate	Mimvey Lo
estradiol/norethindrone acetate	Mimvey
estradiol/norethindrone acetate	Activella
estradiol/norethindrone acetate	estradiol-norethindrone acet
estradiol/norethindrone acetate	Amabelz
estradiol/norethindrone acetate	Lopreeza
estradiol/norethindrone acetate	CombiPatch
estradiol/norgestimate	Prefest
estradiol/norgestimate	Ortho-Prefest
estradiol/progesterone	Bijuva
estrogens, conjugated	Premarin
estrogens, conjugated, synthetic A	Cenestin
estrogens, conjugated, synthetic B	Enjuvia
estrogens, conjugated/bazedoxifene acetate	Duavee
estrogens, conjugated/medroxyprogesterone acetate	Prempro
estrogens, conjugated/medroxyprogesterone acetate	Premphase
estrogens,esterified	Menest
estrogens,esterified/methyltestosterone	estrogens-methyltestosterone
estrogens,esterified/methyltestosterone	Covaryx
estrogens,esterified/methyltestosterone	Covaryx H.S.

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
estrogens,esterified/methyltestosterone	EEMT
estrogens,esterified/methyltestosterone	EEMT HS
estrogens,esterified/methyltestosterone	Essian
estrogens,esterified/methyltestosterone	Essian H.S.
estrone	estrone (bulk)
estropipate	Ogen 1.25
estropipate	estropipate
estropipate	Ogen 0.625
estropipate	Ogen 2.5
estropipate	Ortho-Est 0.625
estropipate	Ortho-Est 1.25
norethindrone acetate-ethinyl estradiol	Jinteli
norethindrone acetate-ethinyl estradiol	Femhrt Low Dose
norethindrone acetate-ethinyl estradiol	Femhrt 1/5
norethindrone acetate-ethinyl estradiol	Jevantique Lo
norethindrone acetate-ethinyl estradiol	Jevantique
norethindrone acetate-ethinyl estradiol	Fyavolv
norethindrone acetate-ethinyl estradiol	norethindrone ac-eth estradiol

H2-antagonist

nizatidine	Axid
famotidine	Pepcid
famotidine	Pepcid RPD
cimetidine HCl	cimetidine HCl
cimetidine	cimetidine
famotidine	famotidine
nizatidine	nizatidine
ibuprofen/famotidine	ibuprofen-famotidine
ranitidine HCl	ranitidine HCl
cimetidine	Tagamet
cimetidine	Heartburn Relief (cimetidine)
ranitidine HCl	Acid Reducer (ranitidine)
famotidine	Acid Reducer (famotidine)
famotidine	Acid Controller
famotidine/calcium carbonate/magnesium hydroxide	Complete
ranitidine HCl	Zantac
cimetidine	Tagamet HB
famotidine/calcium carbonate/magnesium hydroxide	Tums Dual Action (famotidine)
ranitidine HCl	Zantac 150 EFFERdose
ranitidine HCl	Zantac 25 EFFERdose
ranitidine HCl	Wal-Zan 150
ranitidine HCl	Wal-Zan 75
famotidine/calcium carbonate/magnesium hydroxide	Acid Controller Complete
ranitidine HCl	Zantac 75
ranitidine HCl	Zantac Maximum Strength
nizatidine	Axid AR
cimetidine	Acid Reducer (cimetidine)

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
famotidine	Heartburn Relief (famotidine)
famotidine/calcium carbonate/magnesium hydroxide	Dual Action Complete
famotidine/calcium carbonate/magnesium hydroxide	Acid Reducer Complete (famot)
ranitidine HCl	Taladine
famotidine/calcium carbonate/magnesium hydroxide	Pepcid Complete
famotidine	Pepcid AC
ranitidine HCl	Acid Control (ranitidine)
famotidine	Heartburn Prevention
ranitidine HCl	Heartburn Relief (ranitidine)
cimetidine	Heartburn 200
cimetidine	Acid Relief (cimetidine)
RANITIDINE HCL	Deprizine
cimetidine	Heartburn
ranitidine HCl/dietary supplement no.17	Gabitidine
ranitidine HCl/dietary supplement no.8	Sentradine
ibuprofen/famotidine	Duexis
famotidine/calcium carbonate/magnesium hydroxide	Duo Fusion

Non-steroidal anti-inflammatory drugs (NSAIDs)

naproxen	Naprosyn
ketorolac tromethamine	Toradol
naproxen sodium	Anaprox DS
naproxen sodium	Anaprox
naproxen	EC-Naprosyn
indomethacin	Indocin
rofecoxib	Vioxx
sulindac	Clinoril
ketoprofen	Oruvail
flurbiprofen	Ansaid
ibuprofen	Motrin IB
ibuprofen	Motrin
oxaprozin	Daypro
diclofenac sodium/misoprostol	Arthrotec 50
diclofenac sodium/misoprostol	Arthrotec 75
celecoxib	Celebrex
valdecoxib	Bextra
diclofenac potassium	Cataflam
diclofenac sodium	Voltaren-XR
diclofenac sodium	Voltaren
nabumetone	Relafen
ibuprofen	Children's Motrin
tolmetin sodium	Tolectin DS
tolmetin sodium	Tolectin
etodolac	Lodine
etodolac	Lodine XL
meloxicam	meloxicam
naproxen	naproxen

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
diclofenac sodium	diclofenac sodium
piroxicam	Feldene
ketorolac tromethamine	ketorolac
hydrocodone/ibuprofen	Vicoprofen
ibuprofen	ibuprofen
naproxen sodium	Naprelan
naproxen sodium	naproxen sodium
flurbiprofen	flurbiprofen
piroxicam	piroxicam
etodolac	etodolac
oxaprozin	oxaprozin
diclofenac potassium	diclofenac potassium
nabumetone	nabumetone
tolmetin sodium	tolmetin
ketoprofen	ketoprofen
diclofenac epolamine	diclofenac epolamine
indomethacin	indomethacin
hydrocodone/ibuprofen	hydrocodone-ibuprofen
celecoxib	celecoxib
ibuprofen/famotidine	ibuprofen-famotidine
ibuprofen	Ibuprofen Jr Strength
ibuprofen/diphenhydramine citrate	Ibuprofen PM
ibuprofen	Infant's Ibuprofen
ibuprofen/pseudoephedrine HCl	Ibuprofen Cold-Sinus(with PSE)
ibuprofen	Children's Ibuprofen
naproxen sodium	All Day Pain Relief
fenoprofen calcium	fenoprofen
sumatriptan succinate/naproxen sodium	Treximet
ibuprofen	Genpril
naproxen/esomeprazole magnesium	Vimovo
ibuprofen/oxycodone HCl	ibuprofen-oxycodone
mefenamic acid	Ponstel
mefenamic acid	mefenamic acid
naproxen sodium/pseudoephedrine HCl	Aleve Cold and Sinus
naproxen sodium/pseudoephedrine HCl	Aleve Sinus and Headache
lansoprazole/naproxen	PREVACID NapraPAC
ibuprofen/pseudoephedrine HCl	Wal-Profen Cold-Sinus
ibuprofen	Wal-Profen
naproxen sodium	Wal-Proxen
naproxen sodium/pseudoephedrine HCl	All Day Pain Relief Sinus,Cold
ibuprofen/pseudoephedrine HCl	Wal-Profen D Cold and Sinus
ibuprofen/diphenhydramine HCl	Ibuprofen PM
meclofenamate sodium	meclofenamate
sulindac	sulindac
naproxen/esomeprazole magnesium	naproxen-esomeprazole
sumatriptan succinate/naproxen sodium	sumatriptan-naproxen
diclofenac sodium	Dyloject

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
indomethacin sodium	indomethacin sodium
ibuprofen	Infant's Motrin
naproxen sodium/pseudoephedrine HCl	Sudafed 12 Hr Pressure-Pain
ibuprofen	Children's Motrin Jr Strength
ibuprofen/diphenhydramine citrate	Motrin PM
ibuprofen/pseudoephedrine HCl	Children's Motrin Cold
ibuprofen/oxycodone HCl	Combunox
ketorolac tromethamine	Sprix
naproxen sodium	All Day Relief
ibuprofen/phenylephrine HCl	Congestion Relief (ibuprof-PE)
ibuprofen	Menadol
ketoprofen	Orudis KT
ibuprofen/acetaminophen	Advil Dual Action
ibuprofen	Advil
ibuprofen/diphenhydramine citrate	Advil PM
ibuprofen/diphenhydramine HCl	Advil PM Liqui-Gels
ibuprofen	Advil Migraine
ibuprofen	Advil Liqui-Gel
ibuprofen	Children's Advil
ibuprofen	Advil Junior Strength
ibuprofen/pseudoephedrine HCl	Advil Cold and Sinus
chlorpheniramine maleate/pseudoephedrine HCl/ibuprofen	Advil Allergy Sinus
ibuprofen	Infant's Advil
ibuprofen/phenylephrine HCl	Advil Congestion Relief
chlorpheniramine maleate/phenylephrine HCl/ibuprofen	Advil Allergy-Congestion Rlf
ibuprofen/phenylephrine HCl	Advil Sinus Congestion-Pain
diclofenac sodium/misoprostol	diclofenac-misoprostol
meloxicam	Mobic
ibuprofen	Q-Profen
fenoprofen calcium	Nalfon
ibuprofen	IBU-200
diclofenac epolamine	Flector
ibuprofen	Ibuprofen IB
ibuprofen/pseudoephedrine HCl	Cold-Sinus Relief
dextromethorphan HBr/acetaminophen/doxylamine	Nite Time Cold-Flu
naproxen sodium/pseudoephedrine HCl	Sinus and Cold-D
ibuprofen	Children's Ibu-Drops
ibuprofen	Ibupain-200
ibuprofen	Profen IB
ibuprofen	Midol Max St Cramp Formula
naproxen sodium	Midol (naproxen)
diclofenac potassium	Zipsor
diclofenac potassium	Cambia
nabumetone	Relafen DS
diclofenac potassium	Lofena
naproxen sodium	Naprelan CR
ibuprofen	Nuprin

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
ibuprofen/pseudoephedrine HCl	Cold and Sinus Pain Relief
hydrocodone/ibuprofen	Reprexain
ibuprofen/pseudoephedrine HCl	Ibuprofen Cold
ibuprofen	Tab-Profen
naproxen sodium	Aleve
naproxen sodium/pseudoephedrine HCl	Aleve-D Sinus and Headache
naproxen sodium/pseudoephedrine HCl	Aleve-D Sinus and Cold
naproxen sodium/diphenhydramine HCl	Aleve PM
naproxen sodium	Flanax (naproxen)
ibuprofen/diphenhydramine HCl	ibuprofen-diphenhydramine HCl
ibuprofen	Child Ibuprofen
ibuprofen	Infants Ibu-Drops
ibuprofen	Ibu-Drops
ibuprofen lysine/PF	ibuprofen lysine (PF)
ibuprofen	Children's Profen IB
ibuprofen	Infants ProfenIB
indomethacin, submicronized	Tivorbex
diclofenac submicronized	Zorvolex
meloxicam, submicronized	Vivlodex
ibuprofen/irritants counter-irritants combination no.2	Comfort Pac-Ibuprofen
meloxicam/irritants counter-irritants combination no.2	Comfort Pac-Meloxicam
bupivacaine/meloxicam	Zynrelef
ibuprofen	I-Prin
naproxen sodium	Mediproxen
ibuprofen	Addaprin
ibuprofen	Medi-Profen
ibuprofen	Infant's Medi-Profen
ibuprofen	Children's Medi-Profen
ibuprofen	Nuprin Menstrual Relief
ibuprofen/diphenhydramine citrate	ibuprofen-diphenhydramine cit
ibuprofen	Motrin Migraine
naproxen sodium/pseudoephedrine HCl	Sudafed 12 Hr Sinus-Pain
naproxen sodium/pseudoephedrine HCl	Sudafed Sinus 12Hr Pressr-Pain
ibuprofen/phenylephrine HCl	Sudafed PE Head Congestn-Pain
hydrocodone/ibuprofen	Ibudone
hydrocodone/ibuprofen	Xylon 10
ibuprofen	ElixSure IB Suspension
fentanyl citrate	fentanyl citrate
ketorolac tromethamine	ReadySharp ketorolac
fenoprofen calcium	Fenortho
indomethacin	Indocin SR
ketoprofen	Orudis
ibuprofen	IBU
naproxen/irritant counter-irritant combination no.2	Comfort Pac-Naproxen
ibuprofen lysine/PF	NeoProfen (ibuprofen lysn)(PF)
ibuprofen	Advanced Pain Relief
Ibuprofen/Caffeine/Vitamins B1, B2, B6, & B12	IC400

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
ibuprofen/Caffeine/Vitamins B1, B2, B6, & B12	IC800
diclofenac sodium/capsicum oleoresin	Inflammacin
naproxen/capsicum oleoresin	Naprotin
ibuprofen/glycerin	Ibupak
ibuprofen	Yaprofen
celecoxib	Elyxyb
calcitriol	calcitriol
naproxen sodium/diphenhydramine HCl	Naproxen PM
ibuprofen	Provil
phenylephrine HCl/ketorolac tromethamine	Omidria
naproxen sodium/menthol	NaproPak Cool
naproxen	EC-Naproxen
NAPROXEN	Naproderm
ibuprofen	Ibuprofen M
ibuprofen	Caldolor
tramadol HCl/celecoxib	Seglentis
fenoprofen calcium	ProFeno
indomethacin sodium	Indocin I.V.
phenol	Sore Throat (phenol)
meloxicam, submicronized	meloxicam submicronized
naproxen/dietary supplement, misc. cb.11	Theraproxen
naproxen/dietary supplement, misc. cb.11	Theraproxen-90
piroxicam/dietary supplement, misc. cb.11	Therafeldamine
ibuprofen/dietary supplement, misc. cb.11	Theraprofen-60
ibuprofen/dietary supplement, misc. cb.11	Theraprofen-90
naproxen sodium	Naprelan CR Dose Card
naproxen/capsaicin/menthol/methyl salicylate	Pain Relief Collection
amlodipine besylate/celecoxib	Consensi
diclofenac sodium/capsicum oleoresin	DermaSilkRx DicloPak
diclofenac sodium/capsaicin	Flexipak
bupivacaine/ketorolac/ketamine	bupivacaine-ketorolac-ketamine
ropivacaine HCl/clonidine HCl/ketorolac tromethamine	ropivacaine-clonidin-ketorolac
ropivacaine/ketorolac/ketamine	ropivacaine-ketorolac-ketamine
naproxen/capsaicin/menthol	NaproxenPax
naproxen/capsaicin/menthol	NaproPax
diclofenac sodium/capsicum oleoresin	Xenaflamm
celecoxib/capsaicin/menthol	CapXib
celecoxib/lidocaine/menthol	LidoXib
ibuprofen/pseudoephedrine HCl	Cold-Sinus Relief (ibuprofen)
naproxen sodium/pseudoephedrine HCl	All Day Cold and Sinus
ropivacaine HCl/epinephrine/clonidine HCl/ketorolac tromethamine	ropivacaine-epi-clonid-ketorolac
diclofenac sodium/methyl salicylate/menthol/camphor	Inflamma-K
meloxicam	Qmiiz ODT
diclofenac sodium/capsaicin	NuDiclo TabPAK
celecoxib/capsaicin/methyl salicylate/menthol	NuDroxiPAK
ibuprofen/capsaicin/methyl salicylate/menthol	NuDroxiPAK I-800
nabumetone/capsaicin/methyl salicylate/menthol	NuDroxiPAK N-500

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
diclofenac sodium/capsaicin/methyl salicylate/menthol	NuDroxiPAK DSDR-50
diclofenac sodium/capsaicin/methyl salicylate/menthol	NuDroxiPAK DSDR-75
etodolac/capsaicin/methyl salicylate/menthol	NuDroxiPAK E-400
dexamethasone sod ph/moxifloxacin HCl/ketorolac/sod chl	dexamet-moxifl-ketoro-NaCl(PF)
meloxicam	Anjeso
diclofenac epolamine	Licart
diclofenac sodium/lidocaine	Lidovix
diclofenac sodium/capsaicin	Inavix
diclofenac sodium/trolamine salicylate	Inflatherm (diclofenac-trolam)
diclofenac sodium/menthol/camphor	Inflatherm(diclofenac-menthol)
indomethacin, submicronized	indomethacin submicronized
diclofenac submicronized	diclofenac submicronized
diclofenac sodium/capsicum oleoresin	PrevidolRx Plus Analgesic Pak
ibuprofen/famotidine	Duexis
ketorolac/norflurane and pentafluoropropane (HFC 245fa)	Toronova SUIK
ketorolac/norflurane and pentafluoropropane (HFC 245fa)	Toronova II SUIK
NAPROXEN	Napro
ibuprofen	Cap-Profen
ibuprofen	Ibutab

Proton pump inhibitors

pantoprazole sodium	pantoprazole
pantoprazole sodium	Protonix
lansoprazole	Prevacid 24Hr
rabeprazole sodium	rabeprazole
lansoprazole	lansoprazole
omeprazole	omeprazole
esomeprazole magnesium	esomeprazole magnesium
lansoprazole/amoxicillin trihydrate/clarithromycin	amoxicil-clarithromy-lansopraz
omeprazole magnesium	omeprazole magnesium
naproxen/esomeprazole magnesium	Vimovo
omeprazole	Prilosec
omeprazole magnesium	Prilosec
esomeprazole magnesium	Nexium Packet
esomeprazole magnesium	Nexium
esomeprazole sodium	Nexium IV
lansoprazole	Prevacid
lansoprazole	Prevacid SoluTab
lansoprazole/naproxen	PREVACID NapraPAC
lansoprazole/amoxicillin trihydrate/clarithromycin	Prevpac
lansoprazole	Prevacid IV
omeprazole/sodium bicarbonate	omeprazole-sodium bicarbonate
naproxen/esomeprazole magnesium	naproxen-esomeprazole
lansoprazole	Heartburn Treatment 24 Hour
esomeprazole magnesium	Nexium 24HR
lansoprazole	Heartburn Relief 24 Hour
omeprazole/sodium bicarbonate	Zegerid OTC

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
rabeprazole sodium	AcipHex Sprinkle
rabeprazole sodium	AcipHex
esomeprazole sodium	esomeprazole sodium
dexlansoprazole	dexlansoprazole
omeprazole magnesium	Prilosec OTC
OMEPRAZOLE	Omeprazole+SyrSpend SF Alka
esomeprazole strontium	esomeprazole strontium
omeprazole/sodium bicarbonate	Zegerid
dexlansoprazole	Kapidex
dexlansoprazole	Dexilant
colchicine	colchicine
omeprazole magnesium/amoxicillin trihydrate/rifabutin	Talicia
esomeprazole magnesium/glycerin	Esomep-EZS
aspirin/omeprazole	Yosprala
aspirin/omeprazole	aspirin-omeprazole
omeprazole/clarithromycin/amoxicillin trihydrate	Omeclamox-Pak
OMEPRAZOLE	FIRST-Omeprazole
LANSOPRAZOLE	FIRST-Lansoprazole
omeprazole/sodium bicarbonate	OmePPi
omeprazole magnesium	Acid Reducer (omeprazole)
esomeprazole magnesium	Heartburn Treatment
famotidine	Zantac-360 (famotidine)
Selective serotonin reuptake inhibitor (SSRI) antidepressants	
fluoxetine HCl	Prozac Weekly
fluoxetine HCl	Sarafem
olanzapine/fluoxetine HCl	Symbyax
fluoxetine HCl	Prozac
paroxetine HCl	Paxil CR
paroxetine HCl	Paxil
sertraline HCl	Zoloft
sertraline HCl	sertraline
citalopram hydrobromide	citalopram
fluvoxamine maleate	fluvoxamine
fluoxetine HCl	fluoxetine
olanzapine/fluoxetine HCl	olanzapine-fluoxetine
escitalopram oxalate	escitalopram oxalate
paroxetine HCl	paroxetine HCl
fluoxetine HCl	Selfemra
escitalopram oxalate	Lexapro
citalopram hydrobromide	Celexa
fluoxetine HCl	Rapiflux
zaleplon	zaleplon
paroxetine mesylate	Pexeva
metformin HCl	metformin
fluoxetine HCl/dietary supplement no.17	Gaboxetine
fluoxetine HCl/dietary supplement no.8	Sentroxatine
fluvoxamine maleate	Luvox CR

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Generic Name	Brand Name
paroxetine mesylate	Brisdelle
	Insulin
insulin lispro	Humalog U-100 Insulin
insulin lispro protamine and insulin lispro	Humalog Mix 75-25(U-100)Insuln
insulin lispro protamine and insulin lispro	Humalog Mix 50-50 Insuln U-100
insulin lispro	Humalog KwikPen Insulin
insulin lispro	Humalog Junior KwikPen U-100
insulin glargine,human recombinant analog	Basaglar KwikPen U-100 Insulin
insulin lispro-aabc	Lyumjev U-100 Insulin
insulin lispro	insulin lispro
insulin lispro-aabc	Lyumjev KwikPen U-100 Insulin
insulin regular,beef-pork	Iletin I Regular
insulin,pork purified	Iletin II Regular (Pork)
insulin regular, human	Humulin R Regular U-100 Insuln
insulin lispro-aabc	Lyumjev KwikPen U-200 Insulin
insulin lispro protamine and insulin lispro	insulin lispro protamin-lispro
insulin isophane NPH,bf-pk	Iletin I NPH
insulin isophane,pork pure	Iletin II NPH (Pork)
insulin NPH human isophane	Humulin N NPH U-100 Insulin
insulin zinc,beef-pork	Iletin I Lente
insulin zinc,pork purified	Iletin II Lente (Pork)
insulin zinc human recombinant	Humulin L
insulin regular, human	Humulin R U-500 (Conc) Insulin
insulin zinc extended human recombinant	Humulin U Insulin
insulin NPH human isophane/insulin regular, human	Humulin 70/30 U-100 Insulin
insulin lispro	Humalog Pen
insulin NPH human isophane	Humulin N Pen
insulin NPH human isophane/insulin regular, human	Humulin 70/30 Insulin Pen
insulin lispro protamine and insulin lispro	Humalog Mix 75-25 KwikPen
insulin lispro protamine and insulin lispro	Humalog Mix 50-50 KwikPen
insulin NPH human isophane/insulin regular, human	Humulin 70/30 U-100 KwikPen
insulin NPH human isophane	Humulin N NPH Insulin KwikPen
insulin regular, human	Humulin R U-500 (Conc) Kwikpen
insulin NPH human isophane/insulin regular, human	Humulin 50/50
insulin glargine,human recombinant analog/lixisenatide	Soliqua 100/33
insulin glargine,human recombinant analog	Toujeo SoloStar U-300 Insulin
insulin glargine,human recombinant analog	Toujeo Max U-300 SoloStar
insulin regular, human	Afrezza
insulin lispro	Admelog U-100 Insulin lispro
insulin lispro	Admelog SoloStar U-100 Insulin
insulin regular, human/insulin release unit	Exubera Combination Pack 12
insulin regular, human/insulin release unit	Exubera Combination Pack 15
Insulin Regular, Human/Insulin Release Unit/Chamber/Inha	Exubera Kit
insulin regular, human/insulin release unit	Exubera Patient Pack
insulin glargine,human recombinant analog	Lantus Solostar U-100 Insulin
insulin glargine,human recombinant analog	Lantus U-100 Insulin
insulin glulisine	Apidra U-100 Insulin

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
insulin glulisine	Apidra SoloStar U-100 Insulin
insulin NPH human isophane/insulin regular, human	Novolin 70/30 U-100 Insulin
insulin regular, human	Novolin R Regular U-100 Insulin
insulin NPH human isophane	Novolin N NPH U-100 Insulin
insulin regular,human buffered	Velosulin BR (rDNA)
insulin zinc human recombinant	Novolin L
insulin aspart	Novolog U-100 Insulin aspart
insulin aspart	Novolog FlexPen U-100 Insulin
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30 U-100 Insulin
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30FlexPen U-100
insulin regular, human	Novolin R InnoLet
insulin NPH human isophane	Novolin N InnoLet
insulin NPH human isophane/insulin regular, human	Novolin 70/30 InnoLet Insulin
insulin degludec	Tresiba FlexTouch U-200
insulin degludec	Tresiba FlexTouch U-100
insulin degludec	Tresiba U-100 Insulin
insulin degludec/liraglutide	Xultophy 100/3.6
insulin regular, human	Novolin R FlexPen
insulin NPH human isophane	Novolin N FlexPen
insulin NPH human isophane/insulin regular, human	Novolin 70-30 FlexPen U-100
insulin aspart (niacinamide)	Fiasp U-100 Insulin
insulin aspart (niacinamide)	Fiasp FlexTouch U-100 Insulin
insulin aspart (niacinamide)	Fiasp Penfill U-100 Insulin
insulin aspart	Novolog PenFill U-100 Insulin
insulin regular, human	Novolin R PenFill
insulin NPH human isophane	Novolin N PenFill
insulin NPH human isophane/insulin regular, human	Novolin 70/30 PenFill
insulin detemir	Levemir U-100 Insulin
insulin detemir	Levemir FlexTouch U-100 Insulin
insulin detemir	Levemir FlexPen
diluent,insulin aspart combination no.1	Diluting Medium for Novolog
insulin regular, human in 0.9 % sodium chloride	Myxredlin
insulin glargine,human recombinant analog	insulin glargine
insulin regular,human buffered	Velosulin Human Br
insulin glargine,human recombinant analog	Semglee U-100 Insulin
insulin glargine,human recombinant analog	Semglee Pen U-100 Insulin
insulin glargine-yfng	Semglee(insulin glargine-yfng)
insulin glargine-yfng	Semglee(insulin glarg-yfng)Pen
insulin glargine-yfng	insulin glargine-yfng
insulin aspart	insulin aspart U-100
insulin aspart protamine human/insulin aspart	insulin asp prt-insulin aspart
insulin degludec	insulin degludec
Metformin (Biguanide)	
saxagliptin HCl/metformin HCl	Kombiglyze XR
sitagliptin phosphate/metformin HCl	Janumet XR
sitagliptin phosphate/metformin HCl	Janumet
ertugliflozin pidolate/metformin HCl	Segluromet

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
rosiglitazone maleate/metformin HCl	Avandamet
metformin HCl	Glucophage
metformin HCl	Glucophage XR
glyburide/metformin HCl	Glucovance
glipizide/metformin HCl	Metaglip
metformin HCl	metformin
pioglitazone HCl/metformin HCl	pioglitazone-metformin
glyburide/metformin HCl	glyburide-metformin
glipizide/metformin HCl	glipizide-metformin
repaglinide/metformin HCl	Prandimet
dapagliflozin propanediol/metformin HCl	Xigduo XR
gabapentin	gabapentin
linagliptin/metformin HCl	Jentadueto
empagliflozin/metformin HCl	Synjardy
linagliptin/metformin HCl	Jentadueto XR
empagliflozin/linagliptin/metformin HCl	Trijardy XR
metformin HCl	Riomet ER
metformin HCl	Riomet
metformin HCl	Glumetza
pioglitazone HCl/metformin HCl	Actoplus MET
alogliptin benzoate/metformin HCl	alogliptin-metformin
butalbital/aspirin/caffeine	butalbital-aspirin-caffeine
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
metformin HCl	Fortamet
pioglitazone HCl/metformin HCl	Actoplus Met XR
alogliptin benzoate/metformin HCl	Kazano
repaglinide/metformin HCl	repaglinide-metformin
metformin/caffeine/amino acids 7/herbal comb 125/cholin	Appformin
metformin/amino acids no.7/herbal cmb.125/choline bitar	Appformin-D
Sulfonylureas	
rosiglitazone maleate/glimepiride	Avandaryl
tolazamide	Tolinase
glyburide	Micronase
glyburide,micronized	Glynase
glyburide	Diabeta
glimepiride	Amaryl
glipizide	Glucotrol XL
glipizide	Glucotrol
chlorpropamide	Diabinese
glyburide/metformin HCl	Glucovance
glipizide/metformin HCl	Metaglip
glyburide/metformin HCl	glyburide-metformin
glimepiride	glimepiride
glipizide/metformin HCl	glipizide-metformin
glyburide,micronized	glyburide micronized
glyburide	glyburide

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
tolazamide	tolazamide
glipizide	glipizide
chlorpropamide	chlorpropamide
tolbutamide	tolbutamide
acetoexamide	acetoexamide
pioglitazone HCl/glimepiride	pioglitazone-glimepiride
triamterene/hydrochlorothiazide	triamterene-hydrochlorothiazid
naproxen sodium	naproxen sodium
pramipexole di-HCl	pramipexole
bupirone HCl	bupirone
pioglitazone HCl/glimepiride	DUETACT
glyburide, micronized	Glycron
Other Diabetes Medications	
dulaglutide	Trulicity
dapagliflozin propanediol	Farxiga
saxagliptin HCl	Onglyza
saxagliptin HCl/metformin HCl	Kombiglyze XR
sitagliptin phosphate/metformin HCl	Janumet XR
sitagliptin phosphate	Januvia
sitagliptin phosphate/simvastatin	Juvisync
sitagliptin phosphate/metformin HCl	Janumet
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
rosiglitazone maleate/glimepiride	Avandaryl
rosiglitazone maleate/metformin HCl	Avandamet
miglitol	Glyset
lixisenatide	Adlyxin
insulin glargine, human recombinant analog/lixisenatide	Soliqua 100/33
acarbose	Precose
rosiglitazone maleate	Avandia
acarbose	acarbose
nateglinide	Starlix
pioglitazone HCl	pioglitazone
pioglitazone HCl/metformin HCl	pioglitazone-metformin
repaglinide	Prandin
repaglinide/metformin HCl	Prandimet
liraglutide	Saxenda
insulin degludec/liraglutide	Xultophy 100/3.6
liraglutide	Victoza 2-Pak
liraglutide	Victoza 3-Pak
semaglutide	Ozempic
semaglutide	Rybelsus
semaglutide	Wegovy
albiglutide	Tanzeum
dapagliflozin propanediol/metformin HCl	Xigduo XR
exenatide	Byetta
exenatide microspheres	Bydureon

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
exenatide microspheres	Bydureon BCise
pramlintide acetate	SymLinPen 60
pramlintide acetate	SymLinPen 120
repaglinide	repaglinide
nateglinide	nateglinide
linagliptin	Tradjenta
linagliptin/metformin HCl	Jentadueto
empagliflozin	Jardiance
empagliflozin/metformin HCl	Synjardy
empagliflozin/linagliptin	Glyxambi
linagliptin/metformin HCl	Jentadueto XR
empagliflozin/metformin HCl	Synjardy XR
pioglitazone HCl/glimepiride	pioglitazone-glimepiride
phosphorated carbohydrate (dextrose and fructose)	Especol
pioglitazone HCl	Actos
phosphorated carbohydrate (dextrose and fructose)	Anti-Nausea
pioglitazone HCl/metformin HCl	Actoplus MET
pramlintide acetate	SymLin
alogliptin benzoate	alogliptin
alogliptin benzoate/metformin HCl	alogliptin-metformin
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
phosphorated carbohydrate (dextrose and fructose)	Emetrol
miglitol	miglitol
alogliptin benzoate/pioglitazone HCl	Oseni
alogliptin benzoate	Nesina
pioglitazone HCl/glimepiride	DUETACT
pioglitazone HCl/metformin HCl	Actoplus Met XR
alogliptin benzoate/metformin HCl	Kazano
repaglinide/metformin HCl	repaglinide-metformin
mifepristone	Korlym
Angiotensin-converting enzyme inhibitors (ACEI)/Angiotensin receptor blockers (ARBs)	
captopril/hydrochlorothiazide	Capozide
captopril	Capoten
enalapril maleate	Vasotec
lisinopril	Prinivil
lisinopril/hydrochlorothiazide	Prinzide
enalapril maleate/hydrochlorothiazide	Vaseretic
losartan potassium/hydrochlorothiazide	Hyzaar
losartan potassium	Cozaar
nebivolol HCl/valsartan	Byvalson
irbesartan	Avapro
irbesartan/hydrochlorothiazide	Avalide
perindopril erbumine	Aceon
trandolapril	Mavik

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
trandolapril/verapamil HCl	Tarka
eprosartan mesylate	Teveten
ramipril	ramipril
perindopril erbumine	perindopril erbumine
losartan potassium	losartan
losartan potassium/hydrochlorothiazide	losartan-hydrochlorothiazide
irbesartan	irbesartan
irbesartan/hydrochlorothiazide	irbesartan-hydrochlorothiazide
telmisartan	telmisartan
telmisartan/hydrochlorothiazide	telmisartan-hydrochlorothiazid
quinapril HCl/hydrochlorothiazide	Accuretic
quinapril HCl	Accupril
eprosartan mesylate/hydrochlorothiazide	Teveten HCT
valsartan/hydrochlorothiazide	Diovan HCT
valsartan	Diovan
amlodipine besylate/benazepril HCl	Lotrel
benazepril HCl	Lotensin
benazepril HCl/hydrochlorothiazide	Lotensin HCT
amlodipine besylate/valsartan	Exforge
amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
aliskiren/valsartan	Valturna
sacubitril/valsartan	Entresto
fosinopril sodium	Monopril
fosinopril sodium/hydrochlorothiazide	Monopril HCT
moexipril HCl	Univasc
moexipril HCl/hydrochlorothiazide	Uniretic
moexipril HCl	moexipril
enalapril maleate	enalapril maleate
captopril	captopril
captopril/hydrochlorothiazide	captopril-hydrochlorothiazide
lisinopril/hydrochlorothiazide	lisinopril-hydrochlorothiazide
enalapril maleate/hydrochlorothiazide	enalapril-hydrochlorothiazide
quinapril HCl	quinapril
lisinopril	lisinopril
olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	olmesartan-amlodipin-hcthiazid
benazepril HCl	benazepril
moexipril HCl/hydrochlorothiazide	moexipril-hydrochlorothiazide
amlodipine besylate/olmesartan medoxomil	amlodipine-olmesartan
amlodipine besylate/valsartan/hydrochlorothiazide	amlodipine-valsartan-hcthiazid
fosinopril sodium	fosinopril
trandolapril	trandolapril
amlodipine besylate/benazepril HCl	amlodipine-benazepril
valsartan	valsartan
olmesartan medoxomil	olmesartan
olmesartan medoxomil/hydrochlorothiazide	olmesartan-hydrochlorothiazide
amlodipine besylate/valsartan	amlodipine-valsartan
enalaprilat dihydrate	enalaprilat

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
benazepril HCl/hydrochlorothiazide	benazepril-hydrochlorothiazide
fosinopril sodium/hydrochlorothiazide	fosinopril-hydrochlorothiazide
enalapril maleate/felodipine	Lexxel
candesartan cilexetil	Atacand
candesartan cilexetil/hydrochlorothiazide	Atacand HCT
lisinopril	Zestril
ramipril	Altace
lisinopril/hydrochlorothiazide	Zestoretic
quinapril HCl/hydrochlorothiazide	quinapril-hydrochlorothiazide
telmisartan/amlodipine besylate	telmisartan-amlodipine
candesartan cilexetil/hydrochlorothiazide	candesartan-hydrochlorothiazid
candesartan cilexetil	candesartan
valsartan/hydrochlorothiazide	valsartan-hydrochlorothiazide
eprosartan mesylate	eprosartan
telmisartan	Micardis
telmisartan/hydrochlorothiazide	Micardis HCT
telmisartan/amlodipine besylate	Twynsta
olmesartan medoxomil	Benicar
olmesartan medoxomil/hydrochlorothiazide	Benicar HCT
amlodipine besylate/olmesartan medoxomil	Azor
olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	Tribenzor
isosorbide dinitrate	isosorbide dinitrate
trandolapril/verapamil HCl	trandolapril-verapamil
quinapril HCl/hydrochlorothiazide	Quinaretic
enalapril maleate	Epaned
lisinopril	Qbrelis
azilsartan medoxomil	Edarbi
azilsartan medoxomil/chlorthalidone	Edarbyclor
perindopril arginine/amlodipine besylate	Prestalia
lisinopril/dietary supplement,comb.10	Lytensopril
lisinopril/dietary supplement,comb.10	Lytensopril-90
Antiarrhythmics	
quinidine gluconate	quinidine gluconate
procainamide HCl	Pronestyl
procainamide HCl	Pronestyl-SR
amiodarone HCl	Cordarone
ibutilide fumarate	Corvert
dronedarone HCl	Multaq
verapamil HCl	Calan
disopyramide phosphate	Norpace CR
disopyramide phosphate	Norpace
quinidine sulfate	Quinidex Extentabs
propafenone HCl	Rythmol
flecainide acetate	flecainide
mexiletine HCl	mexiletine
dofetilide	Tikosyn
verapamil HCl	verapamil

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
diltiazem HCl	diltiazem HCl
flecainide acetate	Tambocor
sotalol HCl	sotalol
disopyramide phosphate	disopyramide phosphate
sotalol HCl	Sotalol AF
procainamide HCl	procainamide
amiodarone HCl	amiodarone
quinidine sulfate	quinidine sulfate
phenytoin sodium	phenytoin sodium
propafenone HCl	Rythmol SR
lidocaine HCl/PF	Xylocaine (Cardiac) (PF)
tocainide HCl	Tonocard
sotalol HCl	Sorine
amiodarone HCl	Pacerone
mexiletine HCl	Mexitil
lidocaine HCl in dextrose 5% in water/PF	lidocaine in 5 % dextrose (PF)
propafenone HCl	propafenone
lidocaine HCl/PF	lidocaine (PF)
adenosine	Adenocard
ibutilide fumarate	ibutilide fumarate
esmolol HCl	esmolol
adenosine	adenosine
dofetilide	dofetilide
esmolol HCl in sodium chloride, iso-osmotic	Brevibloc in NaCl (iso-osm)
esmolol HCl	Brevibloc
sotalol HCl	Sotylize
esmolol HCl in sodium chloride, iso-osmotic	esmolol in NaCl (iso-osm)
lidocaine HCl in sodium chloride, iso-osmotic/PF	lidocaine in NaCl,iso-osmo(PF)
amiodarone HCl/dextrose 5 % in water	amiodarone in dextrose 5 %
amiodarone in dextrose, iso-osmotic	Nexterone
esmolol HCl in sterile water	esmolol in sterile water
quinidine sulfate	quinidine sulfate (bulk)
quinidine gluconate	Quinaglute Dura-Tabs
sotalol HCl	Betapace
sotalol HCl	Betapace AF
adenosine in 0.9 % sodium chloride	adenosine in 0.9 % sod chlor
adenosine triphosphate	ATP
moricizine HCl	Ethmozine
procainamide HCl	Procanbid
bretylum tosylate	bretylum tosylate
Anti-coagulant (injectable)	
heparin sodium,porcine	heparin (porcine)
fondaparinux sodium	Arixtra
argatroban	argatroban
heparin sodium,bovine	heparin (bovine)
dalteparin sodium,porcine	Fragmin
heparin sodium,porcine/PF	heparin, porcine (PF)

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
heparin sodium,porcine	heparin lock flush (porcine)
heparin sodium,porcine IN 0.9 % sodium chloride/PF	heparin (porcine) in NaCl (PF)
heparin sodium,porcine in 0.45 % sodium chloride	heparin(porcine) in 0.45% NaCl
heparin sodium,porcine/dextrose 5 % in water	heparin (porcine) in 5 % dex
enoxaparin sodium	Lovenox
argatroban in 0.9 % sodium chloride	argatroban in 0.9 % sod chlor
desirudin	Iprivask
heparin sodium,porcine in 0.9 % sodium chloride	heparin (porcine) in 0.9% NaCl
bivalirudin in 0.9 % sodium chloride	bivalirudin-0.9 % sodium chlor
bivalirudin	bivalirudin
enoxaparin sodium	enoxaparin
warfarin sodium	Coumadin
argatroban in sodium chloride, iso-osmotic	argatroban in NaCl (iso-os)
fondaparinux sodium	fondaparinux
bivalirudin	Angiomax
heparin sodium,porcine/dextrose 5 % in water/PF	heparin (porcine) in D5W (PF)
tinzaparin sodium,porcine	Innohep
lepirudin,recombinant	Refludan
heparin sodium,porcine/PF	Heparin LockFlush(Porcine)(PF)
Anti-platelets	
prasugrel HCl	Effient
abciximab	Reopro
ticlopidine HCl	Ticlid
vorapaxar sulfate	Zontivity
clopidogrel bisulfate	Plavix
cilostazol	cilostazol
dipyridamole	dipyridamole
aspirin/dipyridamole	aspirin-dipyridamole
eptifibatide	Integrilin
ticlopidine HCl	ticlopidine
clopidogrel bisulfate	clopidogrel
aspirin	aspirin
aspirin	Ecotrin
aspirin	Ecotrin Low Strength
anagrelide HCl	anagrelide
aspirin	Genacote
aspirin	Children's Aspirin
ticagrelor	Brilinta
aspirin	Bayer Aspirin
aspirin	Bayer Chewable Aspirin
aspirin	Bayer Low Dose Aspirin
aspirin/calcium carbonate	Women's Aspirin with Calcium
eptifibatide	eptifibatide
prasugrel HCl	prasugrel
aspirin	EC Aspirin
aspirin	St. Joseph Aspirin
aspirin	St. Joseph Low-Dose Aspirin

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
aspirin/dipyridamole	Aggrenox
dipyridamole	Persantine
aspirin	Aspir-Low
cangrelor tetrasodium	Kengreal
aspirin	Aspirin Childrens
aspirin	Enteric Coated Aspirin
aspirin	Stanback Headache Powder
aspirin	Aspir-Trin
aspirin	Extra Strength Bayer
aspirin	Bayer Advanced
aspirin	St Joseph Aspirin
aspirin	Aspirin Extra Strength
aspirin	AsperDrink
aspirin	Lite Coat Aspirin
tirofiban HCl monohydrate	Aggrastat Concentrate
tirofiban HCl monohydrate in 0.9 % sodium chloride	Aggrastat in sodium chloride
aspirin	Lo-Dose Aspirin
aspirin	Aspirin Low-Strength
aspirin	Adult Low Dose Aspirin
aspirin	Miniprin
aspirin	Child Aspirin
aspirin	Halfprin
anagrelide HCl	Agrylin
cilostazol	Pletal
aspirin	Baby Aspirin
dipyridamole	Dipradam
aspirin	Durlaza
aspirin	Aspir-81
aspirin	E.C. Prin
acetaminophen	acetaminophen
aspirin/omeprazole	Yosprala
aspirin/omeprazole	aspirin-omeprazole
aspirin	Adult Aspirin Regimen
aspirin	Vazalore
Beta-blockers	
nadolol	Corgard
bisoprolol fumarate/hydrochlorothiazide	Ziac
bisoprolol fumarate	Zebeta
timolol maleate	Blocadren
timolol maleate/hydrochlorothiazide	Timolide
carvedilol phosphate	Coreg CR
carvedilol	Coreg
acebutolol HCl	Sectral
betaxolol HCl	Kerlone
metoprolol tartrate/hydrochlorothiazide	Lopressor HCT
metoprolol tartrate	Lopressor
propranolol HCl	Inderal

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
propranolol HCl	Inderal LA
propranolol HCl/hydrochlorothiazide	Inderide
propranolol HCl	propranolol
carteolol HCl	Cartrol
penbutolol sulfate	Levatol
carvedilol	carvedilol
metoprolol tartrate	metoprolol tartrate
atenolol	atenolol
sotalol HCl	sotalol
bisoprolol fumarate/hydrochlorothiazide	bisoprolol-hydrochlorothiazide
nadolol	nadolol
bisoprolol fumarate	bisoprolol fumarate
sotalol HCl	Sotalol AF
nadolol/bendroflumethiazide	nadolol-bendroflumethiazide
labetalol HCl	labetalol
labetalol HCl in sodium chloride, iso-osmotic	labetalol in NaCl (iso-osmot)
labetalol HCl in dextrose, iso-osmotic	labetalol in dextrose,iso-osm
pindolol	pindolol
labetalol HCl	Trandate
propranolol HCl	InnoPran XL
metoprolol succinate	metoprolol succinate
metoprolol succinate	Toprol XL
propranolol HCl/hydrochlorothiazide	propranolol-hydrochlorothiazid
sotalol HCl	Sorine
atenolol	Tenormin
atenolol/chlorthalidone	Tenoretic 50
atenolol/chlorthalidone	Tenoretic 100
metoprolol succinate/hydrochlorothiazide	Dutoprol
timolol maleate	timolol maleate
metoprolol tartrate/hydrochlorothiazide	metoprolol ta-hydrochlorothiaz
acebutolol HCl	acebutolol
atenolol/chlorthalidone	atenolol-chlorthalidone
nebivolol HCl	Bystolic
esmolol HCl	esmolol
nebivolol HCl	nebivolol
esmolol HCl in sodium chloride, iso-osmotic	Brevibloc in NaCl (iso-osm)
esmolol HCl	Brevibloc
betaxolol HCl	betaxolol
metoprolol succinate	Kapsargo Sprinkle
carvedilol phosphate	carvedilol phosphate
sotalol HCl	Sotylize
esmolol HCl in sodium chloride, iso-osmotic	esmolol in NaCl (iso-osm)
esmolol HCl in sterile water	esmolol in sterile water
sotalol HCl	Betapace
sotalol HCl	Betapace AF
labetalol HCl	Normodyne
nadolol/bendroflumethiazide	Corzide

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
pindolol	Visken
levetiracetam	Keppra
pravastatin sodium	pravastatin
labetalol in dextrose 5 % in water	labetalol in dextrose 5 %
propranolol HCl	Inderal XL
propranolol HCl	Hemangeol
metoprolol tartrate/dietary supplement,comb.10	Hypertensolol
metoprolol succinate/hydrochlorothiazide	metoprolol su-hydrochlorothiaz
Calcium channel blockers	
nicardipine HCl	Cardene SR
nicardipine HCl	Cardene
verapamil HCl	Calan
verapamil HCl	Calan SR
verapamil HCl	Covera-HS
nimodipine	Nimotop
nifedipine	Adalat CC
verapamil HCl	Isoptin SR
bepidil HCl	Vascor
trandolapril/verapamil HCl	Tarka
amlodipine besylate	amlodipine
amlodipine besylate	Norvasc
amlodipine besylate/atorvastatin calcium	Caduet
nifedipine	Procardia
nifedipine	Procardia XL
verapamil HCl	verapamil
diltiazem HCl	diltiazem HCl
diltiazem HCl	Cardizem LA
amlodipine besylate/benazepril HCl	Lotrel
amlodipine besylate/valsartan	Exforge
amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
aliskiren hemifumarate/amlodipine besylate	Tekamlo
aliskiren hemifumarate/amlodipine/hydrochlorothiazide	Amturnide
diltiazem HCl	Cardizem
diltiazem HCl	Cardizem SR
diltiazem HCl	Cardizem CD
verapamil HCl	Verelan
verapamil HCl	Verelan PM
nicardipine HCl	nicardipine
nifedipine	Nifedical XL
nifedipine	Nifediac CC
nifedipine	nifedipine
amlodipine besylate/valsartan/hydrochlorothiazide	amlodipine-valsartan-hcthiazid
amlodipine besylate/benazepril HCl	amlodipine-benazepril
amlodipine besylate/valsartan	amlodipine-valsartan
nicardipine in sodium chloride, iso-osmotic	nicardipine in NaCl (iso-os)
isradipine	DynaCirc CR
enalapril maleate/felodipine	Lexxel

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
felodipine	Plendil
diltiazem HCl	Tiazac
nisoldipine	Sular
telmisartan/amlodipine besylate	telmisartan-amlodipine
nisoldipine	nisoldipine
amlodipine besylate/atorvastatin calcium	amlodipine-atorvastatin
felodipine	felodipine
diltiazem HCl	Cartia XT
diltiazem HCl	Diltia XT
nimodipine	nimodipine
nifedipine	Afeditab CR
telmisartan/amlodipine besylate	Twynsta
nicardipine in sodium chloride, iso-osmotic	Cardene IV in sodium chloride
nicardipine in dextrose, iso-osmotic	Cardene IV in dextrose
clevidipine butyrate	Cleviprex
diltiazem HCl/dextrose 5 % in water	diltiazem in dextrose 5 %
isradipine	isradipine
nimodipine	Nymalize
nicardipine HCl	Cardene IV
levamlodipine maleate	levamlodipine
nicardipine HCl in 0.9 % sodium chloride	nicardipine in 0.9 % sod chlor
amlodipine besylate	Norliqva
trandolapril/verapamil HCl	trandolapril-verapamil
diltiazem HCl	Dilacor XR
diltiazem HCl	Matzim LA
amlodipine benzoate	Katerzia
isradipine	DynaCirc
amlodipine besylate/olmesartan medoxomil	Azor
diltiazem HCl	DILT-XR
fosinopril sodium	fosinopril
diltiazem HCl	DILT-CD
diltiazem HCl	Diltzac ER
diltiazem HCl	Tazia XT
diltiazem HCl in 0.9 % sodium chloride	diltiazem HCl in 0.9% NaCl
nicardipine in 5 % dextrose in water	nicardipine in 5 % dextrose
perindopril arginine/amlodipine besylate	Prestalia
olmesartan medoxomil/amlodipine besylate/hydrochlorotri	Tribenzor
levamlodipine maleate	Conjupri
diltiazem HCl	Tiadylt ER
amlodipine besylate/celecoxib	Consensi
Digoxin	
digoxin	digoxin
digoxin	Lanoxin
digoxin	Lanoxin Pediatric
digoxin	Lanoxicaps
digoxin	Digitek
digoxin	Digox

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Diuretics - Loop	
bumetanide	Bumex
torseamide	Demadex
ethacrynic acid	Edecrin
furosemide	Lasix
torseamide	torseamide
ethacrynic acid	ethacrynic acid
furosemide	furosemide
bumetanide	bumetanide
furosemide in 0.9 % sodium chloride	furosemide in 0.9 % NaCl
ethacrynate sodium	Sodium Edecrin
ethacrynate sodium	ethacrynate sodium
furosemide/dextrose 5 % in water	furosemide in dextrose 5 %
furosemide	Furoscix
torseamide	Soanz
Diuretics - Potassium sparing	
amiloride HCl	Midamor
amiloride HCl/hydrochlorothiazide	Moduretic
triamterene/hydrochlorothiazide	Dyazide
spironolactone	Aldactone
spironolactone/hydrochlorothiazide	Aldactazide
eplerenone	Inspra
triamterene/hydrochlorothiazide	triamterene-hydrochlorothiazid
eplerenone	eplerenone
spironolactone	spironolactone
spironolactone/hydrochlorothiazide	spironolacton-hydrochlorothiaz
triamterene/hydrochlorothiazide	Maxzide
triamterene/hydrochlorothiazide	Maxzide-25mg
amiloride HCl/hydrochlorothiazide	amiloride-hydrochlorothiazide
amiloride HCl	amiloride
spironolactone	CaroSpir
triamterene	triamterene
triamterene	Dyrenium
metoprolol tartrate	metoprolol tartrate
Diuretics - Thiazide	
captopril/hydrochlorothiazide	Capozide
bendroflumethiazide	Naturetin
bisoprolol fumarate/hydrochlorothiazide	Ziac
hydrochlorothiazide	HydroDiuril
timolol maleate/hydrochlorothiazide	Timolide
lisinopril/hydrochlorothiazide	Prinzide
enalapril maleate/hydrochlorothiazide	Vaseretic
chlorothiazide	Diuril
methyldopa/hydrochlorothiazide	Aldoril-15
methyldopa/hydrochlorothiazide	Aldoril-25
methyldopa/chlorothiazide	Aldoclor
methyldopa/hydrochlorothiazide	Aldoril D30

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
losartan potassium/hydrochlorothiazide	Hyzaar
amiloride HCl/hydrochlorothiazide	Moduretic
triamterene/hydrochlorothiazide	Dyazide
irbesartan/hydrochlorothiazide	Avalide
spironolactone/hydrochlorothiazide	Aldactazide
metoprolol tartrate/hydrochlorothiazide	Lopressor HCT
methylothiazide	Aquatensen
propranolol HCl/hydrochlorothiazide	Inderide
losartan potassium/hydrochlorothiazide	losartan-hydrochlorothiazide
irbesartan/hydrochlorothiazide	irbesartan-hydrochlorothiazide
telmisartan/hydrochlorothiazide	telmisartan-hydrochlorothiazid
hydrochlorothiazide	hydrochlorothiazide
polythiazide	Renese
prazosin HCl/polythiazide	Minizide
quinapril HCl/hydrochlorothiazide	Accuretic
eprosartan mesylate/hydrochlorothiazide	Teveten HCT
methylothiazide	Enduron
deserpidine/methylothiazide	Enduronyl
deserpidine/methylothiazide	Enduronyl Forte
hydrochlorothiazide	Oretic
indapamide	Lozol
valsartan/hydrochlorothiazide	Diovan HCT
benazepril HCl/hydrochlorothiazide	Lotensin HCT
aliskiren hemifumarate/hydrochlorothiazide	Tekturna HCT
amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
aliskiren hemifumarate/amlodipine/hydrochlorothiazide	Amturnide
fosinopril sodium/hydrochlorothiazide	Monopril HCT
moexipril HCl/hydrochlorothiazide	Uniretic
indapamide	indapamide
captopril/hydrochlorothiazide	captopril-hydrochlorothiazide
lisinopril/hydrochlorothiazide	lisinopril-hydrochlorothiazide
enalapril maleate/hydrochlorothiazide	enalapril-hydrochlorothiazide
moexipril HCl/hydrochlorothiazide	moexipril-hydrochlorothiazide
amlodipine besylate/valsartan/hydrochlorothiazide	amlodipine-valsartan-hcthiazid
metolazone	metolazone
nadolol/bendroflumethiazide	nadolol-bendroflumethiazide
chlorothiazide	chlorothiazide
triamterene/hydrochlorothiazide	triamterene-hydrochlorothiazid
benazepril HCl/hydrochlorothiazide	benazepril-hydrochlorothiazide
bisoprolol fumarate/hydrochlorothiazide	bisoprolol-hydrochlorothiazide
fosinopril sodium/hydrochlorothiazide	fosinopril-hydrochlorothiazide
candesartan cilexetil/hydrochlorothiazide	Atacand HCT
propranolol HCl/hydrochlorothiazide	propranolol-hydrochlorothiazid
lisinopril/hydrochlorothiazide	Zestoretic
atenolol/chlorthalidone	Tenoretic 50
atenolol/chlorthalidone	Tenoretic 100
metoprolol succinate/hydrochlorothiazide	Dutoprol

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
clonidine HCl/chlorthalidone	Clorpres
spironolactone/hydrochlorothiazide	spironolacton-hydrochlorothiaz
methyclothiazide	methyclothiazide
chlorthalidone	chlorthalidone
metoprolol tartrate/hydrochlorothiazide	metoprolol ta-hydrochlorothiaz
triamterene/hydrochlorothiazide	Maxzide
triamterene/hydrochlorothiazide	Maxzide-25mg
methyldopa/hydrochlorothiazide	methyldopa-hydrochlorothiazide
quinapril HCl/hydrochlorothiazide	quinapril-hydrochlorothiazide
amiloride HCl/hydrochlorothiazide	amiloride-hydrochlorothiazide
atenolol/chlorthalidone	atenolol-chlorthalidone
candesartan cilexetil/hydrochlorothiazide	candesartan-hydrochlorothiazid
valsartan/hydrochlorothiazide	valsartan-hydrochlorothiazide
chlorothiazide sodium	chlorothiazide sodium
telmisartan/hydrochlorothiazide	Micardis HCT
hydralazine HCl/reserpine/hydrochlorothiazide	Uni-Serp
isosorbide dinitrate/hydralazine HCl	BiDil
hydralazine HCl/hydrochlorothiazide	Hydra-Zide
hydralazine HCl/hydrochlorothiazide	hydralazine-hydrochlorothiazid
quinapril HCl/hydrochlorothiazide	Quinaretic
hydrochlorothiazide	Microzide
metolazone	Zaroxolyn
metolazone	Mykrox
nadolol/bendroflumethiazide	Corzide
reserpine/hydrochlorothiazide	reserpine-hydrochlorothiazide
hydralazine HCl/reserpine/hydrochlorothiazide	hydralazine-reserpin-hcthiazid
metoprolol tartrate	metoprolol tartrate
spironolactone	spironolactone
azilsartan medoxomil/chlorthalidone	Edarbyclor
chlorthalidone	Thalitone
chlorothiazide sodium	Diuril IV
Nitrates	
isosorbide mononitrate	Ismo
isosorbide dinitrate	Isordil Titradoso
isosorbide dinitrate	Isordil
nitroglycerin	Nitrostat
isosorbide mononitrate	Imdur
nitroglycerin	Nitro-Dur
nitroglycerin	Minitran
nitroglycerin	nitroglycerin
isosorbide dinitrate	Dilatrate-SR
isosorbide mononitrate	Monoket
isosorbide mononitrate	isosorbide mononitrate
isosorbide dinitrate	isosorbide dinitrate
nitroglycerin	Nitro-Bid
nitroglycerin	Nitrol
nitroglycerin in 5 % dextrose in water	nitroglycerin in 5 % dextrose

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
isosorbide dinitrate	ISOCHRON
nitroglycerin	Nitrogard
nitroglycerin	Nitroglyn
isosorbide dinitrate/hydralazine HCl	BiDil
nitroglycerin	Nitrolingual
nitroglycerin	Nitromist
nitroglycerin	GoNitro
amyl nitrite	amyl nitrite
nitroglycerin	Rectiv
nitroglycerin	Nitro-Time
isosorbide dinitrate	IsoDitrage
nitroglycerin	NitroTab
nitroglycerin	NitroQuick
nitroglycerin	Nitronal
nitroglycerin	NitreK
meloxicam	meloxicam
Statins	
pitavastatin calcium	Livalo
pravastatin sodium	Pravachol
aspirin (calcium carb & magnesium buffers)/pravastatin	PRAVIGARD PAC
sitagliptin phosphate/simvastatin	Juvisync
simvastatin	Zocor
lovastatin	Mevacor
amlodipine besylate/atorvastatin calcium	Caduet
atorvastatin calcium	Lipitor
niacin/lovastatin	Advicor
niacin/simvastatin	Simcor
fluvastatin sodium	Lescol
fluvastatin sodium	Lescol XL
lovastatin	lovastatin
pravastatin sodium	pravastatin
atorvastatin calcium	atorvastatin
simvastatin	simvastatin
fluvastatin sodium	fluvastatin
rosuvastatin calcium	rosuvastatin
ezetimibe/simvastatin	ezetimibe-simvastatin
rosuvastatin calcium	Crestor
amlodipine besylate/atorvastatin calcium	amlodipine-atorvastatin
ezetimibe/simvastatin	Vytorin 10-40
ezetimibe/simvastatin	Vytorin 10-20
ezetimibe/simvastatin	Vytorin 10-10
ezetimibe/simvastatin	Vytorin 10-80
pitavastatin magnesium	Zypitamag
simvastatin	FloLipid
rosuvastatin calcium	Ezallor Sprinkle
lovastatin	Altprev
nefazodone HCl	nefazodone

Appendix G. List of Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
lovastatin	Altacor
ezetimibe/atorvastatin calcium	Liptruzet
ezetimibe/rosuvastatin calcium	Roszet
ezetimibe/rosuvastatin calcium	ezetimibe-rosuvastatin
Fibrates	
gemfibrozil	gemfibrozil
gemfibrozil	Lopid
fenofibric acid (choline)	Trilipix
fenofibrate nanocrystallized	Tricor
fenofibrate,micronized	Tricor
fenofibrate nanocrystallized	fenofibrate nanocrystallized
fenofibrate,micronized	fenofibrate micronized
fenofibric acid (choline)	fenofibric acid (choline)
fenofibrate	fenofibrate
fenofibric acid	Fibricor
fenofibrate,micronized	Antara
fenofibrate	Fenoglide
fenofibric acid	fenofibric acid
fenofibrate,micronized	Lofibra
fenofibrate nanocrystallized	Triglide
fenofibrate	Lofibra
fenofibrate	Lipofen
Amiodarone	
amiodarone HCl	Cordarone
amiodarone HCl	amiodarone
amiodarone HCl	Pacerone
amiodarone HCl/dextrose 5 % in water	amiodarone in dextrose 5 %
amiodarone in dextrose, iso-osmotic	Nexterone
Dronedarone	
dronedarone HCl	Multaq

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
Diabetes			
250	Diabetes mellitus	Diagnosis	ICD-9-CM
250.0	Diabetes mellitus without mention of complication	Diagnosis	ICD-9-CM
250.00	Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.01	Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.02	Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.03	Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.1	Diabetes with ketoacidosis	Diagnosis	ICD-9-CM
250.10	Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.11	Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.12	Diabetes with ketoacidosis, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.13	Diabetes with ketoacidosis, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.2	Diabetes with hyperosmolarity	Diagnosis	ICD-9-CM
250.20	Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.21	Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.22	Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.23	Diabetes with hyperosmolarity, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.3	Diabetes with other coma	Diagnosis	ICD-9-CM
250.30	Diabetes with other coma, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.31	Diabetes with other coma, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.32	Diabetes with other coma, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.33	Diabetes with other coma, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.4	Diabetes with renal manifestations	Diagnosis	ICD-9-CM
250.40	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.41	Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.42	Diabetes with renal manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.43	Diabetes with renal manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.5	Diabetes with ophthalmic manifestations	Diagnosis	ICD-9-CM
250.50	Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.51	Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.52	Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.53	Diabetes with ophthalmic manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.6	Diabetes with neurological manifestations	Diagnosis	ICD-9-CM
250.60	Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.61	Diabetes with neurological manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.62	Diabetes with neurological manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.63	Diabetes with neurological manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.7	Diabetes with peripheral circulatory disorders	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
250.70	Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.71	Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.72	Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.73	Diabetes with peripheral circulatory disorders, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.8	Diabetes with other specified manifestations	Diagnosis	ICD-9-CM
250.80	Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.81	Diabetes with other specified manifestations, type I [juvenile type], not stated as	Diagnosis	ICD-9-CM
250.82	Diabetes with other specified manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.83	Diabetes with other specified manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.9	Diabetes with unspecified complication	Diagnosis	ICD-9-CM
250.90	Diabetes with unspecified complication, type II or unspecified type, not stated as	Diagnosis	ICD-9-CM
250.91	Diabetes with unspecified complication, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.92	Diabetes with unspecified complication, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.93	Diabetes with unspecified complication, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
A5500	For diabetics only, fitting (including follow-up), custom preparation and supply of off-the-shelf depth-inlay shoe manufactured to accommodate multidensity insert(s), per shoe	Procedure	HCPCS
A5501	For diabetics only, fitting (including follow-up), custom preparation and supply of shoe molded from cast(s) of patient's foot (custom molded shoe), per shoe	Procedure	HCPCS
A5503	For diabetics only, modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe with roller or rigid rocker bottom, per shoe	Procedure	HCPCS
A5504	For diabetics only, modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe with wedge(s), per shoe	Procedure	HCPCS
A5505	For diabetics only, modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe with metatarsal bar, per shoe	Procedure	HCPCS
A5506	For diabetics only, modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe with off-set heel(s), per shoe	Procedure	HCPCS
A5507	For diabetics only, not otherwise specified modification (including fitting) of off-the-shelf depth-inlay shoe or custom molded shoe, per shoe	Procedure	HCPCS
A5508	For diabetics only, deluxe feature of off-the-shelf depth-inlay shoe or custom molded shoe, per shoe	Procedure	HCPCS
A5510	For diabetics only, direct formed, compression molded to patient's foot without external heat source, multiple-density insert(s) prefabricated, per shoe	Procedure	HCPCS
A5512	For diabetics only, multiple density insert, direct formed, molded to foot after external heat source of 230 degrees Fahrenheit or higher, total contact with patient's foot, including arch, base layer minimum of 1/4 inch material of Shore A 35 durometer or 3/16 inch material of Shore A 40 durometer (or higher), prefabricated, each	Procedure	HCPCS
A5513	For diabetics only, multiple density insert, custom molded from model of patient's foot, total contact with patient's foot, including arch, base layer minimum of 3/16 inch material of Shore A 35 durometer (or higher), includes arch filler and other shaping material, custom fabricated, each	Procedure	HCPCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
G0108	Diabetes outpatient self-management training services, individual, per 30 minutes	Procedure	HCPCS
G0109	Diabetes outpatient self-management training services, group session (2 or more), per 30 minutes	Procedure	HCPCS
G0245	Initial physician evaluation and management of a diabetic patient with diabetic sensory neuropathy resulting in a loss of protective sensation (LOPS) which must include: (1) the diagnosis of LOPS, (2) a patient history, (3) a physical examination that consists of at least the following elements: (a) visual inspection of the forefoot, hindfoot, and toe web spaces, (b) evaluation of a protective sensation, (c) evaluation of foot structure and biomechanics, (d) evaluation of vascular status and skin integrity, and (e) evaluation and recommendation of footwear, and (4) patient education	Procedure	HCPCS
G0246	Follow-up physician evaluation and management of a diabetic patient with diabetic sensory neuropathy resulting in a loss of protective sensation (LOPS) to include at least the following: (1) a patient history, (2) a physical examination that includes: (a) visual inspection of the forefoot, hindfoot, and toe web spaces, (b) evaluation of protective sensation, (c) evaluation of foot structure and biomechanics, (d) evaluation of vascular status and skin integrity, and (e) evaluation and recommendation of footwear, and (3) patient education	Procedure	HCPCS
G0247	Routine foot care by a physician of a diabetic patient with diabetic sensory neuropathy resulting in a loss of protective sensation (LOPS) to include the local care of superficial wounds (i.e., superficial to muscle and fascia) and at least the following, if present: (1) local care of superficial wounds, (2) debridement of corns and calluses, and (3) trimming and debridement of nails	Procedure	HCPCS
G8015	Diabetic patient with most recent hemoglobin A1c level (within the last 6 months) documented as greater than 9%	Procedure	HCPCS
G8016	Diabetic patient with most recent hemoglobin A1c level (within the last 6 months) documented as less than or equal to 9%	Procedure	HCPCS
G8017	Clinician documented that diabetic patient was not eligible candidate for hemoglobin A1c measure	Procedure	HCPCS
G8018	Clinician has not provided care for the diabetic patient for the required time for hemoglobin A1c measure (6 months)	Procedure	HCPCS
G8019	Diabetic patient with most recent low-density lipoprotein (within the last 12 months) documented as greater than or equal to 100 mg/dl	Procedure	HCPCS
G8020	Diabetic patient with most recent low-density lipoprotein (within the last 12 months) documented as less than 100 mg/dl	Procedure	HCPCS
G8021	Clinician documented that diabetic patient was not eligible candidate for low-density lipoprotein measure	Procedure	HCPCS
G8022	Clinician has not provided care for the diabetic patient for the required time for low-density lipoprotein measure (12 months)	Procedure	HCPCS
G8023	Diabetic patient with most recent blood pressure (within the last 6 months) documented as equal to or greater than 140 systolic or equal to or greater than 80 mm Hg diastolic	Procedure	HCPCS
G8024	Diabetic patient with most recent blood pressure (within the last 6 months) documented as less than 140 systolic and less than 80 diastolic	Procedure	HCPCS
G8025	Clinician documented that the diabetic patient was not eligible candidate for blood pressure measure	Procedure	HCPCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
G8026	Clinician has not provided care for the diabetic patient for the required time for blood pressure measure (within the last 6 months)	Procedure	HCPCS
G8332	Clinician has not provided care for the diabetic retinopathy patient for the required time for macular edema and retinopathy measurement	Procedure	HCPCS
G8333	Patient documented to have had findings of macular or fundus exam communicated to the physician managing the diabetes care	Procedure	HCPCS
G8334	Documentation of findings of macular or fundus exam not communicated to the physician managing the patient's ongoing diabetes care	Procedure	HCPCS
G8335	Clinician documentation that patient was not an eligible candidate for the findings of their macular or fundus exam being communicated to the physician managing their diabetes care during the reporting year	Procedure	HCPCS
G8336	Clinician has not provided care for the diabetic retinopathy patient for the required time for physician communication measurement	Procedure	HCPCS
G8385	Diabetic patients with no documentation of hemoglobin A1c level (within the last 12	Procedure	HCPCS
G8386	Diabetic patients with no documentation of low-density lipoprotein (within the last 12 months)	Procedure	HCPCS
G8390	Diabetic patients with no documentation of blood pressure measurement (within the last 12 months)	Procedure	HCPCS
E11.9	Type 2 diabetes mellitus without complications	Diagnosis	ICD-10-CM
E10.9	Type 1 diabetes mellitus without complications	Diagnosis	ICD-10-CM
E11.65	Type 2 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E10.65	Type 1 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E11.69	Type 2 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E13.10	Other specified diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E10.10	Type 1 diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E11.00	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E10.69	Type 1 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E10.11	Type 1 diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E10.641	Type 1 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E10.29	Type 1 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E11.21	Type 2 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E10.21	Type 1 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E11.311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.36	Type 2 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E11.39	Type 2 diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E10.311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.36	Type 1 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
E10.37X1	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right	Diagnosis	ICD-10-CM
E10.37X2	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E10.37X3	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment,	Diagnosis	ICD-10-CM
E10.37X9	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E10.39	Type 1 diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E10.51	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E11.620	Type 2 diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E11.621	Type 2 diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E11.622	Type 2 diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E11.628	Type 2 diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E11.630	Type 2 diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E11.638	Type 2 diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E10.618	Type 1 diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E10.620	Type 1 diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E10.621	Type 1 diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E10.622	Type 1 diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E10.628	Type 1 diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E10.630	Type 1 diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E10.638	Type 1 diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E10.649	Type 1 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E11.8	Type 2 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E10.8	Type 1 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E13.9	Other specified diabetes mellitus without complications	Diagnosis	ICD-10-CM
E13.00	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E13.01	Other specified diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E13.11	Other specified diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E13.641	Other specified diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E13.21	Other specified diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E13.22	Other specified diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E13.29	Other specified diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E11.3211	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3212	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
E11.3213	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3219	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
E11.3499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E11.3522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E11.3523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E11.3529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E11.3531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E11.3532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E11.3533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E11.3539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E11.3541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E11.3542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E11.3543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E11.3549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E11.3551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E11.3552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E11.3553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E11.3559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E11.3591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3593	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
E13.3211	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3212	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3219	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3292	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3293	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3299	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3312	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3313	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3319	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3391	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3392	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3393	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3412	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3413	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
E13.3492	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3512	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3513	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3519	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E13.3522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E13.3523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E13.3529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E13.3531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E13.3532	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E13.3533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E13.3539	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E13.3541	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E13.3542	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E13.3543	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E13.3549	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E13.3551	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E13.3552	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E13.3553	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E13.3559	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
E13.3591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3592	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3593	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3599	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.319	Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.36	Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E13.37X1	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E13.37X2	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E13.37X3	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E13.37X9	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E11.37X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E11.37X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E11.37X3	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E11.37X9	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E10.3211	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3212	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3213	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3219	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3292	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3293	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3299	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
E10.3311	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3312	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3413	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3499	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right	Diagnosis	ICD-10-CM
E10.3512	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3513	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema,	Diagnosis	ICD-10-CM
E10.3519	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3521	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E10.3522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E10.3523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
E10.3529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.3531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E10.3532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E10.3533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E10.3539	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.3541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E10.3542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E10.3543	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E10.3549	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E10.3551	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E10.3552	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E10.3553	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E10.3559	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E10.3591	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3592	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3593	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3599	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.40	Other specified diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E13.41	Other specified diabetes mellitus with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E13.42	Other specified diabetes mellitus with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E13.43	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E13.44	Other specified diabetes mellitus with diabetic amyotrophy	Diagnosis	ICD-10-CM
E13.49	Other specified diabetes mellitus with other diabetic neurological complication	Diagnosis	ICD-10-CM
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E11.41	Type 2 diabetes mellitus with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E11.42	Type 2 diabetes mellitus with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E11.43	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E11.44	Type 2 diabetes mellitus with diabetic amyotrophy	Diagnosis	ICD-10-CM
E11.49	Type 2 diabetes mellitus with other diabetic neurological complication	Diagnosis	ICD-10-CM
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
E10.41	Type 1 diabetes mellitus with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E10.42	Type 1 diabetes mellitus with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E10.43	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E10.44	Type 1 diabetes mellitus with diabetic amyotrophy	Diagnosis	ICD-10-CM
E10.49	Type 1 diabetes mellitus with other diabetic neurological complication	Diagnosis	ICD-10-CM
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E13.51	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E13.59	Other specified diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E11.59	Type 2 diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E10.59	Type 1 diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E13.618	Other specified diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E13.620	Other specified diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E13.621	Other specified diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E13.622	Other specified diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E13.628	Other specified diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E13.630	Other specified diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E13.638	Other specified diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E13.649	Other specified diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E13.65	Other specified diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E13.69	Other specified diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E13.8	Other specified diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E11.10	Type 2 diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E11.11	Type 2 diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
Hypercholesterolemia			
272.0	Pure hypercholesterolemia	Diagnosis	ICD-9-CM
272.2	Mixed hyperlipidemia	Diagnosis	ICD-9-CM
E78.00	Pure hypercholesterolemia, unspecified	Diagnosis	ICD-10-CM
E78.01	Familial hypercholesterolemia	Diagnosis	ICD-10-CM
E78.2	Mixed hyperlipidemia	Diagnosis	ICD-10-CM
Hypertension			
401	Essential hypertension	Diagnosis	ICD-9-CM
401.0	Essential hypertension, malignant	Diagnosis	ICD-9-CM
401.1	Essential hypertension, benign	Diagnosis	ICD-9-CM
401.9	Unspecified essential hypertension	Diagnosis	ICD-9-CM
402	Hypertensive heart disease	Diagnosis	ICD-9-CM
402.0	Malignant hypertensive heart disease	Diagnosis	ICD-9-CM
402.00	Malignant hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM
402.01	Malignant hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
402.1	Benign hypertensive heart disease	Diagnosis	ICD-9-CM
402.10	Benign hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
402.11	Benign hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
402.9	Unspecified hypertensive heart disease	Diagnosis	ICD-9-CM
402.90	Unspecified hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM
402.91	Hypertensive heart disease, unspecified, with heart failure	Diagnosis	ICD-9-CM
403	Hypertensive chronic kidney disease	Diagnosis	ICD-9-CM
403.0	Hypertensive chronic kidney disease, malignant	Diagnosis	ICD-9-CM
403.00	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
403.01	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
403.1	Hypertensive chronic kidney disease, benign	Diagnosis	ICD-9-CM
403.10	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
403.11	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
403.9	Hypertensive chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
403.90	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
403.91	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404	Hypertensive heart and chronic kidney disease	Diagnosis	ICD-9-CM
404.0	Hypertensive heart and chronic kidney disease, malignant	Diagnosis	ICD-9-CM
404.00	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.01	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.02	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.03	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.1	Hypertensive heart and chronic kidney disease, benign	Diagnosis	ICD-9-CM
404.10	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.11	Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.12	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.13	Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.9	Hypertensive heart and chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
404.90	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
404.91	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.92	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.93	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
405	Secondary hypertension	Diagnosis	ICD-9-CM
405.0	Secondary hypertension, malignant	Diagnosis	ICD-9-CM
405.01	Secondary renovascular hypertension, malignant	Diagnosis	ICD-9-CM
405.09	Other secondary hypertension, malignant	Diagnosis	ICD-9-CM
405.1	Secondary hypertension, benign	Diagnosis	ICD-9-CM
405.11	Secondary renovascular hypertension, benign	Diagnosis	ICD-9-CM
405.19	Other secondary hypertension, benign	Diagnosis	ICD-9-CM
405.9	Unspecified secondary hypertension, unspecified	Diagnosis	ICD-9-CM
405.91	Secondary renovascular hypertension, unspecified	Diagnosis	ICD-9-CM
405.99	Other secondary hypertension, unspecified	Diagnosis	ICD-9-CM
997.91	Hypertension	Diagnosis	ICD-9-CM
I10	Essential (primary) hypertension	Diagnosis	ICD-10-CM
I11.0	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM
I11.9	Hypertensive heart disease without heart failure	Diagnosis	ICD-10-CM
I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease	Diagnosis	ICD-10-CM
I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.10	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.11	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I15.0	Renovascular hypertension	Diagnosis	ICD-10-CM
I15.1	Hypertension secondary to other renal disorders	Diagnosis	ICD-10-CM
I15.2	Hypertension secondary to endocrine disorders	Diagnosis	ICD-10-CM
I15.8	Other secondary hypertension	Diagnosis	ICD-10-CM
I15.9	Secondary hypertension, unspecified	Diagnosis	ICD-10-CM
I16.0	Hypertensive urgency	Diagnosis	ICD-10-CM
I16.1	Hypertensive emergency	Diagnosis	ICD-10-CM
I16.9	Hypertensive crisis, unspecified	Diagnosis	ICD-10-CM
I97.3	Postprocedural hypertension	Diagnosis	ICD-10-CM
N26.2	Acute kidney	Diagnosis	ICD-10-CM

Kidney failure - Chronic

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
585	Chronic kidney disease (CKD)	Diagnosis	ICD-9-CM
585.1	Chronic kidney disease, Stage I	Diagnosis	ICD-9-CM
585.2	Chronic kidney disease, Stage II (mild)	Diagnosis	ICD-9-CM
585.3	Chronic kidney disease, Stage III (moderate)	Diagnosis	ICD-9-CM
585.4	Chronic kidney disease, Stage IV (severe)	Diagnosis	ICD-9-CM
585.5	Chronic kidney disease, Stage V	Diagnosis	ICD-9-CM
585.6	End stage renal disease	Diagnosis	ICD-9-CM
585.9	Chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
586	Unspecified renal failure	Diagnosis	ICD-9-CM
587	Unspecified renal sclerosis	Diagnosis	ICD-9-CM
N18.1	Chronic kidney disease, stage 1	Diagnosis	ICD-10-CM
N18.2	Chronic kidney disease, stage 2 (mild)	Diagnosis	ICD-10-CM
N18.3	Chronic kidney disease, stage 3 (moderate)	Diagnosis	ICD-10-CM
N18.4	Chronic kidney disease, stage 4 (severe)	Diagnosis	ICD-10-CM
N18.5	Chronic kidney disease, stage 5	Diagnosis	ICD-10-CM
N18.6	End stage renal disease	Diagnosis	ICD-10-CM
N18.9	Chronic kidney disease, unspecified	Diagnosis	ICD-10-CM
N19	Unspecified kidney failure	Diagnosis	ICD-10-CM
N26.1	Atrophy of kidney (terminal)	Diagnosis	ICD-10-CM
N26.9	Renal sclerosis, unspecified	Diagnosis	ICD-10-CM
Kidney failure - Acute			
584	Acute kidney failure	Diagnosis	ICD-9-CM
584.5	Acute kidney failure with lesion of tubular necrosis	Diagnosis	ICD-9-CM
584.6	Acute kidney failure with lesion of renal cortical necrosis	Diagnosis	ICD-9-CM
584.7	Acute kidney failure with lesion of medullary [papillary] necrosis	Diagnosis	ICD-9-CM
584.8	Acute kidney failure with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
584.9	Acute kidney failure, unspecified	Diagnosis	ICD-9-CM
N17.0	Acute kidney failure with tubular necrosis	Diagnosis	ICD-10-CM
N17.1	Acute kidney failure with acute cortical necrosis	Diagnosis	ICD-10-CM
N17.2	Acute kidney failure with medullary necrosis	Diagnosis	ICD-10-CM
N17.8	Other acute kidney failure	Diagnosis	ICD-10-CM
N17.9	Acute kidney failure, unspecified	Diagnosis	ICD-10-CM
Obesity			
278.0	Overweight and obesity	Diagnosis	ICD-9-CM
278.00	Obesity, unspecified	Diagnosis	ICD-9-CM
278.01	Morbid obesity	Diagnosis	ICD-9-CM
278.02	Overweight	Diagnosis	ICD-9-CM
278.1	Localized adiposity	Diagnosis	ICD-9-CM
V4586	Bariatric surgery status	Diagnosis	ICD-9-CM
V853	Body Mass Index between 30-39, adult	Diagnosis	ICD-9-CM
V8530	Body Mass Index 30.0-30.9, adult	Diagnosis	ICD-9-CM
V8531	Body Mass Index 31.0-31.9, adult	Diagnosis	ICD-9-CM
V8532	Body Mass Index 32.0-32.9, adult	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
V8533	Body Mass Index 33.0-33.9, adult	Diagnosis	ICD-9-CM
V8534	Body Mass Index 34.0-34.9, adult	Diagnosis	ICD-9-CM
V8535	Body Mass Index 35.0-35.9, adult	Diagnosis	ICD-9-CM
V8536	Body Mass Index 36.0-36.9, adult	Diagnosis	ICD-9-CM
V8537	Body Mass Index 37.0-37.9, adult	Diagnosis	ICD-9-CM
V8538	Body Mass Index 38.0-38.9, adult	Diagnosis	ICD-9-CM
V8539	Body Mass Index 39.0-39.9, adult	Diagnosis	ICD-9-CM
V854	Body Mass Index 40 and over, adult	Diagnosis	ICD-9-CM
44.31	High gastric bypass	Procedure	ICD-9-CM
44.68	Laparoscopic gastroplasty	Procedure	ICD-9-CM
44.95	Laparoscopic gastric restrictive procedure	Procedure	ICD-10-CM
E65	Localized adiposity	Diagnosis	ICD-10-CM
E66.01	Morbid (severe) obesity due to excess calories	Diagnosis	ICD-10-CM
E66.09	Other obesity due to excess calories	Diagnosis	ICD-10-CM
E66.1	Drug-induced obesity	Diagnosis	ICD-10-CM
E66.3	Overweight	Diagnosis	ICD-10-CM
E66.8	Other obesity	Diagnosis	ICD-10-CM
E66.9	Obesity, unspecified	Diagnosis	ICD-10-CM
Z68.30	Body mass index (BMI) 30.0-30.9, adult	Diagnosis	ICD-10-CM
Z68.31	Body mass index (BMI) 31.0-31.9, adult	Diagnosis	ICD-10-CM
Z68.32	Body mass index (BMI) 32.0-32.9, adult	Diagnosis	ICD-10-CM
Z68.33	Body mass index (BMI) 33.0-33.9, adult	Diagnosis	ICD-10-CM
Z68.34	Body mass index (BMI) 34.0-34.9, adult	Diagnosis	ICD-10-CM
Z68.35	Body mass index (BMI) 35.0-35.9, adult	Diagnosis	ICD-10-CM
Z68.36	Body mass index (BMI) 36.0-36.9, adult	Diagnosis	ICD-10-CM
Z68.37	Body mass index (BMI) 37.0-37.9, adult	Diagnosis	ICD-10-CM
Z68.38	Body mass index (BMI) 38.0-38.9, adult	Diagnosis	ICD-10-CM
Z68.39	Body mass index (BMI) 39.0-39.9, adult	Diagnosis	ICD-10-CM
Z98.84	Bariatric surgery status	Diagnosis	ICD-10-CM
0D1607A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160JA	Bypass Stomach to Jejunum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160ZA	Bypass Stomach to Jejunum, Open Approach	Procedure	ICD-10-PCS
0D1687A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JA	Bypass Stomach to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZA	Bypass Stomach to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DQ64ZZ	Repair Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DV64CZ	Restriction of Stomach with Extraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
Peptic ulcer disease			

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
531.0	Acute gastric ulcer with hemorrhage	Diagnosis	ICD-9-CM
531.00	Acute gastric ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
531.01	Acute gastric ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
531.1	Acute gastric ulcer with perforation	Diagnosis	ICD-9-CM
531.10	Acute gastric ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.11	Acute gastric ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
531.2	Acute gastric ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
531.20	Acute gastric ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.21	Acute gastric ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
531.3	Acute gastric ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
531.30	Acute gastric ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
531.31	Acute gastric ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
531.4	Chronic or unspecified gastric ulcer with hemorrhage	Diagnosis	ICD-9-CM
531.40	Chronic or unspecified gastric ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
531.41	Chronic or unspecified gastric ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
531.5	Chronic or unspecified gastric ulcer with perforation	Diagnosis	ICD-9-CM
531.50	Chronic or unspecified gastric ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.51	Chronic or unspecified gastric ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
531.6	Chronic or unspecified gastric ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
531.60	Chronic or unspecified gastric ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.61	Chronic or unspecified gastric ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
531.7	Chronic gastric ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
531.70	Chronic gastric ulcer without mention of hemorrhage, perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.71	Chronic gastric ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
532.0	Acute duodenal ulcer with hemorrhage	Diagnosis	ICD-9-CM
532.00	Acute duodenal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
532.01	Acute duodenal ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
532.1	Acute duodenal ulcer with perforation	Diagnosis	ICD-9-CM
532.10	Acute duodenal ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.11	Acute duodenal ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
532.2	Acute duodenal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
532.20	Acute duodenal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.21	Acute duodenal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
532.3	Acute duodenal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.30	Acute duodenal ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
532.31	Acute duodenal ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
532.4	Chronic or unspecified duodenal ulcer with hemorrhage	Diagnosis	ICD-9-CM
532.40	Duodenal ulcer, chronic or unspecified, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
532.41	Chronic or unspecified duodenal ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
532.5	Chronic or unspecified duodenal ulcer with perforation	Diagnosis	ICD-9-CM
532.50	Chronic or unspecified duodenal ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
532.51	Chronic or unspecified duodenal ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
532.6	Chronic or unspecified duodenal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
532.60	Chronic or unspecified duodenal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.61	Chronic or unspecified duodenal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
532.7	Chronic duodenal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.70	Chronic duodenal ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
532.71	Chronic duodenal ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
533.0	Acute peptic ulcer, unspecified site, with hemorrhage	Diagnosis	ICD-9-CM
533.00	Acute peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
533.01	Acute peptic ulcer, unspecified site, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
533.1	Acute peptic ulcer, unspecified site, with perforation	Diagnosis	ICD-9-CM
533.10	Acute peptic ulcer, unspecified site, with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.11	Acute peptic ulcer, unspecified site, with perforation and obstruction	Diagnosis	ICD-9-CM
533.2	Acute peptic ulcer, unspecified site, with hemorrhage and perforation	Diagnosis	ICD-9-CM
533.20	Acute peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.21	Acute peptic ulcer, unspecified site, with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
533.3	Acute peptic ulcer, unspecified site, without mention of hemorrhage and perforation	Diagnosis	ICD-9-CM
533.30	Acute peptic ulcer, unspecified site, without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
533.31	Acute peptic ulcer, unspecified site, without mention of hemorrhage and perforation, with obstruction	Diagnosis	ICD-9-CM
533.4	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage	Diagnosis	ICD-9-CM
533.40	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
533.41	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
533.5	Chronic or unspecified peptic ulcer, unspecified site, with perforation	Diagnosis	ICD-9-CM
533.50	Chronic or unspecified peptic ulcer, unspecified site, with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.51	Chronic or unspecified peptic ulcer, unspecified site, with perforation and obstruction	Diagnosis	ICD-9-CM
533.6	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and perforation	Diagnosis	ICD-9-CM
533.60	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.61	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
533.7	Chronic peptic ulcer, unspecified site, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
533.70	Chronic peptic ulcer, unspecified site, without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
533.71	Chronic peptic ulcer of unspecified site without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
534.0	Acute gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-9-CM
534.00	Acute gastrojejunal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
534.01	Acute gastrojejunal ulcer, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
534.1	Acute gastrojejunal ulcer with perforation	Diagnosis	ICD-9-CM
534.10	Acute gastrojejunal ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.11	Acute gastrojejunal ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
534.2	Acute gastrojejunal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
534.20	Acute gastrojejunal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.21	Acute gastrojejunal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
534.3	Acute gastrojejunal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.30	Acute gastrojejunal ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
534.31	Acute gastrojejunal ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
534.4	Chronic or unspecified gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-9-CM
534.40	Chronic or unspecified gastrojejunal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
534.41	Chronic or unspecified gastrojejunal ulcer, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
534.5	Chronic or unspecified gastrojejunal ulcer with perforation	Diagnosis	ICD-9-CM
534.50	Chronic or unspecified gastrojejunal ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.51	Chronic or unspecified gastrojejunal ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
534.6	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
534.60	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.61	Chronic or unspecified gastrojejunal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
534.7	Chronic gastrojejunal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.70	Chronic gastrojejunal ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
534.71	Chronic gastrojejunal ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
44.4	Control of hemorrhage and suture of ulcer of stomach or duodenum	Diagnosis	ICD-9-CM
44.40	Suture of peptic ulcer, not otherwise specified	Diagnosis	ICD-9-CM
44.41	Suture of gastric ulcer site	Diagnosis	ICD-9-CM
44.42	Suture of duodenal ulcer site	Diagnosis	ICD-9-CM
K25.0	Acute gastric ulcer with hemorrhage	Diagnosis	ICD-10-CM
K25.1	Acute gastric ulcer with perforation	Diagnosis	ICD-10-CM
K25.2	Acute gastric ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K25.3	Acute gastric ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K25.4	Chronic or unspecified gastric ulcer with hemorrhage	Diagnosis	ICD-10-CM
K25.5	Chronic or unspecified gastric ulcer with perforation	Diagnosis	ICD-10-CM
K25.6	Chronic or unspecified gastric ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K25.7	Chronic gastric ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K26.0	Acute duodenal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K26.1	Acute duodenal ulcer with perforation	Diagnosis	ICD-10-CM
K26.2	Acute duodenal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K26.3	Acute duodenal ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K26.4	Chronic or unspecified duodenal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K26.5	Chronic or unspecified duodenal ulcer with perforation	Diagnosis	ICD-10-CM
K26.6	Chronic or unspecified duodenal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K26.7	Chronic duodenal ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
K27.0	Acute peptic ulcer, site unspecified, with hemorrhage	Diagnosis	ICD-10-CM
K27.1	Acute peptic ulcer, site unspecified, with perforation	Diagnosis	ICD-10-CM
K27.2	Acute peptic ulcer, site unspecified, with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K27.3	Acute peptic ulcer, site unspecified, without hemorrhage or perforation	Diagnosis	ICD-10-CM
K27.4	Chronic or unspecified peptic ulcer, site unspecified, with hemorrhage	Diagnosis	ICD-10-CM
K27.5	Chronic or unspecified peptic ulcer, site unspecified, with perforation	Diagnosis	ICD-10-CM
K27.6	Chronic or unspecified peptic ulcer, site unspecified, with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K27.7	Chronic peptic ulcer, site unspecified, without hemorrhage or perforation	Diagnosis	ICD-10-CM
K28.0	Acute gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K28.1	Acute gastrojejunal ulcer with perforation	Diagnosis	ICD-10-CM
K28.2	Acute gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K28.3	Acute gastrojejunal ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K28.4	Chronic or unspecified gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K28.5	Chronic or unspecified gastrojejunal ulcer with perforation	Diagnosis	ICD-10-CM
K28.6	Chronic or unspecified gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K28.7	Chronic gastrojejunal ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K56.699	Other intestinal obstruction unspecified as to partial versus complete obstruction	Diagnosis	ICD-10-CM
0DQ60ZZ	Repair Stomach, Open Approach	Procedure	ICD-10-PCS
0DQ63ZZ	Repair Stomach, Percutaneous Approach	Procedure	ICD-10-PCS
0DQ64ZZ	Repair Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DQ67ZZ	Repair Stomach, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DQ68ZZ	Repair Stomach, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DQ90ZZ	Repair Duodenum, Open Approach	Procedure	ICD-10-PCS
0DQ93ZZ	Repair Duodenum, Percutaneous Approach	Procedure	ICD-10-PCS
0DQ94ZZ	Repair Duodenum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DQ97ZZ	Repair Duodenum, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DQ98ZZ	Repair Duodenum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
Acute myocardial infarction			
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery	Diagnosis	ICD-10-CM
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery	Diagnosis	ICD-10-CM
I21.09	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall	Diagnosis	ICD-10-CM
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery	Diagnosis	ICD-10-CM
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall	Diagnosis	ICD-10-CM
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery	Diagnosis	ICD-10-CM
I21.29	ST elevation (STEMI) myocardial infarction involving other sites	Diagnosis	ICD-10-CM
I21.3	ST elevation (STEMI) myocardial infarction of unspecified site	Diagnosis	ICD-10-CM
I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Diagnosis	ICD-10-CM
I21.9	Acute myocardial infarction, unspecified	Diagnosis	ICD-10-CM
I21.A1	Myocardial infarction type 2	Diagnosis	ICD-10-CM
I21.A9	Other myocardial infarction type	Diagnosis	ICD-10-CM
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall	Diagnosis	ICD-10-CM
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall	Diagnosis	ICD-10-CM
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites	Diagnosis	ICD-10-CM
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site	Diagnosis	ICD-10-CM
410	Acute myocardial infarction	Diagnosis	ICD-9-CM
410.0	Acute myocardial infarction of anterolateral wall	Diagnosis	ICD-9-CM
410.00	Acute myocardial infarction of anterolateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.01	Acute myocardial infarction of anterolateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.02	Acute myocardial infarction of anterolateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.1	Acute myocardial infarction of other anterior wall	Diagnosis	ICD-9-CM
410.10	Acute myocardial infarction of other anterior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.11	Acute myocardial infarction of other anterior wall, initial episode of care	Diagnosis	ICD-9-CM
410.12	Acute myocardial infarction of other anterior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.2	Acute myocardial infarction of inferolateral wall	Diagnosis	ICD-9-CM
410.20	Acute myocardial infarction of inferolateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.21	Acute myocardial infarction of inferolateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.22	Acute myocardial infarction of inferolateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.3	Acute myocardial infarction of inferoposterior wall	Diagnosis	ICD-9-CM
410.30	Acute myocardial infarction of inferoposterior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.31	Acute myocardial infarction of inferoposterior wall, initial episode of care	Diagnosis	ICD-9-CM
410.32	Acute myocardial infarction of inferoposterior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.4	Acute myocardial infarction of other inferior wall	Diagnosis	ICD-9-CM
410.40	Acute myocardial infarction of other inferior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.41	Acute myocardial infarction of other inferior wall, initial episode of care	Diagnosis	ICD-9-CM
410.42	Acute myocardial infarction of other inferior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.5	Acute myocardial infarction of other lateral wall	Diagnosis	ICD-9-CM
410.50	Acute myocardial infarction of other lateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.51	Acute myocardial infarction of other lateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.52	Acute myocardial infarction of other lateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.6	Acute myocardial infarction, true posterior wall infarction	Diagnosis	ICD-9-CM
410.60	Acute myocardial infarction, true posterior wall infarction, episode of care unspecified	Diagnosis	ICD-9-CM
410.61	Acute myocardial infarction, true posterior wall infarction, initial episode of care	Diagnosis	ICD-9-CM
410.62	Acute myocardial infarction, true posterior wall infarction, subsequent episode of care	Diagnosis	ICD-9-CM
410.7	Acute myocardial infarction, subendocardial infarction	Diagnosis	ICD-9-CM
410.70	Acute myocardial infarction, subendocardial infarction, episode of care unspecified	Diagnosis	ICD-9-CM
410.71	Acute myocardial infarction, subendocardial infarction, initial episode of care	Diagnosis	ICD-9-CM
410.72	Acute myocardial infarction, subendocardial infarction, subsequent episode of care	Diagnosis	ICD-9-CM
410.8	Acute myocardial infarction of other specified sites	Diagnosis	ICD-9-CM
410.80	Acute myocardial infarction of other specified sites, episode of care unspecified	Diagnosis	ICD-9-CM
410.81	Acute myocardial infarction of other specified sites, initial episode of care	Diagnosis	ICD-9-CM
410.82	Acute myocardial infarction of other specified sites, subsequent episode of care	Diagnosis	ICD-9-CM
410.9	Acute myocardial infarction, unspecified site	Diagnosis	ICD-9-CM
410.90	Acute myocardial infarction, unspecified site, episode of care unspecified	Diagnosis	ICD-9-CM
410.91	Acute myocardial infarction, unspecified site, initial episode of care	Diagnosis	ICD-9-CM
410.92	Acute myocardial infarction, unspecified site, subsequent episode of care	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
410	Acute myocardial infarction	Diagnosis	ICD-9-CM
410.0	Acute myocardial infarction of anterolateral wall	Diagnosis	ICD-9-CM
410.00	Acute myocardial infarction of anterolateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.01	Acute myocardial infarction of anterolateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.02	Acute myocardial infarction of anterolateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.1	Acute myocardial infarction of other anterior wall	Diagnosis	ICD-9-CM
410.10	Acute myocardial infarction of other anterior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.11	Acute myocardial infarction of other anterior wall, initial episode of care	Diagnosis	ICD-9-CM
410.12	Acute myocardial infarction of other anterior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.2	Acute myocardial infarction of inferolateral wall	Diagnosis	ICD-9-CM
410.20	Acute myocardial infarction of inferolateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.21	Acute myocardial infarction of inferolateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.22	Acute myocardial infarction of inferolateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.3	Acute myocardial infarction of inferoposterior wall	Diagnosis	ICD-9-CM
410.30	Acute myocardial infarction of inferoposterior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.31	Acute myocardial infarction of inferoposterior wall, initial episode of care	Diagnosis	ICD-9-CM
410.32	Acute myocardial infarction of inferoposterior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.4	Acute myocardial infarction of other inferior wall	Diagnosis	ICD-9-CM
410.40	Acute myocardial infarction of other inferior wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.41	Acute myocardial infarction of other inferior wall, initial episode of care	Diagnosis	ICD-9-CM
410.42	Acute myocardial infarction of other inferior wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.5	Acute myocardial infarction of other lateral wall	Diagnosis	ICD-9-CM
410.50	Acute myocardial infarction of other lateral wall, episode of care unspecified	Diagnosis	ICD-9-CM
410.51	Acute myocardial infarction of other lateral wall, initial episode of care	Diagnosis	ICD-9-CM
410.52	Acute myocardial infarction of other lateral wall, subsequent episode of care	Diagnosis	ICD-9-CM
410.6	Acute myocardial infarction, true posterior wall infarction	Diagnosis	ICD-9-CM
410.60	Acute myocardial infarction, true posterior wall infarction, episode of care unspecified	Diagnosis	ICD-9-CM
410.61	Acute myocardial infarction, true posterior wall infarction, initial episode of care	Diagnosis	ICD-9-CM
410.62	Acute myocardial infarction, true posterior wall infarction, subsequent episode of care	Diagnosis	ICD-9-CM
410.7	Acute myocardial infarction, subendocardial infarction	Diagnosis	ICD-9-CM
410.70	Acute myocardial infarction, subendocardial infarction, episode of care unspecified	Diagnosis	ICD-9-CM
410.71	Acute myocardial infarction, subendocardial infarction, initial episode of care	Diagnosis	ICD-9-CM
410.72	Acute myocardial infarction, subendocardial infarction, subsequent episode of care	Diagnosis	ICD-9-CM
410.8	Acute myocardial infarction of other specified sites	Diagnosis	ICD-9-CM
410.80	Acute myocardial infarction of other specified sites, episode of care unspecified	Diagnosis	ICD-9-CM
410.81	Acute myocardial infarction of other specified sites, initial episode of care	Diagnosis	ICD-9-CM
410.82	Acute myocardial infarction of other specified sites, subsequent episode of care	Diagnosis	ICD-9-CM
410.9	Acute myocardial infarction, unspecified site	Diagnosis	ICD-9-CM
410.90	Acute myocardial infarction, unspecified site, episode of care unspecified	Diagnosis	ICD-9-CM
410.91	Acute myocardial infarction, unspecified site, initial episode of care	Diagnosis	ICD-9-CM
410.92	Acute myocardial infarction, unspecified site, subsequent episode of care	Diagnosis	ICD-9-CM
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery	Diagnosis	ICD-10-CM
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
I21.109	ST elevation (STEMI) myocardial infarction involving other coronary artery of anterior wall	Diagnosis	ICD-10-CM
I21.11	ST elevation (STEMI) myocardial infarction involving right coronary artery	Diagnosis	ICD-10-CM
I21.19	ST elevation (STEMI) myocardial infarction involving other coronary artery of inferior wall	Diagnosis	ICD-10-CM
I21.21	ST elevation (STEMI) myocardial infarction involving left circumflex coronary artery	Diagnosis	ICD-10-CM
I21.29	ST elevation (STEMI) myocardial infarction involving other sites	Diagnosis	ICD-10-CM
I21.3	ST elevation (STEMI) myocardial infarction of unspecified site	Diagnosis	ICD-10-CM
I21.4	Non-ST elevation (NSTEMI) myocardial infarction	Diagnosis	ICD-10-CM
I21.9	Acute myocardial infarction, unspecified	Diagnosis	ICD-10-CM
I21.A1	Myocardial infarction type 2	Diagnosis	ICD-10-CM
I21.A9	Other myocardial infarction type	Diagnosis	ICD-10-CM
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall	Diagnosis	ICD-10-CM
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall	Diagnosis	ICD-10-CM
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction	Diagnosis	ICD-10-CM
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites	Diagnosis	ICD-10-CM
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site	Diagnosis	ICD-10-CM
Coronary revascularization			
V4581	Postprocedural aortocoronary bypass status	Diagnosis	ICD-9-CM
V4582	Postprocedural percutaneous transluminal coronary angioplasty status	Diagnosis	ICD-9-CM
V4588	Status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility	Diagnosis	ICD-9-CM
00.66	Percutaneous transluminal coronary angioplasty [PTCA] or coronary atherectomy	Procedure	ICD-9-CM
36.0	Removal of coronary artery obstruction and insertion of stent(s)	Procedure	ICD-9-CM
36.03	Open chest coronary artery angioplasty	Procedure	ICD-9-CM
36.04	Intracoronary artery thrombolytic infusion	Procedure	ICD-9-CM
36.06	Insertion of non-drug-eluting coronary artery stent(s)	Procedure	ICD-9-CM
36.07	Insertion of drug-eluting coronary artery stent(s)	Procedure	ICD-9-CM
36.09	Other removal of coronary artery obstruction	Procedure	ICD-9-CM
36.1	Bypass anastomosis for heart revascularization	Procedure	ICD-9-CM
36.10	Aortocoronary bypass for heart revascularization, not otherwise specified	Procedure	ICD-9-CM
36.11	(Aorto)coronary bypass of one coronary artery	Procedure	ICD-9-CM
36.12	(Aorto)coronary bypass of two coronary arteries	Procedure	ICD-9-CM
36.13	(Aorto)coronary bypass of three coronary arteries	Procedure	ICD-9-CM
36.14	(Aorto)coronary bypass of four or more coronary arteries	Procedure	ICD-9-CM
36.15	Single internal mammary-coronary artery bypass	Procedure	ICD-9-CM
36.16	Double internal mammary-coronary artery bypass	Procedure	ICD-9-CM
36.17	Abdominal-coronary artery bypass	Procedure	ICD-9-CM
36.19	Other bypass anastomosis for heart revascularization	Procedure	ICD-9-CM
36.2	Heart revascularization by arterial implant	Procedure	ICD-9-CM
36.3	Other heart revascularization	Procedure	ICD-9-CM
36.31	Open chest transmyocardial revascularization	Procedure	ICD-9-CM
36.32	Other transmyocardial revascularization	Procedure	ICD-9-CM
36.33	Endoscopic transmyocardial revascularization	Procedure	ICD-9-CM
36.34	Percutaneous transmyocardial revascularization	Procedure	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
36.39	Other heart revascularization	Procedure	ICD-9-CM
00566	Anesthesia for direct coronary artery bypass grafting; without pump oxygenator	Procedure	CPT-4
33508	Endoscopy, surgical, including video-assisted harvest of vein(s) for coronary artery bypass procedure (List separately in addition to code for primary procedure)	Procedure	CPT-4
33510	Coronary artery bypass, vein only; single coronary venous graft	Procedure	CPT-4
33511	Coronary artery bypass, vein only; 2 coronary venous grafts	Procedure	CPT-4
33512	Coronary artery bypass, vein only; 3 coronary venous grafts	Procedure	CPT-4
33513	Coronary artery bypass, vein only; 4 coronary venous grafts	Procedure	CPT-4
33514	Coronary artery bypass, vein only; 5 coronary venous grafts	Procedure	CPT-4
33516	Coronary artery bypass, vein only; 6 or more coronary venous grafts	Procedure	CPT-4
33517	Coronary artery bypass, using venous graft(s) and arterial graft(s); single vein graft (List separately in addition to code for primary procedure)	Procedure	CPT-4
33518	Coronary artery bypass, using venous graft(s) and arterial graft(s); 2 venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33519	Coronary artery bypass, using venous graft(s) and arterial graft(s); 3 venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33521	Coronary artery bypass, using venous graft(s) and arterial graft(s); 4 venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33522	Coronary artery bypass, using venous graft(s) and arterial graft(s); 5 venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33523	Coronary artery bypass, using venous graft(s) and arterial graft(s); 6 or more venous grafts (List separately in addition to code for primary procedure)	Procedure	CPT-4
33530	Reoperation, coronary artery bypass procedure or valve procedure, more than 1 month after original operation (List separately in addition to code for primary procedure)	Procedure	CPT-4
33533	Coronary artery bypass, using arterial graft(s); single arterial graft	Procedure	CPT-4
33534	Coronary artery bypass, using arterial graft(s); 2 coronary arterial grafts	Procedure	CPT-4
33535	Coronary artery bypass, using arterial graft(s); 3 coronary arterial grafts	Procedure	CPT-4
33536	Coronary artery bypass, using arterial graft(s); 4 or more coronary arterial grafts	Procedure	CPT-4
33572	Coronary endarterectomy, open, any method, of left anterior descending, circumflex, or right coronary artery performed in conjunction with coronary artery bypass graft procedure, each vessel (List separately in addition to primary procedure)	Procedure	CPT-4
35500	Harvest of upper extremity vein, 1 segment, for lower extremity or coronary artery bypass procedure (List separately in addition to code for primary procedure)	Procedure	CPT-4
92920	Percutaneous transluminal coronary angioplasty; single major coronary artery or branch	Procedure	CPT-4
92921	Percutaneous transluminal coronary angioplasty; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)	Procedure	CPT-4
92924	Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; single major coronary artery or branch	Procedure	CPT-4
92925	Percutaneous transluminal coronary atherectomy, with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)	Procedure	CPT-4
92928	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch	Procedure	CPT-4

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
92929	Percutaneous transcatheter placement of intracoronary stent(s), with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)	Procedure	CPT-4
92933	Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch	Procedure	CPT-4
92934	Percutaneous transluminal coronary atherectomy, with intracoronary stent, with coronary angioplasty when performed; each additional branch of a major coronary artery (List separately in addition to code for primary procedure)	Procedure	CPT-4
92937	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when performed; single vessel	Procedure	CPT-4
92938	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of intracoronary stent, atherectomy and angioplasty, including distal protection when performed; each additional branch subtended by the bypass graft (List separately in addition to code for primary procedure)	Procedure	CPT-4
92941	Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed, single vessel	Procedure	CPT-4
92943	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; single vessel	Procedure	CPT-4
92944	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of intracoronary stent, atherectomy and angioplasty; each additional coronary artery, coronary artery branch, or bypass graft (List separately in addition to code for primary procedure)	Procedure	CPT-4
92973	Percutaneous transluminal coronary thrombectomy mechanical (List separately in addition to code for primary procedure)	Procedure	CPT-4
92975	Thrombolysis, coronary; by intracoronary infusion, including selective coronary angiography	Procedure	CPT-4
92977	Thrombolysis, coronary; by intravenous infusion	Procedure	CPT-4
92980	Transcatheter placement of an intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; single vessel	Procedure	CPT-4
92981	Transcatheter placement of an intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; each additional vessel (List separately in addition to code for primary procedure)	Procedure	CPT-4
92982	Percutaneous transluminal coronary balloon angioplasty; single vessel	Procedure	CPT-4
92984	Percutaneous transluminal coronary balloon angioplasty; each additional vessel (List separately in addition to code for primary procedure)	Procedure	CPT-4
92995	Percutaneous transluminal coronary atherectomy, by mechanical or other method, with or without balloon angioplasty; single vessel	Procedure	CPT-4

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Code	Description	Code	
		Category	Code Type
92996	Percutaneous transluminal coronary atherectomy, by mechanical or other method, with or without balloon angioplasty; each additional vessel (List separately in addition to code for primary procedure)	Procedure	CPT-4
93540	Injection procedure during cardiac catheterization; for selective opacification of aortocoronary venous bypass grafts, 1 or more coronary arteries	Procedure	CPT-4
93564	Injection procedure during cardiac catheterization including imaging supervision, interpretation, and report; for selective opacification of aortocoronary venous or arterial bypass graft(s) (eg, aortocoronary saphenous vein, free radial artery, or free mammary artery graft) to one or more coronary arteries and in situ arterial conduits (eg, internal mammary), whether native or used for bypass to one or more coronary arteries during congenital heart catheterization, when performed (List separately in addition to code for	Procedure	CPT-4
C9600	Percutaneous transcatheter placement of drug eluting intracoronary stent(s), with coronary angioplasty when performed; single major coronary artery or branch	Procedure	HCPCS
C9601	Percutaneous transcatheter placement of drug-eluting intracoronary stent(s), with coronary angioplasty when performed; each additional branch of a major coronary artery (list separately in addition to code for primary procedure)	Procedure	HCPCS
C9602	Percutaneous transluminal coronary atherectomy, with drug eluting intracoronary stent, with coronary angioplasty when performed; single major coronary artery or branch	Procedure	HCPCS
C9603	Percutaneous transluminal coronary atherectomy, with drug-eluting intracoronary stent, with coronary angioplasty when performed; each additional branch of a major coronary artery (list separately in addition to code for primary procedure)	Procedure	HCPCS
C9604	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including distal protection when performed; single	Procedure	HCPCS
C9605	Percutaneous transluminal revascularization of or through coronary artery bypass graft (internal mammary, free arterial, venous), any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including distal protection when performed; each additional branch subtended by the bypass graft (list separately in addition to code for primary procedure)	Procedure	HCPCS
C9606	Percutaneous transluminal revascularization of acute total/subtotal occlusion during acute myocardial infarction, coronary artery or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty, including aspiration thrombectomy when performed, single vessel	Procedure	HCPCS
C9607	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty; single vessel	Procedure	HCPCS
C9608	Percutaneous transluminal revascularization of chronic total occlusion, coronary artery, coronary artery branch, or coronary artery bypass graft, any combination of drug-eluting intracoronary stent, atherectomy and angioplasty; each additional coronary artery, coronary artery branch, or bypass graft (list separately in addition to code for primary procedure)	Procedure	HCPCS
G0290	Transcatheter placement of a drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; single vessel	Procedure	HCPCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
G0291	Transcatheter placement of a drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; each additional vessel	Procedure	HCPCS
G8158	Patient documented to have received coronary artery bypass graft with use of internal mammary artery	Procedure	HCPCS
G8159	Patient documented to have received coronary artery bypass graft without use of internal mammary artery	Procedure	HCPCS
G8161	Patient with isolated coronary artery bypass graft documented to have received pre-operative beta-blockade	Procedure	HCPCS
G8162	Patient with isolated coronary artery bypass graft not documented to have received preoperative beta-blockade	Procedure	HCPCS
G8163	Clinician documented that patient with isolated coronary artery bypass graft was not an eligible candidate for pre-operative beta-blockade measure	Procedure	HCPCS
G8164	Patient with isolated coronary artery bypass graft documented to have prolonged intubation	Procedure	HCPCS
G8165	Patient with isolated coronary artery bypass graft not documented to have prolonged intubation	Procedure	HCPCS
G8166	Patient with isolated coronary artery bypass graft documented to have required surgical re-exploration	Procedure	HCPCS
G8167	Patient with isolated coronary artery bypass graft did not require surgical re-exploration	Procedure	HCPCS
G8170	Patient with isolated coronary artery bypass graft documented to have been discharged on aspirin or clopidogrel	Procedure	HCPCS
G8171	Patient with isolated coronary artery bypass graft not documented to have been discharged on aspirin or clopidogrel	Procedure	HCPCS
G8172	Clinician documented that patient with isolated coronary artery bypass graft was not an eligible candidate for antiplatelet therapy at discharge measure	Procedure	HCPCS
Z92.82	Status post administration of tPA (rtPA) in a different facility within the last 24 hours prior to admission to current facility	Diagnosis	ICD-10-CM
Z95.1	Presence of aortocoronary bypass graft	Diagnosis	ICD-10-CM
Z95.5	Presence of coronary angioplasty implant and graft	Diagnosis	ICD-10-CM
Z98.61	Coronary angioplasty status	Diagnosis	ICD-10-CM
00.66	Percutaneous transluminal coronary angioplasty [PTCA]	Procedure	ICD-9-CM
0210083	Bypass Coronary Artery, One Artery from Coronary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0210088	Bypass Coronary Artery, One Artery from Right Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0210089	Bypass Coronary Artery, One Artery from Left Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021008C	Bypass Coronary Artery, One Artery from Thoracic Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021008F	Bypass Coronary Artery, One Artery from Abdominal Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021008W	Bypass Coronary Artery, One Artery from Aorta with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
210093	Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS

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Code	Description	Code	
		Category	Code Type
210098	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
210099	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021009C	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021009F	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021009W	Bypass Coronary Artery, One Artery from Aorta with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
02100A3	Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100A8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100A9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100AC	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100AF	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100AW	Bypass Coronary Artery, One Artery from Aorta with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02100J3	Bypass Coronary Artery, One Artery from Coronary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100J8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100J9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100JC	Bypass Coronary Artery, One Artery from Thoracic Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100JF	Bypass Coronary Artery, One Artery from Abdominal Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100JW	Bypass Coronary Artery, One Artery from Aorta with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02100K3	Bypass Coronary Artery, One Artery from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100K8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100K9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100KC	Bypass Coronary Artery, One Artery from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100KF	Bypass Coronary Artery, One Artery from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02100KW	Bypass Coronary Artery, One Artery from Aorta with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02100Z3	Bypass Coronary Artery, One Artery from Coronary Artery, Open Approach	Procedure	ICD-10-PCS
02100Z8	Bypass Coronary Artery, One Artery from Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02100Z9	Bypass Coronary Artery, One Artery from Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02100ZC	Bypass Coronary Artery, One Artery from Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
02100ZF	Bypass Coronary Artery, One Artery from Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
0210344	Bypass Coronary Artery, One Artery from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02103D4	Bypass Coronary Artery, One Artery from Coronary Vein with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0210444	Bypass Coronary Artery, One Artery from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210483	Bypass Coronary Artery, One Artery from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210488	Bypass Coronary Artery, One Artery from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210489	Bypass Coronary Artery, One Artery from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021048C	Bypass Coronary Artery, One Artery from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021048F	Bypass Coronary Artery, One Artery from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021048W	Bypass Coronary Artery, One Artery from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210493	Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210498	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0210499	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021049C	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021049F	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021049W	Bypass Coronary Artery, One Artery from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104A3	Bypass Coronary Artery, One Artery from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104A8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104A9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02104AC	Bypass Coronary Artery, One Artery from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104AF	Bypass Coronary Artery, One Artery from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104AW	Bypass Coronary Artery, One Artery from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104D4	Bypass Coronary Artery, One Artery from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104J3	Bypass Coronary Artery, One Artery from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104J8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104J9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104JC	Bypass Coronary Artery, One Artery from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104JF	Bypass Coronary Artery, One Artery from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104JW	Bypass Coronary Artery, One Artery from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104K3	Bypass Coronary Artery, One Artery from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104K8	Bypass Coronary Artery, One Artery from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104K9	Bypass Coronary Artery, One Artery from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104KC	Bypass Coronary Artery, One Artery from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104KF	Bypass Coronary Artery, One Artery from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104KW	Bypass Coronary Artery, One Artery from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104Z3	Bypass Coronary Artery, One Artery from Coronary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104Z8	Bypass Coronary Artery, One Artery from Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104Z9	Bypass Coronary Artery, One Artery from Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104ZC	Bypass Coronary Artery, One Artery from Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02104ZF	Bypass Coronary Artery, One Artery from Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211083	Bypass Coronary Artery, Two Arteries from Coronary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0211088	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0211089	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021108C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021108F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021108W	Bypass Coronary Artery, Two Arteries from Aorta with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
211093	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
211098	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
211099	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021109C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021109F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021109W	Bypass Coronary Artery, Two Arteries from Aorta with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
02110A3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110A8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110A9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110AC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110AF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110AW	Bypass Coronary Artery, Two Arteries from Aorta with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02110J3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110J8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110J9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110JC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110JF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02110JW	Bypass Coronary Artery, Two Arteries from Aorta with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02110K3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110K8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110K9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110KC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110KF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110KW	Bypass Coronary Artery, Two Arteries from Aorta with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02110Z3	Bypass Coronary Artery, Two Arteries from Coronary Artery, Open Approach	Procedure	ICD-10-PCS
02110Z8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02110Z9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02110ZC	Bypass Coronary Artery, Two Arteries from Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
02110ZF	Bypass Coronary Artery, Two Arteries from Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
0211344	Bypass Coronary Artery, Two Arteries from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02113D4	Bypass Coronary Artery, Two Arteries from Coronary Vein with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0211444	Bypass Coronary Artery, Two Arteries from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211483	Bypass Coronary Artery, Two Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211488	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211489	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021148C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021148F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021148W	Bypass Coronary Artery, Two Arteries from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211493	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211498	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0211499	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
021149C	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021149F	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021149W	Bypass Coronary Artery, Two Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114A3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114A8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114A9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114AC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114AF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114AW	Bypass Coronary Artery, Two Arteries from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114D4	Bypass Coronary Artery, Two Arteries from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114J3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114J8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114J9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114JC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114JF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114JW	Bypass Coronary Artery, Two Arteries from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114K3	Bypass Coronary Artery, Two Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114K8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114K9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114KC	Bypass Coronary Artery, Two Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114KF	Bypass Coronary Artery, Two Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02114KW	Bypass Coronary Artery, Two Arteries from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114Z3	Bypass Coronary Artery, Two Arteries from Coronary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114Z8	Bypass Coronary Artery, Two Arteries from Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114Z9	Bypass Coronary Artery, Two Arteries from Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114ZC	Bypass Coronary Artery, Two Arteries from Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02114ZF	Bypass Coronary Artery, Two Arteries from Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212083	Bypass Coronary Artery, Three Arteries from Coronary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0212088	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0212089	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021208C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021208F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021208W	Bypass Coronary Artery, Three Arteries from Aorta with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
212093	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
212098	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
212099	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021209C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021209F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021209W	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
02120A3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120A8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120A9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120AC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02120AF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120AW	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02120J3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120J8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120J9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120JC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120JF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120JW	Bypass Coronary Artery, Three Arteries from Aorta with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02120K3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120K8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120K9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120KC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120KF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120KW	Bypass Coronary Artery, Three Arteries from Aorta with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02120Z3	Bypass Coronary Artery, Three Arteries from Coronary Artery, Open Approach	Procedure	ICD-10-PCS
02120Z8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02120Z9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02120ZC	Bypass Coronary Artery, Three Arteries from Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
02120ZF	Bypass Coronary Artery, Three Arteries from Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
0212344	Bypass Coronary Artery, Three Arteries from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02123D4	Bypass Coronary Artery, Three Arteries from Coronary Vein with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0212444	Bypass Coronary Artery, Three Arteries from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212483	Bypass Coronary Artery, Three Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212488	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0212489	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021248C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021248F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021248W	Bypass Coronary Artery, Three Arteries from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212493	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212498	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0212499	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021249C	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021249F	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021249W	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124A3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124A8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124A9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124AC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124AF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124AW	Bypass Coronary Artery, Three Arteries from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124D4	Bypass Coronary Artery, Three Arteries from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124J3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124J8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124J9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124JC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02124JF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124JW	Bypass Coronary Artery, Three Arteries from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124K3	Bypass Coronary Artery, Three Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124K8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124K9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124KC	Bypass Coronary Artery, Three Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124KF	Bypass Coronary Artery, Three Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124KW	Bypass Coronary Artery, Three Arteries from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124Z3	Bypass Coronary Artery, Three Arteries from Coronary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124Z8	Bypass Coronary Artery, Three Arteries from Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124Z9	Bypass Coronary Artery, Three Arteries from Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124ZC	Bypass Coronary Artery, Three Arteries from Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02124ZF	Bypass Coronary Artery, Three Arteries from Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213083	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0213088	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
0213089	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021308C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021308F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021308W	Bypass Coronary Artery, Four or More Arteries from Aorta with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
213093	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
213098	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
213099	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021309C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021309F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021309W	Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
02130A3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130A8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130A9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130AC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130AF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130AW	Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
02130J3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130J8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130J9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130JC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130JF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130JW	Bypass Coronary Artery, Four or More Arteries from Aorta with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
02130K3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130K8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130K9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130KC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130KF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02130KW	Bypass Coronary Artery, Four or More Arteries from Aorta with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
02130Z3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery, Open Approach	Procedure	ICD-10-PCS
02130Z8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary, Open	Procedure	ICD-10-PCS
02130Z9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
02130ZC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
02130ZF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
0213344	Bypass Coronary Artery, Four or More Arteries from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02133D4	Bypass Coronary Artery, Four or More Arteries from Coronary Vein with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0213444	Bypass Coronary Artery, Four or More Arteries from Coronary Vein with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213483	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213488	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213489	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021348C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021348F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021348W	Bypass Coronary Artery, Four or More Arteries from Aorta with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213493	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213498	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0213499	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021349C	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021349F	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021349W	Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134A3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134A8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134A9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02134AC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134AF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134AW	Bypass Coronary Artery, Four or More Arteries from Aorta with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134D4	Bypass Coronary Artery, Four or More Arteries from Coronary Vein with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134J3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134J8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134J9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134JC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134JF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134JW	Bypass Coronary Artery, Four or More Arteries from Aorta with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134K3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134K8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134K9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134KC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134KF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134KW	Bypass Coronary Artery, Four or More Arteries from Aorta with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134Z3	Bypass Coronary Artery, Four or More Arteries from Coronary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134Z8	Bypass Coronary Artery, Four or More Arteries from Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134Z9	Bypass Coronary Artery, Four or More Arteries from Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134ZC	Bypass Coronary Artery, Four or More Arteries from Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02134ZF	Bypass Coronary Artery, Four or More Arteries from Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K0Z5	Bypass Right Ventricle to Coronary Circulation, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
021K0Z8	Bypass Right Ventricle to Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
021K0Z9	Bypass Right Ventricle to Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
021K0ZC	Bypass Right Ventricle to Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
021K0ZF	Bypass Right Ventricle to Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
021K0ZW	Bypass Right Ventricle to Aorta, Open Approach	Procedure	ICD-10-PCS
021K4Z5	Bypass Right Ventricle to Coronary Circulation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4Z8	Bypass Right Ventricle to Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4Z9	Bypass Right Ventricle to Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4ZC	Bypass Right Ventricle to Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4ZF	Bypass Right Ventricle to Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021K4ZW	Bypass Right Ventricle to Aorta, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L08P	Bypass Left Ventricle to Pulmonary Trunk with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021L08Q	Bypass Left Ventricle to Right Pulmonary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021L08R	Bypass Left Ventricle to Left Pulmonary Artery with Zooplastic Tissue, Open Approach	Procedure	ICD-10-PCS
021L09P	Bypass Left Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021L09Q	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021L09R	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Open Approach	Procedure	ICD-10-PCS
021L0AP	Bypass Left Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
021L0AQ	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
021L0AR	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Open Approach	Procedure	ICD-10-PCS
021L0JP	Bypass Left Ventricle to Pulmonary Trunk with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
021L0JQ	Bypass Left Ventricle to Right Pulmonary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
021L0JR	Bypass Left Ventricle to Left Pulmonary Artery with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
021L0KP	Bypass Left Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
021L0KQ	Bypass Left Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
021L0KR	Bypass Left Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
021L0Z5	Bypass Left Ventricle to Coronary Circulation, Open Approach	Procedure	ICD-10-PCS
021L0Z8	Bypass Left Ventricle to Right Internal Mammary, Open Approach	Procedure	ICD-10-PCS
021L0Z9	Bypass Left Ventricle to Left Internal Mammary, Open Approach	Procedure	ICD-10-PCS
021L0ZC	Bypass Left Ventricle to Thoracic Artery, Open Approach	Procedure	ICD-10-PCS
021L0ZF	Bypass Left Ventricle to Abdominal Artery, Open Approach	Procedure	ICD-10-PCS
021L0ZP	Bypass Left Ventricle to Pulmonary Trunk, Open Approach	Procedure	ICD-10-PCS
021L0ZQ	Bypass Left Ventricle to Right Pulmonary Artery, Open Approach	Procedure	ICD-10-PCS
021L0ZR	Bypass Left Ventricle to Left Pulmonary Artery, Open Approach	Procedure	ICD-10-PCS
021L48P	Bypass Left Ventricle to Pulmonary Trunk with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
021L48Q	Bypass Left Ventricle to Right Pulmonary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L48R	Bypass Left Ventricle to Left Pulmonary Artery with Zooplastic Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L49P	Bypass Left Ventricle to Pulmonary Trunk with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L49Q	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L49R	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Venous Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4AP	Bypass Left Ventricle to Pulmonary Trunk with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4AQ	Bypass Left Ventricle to Right Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4AR	Bypass Left Ventricle to Left Pulmonary Artery with Autologous Arterial Tissue, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4JP	Bypass Left Ventricle to Pulmonary Trunk with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4JQ	Bypass Left Ventricle to Right Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4JR	Bypass Left Ventricle to Left Pulmonary Artery with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4KP	Bypass Left Ventricle to Pulmonary Trunk with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4KQ	Bypass Left Ventricle to Right Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4KR	Bypass Left Ventricle to Left Pulmonary Artery with Nonautologous Tissue Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4Z5	Bypass Left Ventricle to Coronary Circulation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4Z8	Bypass Left Ventricle to Right Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4Z9	Bypass Left Ventricle to Left Internal Mammary, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZC	Bypass Left Ventricle to Thoracic Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZF	Bypass Left Ventricle to Abdominal Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZP	Bypass Left Ventricle to Pulmonary Trunk, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZQ	Bypass Left Ventricle to Right Pulmonary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
021L4ZR	Bypass Left Ventricle to Left Pulmonary Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0270046	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027004Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device, Open	Procedure	ICD-10-PCS
0270056	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027005Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0270066	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027006Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0270076	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027007Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02700DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02700E6	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02700T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02700TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02700Z6	Dilation of Coronary Artery, One Artery, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02700ZZ	Dilation of Coronary Artery, One Artery, Open Approach	Procedure	ICD-10-PCS
0270346	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027034Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0270356	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027035Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0270366	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027036Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0270376	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027037Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02703DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703E6	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02703T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02703Z6	Dilation of Coronary Artery, One Artery, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02703ZZ	Dilation of Coronary Artery, One Artery, Percutaneous Approach	Procedure	ICD-10-PCS
0270446	Dilation of Coronary Artery, One Artery, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027044Z	Dilation of Coronary Artery, One Artery with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0270456	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027045Z	Dilation of Coronary Artery, One Artery with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0270466	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027046Z	Dilation of Coronary Artery, One Artery with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0270476	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027047Z	Dilation of Coronary Artery, One Artery with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704D6	Dilation of Coronary Artery, One Artery, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704DZ	Dilation of Coronary Artery, One Artery with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704E6	Dilation of Coronary Artery, One Artery, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704EZ	Dilation of Coronary Artery, One Artery with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02704F6	Dilation of Coronary Artery, One Artery, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704FZ	Dilation of Coronary Artery, One Artery with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704G6	Dilation of Coronary Artery, One Artery, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704GZ	Dilation of Coronary Artery, One Artery with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704T6	Dilation of Coronary Artery, One Artery, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704TZ	Dilation of Coronary Artery, One Artery with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704Z6	Dilation of Coronary Artery, One Artery, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02704ZZ	Dilation of Coronary Artery, One Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0271046	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027104Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0271056	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027105Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0271066	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027106Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0271076	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027107Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02710DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02710E6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02710GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02710T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02710TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02710Z6	Dilation of Coronary Artery, Two Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02710ZZ	Dilation of Coronary Artery, Two Arteries, Open Approach	Procedure	ICD-10-PCS
0271346	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027134Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0271356	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027135Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0271366	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027136Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0271376	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027137Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713E6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02713T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02713Z6	Dilation of Coronary Artery, Two Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02713ZZ	Dilation of Coronary Artery, Two Arteries, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0271446	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027144Z	Dilation of Coronary Artery, Two Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0271456	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027145Z	Dilation of Coronary Artery, Two Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0271466	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027146Z	Dilation of Coronary Artery, Two Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0271476	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027147Z	Dilation of Coronary Artery, Two Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714D6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714DZ	Dilation of Coronary Artery, Two Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714E6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714EZ	Dilation of Coronary Artery, Two Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714F6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714FZ	Dilation of Coronary Artery, Two Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714G6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714GZ	Dilation of Coronary Artery, Two Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714T6	Dilation of Coronary Artery, Two Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714TZ	Dilation of Coronary Artery, Two Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714Z6	Dilation of Coronary Artery, Two Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02714ZZ	Dilation of Coronary Artery, Two Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0272046	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027204Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS

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Code	Description	Code	
		Category	Code Type
0272056	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027205Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0272066	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027206Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0272076	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027207Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02720DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02720E6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02720T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02720TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02720Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02720ZZ	Dilation of Coronary Artery, Three Arteries, Open Approach	Procedure	ICD-10-PCS
0272346	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027234Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0272356	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027235Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0272366	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027236Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS

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Code	Description	Code	
		Category	Code Type
0272376	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027237Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723E6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02723T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02723Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02723ZZ	Dilation of Coronary Artery, Three Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
0272446	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027244Z	Dilation of Coronary Artery, Three Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0272456	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027245Z	Dilation of Coronary Artery, Three Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0272466	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027246Z	Dilation of Coronary Artery, Three Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0272476	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027247Z	Dilation of Coronary Artery, Three Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724D6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02724DZ	Dilation of Coronary Artery, Three Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724E6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724EZ	Dilation of Coronary Artery, Three Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724F6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724FZ	Dilation of Coronary Artery, Three Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724G6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724GZ	Dilation of Coronary Artery, Three Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724T6	Dilation of Coronary Artery, Three Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724TZ	Dilation of Coronary Artery, Three Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724Z6	Dilation of Coronary Artery, Three Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02724ZZ	Dilation of Coronary Artery, Three Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0273046	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
027304Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
0273056	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027305Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0273066	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027306Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
0273076	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
027307Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02730DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02730E6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS

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Code	Description	Code	
		Category	Code Type
02730F6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal Devices, Open Approach	Procedure	ICD-10-PCS
02730T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02730TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Open Approach	Procedure	ICD-10-PCS
02730Z6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02730ZZ	Dilation of Coronary Artery, Four or More Arteries, Open Approach	Procedure	ICD-10-PCS
0273346	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
027334Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
0273356	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027335Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0273366	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027336Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
0273376	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
027337Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733E6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733F6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
02733G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal Devices, Percutaneous Approach	Procedure	ICD-10-PCS
02733T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Percutaneous Approach	Procedure	ICD-10-PCS
02733Z6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02733ZZ	Dilation of Coronary Artery, Four or More Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
0273446	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027344Z	Dilation of Coronary Artery, Four or More Arteries with Drug-eluting Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0273456	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027345Z	Dilation of Coronary Artery, Four or More Arteries with Two Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0273466	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027346Z	Dilation of Coronary Artery, Four or More Arteries with Three Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0273476	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
027347Z	Dilation of Coronary Artery, Four or More Arteries with Four or More Drug-eluting Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734D6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734DZ	Dilation of Coronary Artery, Four or More Arteries with Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734E6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734EZ	Dilation of Coronary Artery, Four or More Arteries with Two Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734F6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734FZ	Dilation of Coronary Artery, Four or More Arteries with Three Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734G6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734GZ	Dilation of Coronary Artery, Four or More Arteries with Four or More Intraluminal Devices, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

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Code	Description	Code	
		Category	Code Type
02734T6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734TZ	Dilation of Coronary Artery, Four or More Arteries with Radioactive Intraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734Z6	Dilation of Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02734ZZ	Dilation of Coronary Artery, Four or More Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C00Z6	Extirpation of Matter from Coronary Artery, One Artery, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02C00ZZ	Extirpation of Matter from Coronary Artery, One Artery, Open Approach	Procedure	ICD-10-PCS
02C03Z6	Extirpation of Matter from Coronary Artery, One Artery, Bifurcation, Percutaneous	Procedure	ICD-10-PCS
02C03ZZ	Extirpation of Matter from Coronary Artery, One Artery, Percutaneous Approach	Procedure	ICD-10-PCS
02C04Z6	Extirpation of Matter from Coronary Artery, One Artery, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C04ZZ	Extirpation of Matter from Coronary Artery, One Artery, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C10Z6	Extirpation of Matter from Coronary Artery, Two Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02C10ZZ	Extirpation of Matter from Coronary Artery, Two Arteries, Open Approach	Procedure	ICD-10-PCS
02C13Z6	Extirpation of Matter from Coronary Artery, Two Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02C13ZZ	Extirpation of Matter from Coronary Artery, Two Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
02C14Z6	Extirpation of Matter from Coronary Artery, Two Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C14ZZ	Extirpation of Matter from Coronary Artery, Two Arteries, Percutaneous Endoscopic	Procedure	ICD-10-PCS
02C20Z6	Extirpation of Matter from Coronary Artery, Three Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02C20ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Open Approach	Procedure	ICD-10-PCS
02C23Z6	Extirpation of Matter from Coronary Artery, Three Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02C23ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
02C24Z6	Extirpation of Matter from Coronary Artery, Three Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C24ZZ	Extirpation of Matter from Coronary Artery, Three Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C30Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Open Approach	Procedure	ICD-10-PCS
02C30ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Open Approach	Procedure	ICD-10-PCS
02C33Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Approach	Procedure	ICD-10-PCS
02C33ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Percutaneous Approach	Procedure	ICD-10-PCS
02C34Z6	Extirpation of Matter from Coronary Artery, Four or More Arteries, Bifurcation, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02C34ZZ	Extirpation of Matter from Coronary Artery, Four or More Arteries, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02QA0ZZ	Repair Heart, Open Approach	Procedure	ICD-10-PCS
02QA3ZZ	Repair Heart, Percutaneous Approach	Procedure	ICD-10-PCS

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Code	Description	Code	
		Category	Code Type
02QA4ZZ	Repair Heart, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02QB0ZZ	Repair Right Heart, Open Approach	Procedure	ICD-10-PCS
02QB3ZZ	Repair Right Heart, Percutaneous Approach	Procedure	ICD-10-PCS
02QB4ZZ	Repair Right Heart, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
02QC0ZZ	Repair Left Heart, Open Approach	Procedure	ICD-10-PCS
02QC3ZZ	Repair Left Heart, Percutaneous Approach	Procedure	ICD-10-PCS
02QC4ZZ	Repair Left Heart, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
3E07017	Introduction of Other Thrombolytic into Coronary Artery, Open Approach	Procedure	ICD-10-PCS
3E070PZ	Introduction of Platelet Inhibitor into Coronary Artery, Open Approach	Procedure	ICD-10-PCS
3E07317	Introduction of Other Thrombolytic into Coronary Artery, Percutaneous Approach	Procedure	ICD-10-PCS
3E073PZ	Introduction of Platelet Inhibitor into Coronary Artery, Percutaneous Approach	Procedure	ICD-10-PCS
00567	Anesthesia for direct coronary artery bypass grafting; with pump oxygenator	Procedure	ICD-10-PCS
35600	Harvest of upper extremity artery, 1 segment, for coronary artery bypass procedure (List separately in addition to code for primary procedure)	Procedure	ICD-10-PCS
93455	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiography	Procedure	ICD-10-PCS
93457	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) including intraprocedural injection(s) for bypass graft angiography	Procedure	ICD-10-PCS
93459	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) with bypass graft angiography	Procedure	ICD-10-PCS
93461	Catheter placement in coronary artery(s) for coronary angiography, including intraprocedural injection(s) for coronary angiography, imaging supervision and interpretation; with right and left heart catheterization including intraprocedural injection(s) for left ventriculography, when performed, catheter placement(s) in bypass graft(s) (internal mammary, free arterial, venous grafts) with bypass graft angiography	Procedure	ICD-10-PCS
93508	Catheter placement in coronary artery(s), arterial coronary conduit(s), and/or venous coronary bypass graft(s) for coronary angiography without concomitant left heart catheterization	Procedure	ICD-10-PCS
93556	Imaging supervision, interpretation and report for injection procedure(s) during cardiac catheterization; pulmonary angiography, aortography, and/or selective coronary angiography including venous bypass grafts and arterial conduits (whether native or used in	Procedure	ICD-10-PCS
Heart failure			
402.01	Malignant hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
402.11	Benign hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
402.91	Hypertensive heart disease, unspecified, with heart failure	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
404.01	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.03	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.11	Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.13	Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.91	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.93	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
428	Heart failure	Diagnosis	ICD-9-CM
428.0	Congestive heart failure, unspecified	Diagnosis	ICD-9-CM
428.1	Left heart failure	Diagnosis	ICD-9-CM
428.2	Systolic heart failure	Diagnosis	ICD-9-CM
428.20	Unspecified systolic heart failure	Diagnosis	ICD-9-CM
428.21	Acute systolic heart failure	Diagnosis	ICD-9-CM
428.22	Chronic systolic heart failure	Diagnosis	ICD-9-CM
428.23	Acute on chronic systolic heart failure	Diagnosis	ICD-9-CM
428.3	Diastolic heart failure	Diagnosis	ICD-9-CM
428.30	Unspecified diastolic heart failure	Diagnosis	ICD-9-CM
428.31	Acute diastolic heart failure	Diagnosis	ICD-9-CM
428.32	Chronic diastolic heart failure	Diagnosis	ICD-9-CM
428.33	Acute on chronic diastolic heart failure	Diagnosis	ICD-9-CM
428.4	Combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.40	Unspecified combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.41	Acute combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.42	Chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.43	Acute on chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.9	Unspecified heart failure	Diagnosis	ICD-9-CM
37.66	Insertion of implantable heart assist system	Procedure	ICD-9-CM
33980	Removal of ventricular assist device, implantable intracorporeal, single ventricle	Procedure	CPT-4
92970	Cardioassist-method of circulatory assist; internal	Procedure	CPT-4
92971	Cardioassist-method of circulatory assist; external	Procedure	CPT-4
G8027	Heart failure patient with left ventricular systolic dysfunction (LVSD) documented to be on either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-1 or ARB) therapy	Procedure	HCPCS
G8028	Heart failure patient with left ventricular systolic dysfunction (LVSD) not documented to be on either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-1 or ARB) therapy	Procedure	HCPCS

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Code	Description	Code	
		Category	Code Type
G8029	Clinician documented that heart failure patient was not an eligible candidate for either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-1 or ARB) therapy measure	Procedure	HCPCS
G8030	Heart failure patient with left ventricular systolic dysfunction (LVSD) documented to be on beta-blocker therapy	Procedure	HCPCS
G8031	Heart failure patient with left ventricular systolic dysfunction (LVSD) not documented to be on beta-blocker therapy	Procedure	HCPCS
G8032	Clinician documented that heart failure patient was not eligible candidate for beta-blocker therapy measure	Procedure	HCPCS
G8184	Clinician documented that patient with heart failure and atrial fibrillation was not an eligible candidate for warfarin therapy measure	Procedure	HCPCS
I11.0	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I50.1	Left ventricular failure, unspecified	Diagnosis	ICD-10-CM
I50.20	Unspecified systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.21	Acute systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.22	Chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.23	Acute on chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.30	Unspecified diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.31	Acute diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.32	Chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.33	Acute on chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.810	Right heart failure, unspecified	Diagnosis	ICD-10-CM
I50.811	Acute right heart failure	Diagnosis	ICD-10-CM
I50.812	Chronic right heart failure	Diagnosis	ICD-10-CM
I50.813	Acute on chronic right heart failure	Diagnosis	ICD-10-CM
I50.814	Right heart failure due to left heart failure	Diagnosis	ICD-10-CM
I50.82	Biventricular heart failure	Diagnosis	ICD-10-CM
I50.83	High output heart failure	Diagnosis	ICD-10-CM
I50.84	End stage heart failure	Diagnosis	ICD-10-CM
I50.89	Other heart failure	Diagnosis	ICD-10-CM
I50.9	Heart failure, unspecified	Diagnosis	ICD-10-CM
02HA0QZ	Insertion of Implantable Heart Assist System into Heart, Open Approach	Procedure	ICD-10-PCS
02HA3QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Approach	Procedure	ICD-10-PCS
02HA4QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
G8183	Patient with heart failure and atrial fibrillation documented to be on warfarin therapy	Procedure	HCPCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
G8184	Clinician documented that patient with heart failure and atrial fibrillation was not an eligible candidate for warfarin therapy measure	Procedure	HCPCS
402.01	Malignant hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
402.11	Benign hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
402.91	Hypertensive heart disease, unspecified, with heart failure	Diagnosis	ICD-9-CM
404.01	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.03	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.11	Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.13	Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.91	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.93	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
428	Heart failure	Diagnosis	ICD-9-CM
428.0	Congestive heart failure, unspecified	Diagnosis	ICD-9-CM
428.1	Left heart failure	Diagnosis	ICD-9-CM
428.2	Systolic heart failure	Diagnosis	ICD-9-CM
428.20	Unspecified systolic heart failure	Diagnosis	ICD-9-CM
428.21	Acute systolic heart failure	Diagnosis	ICD-9-CM
428.22	Chronic systolic heart failure	Diagnosis	ICD-9-CM
428.23	Acute on chronic systolic heart failure	Diagnosis	ICD-9-CM
428.3	Diastolic heart failure	Diagnosis	ICD-9-CM
428.30	Unspecified diastolic heart failure	Diagnosis	ICD-9-CM
428.31	Acute diastolic heart failure	Diagnosis	ICD-9-CM
428.32	Chronic diastolic heart failure	Diagnosis	ICD-9-CM
428.33	Acute on chronic diastolic heart failure	Diagnosis	ICD-9-CM
428.4	Combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.40	Unspecified combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.41	Acute combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.42	Chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.43	Acute on chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
428.9	Unspecified heart failure	Diagnosis	ICD-9-CM
37.66	Insertion of implantable heart assist system	Procedure	ICD-9-CM
33980	Removal of ventricular assist device, implantable intracorporeal, single ventricle	Procedure	CPT-4
92970	Cardioassist-method of circulatory assist; internal	Procedure	CPT-4
92971	Cardioassist-method of circulatory assist; external	Procedure	CPT-4
G8027	Heart failure patient with left ventricular systolic dysfunction (LVSD) documented to be on either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-1 or ARB) therapy	Procedure	HCPCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
G8028	Heart failure patient with left ventricular systolic dysfunction (LVSD) not documented to be on either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-1 or ARB) therapy	Procedure	HCPCS
G8029	Clinician documented that heart failure patient was not an eligible candidate for either angiotensin-converting enzyme-inhibitor or angiotensin-receptor blocker (ACE-1 or ARB) therapy measure	Procedure	HCPCS
G8030	Heart failure patient with left ventricular systolic dysfunction (LVSD) documented to be on beta-blocker therapy	Procedure	HCPCS
G8031	Heart failure patient with left ventricular systolic dysfunction (LVSD) not documented to be on beta-blocker therapy	Procedure	HCPCS
G8032	Clinician documented that heart failure patient was not eligible candidate for beta-blocker therapy measure	Procedure	HCPCS
G8184	Clinician documented that patient with heart failure and atrial fibrillation was not an eligible candidate for warfarin therapy measure	Procedure	HCPCS
I11.0	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I50.1	Left ventricular failure, unspecified	Diagnosis	ICD-10-CM
I50.20	Unspecified systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.21	Acute systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.22	Chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.23	Acute on chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.30	Unspecified diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.31	Acute diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.32	Chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.33	Acute on chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.40	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.41	Acute combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.42	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.43	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.810	Right heart failure, unspecified	Diagnosis	ICD-10-CM
I50.811	Acute right heart failure	Diagnosis	ICD-10-CM
I50.812	Chronic right heart failure	Diagnosis	ICD-10-CM
I50.813	Acute on chronic right heart failure	Diagnosis	ICD-10-CM
I50.814	Right heart failure due to left heart failure	Diagnosis	ICD-10-CM
I50.82	Biventricular heart failure	Diagnosis	ICD-10-CM
I50.83	High output heart failure	Diagnosis	ICD-10-CM
I50.84	End stage heart failure	Diagnosis	ICD-10-CM
I50.89	Other heart failure	Diagnosis	ICD-10-CM
I50.9	Heart failure, unspecified	Diagnosis	ICD-10-CM
02HA0QZ	Insertion of Implantable Heart Assist System into Heart, Open Approach	Procedure	ICD-10-PCS

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Code	Description	Code	
		Category	Code Type
02HA3QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Approach	Procedure	ICD-10-PCS
02HA4QZ	Insertion of Implantable Heart Assist System into Heart, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
G8183	Patient with heart failure and atrial fibrillation documented to be on warfarin therapy	Procedure	HCPCS
G8184	Clinician documented that patient with heart failure and atrial fibrillation was not an eligible candidate for warfarin therapy measure	Procedure	HCPCS
G8681	Patient hospitalized with principal diagnosis of heart failure during the measurement period	Procedure	HCPCS
Other ischemic heart disease			
411	Other acute and subacute forms of ischemic heart disease	Diagnosis	ICD-9-CM
411.0	Postmyocardial infarction syndrome	Diagnosis	ICD-9-CM
411.1	Intermediate coronary syndrome	Diagnosis	ICD-9-CM
411.8	Other acute and subacute forms of ischemic heart disease	Diagnosis	ICD-9-CM
411.81	Acute coronary occlusion without myocardial infarction	Diagnosis	ICD-9-CM
411.89	Other acute and subacute form of ischemic heart disease	Diagnosis	ICD-9-CM
413	Angina pectoris	Diagnosis	ICD-9-CM
413.0	Angina decubitus	Diagnosis	ICD-9-CM
413.1	Prinzmetal angina	Diagnosis	ICD-9-CM
413.9	Other and unspecified angina pectoris	Diagnosis	ICD-9-CM
414	Other forms of chronic ischemic heart disease	Diagnosis	ICD-9-CM
414.0	Coronary atherosclerosis	Diagnosis	ICD-9-CM
414.00	Coronary atherosclerosis of unspecified type of vessel, native or graft	Diagnosis	ICD-9-CM
414.01	Coronary atherosclerosis of native coronary artery	Diagnosis	ICD-9-CM
414.02	Coronary atherosclerosis of autologous vein bypass graft	Diagnosis	ICD-9-CM
414.03	Coronary atherosclerosis of nonautologous biological bypass graft	Diagnosis	ICD-9-CM
414.04	Coronary atherosclerosis of artery bypass graft	Diagnosis	ICD-9-CM
414.05	Coronary atherosclerosis of unspecified type of bypass graft	Diagnosis	ICD-9-CM
414.06	Coronary atherosclerosis, of native coronary artery of transplanted heart	Diagnosis	ICD-9-CM
414.07	Coronary atherosclerosis, of bypass graft (artery) (vein) of transplanted heart	Diagnosis	ICD-9-CM
414.1	Aneurysm and dissection of heart	Diagnosis	ICD-9-CM
414.10	Aneurysm of heart	Diagnosis	ICD-9-CM
414.11	Aneurysm of coronary vessels	Diagnosis	ICD-9-CM
414.12	Dissection of coronary artery	Diagnosis	ICD-9-CM
414.19	Other aneurysm of heart	Diagnosis	ICD-9-CM
414.2	Chronic total occlusion of coronary artery	Diagnosis	ICD-9-CM
414.3	Coronary atherosclerosis due to lipid rich plaque	Diagnosis	ICD-9-CM
414.4	Coronary atherosclerosis due to calcified coronary lesion	Diagnosis	ICD-9-CM
414.8	Other specified forms of chronic ischemic heart disease	Diagnosis	ICD-9-CM
414.9	Unspecified chronic ischemic heart disease	Diagnosis	ICD-9-CM
429.2	Unspecified cardiovascular disease	Diagnosis	ICD-9-CM
429.5	Rupture of chordae tendineae	Diagnosis	ICD-9-CM
429.6	Rupture of papillary muscle	Diagnosis	ICD-9-CM
429.7	Certain sequelae of myocardial infarction, not elsewhere classified	Diagnosis	ICD-9-CM
429.71	Acquired cardiac septal defect	Diagnosis	ICD-9-CM
429.79	Other certain sequelae of myocardial infarction, not elsewhere classified	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
429.9	Unspecified heart disease	Diagnosis	ICD-9-CM
G8033	Prior myocardial infarction, coronary artery disease patient documented to be on beta-blocker therapy	Procedure	HCPCS
G8034	Prior myocardial infarction, coronary artery disease patient not documented to be on beta-blocker therapy	Procedure	HCPCS
G8035	Clinician documented that prior myocardial infarction, coronary artery disease patient was not eligible candidate for beta-blocker therapy measure	Procedure	HCPCS
G8036	Coronary artery disease patient documented to be on antiplatelet therapy	Procedure	HCPCS
G8037	Coronary artery disease patient not documented to be on antiplatelet therapy	Procedure	HCPCS
G8038	Clinician documented that coronary artery disease patient was not eligible candidate for antiplatelet therapy measure	Procedure	HCPCS
G8039	Coronary artery disease patient with low-density lipoprotein documented to be greater than 100 mg/dl	Procedure	HCPCS
G8040	Coronary artery disease patient with low-density lipoprotein documented to be less than or equal to 100 mg/dl	Procedure	HCPCS
G8041	Clinician documented that coronary artery disease patient was not eligible candidate for low-density lipoprotein measure	Procedure	HCPCS
I20.0	Unstable angina	Diagnosis	ICD-10-CM
I20.1	Angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I20.8	Other forms of angina pectoris	Diagnosis	ICD-10-CM
I20.9	Angina pectoris, unspecified	Diagnosis	ICD-10-CM
I23.0	Hemopericardium as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.1	Atrial septal defect as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.2	Ventricular septal defect as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.3	Rupture of cardiac wall without hemopericardium as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.4	Rupture of chordae tendineae as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.5	Rupture of papillary muscle as current complication following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.6	Thrombosis of atrium, auricular appendage, and ventricle as current complications following acute myocardial infarction	Diagnosis	ICD-10-CM
I23.7	Postinfarction angina	Diagnosis	ICD-10-CM
I23.8	Other current complications following acute myocardial infarction	Diagnosis	ICD-10-CM
I24.0	Acute coronary thrombosis not resulting in myocardial infarction	Diagnosis	ICD-10-CM
I24.1	Dressler's syndrome	Diagnosis	ICD-10-CM
I24.8	Other forms of acute ischemic heart disease	Diagnosis	ICD-10-CM
I24.9	Acute ischemic heart disease, unspecified	Diagnosis	ICD-10-CM
I25.10	Atherosclerotic heart disease of native coronary artery without angina pectoris	Diagnosis	ICD-10-CM
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.119	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.3	Aneurysm of heart	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
I25.41	Coronary artery aneurysm	Diagnosis	ICD-10-CM
I25.42	Coronary artery dissection	Diagnosis	ICD-10-CM
I25.5	Ischemic cardiomyopathy	Diagnosis	ICD-10-CM
I25.6	Silent myocardial ischemia	Diagnosis	ICD-10-CM
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.701	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.708	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.709	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.719	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.729	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.739	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina	Diagnosis	ICD-10-CM
I25.751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.759	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
I25.761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.769	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25.798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25.799	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25.810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris	Diagnosis	ICD-10-CM
I25.811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris	Diagnosis	ICD-10-CM
I25.812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris	Diagnosis	ICD-10-CM
I25.82	Chronic total occlusion of coronary artery	Diagnosis	ICD-10-CM
I25.83	Coronary atherosclerosis due to lipid rich plaque	Diagnosis	ICD-10-CM
I25.84	Coronary atherosclerosis due to calcified coronary lesion	Diagnosis	ICD-10-CM
I25.89	Other forms of chronic ischemic heart disease	Diagnosis	ICD-10-CM
I25.9	Chronic ischemic heart disease, unspecified	Diagnosis	ICD-10-CM
I51.0	Cardiac septal defect, acquired	Diagnosis	ICD-10-CM
I51.1	Rupture of chordae tendineae, not elsewhere classified	Diagnosis	ICD-10-CM
I51.2	Rupture of papillary muscle, not elsewhere classified	Diagnosis	ICD-10-CM
I51.9	Heart disease, unspecified	Diagnosis	ICD-10-CM
I52	Other heart disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
Stroke			
430	Subarachnoid hemorrhage	Diagnosis	ICD-9-CM
431	Intracerebral hemorrhage	Diagnosis	ICD-9-CM
433.01	Occlusion and stenosis of basilar artery with cerebral infarction	Diagnosis	ICD-9-CM
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	Diagnosis	ICD-9-CM
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.31	Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction	Diagnosis	ICD-9-CM
433.81	Occlusion and stenosis of other specified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.91	Occlusion and stenosis of unspecified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
434.01	Cerebral thrombosis with cerebral infarction	Diagnosis	ICD-9-CM
434.11	Cerebral embolism with cerebral infarction	Diagnosis	ICD-9-CM
434.91	Unspecified cerebral artery occlusion with cerebral infarction	Diagnosis	ICD-9-CM
436	Acute, but ill-defined, cerebrovascular disease	Diagnosis	ICD-9-CM
430	Subarachnoid hemorrhage	Diagnosis	ICD-9-CM
431	Intracerebral hemorrhage	Diagnosis	ICD-9-CM
433.01	Occlusion and stenosis of basilar artery with cerebral infarction	Diagnosis	ICD-9-CM
433.11	Occlusion and stenosis of carotid artery with cerebral infarction	Diagnosis	ICD-9-CM
433.21	Occlusion and stenosis of vertebral artery with cerebral infarction	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
433.31	Occlusion and stenosis of multiple and bilateral precerebral arteries with cerebral infarction	Diagnosis	ICD-9-CM
433.81	Occlusion and stenosis of other specified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
433.91	Occlusion and stenosis of unspecified precerebral artery with cerebral infarction	Diagnosis	ICD-9-CM
434.01	Cerebral thrombosis with cerebral infarction	Diagnosis	ICD-9-CM
434.11	Cerebral embolism with cerebral infarction	Diagnosis	ICD-9-CM
434.91	Unspecified cerebral artery occlusion with cerebral infarction	Diagnosis	ICD-9-CM
436	Acute, but ill-defined, cerebrovascular disease	Diagnosis	ICD-9-CM
I60.00	Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.10	Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I60.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery	Diagnosis	ICD-10-CM
I60.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery	Diagnosis	ICD-10-CM
I60.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery	Diagnosis	ICD-10-CM
I60.30	Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery	Diagnosis	ICD-10-CM
I60.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery	Diagnosis	ICD-10-CM
I60.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery	Diagnosis	ICD-10-CM
I60.4	Nontraumatic subarachnoid hemorrhage from basilar artery	Diagnosis	ICD-10-CM
I60.50	Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery	Diagnosis	ICD-10-CM
I60.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery	Diagnosis	ICD-10-CM
I60.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery	Diagnosis	ICD-10-CM
I60.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries	Diagnosis	ICD-10-CM
I60.7	Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery	Diagnosis	ICD-10-CM
I60.8	Other nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I60.9	Nontraumatic subarachnoid hemorrhage, unspecified	Diagnosis	ICD-10-CM
I61.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical	Diagnosis	ICD-10-CM
I61.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical	Diagnosis	ICD-10-CM
I61.2	Nontraumatic intracerebral hemorrhage in hemisphere, unspecified	Diagnosis	ICD-10-CM
I61.3	Nontraumatic intracerebral hemorrhage in brain stem	Diagnosis	ICD-10-CM
I61.4	Nontraumatic intracerebral hemorrhage in cerebellum	Diagnosis	ICD-10-CM
I61.5	Nontraumatic intracerebral hemorrhage, intraventricular	Diagnosis	ICD-10-CM
I61.6	Nontraumatic intracerebral hemorrhage, multiple localized	Diagnosis	ICD-10-CM
I61.8	Other nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I61.9	Nontraumatic intracerebral hemorrhage, unspecified	Diagnosis	ICD-10-CM
I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.011	Cerebral infarction due to thrombosis of right vertebral artery	Diagnosis	ICD-10-CM
I63.012	Cerebral infarction due to thrombosis of left vertebral artery	Diagnosis	ICD-10-CM
I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.019	Cerebral infarction due to thrombosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.02	Cerebral infarction due to thrombosis of basilar artery	Diagnosis	ICD-10-CM
I63.031	Cerebral infarction due to thrombosis of right carotid artery	Diagnosis	ICD-10-CM
I63.032	Cerebral infarction due to thrombosis of left carotid artery	Diagnosis	ICD-10-CM
I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.09	Cerebral infarction due to thrombosis of other precerebral artery	Diagnosis	ICD-10-CM
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.111	Cerebral infarction due to embolism of right vertebral artery	Diagnosis	ICD-10-CM
I63.112	Cerebral infarction due to embolism of left vertebral artery	Diagnosis	ICD-10-CM
I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.119	Cerebral infarction due to embolism of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.12	Cerebral infarction due to embolism of basilar artery	Diagnosis	ICD-10-CM
I63.131	Cerebral infarction due to embolism of right carotid artery	Diagnosis	ICD-10-CM
I63.132	Cerebral infarction due to embolism of left carotid artery	Diagnosis	ICD-10-CM
I63.133	Cerebral infarction due to embolism of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.139	Cerebral infarction due to embolism of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.19	Cerebral infarction due to embolism of other precerebral artery	Diagnosis	ICD-10-CM
I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral	Diagnosis	ICD-10-CM
I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery	Diagnosis	ICD-10-CM
I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery	Diagnosis	ICD-10-CM
I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery	Diagnosis	ICD-10-CM
I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries	Diagnosis	ICD-10-CM
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries	Diagnosis	ICD-10-CM
I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries	Diagnosis	ICD-10-CM
I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery	Diagnosis	ICD-10-CM
I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I63.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery	Diagnosis	ICD-10-CM
I63.333	Cerebral infarction due to thrombosis of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I63.339	Cerebral infarction due to thrombosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.341	Cerebral infarction due to thrombosis of right cerebellar artery	Diagnosis	ICD-10-CM
I63.342	Cerebral infarction due to thrombosis of left cerebellar artery	Diagnosis	ICD-10-CM
I63.343	Cerebral infarction due to thrombosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.39	Cerebral infarction due to thrombosis of other cerebral artery	Diagnosis	ICD-10-CM
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
I63.411	Cerebral infarction due to embolism of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.412	Cerebral infarction due to embolism of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.419	Cerebral infarction due to embolism of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.421	Cerebral infarction due to embolism of right anterior cerebral artery	Diagnosis	ICD-10-CM
I63.422	Cerebral infarction due to embolism of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I63.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.431	Cerebral infarction due to embolism of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.432	Cerebral infarction due to embolism of left posterior cerebral artery	Diagnosis	ICD-10-CM
I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I63.439	Cerebral infarction due to embolism of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.441	Cerebral infarction due to embolism of right cerebellar artery	Diagnosis	ICD-10-CM
I63.442	Cerebral infarction due to embolism of left cerebellar artery	Diagnosis	ICD-10-CM
I63.443	Cerebral infarction due to embolism of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.449	Cerebral infarction due to embolism of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.49	Cerebral infarction due to embolism of other cerebral artery	Diagnosis	ICD-10-CM
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery	Diagnosis	ICD-10-CM
I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I63.529	Cerebral infarction due to unspecified occlusion or stenosis of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery	Diagnosis	ICD-10-CM
I63.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I63.539	Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery	Diagnosis	ICD-10-CM
I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery	Diagnosis	ICD-10-CM
I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.549	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery	Diagnosis	ICD-10-CM
I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic	Diagnosis	ICD-10-CM
I63.8	Other cerebral infarction	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
I63.9	Cerebral infarction, unspecified	Diagnosis	ICD-10-CM
I67.89	Other cerebrovascular disease	Diagnosis	ICD-10-CM
I60.00	Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.10	Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I60.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery	Diagnosis	ICD-10-CM
I60.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery	Diagnosis	ICD-10-CM
I60.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery	Diagnosis	ICD-10-CM
I60.30	Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery	Diagnosis	ICD-10-CM
I60.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery	Diagnosis	ICD-10-CM
I60.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery	Diagnosis	ICD-10-CM
I60.4	Nontraumatic subarachnoid hemorrhage from basilar artery	Diagnosis	ICD-10-CM
I60.50	Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery	Diagnosis	ICD-10-CM
I60.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery	Diagnosis	ICD-10-CM
I60.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery	Diagnosis	ICD-10-CM
I60.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries	Diagnosis	ICD-10-CM
I60.7	Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery	Diagnosis	ICD-10-CM
I60.8	Other nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I60.9	Nontraumatic subarachnoid hemorrhage, unspecified	Diagnosis	ICD-10-CM
I61.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical	Diagnosis	ICD-10-CM
I61.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical	Diagnosis	ICD-10-CM
I61.2	Nontraumatic intracerebral hemorrhage in hemisphere, unspecified	Diagnosis	ICD-10-CM
I61.3	Nontraumatic intracerebral hemorrhage in brain stem	Diagnosis	ICD-10-CM
I61.4	Nontraumatic intracerebral hemorrhage in cerebellum	Diagnosis	ICD-10-CM
I61.5	Nontraumatic intracerebral hemorrhage, intraventricular	Diagnosis	ICD-10-CM
I61.6	Nontraumatic intracerebral hemorrhage, multiple localized	Diagnosis	ICD-10-CM
I61.8	Other nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I61.9	Nontraumatic intracerebral hemorrhage, unspecified	Diagnosis	ICD-10-CM
I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.011	Cerebral infarction due to thrombosis of right vertebral artery	Diagnosis	ICD-10-CM
I63.012	Cerebral infarction due to thrombosis of left vertebral artery	Diagnosis	ICD-10-CM
I63.013	Cerebral infarction due to thrombosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.019	Cerebral infarction due to thrombosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.02	Cerebral infarction due to thrombosis of basilar artery	Diagnosis	ICD-10-CM
I63.031	Cerebral infarction due to thrombosis of right carotid artery	Diagnosis	ICD-10-CM
I63.032	Cerebral infarction due to thrombosis of left carotid artery	Diagnosis	ICD-10-CM
I63.033	Cerebral infarction due to thrombosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.09	Cerebral infarction due to thrombosis of other precerebral artery	Diagnosis	ICD-10-CM
I63.10	Cerebral infarction due to embolism of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.111	Cerebral infarction due to embolism of right vertebral artery	Diagnosis	ICD-10-CM
I63.112	Cerebral infarction due to embolism of left vertebral artery	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
I63.113	Cerebral infarction due to embolism of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.119	Cerebral infarction due to embolism of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.12	Cerebral infarction due to embolism of basilar artery	Diagnosis	ICD-10-CM
I63.131	Cerebral infarction due to embolism of right carotid artery	Diagnosis	ICD-10-CM
I63.132	Cerebral infarction due to embolism of left carotid artery	Diagnosis	ICD-10-CM
I63.133	Cerebral infarction due to embolism of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.139	Cerebral infarction due to embolism of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.19	Cerebral infarction due to embolism of other precerebral artery	Diagnosis	ICD-10-CM
I63.20	Cerebral infarction due to unspecified occlusion or stenosis of unspecified precerebral	Diagnosis	ICD-10-CM
I63.211	Cerebral infarction due to unspecified occlusion or stenosis of right vertebral artery	Diagnosis	ICD-10-CM
I63.212	Cerebral infarction due to unspecified occlusion or stenosis of left vertebral artery	Diagnosis	ICD-10-CM
I63.213	Cerebral infarction due to unspecified occlusion or stenosis of bilateral vertebral arteries	Diagnosis	ICD-10-CM
I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar artery	Diagnosis	ICD-10-CM
I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries	Diagnosis	ICD-10-CM
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries	Diagnosis	ICD-10-CM
I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries	Diagnosis	ICD-10-CM
I63.30	Cerebral infarction due to thrombosis of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.311	Cerebral infarction due to thrombosis of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.312	Cerebral infarction due to thrombosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.313	Cerebral infarction due to thrombosis of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.319	Cerebral infarction due to thrombosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.321	Cerebral infarction due to thrombosis of right anterior cerebral artery	Diagnosis	ICD-10-CM
I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.323	Cerebral infarction due to thrombosis of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I63.329	Cerebral infarction due to thrombosis of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.331	Cerebral infarction due to thrombosis of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery	Diagnosis	ICD-10-CM
I63.333	Cerebral infarction due to thrombosis of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I63.339	Cerebral infarction due to thrombosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.341	Cerebral infarction due to thrombosis of right cerebellar artery	Diagnosis	ICD-10-CM
I63.342	Cerebral infarction due to thrombosis of left cerebellar artery	Diagnosis	ICD-10-CM
I63.343	Cerebral infarction due to thrombosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.39	Cerebral infarction due to thrombosis of other cerebral artery	Diagnosis	ICD-10-CM
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.411	Cerebral infarction due to embolism of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.412	Cerebral infarction due to embolism of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.413	Cerebral infarction due to embolism of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.419	Cerebral infarction due to embolism of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.421	Cerebral infarction due to embolism of right anterior cerebral artery	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
I63.422	Cerebral infarction due to embolism of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I63.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.431	Cerebral infarction due to embolism of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.432	Cerebral infarction due to embolism of left posterior cerebral artery	Diagnosis	ICD-10-CM
I63.433	Cerebral infarction due to embolism of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I63.439	Cerebral infarction due to embolism of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.441	Cerebral infarction due to embolism of right cerebellar artery	Diagnosis	ICD-10-CM
I63.442	Cerebral infarction due to embolism of left cerebellar artery	Diagnosis	ICD-10-CM
I63.443	Cerebral infarction due to embolism of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.449	Cerebral infarction due to embolism of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.49	Cerebral infarction due to embolism of other cerebral artery	Diagnosis	ICD-10-CM
I63.50	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.511	Cerebral infarction due to unspecified occlusion or stenosis of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.521	Cerebral infarction due to unspecified occlusion or stenosis of right anterior cerebral artery	Diagnosis	ICD-10-CM
I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I63.529	Cerebral infarction due to unspecified occlusion or stenosis of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I63.531	Cerebral infarction due to unspecified occlusion or stenosis of right posterior cerebral artery	Diagnosis	ICD-10-CM
I63.532	Cerebral infarction due to unspecified occlusion or stenosis of left posterior cerebral artery	Diagnosis	ICD-10-CM
I63.533	Cerebral infarction due to unspecified occlusion or stenosis of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I63.539	Cerebral infarction due to unspecified occlusion or stenosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I63.541	Cerebral infarction due to unspecified occlusion or stenosis of right cerebellar artery	Diagnosis	ICD-10-CM
I63.542	Cerebral infarction due to unspecified occlusion or stenosis of left cerebellar artery	Diagnosis	ICD-10-CM
I63.543	Cerebral infarction due to unspecified occlusion or stenosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.549	Cerebral infarction due to unspecified occlusion or stenosis of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.59	Cerebral infarction due to unspecified occlusion or stenosis of other cerebral artery	Diagnosis	ICD-10-CM
I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic	Diagnosis	ICD-10-CM
I63.8	Other cerebral infarction	Diagnosis	ICD-10-CM
I63.9	Cerebral infarction, unspecified	Diagnosis	ICD-10-CM
I67.89	Other cerebrovascular disease	Diagnosis	ICD-10-CM
Transient ischemic attack			
435	Transient cerebral ischemia	Diagnosis	ICD-9-CM
435.0	Basilar artery syndrome	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
435.1	Vertebral artery syndrome	Diagnosis	ICD-9-CM
435.2	Subclavian steal syndrome	Diagnosis	ICD-9-CM
435.3	Vertebrobasilar artery syndrome	Diagnosis	ICD-9-CM
435.8	Other specified transient cerebral ischemias	Diagnosis	ICD-9-CM
435.9	Unspecified transient cerebral ischemia	Diagnosis	ICD-9-CM
G45.0	Vertebro-basilar artery syndrome	Diagnosis	ICD-10-CM
G45.1	Carotid artery syndrome (hemispheric)	Diagnosis	ICD-10-CM
G45.2	Multiple and bilateral precerebral artery syndromes	Diagnosis	ICD-10-CM
G45.8	Other transient cerebral ischemic attacks and related syndromes	Diagnosis	ICD-10-CM
G45.9	Transient cerebral ischemic attack, unspecified	Diagnosis	ICD-10-CM
G46.0	Middle cerebral artery syndrome	Diagnosis	ICD-10-CM
G46.1	Anterior cerebral artery syndrome	Diagnosis	ICD-10-CM
G46.2	Posterior cerebral artery syndrome	Diagnosis	ICD-10-CM
I67.841	Reversible cerebrovascular vasoconstriction syndrome	Diagnosis	ICD-10-CM
I67.848	Other cerebrovascular vasospasm and vasoconstriction	Diagnosis	ICD-10-CM
Other medical conditions (falls, fractures, syncope, walker use)e, walker use)			
E880	Accidental fall on or from stairs or steps	Diagnosis	ICD-9-CM
E8800	Accidental fall on or from escalator	Diagnosis	ICD-9-CM
E8801	Accidental fall on or from sidewalk curb	Diagnosis	ICD-9-CM
E8809	Accidental fall on or from other stairs or steps	Diagnosis	ICD-9-CM
E881	Accidental fall on or from ladders or scaffolding	Diagnosis	ICD-9-CM
E8810	Accidental fall from ladder	Diagnosis	ICD-9-CM
E8811	Accidental fall from scaffolding	Diagnosis	ICD-9-CM
E882	Accidental fall from or out of building or other structure	Diagnosis	ICD-9-CM
E883	Accidental fall into hole or other opening in surface	Diagnosis	ICD-9-CM
E8830	Accident from diving or jumping into water (swimming pool)	Diagnosis	ICD-9-CM
E8831	Accidental fall into well	Diagnosis	ICD-9-CM
E8832	Accidental fall into storm drain or manhole	Diagnosis	ICD-9-CM
E8839	Accidental fall into other hole or other opening in surface	Diagnosis	ICD-9-CM
E884	Other accidental fall from one level to another	Diagnosis	ICD-9-CM
E8840	Accidental fall from playground equipment	Diagnosis	ICD-9-CM
E8841	Accidental fall from cliff	Diagnosis	ICD-9-CM
E8842	Accidental fall from chair	Diagnosis	ICD-9-CM
E8843	Accidental fall from wheelchair	Diagnosis	ICD-9-CM
E8844	Accidental fall from bed	Diagnosis	ICD-9-CM
E8845	Accidental fall from other furniture	Diagnosis	ICD-9-CM
E8846	Accidental fall from commode	Diagnosis	ICD-9-CM
E8849	Other accidental fall from one level to another	Diagnosis	ICD-9-CM
E885	Accidental fall on same level from slipping, tripping, or stumbling	Diagnosis	ICD-9-CM
E8850	Fall on same level from (nonmotorized) scooter	Diagnosis	ICD-9-CM
E8851	Fall from roller skates	Diagnosis	ICD-9-CM
E8852	Fall from skateboard	Diagnosis	ICD-9-CM
E8853	Fall from skis	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
E8854	Fall from snowboard	Diagnosis	ICD-9-CM
E8859	Fall from other slipping, tripping, or stumbling	Diagnosis	ICD-9-CM
E886	Accidental fall on same level from collision, pushing, or shoving, by or with other person	Diagnosis	ICD-9-CM
E8860	Accidental fall on same level from collision, pushing, or shoving, by or with other person in sports	Diagnosis	ICD-9-CM
E8869	Other and unspecified accidental falls on same level from collision, pushing, or shoving, by or with other person	Diagnosis	ICD-9-CM
E887	Fracture in accidental fall, cause unspecified	Diagnosis	ICD-9-CM
E888	Other and unspecified accidental fall	Diagnosis	ICD-9-CM
E8880	Fall resulting in striking against sharp object	Diagnosis	ICD-9-CM
E8881	Fall resulting in striking against other object	Diagnosis	ICD-9-CM
E8888	Other fall	Diagnosis	ICD-9-CM
E8889	Unspecified fall	Diagnosis	ICD-9-CM
E9176	Strike against or struck accidentally by crowd, by collective fear or panic with subsequent fall	Diagnosis	ICD-9-CM
E9177	Strike against or struck accidentally by furniture with subsequent fall	Diagnosis	ICD-9-CM
E9178	Strike against or struck accidentally by other stationary object with subsequent fall	Diagnosis	ICD-9-CM
E9179	Other accident caused by striking against or being struck accidentally by objects or persons	Diagnosis	ICD-9-CM
E9293	Late effects of accidental fall	Diagnosis	ICD-9-CM
807	Closed fracture of rib(s)	Diagnosis	ICD-9-CM
807	Closed fracture of rib(s), unspecified	Diagnosis	ICD-9-CM
807.01	Closed fracture of one rib	Diagnosis	ICD-9-CM
807.02	Closed fracture of two ribs	Diagnosis	ICD-9-CM
807.03	Closed fracture of three ribs	Diagnosis	ICD-9-CM
807.04	Closed fracture of four ribs	Diagnosis	ICD-9-CM
807.05	Closed fracture of five ribs	Diagnosis	ICD-9-CM
807.06	Closed fracture of six ribs	Diagnosis	ICD-9-CM
807.07	Closed fracture of seven ribs	Diagnosis	ICD-9-CM
807.08	Closed fracture of eight or more ribs	Diagnosis	ICD-9-CM
807.09	Closed fracture of multiple ribs, unspecified	Diagnosis	ICD-9-CM
807.1	Open fracture of rib(s)	Diagnosis	ICD-9-CM
807.1	Open fracture of rib(s), unspecified	Diagnosis	ICD-9-CM
807.11	Open fracture of one rib	Diagnosis	ICD-9-CM
807.12	Open fracture of two ribs	Diagnosis	ICD-9-CM
807.13	Open fracture of three ribs	Diagnosis	ICD-9-CM
807.14	Open fracture of four ribs	Diagnosis	ICD-9-CM
807.15	Open fracture of five ribs	Diagnosis	ICD-9-CM
807.16	Open fracture of six ribs	Diagnosis	ICD-9-CM
807.17	Open fracture of seven ribs	Diagnosis	ICD-9-CM
807.18	Open fracture of eight or more ribs	Diagnosis	ICD-9-CM
807.19	Open fracture of multiple ribs, unspecified	Diagnosis	ICD-9-CM
810	Fracture of clavicle	Diagnosis	ICD-9-CM
810	Closed fracture of clavicle	Diagnosis	ICD-9-CM
810	Unspecified part of closed fracture of clavicle	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
810.01	Closed fracture of sternal end of clavicle	Diagnosis	ICD-9-CM
810.02	Closed fracture of shaft of clavicle	Diagnosis	ICD-9-CM
810.03	Closed fracture of acromial end of clavicle	Diagnosis	ICD-9-CM
810.1	Open fracture of clavicle	Diagnosis	ICD-9-CM
810.1	Unspecified part of open fracture of clavicle	Diagnosis	ICD-9-CM
810.11	Open fracture of sternal end of clavicle	Diagnosis	ICD-9-CM
810.12	Open fracture of shaft of clavicle	Diagnosis	ICD-9-CM
810.13	Open fracture of acromial end of clavicle	Diagnosis	ICD-9-CM
813	Fracture of radius and ulna	Diagnosis	ICD-9-CM
813	Closed fracture of upper end of radius and ulna	Diagnosis	ICD-9-CM
813	Unspecified fracture of radius and ulna, upper end of forearm, closed	Diagnosis	ICD-9-CM
813.01	Closed fracture of olecranon process of ulna	Diagnosis	ICD-9-CM
813.02	Closed fracture of coronoid process of ulna	Diagnosis	ICD-9-CM
813.03	Closed Monteggia's fracture	Diagnosis	ICD-9-CM
813.04	Other and unspecified closed fractures of proximal end of ulna (alone)	Diagnosis	ICD-9-CM
813.05	Closed fracture of head of radius	Diagnosis	ICD-9-CM
813.06	Closed fracture of neck of radius	Diagnosis	ICD-9-CM
813.07	Other and unspecified closed fractures of proximal end of radius (alone)	Diagnosis	ICD-9-CM
813.08	Closed fracture of radius with ulna, upper end (any part)	Diagnosis	ICD-9-CM
813.1	Open fracture of upper end of radius and ulna	Diagnosis	ICD-9-CM
813.1	Unspecified open fracture of upper end of forearm	Diagnosis	ICD-9-CM
813.11	Open fracture of olecranon process of ulna	Diagnosis	ICD-9-CM
813.12	Open fracture of coronoid process of ulna	Diagnosis	ICD-9-CM
813.13	Open Monteggia's fracture	Diagnosis	ICD-9-CM
813.14	Other and unspecified open fractures of proximal end of ulna (alone)	Diagnosis	ICD-9-CM
813.15	Open fracture of head of radius	Diagnosis	ICD-9-CM
813.16	Open fracture of neck of radius	Diagnosis	ICD-9-CM
813.17	Other and unspecified open fractures of proximal end of radius (alone)	Diagnosis	ICD-9-CM
813.18	Open fracture of radius with ulna, upper end (any part)	Diagnosis	ICD-9-CM
813.2	Closed fracture of shaft of radius and ulna	Diagnosis	ICD-9-CM
813.2	Unspecified closed fracture of shaft of radius or ulna	Diagnosis	ICD-9-CM
813.21	Closed fracture of shaft of radius (alone)	Diagnosis	ICD-9-CM
813.22	Closed fracture of shaft of ulna (alone)	Diagnosis	ICD-9-CM
813.23	Closed fracture of shaft of radius with ulna	Diagnosis	ICD-9-CM
813.3	Open fracture of shaft of radius and ulna	Diagnosis	ICD-9-CM
813.3	Unspecified open fracture of shaft of radius or ulna	Diagnosis	ICD-9-CM
813.31	Open fracture of shaft of radius (alone)	Diagnosis	ICD-9-CM
813.32	Open fracture of shaft of ulna (alone)	Diagnosis	ICD-9-CM
813.33	Open fracture of shaft of radius with ulna	Diagnosis	ICD-9-CM
813.4	Closed fracture of lower end of radius and ulna	Diagnosis	ICD-9-CM
813.4	Unspecified closed fracture of lower end of forearm	Diagnosis	ICD-9-CM
813.41	Closed Colles' fracture	Diagnosis	ICD-9-CM
813.42	Other closed fractures of distal end of radius (alone)	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
813.43	Closed fracture of distal end of ulna (alone)	Diagnosis	ICD-9-CM
813.44	Closed fracture of lower end of radius with ulna	Diagnosis	ICD-9-CM
813.45	Torus fracture of radius (alone)	Diagnosis	ICD-9-CM
813.46	Torus fracture of ulna (alone)	Diagnosis	ICD-9-CM
813.47	Torus fracture of radius and ulna	Diagnosis	ICD-9-CM
813.5	Open fracture of lower end of radius and ulna	Diagnosis	ICD-9-CM
813.5	Unspecified open fracture of lower end of forearm	Diagnosis	ICD-9-CM
813.51	Open Colles' fracture	Diagnosis	ICD-9-CM
813.52	Other open fractures of distal end of radius (alone)	Diagnosis	ICD-9-CM
813.53	Open fracture of distal end of ulna (alone)	Diagnosis	ICD-9-CM
813.54	Open fracture of lower end of radius with ulna	Diagnosis	ICD-9-CM
813.8	Closed fracture of unspecified part of radius with ulna	Diagnosis	ICD-9-CM
813.8	Closed fracture of unspecified part of forearm	Diagnosis	ICD-9-CM
813.81	Closed fracture of unspecified part of radius (alone)	Diagnosis	ICD-9-CM
813.82	Closed fracture of unspecified part of ulna (alone)	Diagnosis	ICD-9-CM
813.83	Closed fracture of unspecified part of radius with ulna	Diagnosis	ICD-9-CM
813.9	Open fracture of unspecified part of radius with ulna	Diagnosis	ICD-9-CM
813.9	Open fracture of unspecified part of forearm	Diagnosis	ICD-9-CM
813.91	Open fracture of unspecified part of radius (alone)	Diagnosis	ICD-9-CM
813.92	Open fracture of unspecified part of ulna (alone)	Diagnosis	ICD-9-CM
813.93	Open fracture of unspecified part of radius with ulna	Diagnosis	ICD-9-CM
820	Fracture of neck of femur	Diagnosis	ICD-9-CM
820	Closed transcervical fracture	Diagnosis	ICD-9-CM
820	Closed fracture of unspecified intracapsular section of neck of femur	Diagnosis	ICD-9-CM
820.01	Closed fracture of epiphysis (separation) (upper) of neck of femur	Diagnosis	ICD-9-CM
820.02	Closed fracture of midcervical section of femur	Diagnosis	ICD-9-CM
820.03	Closed fracture of base of neck of femur	Diagnosis	ICD-9-CM
820.09	Other closed transcervical fracture of femur	Diagnosis	ICD-9-CM
820.1	Open transcervical fracture	Diagnosis	ICD-9-CM
820.1	Open fracture of unspecified intracapsular section of neck of femur	Diagnosis	ICD-9-CM
820.11	Open fracture of epiphysis (separation) (upper) of neck of femur	Diagnosis	ICD-9-CM
820.12	Open fracture of midcervical section of femur	Diagnosis	ICD-9-CM
820.13	Open fracture of base of neck of femur	Diagnosis	ICD-9-CM
820.19	Other open transcervical fracture of femur	Diagnosis	ICD-9-CM
820.2	Closed pertrochanteric fracture of femur	Diagnosis	ICD-9-CM
820.2	Closed fracture of unspecified trochanteric section of femur	Diagnosis	ICD-9-CM
820.21	Closed fracture of intertrochanteric section of femur	Diagnosis	ICD-9-CM
820.22	Closed fracture of subtrochanteric section of femur	Diagnosis	ICD-9-CM
820.3	Open pertrochanteric fracture of femur	Diagnosis	ICD-9-CM
820.3	Open fracture of unspecified trochanteric section of femur	Diagnosis	ICD-9-CM
820.31	Open fracture of intertrochanteric section of femur	Diagnosis	ICD-9-CM
820.32	Open fracture of subtrochanteric section of femur	Diagnosis	ICD-9-CM
820.8	Closed fracture of unspecified part of neck of femur	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
820.9	Open fracture of unspecified part of neck of femur	Diagnosis	ICD-9-CM
78.11	Application of external fixator device, scapula, clavicle, and thorax [ribs and sternum]	Procedure	ICD-9-CM
78.13	Application of external fixator device, radius and ulna	Procedure	ICD-9-CM
78.15	Application of external fixator device, femur	Procedure	ICD-9-CM
78.41	Other repair or plastic operations on scapula, clavicle, and thorax (ribs and sternum)	Procedure	ICD-9-CM
78.43	Other repair or plastic operations on radius and ulna	Procedure	ICD-9-CM
78.45	Other repair or plastic operations on femur	Procedure	ICD-9-CM
78.51	Internal fixation of scapula, clavicle, and thorax (ribs and sternum) without fracture	Procedure	ICD-9-CM
78.53	Internal fixation of radius and ulna without fracture reduction	Procedure	ICD-9-CM
78.55	Internal fixation of femur without fracture reduction	Procedure	ICD-9-CM
78.61	Removal of implanted device from scapula, clavicle, and thorax (ribs and sternum)	Procedure	ICD-9-CM
78.63	Removal of implanted device from radius and ulna	Procedure	ICD-9-CM
78.65	Removal of implanted device from femur	Procedure	ICD-9-CM
79.02	Closed reduction of fracture of radius and ulna without internal fixation	Procedure	ICD-9-CM
79.05	Closed reduction of fracture of femur without internal fixation	Procedure	ICD-9-CM
79.12	Closed reduction of fracture of radius and ulna with internal fixation	Procedure	ICD-9-CM
79.15	Closed reduction of fracture of femur with internal fixation	Procedure	ICD-9-CM
79.22	Open reduction of fracture of radius and ulna without internal fixation	Procedure	ICD-9-CM
79.25	Open reduction of fracture of femur without internal fixation	Procedure	ICD-9-CM
79.32	Open reduction of fracture of radius and ulna with internal fixation	Procedure	ICD-9-CM
79.35	Open reduction of fracture of femur with internal fixation	Procedure	ICD-9-CM
79.62	Debridement of open fracture of radius and ulna	Procedure	ICD-9-CM
79.65	Debridement of open fracture of femur	Procedure	ICD-9-CM
21800	Closed treatment of broken rib	Procedure	CPT-4
21805	Open treatment of broken rib	Procedure	CPT-4
21810	Treatment of broken rib	Procedure	CPT-4
21812	Open treatment of broken ribs with insertion of hardware	Procedure	CPT-4
21813	Open treatment of broken ribs with insertion of hardware	Procedure	CPT-4
23485	Incision to repair collar bone for nonunion of fracture with bone graft	Procedure	CPT-4
23500	Closed treatment of collar bone fracture	Procedure	CPT-4
23505	Closed treatment of collar bone broken with manipulation	Procedure	CPT-4
23515	Open treatment of collar bone broken	Procedure	CPT-4
24586	Open treatment of broken and/or dislocated upper or lower arm bones at elbow	Procedure	CPT-4
24587	Open treatment of broken and/or dislocated upper or lower arm bones at elbow with	Procedure	CPT-4
24620	Closed treatment of broken and dislocated forearm bones at elbow with manipulation	Procedure	CPT-4
24635	Open treatment of broken and dislocated forearm bones at elbow	Procedure	CPT-4
24650	Closed treatment of broken forearm bone at elbow	Procedure	CPT-4
24655	Closed treatment of broken forearm bone at elbow with manipulation	Procedure	CPT-4
24665	Open treatment of broken forearm bone at elbow	Procedure	CPT-4
24666	Open treatment of broken forearm bone at elbow with prosthetic replacement	Procedure	CPT-4
24670	Closed treatment of broken forearm bone at elbow	Procedure	CPT-4
24675	Closed treatment of broken forearm bone at elbow with manipulation	Procedure	CPT-4
24685	Open treatment of broken forearm bone at elbow	Procedure	CPT-4

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Code	Description	Code	
		Category	Code Type
25500	Closed treatment of broken forearm bone	Procedure	CPT-4
25505	Closed treatment of broken forearm bone with manipulation	Procedure	CPT-4
25515	Open treatment of broken forearm bone	Procedure	CPT-4
25520	Closed treatment of broken forearm and dislocated wrist bones	Procedure	CPT-4
25525	Open treatment of broken forearm bone and closed treatment of joint dislocation	Procedure	CPT-4
25526	Open treatment of broken forearm bone	Procedure	CPT-4
25530	Closed treatment of broken forearm bone	Procedure	CPT-4
25535	Closed treatment of broken forearm bone with manipulation	Procedure	CPT-4
25545	Open treatment of broken forearm bone	Procedure	CPT-4
25560	Closed treatment of broken forearm bones	Procedure	CPT-4
25565	Closed treatment of broken forearm bones with manipulation	Procedure	CPT-4
25574	Open treatment of broken forearm bones	Procedure	CPT-4
25575	Open treatment of broken forearm bones	Procedure	CPT-4
25600	Closed treatment of broken forearm bones	Procedure	CPT-4
25605	Closed treatment of broken or growth plate separate of forearm bone at wrist with manipulation	Procedure	CPT-4
25606	Insertion of hardware to lower forearm bone broken or growth plate separation, accessed through the skin	Procedure	CPT-4
25607	Open treatment of broken or lower forearm bone or growth plate separation with insertion of hardware	Procedure	CPT-4
25608	Open treatment of broken of lower forearm or growth plate separation with insertion of hardware of 2 fragments	Procedure	CPT-4
25609	Open treatment of broken of lower forearm or growth plate separation with insertion of hardware of 3 or more fragments	Procedure	CPT-4
25611	Percutaneous skeletal fixation of distal radial fracture (eg, colles or smith type) or epiphyseal separation, with or without fracture of ulnar styloid, requiring manipulation, with or without external fixation	Procedure	CPT-4
25620	Open treatment of distal radial fracture (eg, colles or smith type) or epiphyseal separation, with or without fracture of ulnar styloid, with or without internal or external fixation	Procedure	CPT-4
25650	Closed treatment of broken forearm bone at wrist bone	Procedure	CPT-4
25651	Insertion of hardware broken bone of forearm at wrist, accessed through the skin	Procedure	CPT-4
25652	Open treatment of broken wrist	Procedure	CPT-4
27230	Closed treatment of upper thigh bone fracture	Procedure	CPT-4
27232	Closed treatment of thigh bone fracture with manipulation	Procedure	CPT-4
27235	Insertion of hardware to broken thigh bone, accessed through the skin	Procedure	CPT-4
27236	Open treatment of broken thigh bone with insertion of hardware or prosthetic replacement	Procedure	CPT-4
27238	Closed treatment of fracture below neck of upper thigh bone	Procedure	CPT-4
27240	Closed treatment of broken thigh bone with manipulation	Procedure	CPT-4
27244	Surgical treatment of broken thigh bone	Procedure	CPT-4
27245	Surgical treatment of broken thigh bone	Procedure	CPT-4
27246	Closed treatment of broken thigh bone	Procedure	CPT-4
27248	Open treatment of broken thigh bone	Procedure	CPT-4
27254	Open treatment of fracture and traumatic dislocation of hip socket and thigh bone	Procedure	CPT-4

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Code	Description	Code	
		Category	Code Type
27267	Closed treatment of broken thigh bone	Procedure	CPT-4
27268	Closed treatment of fracture of upper portion and head of thigh bone with manipulation	Procedure	CPT-4
27269	Open treatment of fracture of thigh bone	Procedure	CPT-4
27500	Closed treatment of thigh bone fracture	Procedure	CPT-4
27501	Closed treatment of broken thigh bone	Procedure	CPT-4
27502	Closed treatment of broken thigh bone with manipulation	Procedure	CPT-4
27503	Closed treatment of broken thigh bone with manipulation	Procedure	CPT-4
27506	Open treatment of broken thigh bone	Procedure	CPT-4
27507	Open treatment of broken thigh bone	Procedure	CPT-4
27508	Closed treatment of broken thigh bone	Procedure	CPT-4
27509	Insertion of hardware to stabilize broken thigh bone or separated growth plate, accessed through the skin	Procedure	CPT-4
27510	Closed treatment of broken thigh bone with manipulation	Procedure	CPT-4
27511	Open treatment of broken thigh bone	Procedure	CPT-4
27513	Open treatment of broken thigh bone	Procedure	CPT-4
27514	Open treatment of broken thigh bone	Procedure	CPT-4
E0130	Walker, rigid (pickup), adjustable or fixed height	Procedure	HCPCS
E0135	Walker, folding (pickup), adjustable or fixed height	Procedure	HCPCS
E0140	Walker, with trunk support, adjustable or fixed height, any type	Procedure	HCPCS
E0141	Walker, rigid, wheeled, adjustable or fixed height	Procedure	HCPCS
E0142	Rigid walker, wheeled, with seat	Procedure	HCPCS
E0143	Walker, folding, wheeled, adjustable or fixed height	Procedure	HCPCS
E0144	Walker, enclosed, 4 sided framed, rigid or folding, wheeled with posterior seat	Procedure	HCPCS
E0145	Walker, wheeled, with seat and crutch attachments	Procedure	HCPCS
E0146	Folding walker, wheeled, with seat	Procedure	HCPCS
E0147	Walker, heavy duty, multiple braking system, variable wheel resistance	Procedure	HCPCS
E0148	Walker, heavy-duty, without wheels, rigid or folding, any type, each	Procedure	HCPCS
E0149	Walker, heavy-duty, wheeled, rigid or folding, any type	Procedure	HCPCS
E0154	Platform attachment, walker, each	Procedure	HCPCS
E0155	Wheel attachment, rigid pick-up walker, per pair	Procedure	HCPCS
E0156	Seat attachment, walker	Procedure	HCPCS
E0157	Crutch attachment, walker, each	Procedure	HCPCS
E0158	Leg extensions for walker, per set of 4	Procedure	HCPCS
E0159	Brake attachment for wheeled walker, replacement, each	Procedure	HCPCS
K0458	Heavy duty walker, without wheels, each	Procedure	HCPCS
K0459	Heavy duty wheeled walker, each	Procedure	HCPCS
L1520	Thkao, swivel walker	Procedure	HCPCS
780.2	Syncope and collapse	Diagnosis	ICD-9-CM
V00.01XA	Pedestrian on foot injured in collision with roller-skater, initial encounter	Diagnosis	ICD-10-CM
V00.01XD	Pedestrian on foot injured in collision with roller-skater, subsequent encounter	Diagnosis	ICD-10-CM
V00.02XA	Pedestrian on foot injured in collision with skateboarder, initial encounter	Diagnosis	ICD-10-CM
V00.02XD	Pedestrian on foot injured in collision with skateboarder, subsequent encounter	Diagnosis	ICD-10-CM
V00.09XA	Pedestrian on foot injured in collision with other pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
V00.09XD	Pedestrian on foot injured in collision with other pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.111A	Fall from in-line roller-skates, initial encounter	Diagnosis	ICD-10-CM
V00.111D	Fall from in-line roller-skates, subsequent encounter	Diagnosis	ICD-10-CM
V00.111S	Fall from in-line roller-skates, sequela	Diagnosis	ICD-10-CM
V00.112A	In-line roller-skater colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.112D	In-line roller-skater colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.112S	In-line roller-skater colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.118A	Other in-line roller-skate accident, initial encounter	Diagnosis	ICD-10-CM
V00.118D	Other in-line roller-skate accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.118S	Other in-line roller-skate accident, sequela	Diagnosis	ICD-10-CM
V00.121A	Fall from non-in-line roller-skates, initial encounter	Diagnosis	ICD-10-CM
V00.121D	Fall from non-in-line roller-skates, subsequent encounter	Diagnosis	ICD-10-CM
V00.121S	Fall from non-in-line roller-skates, sequela	Diagnosis	ICD-10-CM
V00.122A	Non-in-line roller-skater colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.122D	Non-in-line roller-skater colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.122S	Non-in-line roller-skater colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.128A	Other non-in-line roller-skating accident, initial encounter	Diagnosis	ICD-10-CM
V00.128D	Other non-in-line roller-skating accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.128S	Other non-in-line roller-skating accident, sequela	Diagnosis	ICD-10-CM
V00.131A	Fall from skateboard, initial encounter	Diagnosis	ICD-10-CM
V00.131D	Fall from skateboard, subsequent encounter	Diagnosis	ICD-10-CM
V00.131S	Fall from skateboard, sequela	Diagnosis	ICD-10-CM
V00.132A	Skateboarder colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.132D	Skateboarder colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.132S	Skateboarder colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.138A	Other skateboard accident, initial encounter	Diagnosis	ICD-10-CM
V00.138D	Other skateboard accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.138S	Other skateboard accident, sequela	Diagnosis	ICD-10-CM
V00.141A	Fall from scooter (nonmotorized), initial encounter	Diagnosis	ICD-10-CM
V00.141D	Fall from scooter (nonmotorized), subsequent encounter	Diagnosis	ICD-10-CM
V00.141S	Fall from scooter (nonmotorized), sequela	Diagnosis	ICD-10-CM
V00.142A	Scooter (nonmotorized) colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.142D	Scooter (nonmotorized) colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.142S	Scooter (nonmotorized) colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.148A	Other scooter (nonmotorized) accident, initial encounter	Diagnosis	ICD-10-CM
V00.148D	Other scooter (nonmotorized) accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.148S	Other scooter (nonmotorized) accident, sequela	Diagnosis	ICD-10-CM
V00.151A	Fall from heelies, initial encounter	Diagnosis	ICD-10-CM
V00.151D	Fall from heelies, subsequent encounter	Diagnosis	ICD-10-CM
V00.151S	Fall from heelies, sequela	Diagnosis	ICD-10-CM
V00.152A	Heelies colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.152D	Heelies colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
V00.152S	Heelies colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.158A	Other heelies accident, initial encounter	Diagnosis	ICD-10-CM
V00.158D	Other heelies accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.158S	Other heelies accident, sequela	Diagnosis	ICD-10-CM
V00.181A	Fall from other rolling-type pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM
V00.181D	Fall from other rolling-type pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.181S	Fall from other rolling-type pedestrian conveyance, sequela	Diagnosis	ICD-10-CM
V00.182A	Pedestrian on other rolling-type pedestrian conveyance colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.182D	Pedestrian on other rolling-type pedestrian conveyance colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.182S	Pedestrian on other rolling-type pedestrian conveyance colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.188A	Other accident on other rolling-type pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM
V00.188D	Other accident on other rolling-type pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.188S	Other accident on other rolling-type pedestrian conveyance, sequela	Diagnosis	ICD-10-CM
V00.211A	Fall from ice-skates, initial encounter	Diagnosis	ICD-10-CM
V00.211D	Fall from ice-skates, subsequent encounter	Diagnosis	ICD-10-CM
V00.211S	Fall from ice-skates, sequela	Diagnosis	ICD-10-CM
V00.212A	Ice-skater colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.212D	Ice-skater colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.212S	Ice-skater colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.218A	Other ice-skates accident, initial encounter	Diagnosis	ICD-10-CM
V00.218D	Other ice-skates accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.218S	Other ice-skates accident, sequela	Diagnosis	ICD-10-CM
V00.221A	Fall from sled, initial encounter	Diagnosis	ICD-10-CM
V00.221D	Fall from sled, subsequent encounter	Diagnosis	ICD-10-CM
V00.221S	Fall from sled, sequela	Diagnosis	ICD-10-CM
V00.222A	Sledder colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.222D	Sledder colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.222S	Sledder colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.228A	Other sled accident, initial encounter	Diagnosis	ICD-10-CM
V00.228D	Other sled accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.228S	Other sled accident, sequela	Diagnosis	ICD-10-CM
V00.281A	Fall from other gliding-type pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM
V00.281D	Fall from other gliding-type pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.281S	Fall from other gliding-type pedestrian conveyance, sequela	Diagnosis	ICD-10-CM
V00.282A	Pedestrian on other gliding-type pedestrian conveyance colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.282D	Pedestrian on other gliding-type pedestrian conveyance colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.282S	Pedestrian on other gliding-type pedestrian conveyance colliding with stationary object, sequela	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
V00.288A	Other accident on other gliding-type pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM
V00.288D	Other accident on other gliding-type pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.288S	Other accident on other gliding-type pedestrian conveyance, sequela	Diagnosis	ICD-10-CM
V00.311A	Fall from snowboard, initial encounter	Diagnosis	ICD-10-CM
V00.311D	Fall from snowboard, subsequent encounter	Diagnosis	ICD-10-CM
V00.311S	Fall from snowboard, sequela	Diagnosis	ICD-10-CM
V00.312A	Snowboarder colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.312D	Snowboarder colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.312S	Snowboarder colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.318A	Other snowboard accident, initial encounter	Diagnosis	ICD-10-CM
V00.318D	Other snowboard accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.318S	Other snowboard accident, sequela	Diagnosis	ICD-10-CM
V00.321A	Fall from snow-skis, initial encounter	Diagnosis	ICD-10-CM
V00.321D	Fall from snow-skis, subsequent encounter	Diagnosis	ICD-10-CM
V00.321S	Fall from snow-skis, sequela	Diagnosis	ICD-10-CM
V00.322A	Snow-skier colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.322D	Snow-skier colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.322S	Snow-skier colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.328A	Other snow-ski accident, initial encounter	Diagnosis	ICD-10-CM
V00.328D	Other snow-ski accident, subsequent encounter	Diagnosis	ICD-10-CM
V00.328S	Other snow-ski accident, sequela	Diagnosis	ICD-10-CM
V00.381A	Fall from other flat-bottomed pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM
V00.381D	Fall from other flat-bottomed pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.381S	Fall from other flat-bottomed pedestrian conveyance, sequela	Diagnosis	ICD-10-CM
V00.382A	Pedestrian on other flat-bottomed pedestrian conveyance colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.382D	Pedestrian on other flat-bottomed pedestrian conveyance colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.382S	Pedestrian on other flat-bottomed pedestrian conveyance colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.388A	Other accident on other flat-bottomed pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM
V00.388D	Other accident on other flat-bottomed pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.388S	Other accident on other flat-bottomed pedestrian conveyance, sequela	Diagnosis	ICD-10-CM
V00.811A	Fall from moving wheelchair (powered), initial encounter	Diagnosis	ICD-10-CM
V00.811D	Fall from moving wheelchair (powered), subsequent encounter	Diagnosis	ICD-10-CM
V00.811S	Fall from moving wheelchair (powered), sequela	Diagnosis	ICD-10-CM
V00.812A	Wheelchair (powered) colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.812D	Wheelchair (powered) colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.812S	Wheelchair (powered) colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.818A	Other accident with wheelchair (powered), initial encounter	Diagnosis	ICD-10-CM
V00.818D	Other accident with wheelchair (powered), subsequent encounter	Diagnosis	ICD-10-CM
V00.818S	Other accident with wheelchair (powered), sequela	Diagnosis	ICD-10-CM
V00.821A	Fall from baby stroller, initial encounter	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
V00.821D	Fall from baby stroller, subsequent encounter	Diagnosis	ICD-10-CM
V00.821S	Fall from baby stroller, sequela	Diagnosis	ICD-10-CM
V00.822A	Baby stroller colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.822D	Baby stroller colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.822S	Baby stroller colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.828A	Other accident with baby stroller, initial encounter	Diagnosis	ICD-10-CM
V00.828D	Other accident with baby stroller, subsequent encounter	Diagnosis	ICD-10-CM
V00.828S	Other accident with baby stroller, sequela	Diagnosis	ICD-10-CM
V00.831A	Fall from motorized mobility scooter, initial encounter	Diagnosis	ICD-10-CM
V00.831D	Fall from motorized mobility scooter, subsequent encounter	Diagnosis	ICD-10-CM
V00.831S	Fall from motorized mobility scooter, sequela	Diagnosis	ICD-10-CM
V00.832A	Motorized mobility scooter colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.832D	Motorized mobility scooter colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.832S	Motorized mobility scooter colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.838A	Other accident with motorized mobility scooter, initial encounter	Diagnosis	ICD-10-CM
V00.838D	Other accident with motorized mobility scooter, subsequent encounter	Diagnosis	ICD-10-CM
V00.838S	Other accident with motorized mobility scooter, sequela	Diagnosis	ICD-10-CM
V00.891A	Fall from other pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM
V00.891D	Fall from other pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.891S	Fall from other pedestrian conveyance, sequela	Diagnosis	ICD-10-CM
V00.892A	Pedestrian on other pedestrian conveyance colliding with stationary object, initial encounter	Diagnosis	ICD-10-CM
V00.892D	Pedestrian on other pedestrian conveyance colliding with stationary object, subsequent encounter	Diagnosis	ICD-10-CM
V00.892S	Pedestrian on other pedestrian conveyance colliding with stationary object, sequela	Diagnosis	ICD-10-CM
V00.898A	Other accident on other pedestrian conveyance, initial encounter	Diagnosis	ICD-10-CM
V00.898D	Other accident on other pedestrian conveyance, subsequent encounter	Diagnosis	ICD-10-CM
V00.898S	Other accident on other pedestrian conveyance, sequela	Diagnosis	ICD-10-CM
W00.0XXA	Fall on same level due to ice and snow, initial encounter	Diagnosis	ICD-10-CM
W00.0XXD	Fall on same level due to ice and snow, subsequent encounter	Diagnosis	ICD-10-CM
W00.0XXS	Fall on same level due to ice and snow, sequela	Diagnosis	ICD-10-CM
W00.1XXA	Fall from stairs and steps due to ice and snow, initial encounter	Diagnosis	ICD-10-CM
W00.1XXD	Fall from stairs and steps due to ice and snow, subsequent encounter	Diagnosis	ICD-10-CM
W00.1XXS	Fall from stairs and steps due to ice and snow, sequela	Diagnosis	ICD-10-CM
W00.2XXA	Other fall from one level to another due to ice and snow, initial encounter	Diagnosis	ICD-10-CM
W00.2XXD	Other fall from one level to another due to ice and snow, subsequent encounter	Diagnosis	ICD-10-CM
W00.2XXS	Other fall from one level to another due to ice and snow, sequela	Diagnosis	ICD-10-CM
W00.9XXA	Unspecified fall due to ice and snow, initial encounter	Diagnosis	ICD-10-CM
W00.9XXD	Unspecified fall due to ice and snow, subsequent encounter	Diagnosis	ICD-10-CM
W00.9XXS	Unspecified fall due to ice and snow, sequela	Diagnosis	ICD-10-CM
W01.0XXA	Fall on same level from slipping, tripping and stumbling without subsequent striking against object, initial encounter	Diagnosis	ICD-10-CM
W01.0XXD	Fall on same level from slipping, tripping and stumbling without subsequent striking against object, subsequent encounter	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
W01.0XXS	Fall on same level from slipping, tripping and stumbling without subsequent striking against object, sequela	Diagnosis	ICD-10-CM
W01.10XA	Fall on same level from slipping, tripping and stumbling with subsequent striking against unspecified object, initial encounter	Diagnosis	ICD-10-CM
W01.10XD	Fall on same level from slipping, tripping and stumbling with subsequent striking against unspecified object, subsequent encounter	Diagnosis	ICD-10-CM
W01.10XS	Fall on same level from slipping, tripping and stumbling with subsequent striking against unspecified object, sequela	Diagnosis	ICD-10-CM
W01.110A	Fall on same level from slipping, tripping and stumbling with subsequent striking against sharp glass, initial encounter	Diagnosis	ICD-10-CM
W01.110D	Fall on same level from slipping, tripping and stumbling with subsequent striking against sharp glass, subsequent encounter	Diagnosis	ICD-10-CM
W01.110S	Fall on same level from slipping, tripping and stumbling with subsequent striking against sharp glass, sequela	Diagnosis	ICD-10-CM
W01.111A	Fall on same level from slipping, tripping and stumbling with subsequent striking against power tool or machine, initial encounter	Diagnosis	ICD-10-CM
W01.111D	Fall on same level from slipping, tripping and stumbling with subsequent striking against power tool or machine, subsequent encounter	Diagnosis	ICD-10-CM
W01.111S	Fall on same level from slipping, tripping and stumbling with subsequent striking against power tool or machine, sequela	Diagnosis	ICD-10-CM
W01.118A	Fall on same level from slipping, tripping and stumbling with subsequent striking against other sharp object, initial encounter	Diagnosis	ICD-10-CM
W01.118D	Fall on same level from slipping, tripping and stumbling with subsequent striking against other sharp object, subsequent encounter	Diagnosis	ICD-10-CM
W01.118S	Fall on same level from slipping, tripping and stumbling with subsequent striking against other sharp object, sequela	Diagnosis	ICD-10-CM
W01.119A	Fall on same level from slipping, tripping and stumbling with subsequent striking against unspecified sharp object, initial encounter	Diagnosis	ICD-10-CM
W01.119D	Fall on same level from slipping, tripping and stumbling with subsequent striking against unspecified sharp object, subsequent encounter	Diagnosis	ICD-10-CM
W01.119S	Fall on same level from slipping, tripping and stumbling with subsequent striking against unspecified sharp object, sequela	Diagnosis	ICD-10-CM
W01.190A	Fall on same level from slipping, tripping and stumbling with subsequent striking against furniture, initial encounter	Diagnosis	ICD-10-CM
W01.190D	Fall on same level from slipping, tripping and stumbling with subsequent striking against furniture, subsequent encounter	Diagnosis	ICD-10-CM
W01.190S	Fall on same level from slipping, tripping and stumbling with subsequent striking against furniture, sequela	Diagnosis	ICD-10-CM
W01.198A	Fall on same level from slipping, tripping and stumbling with subsequent striking against other object, initial encounter	Diagnosis	ICD-10-CM
W01.198D	Fall on same level from slipping, tripping and stumbling with subsequent striking against other object, subsequent encounter	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
W01.198S	Fall on same level from slipping, tripping and stumbling with subsequent striking against other object, sequela	Diagnosis	ICD-10-CM
W03.XXXA	Other fall on same level due to collision with another person, initial encounter	Diagnosis	ICD-10-CM
W03.XXXD	Other fall on same level due to collision with another person, subsequent encounter	Diagnosis	ICD-10-CM
W03.XXXS	Other fall on same level due to collision with another person, sequela	Diagnosis	ICD-10-CM
W04.XXXA	Fall while being carried or supported by other persons, initial encounter	Diagnosis	ICD-10-CM
W04.XXXD	Fall while being carried or supported by other persons, subsequent encounter	Diagnosis	ICD-10-CM
W04.XXXS	Fall while being carried or supported by other persons, sequela	Diagnosis	ICD-10-CM
W05.0XXA	Fall from non-moving wheelchair, initial encounter	Diagnosis	ICD-10-CM
W05.0XXD	Fall from non-moving wheelchair, subsequent encounter	Diagnosis	ICD-10-CM
W05.0XXS	Fall from non-moving wheelchair, sequela	Diagnosis	ICD-10-CM
W05.1XXA	Fall from non-moving nonmotorized scooter, initial encounter	Diagnosis	ICD-10-CM
W05.1XXD	Fall from non-moving nonmotorized scooter, subsequent encounter	Diagnosis	ICD-10-CM
W05.1XXS	Fall from non-moving nonmotorized scooter, sequela	Diagnosis	ICD-10-CM
W05.2XXA	Fall from non-moving motorized mobility scooter, initial encounter	Diagnosis	ICD-10-CM
W05.2XXD	Fall from non-moving motorized mobility scooter, subsequent encounter	Diagnosis	ICD-10-CM
W05.2XXS	Fall from non-moving motorized mobility scooter, sequela	Diagnosis	ICD-10-CM
W06.XXXA	Fall from bed, initial encounter	Diagnosis	ICD-10-CM
W06.XXXD	Fall from bed, subsequent encounter	Diagnosis	ICD-10-CM
W06.XXXS	Fall from bed, sequela	Diagnosis	ICD-10-CM
W07.XXXA	Fall from chair, initial encounter	Diagnosis	ICD-10-CM
W07.XXXD	Fall from chair, subsequent encounter	Diagnosis	ICD-10-CM
W07.XXXS	Fall from chair, sequela	Diagnosis	ICD-10-CM
W08.XXXA	Fall from other furniture, initial encounter	Diagnosis	ICD-10-CM
W08.XXXD	Fall from other furniture, subsequent encounter	Diagnosis	ICD-10-CM
W08.XXXS	Fall from other furniture, sequela	Diagnosis	ICD-10-CM
W09.0XXA	Fall on or from playground slide, initial encounter	Diagnosis	ICD-10-CM
W09.0XXD	Fall on or from playground slide, subsequent encounter	Diagnosis	ICD-10-CM
W09.0XXS	Fall on or from playground slide, sequela	Diagnosis	ICD-10-CM
W09.1XXA	Fall from playground swing, initial encounter	Diagnosis	ICD-10-CM
W09.1XXD	Fall from playground swing, subsequent encounter	Diagnosis	ICD-10-CM
W09.1XXS	Fall from playground swing, sequela	Diagnosis	ICD-10-CM
W09.2XXA	Fall on or from jungle gym, initial encounter	Diagnosis	ICD-10-CM
W09.2XXD	Fall on or from jungle gym, subsequent encounter	Diagnosis	ICD-10-CM
W09.2XXS	Fall on or from jungle gym, sequela	Diagnosis	ICD-10-CM
W09.8XXA	Fall on or from other playground equipment, initial encounter	Diagnosis	ICD-10-CM
W09.8XXD	Fall on or from other playground equipment, subsequent encounter	Diagnosis	ICD-10-CM
W09.8XXS	Fall on or from other playground equipment, sequela	Diagnosis	ICD-10-CM
W10.0XXA	Fall (on)(from) escalator, initial encounter	Diagnosis	ICD-10-CM
W10.0XXD	Fall (on)(from) escalator, subsequent encounter	Diagnosis	ICD-10-CM
W10.0XXS	Fall (on)(from) escalator, sequela	Diagnosis	ICD-10-CM
W10.1XXA	Fall (on)(from) sidewalk curb, initial encounter	Diagnosis	ICD-10-CM
W10.1XXD	Fall (on)(from) sidewalk curb, subsequent encounter	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
W10.1XXS	Fall (on)(from) sidewalk curb, sequela	Diagnosis	ICD-10-CM
W10.2XXA	Fall (on)(from) incline, initial encounter	Diagnosis	ICD-10-CM
W10.2XXD	Fall (on)(from) incline, subsequent encounter	Diagnosis	ICD-10-CM
W10.2XXS	Fall (on)(from) incline, sequela	Diagnosis	ICD-10-CM
W10.8XXA	Fall (on) (from) other stairs and steps, initial encounter	Diagnosis	ICD-10-CM
W10.8XXD	Fall (on) (from) other stairs and steps, subsequent encounter	Diagnosis	ICD-10-CM
W10.8XXS	Fall (on) (from) other stairs and steps, sequela	Diagnosis	ICD-10-CM
W10.9XXA	Fall (on) (from) unspecified stairs and steps, initial encounter	Diagnosis	ICD-10-CM
W10.9XXD	Fall (on) (from) unspecified stairs and steps, subsequent encounter	Diagnosis	ICD-10-CM
W10.9XXS	Fall (on) (from) unspecified stairs and steps, sequela	Diagnosis	ICD-10-CM
W11.XXXA	Fall on and from ladder, initial encounter	Diagnosis	ICD-10-CM
W11.XXXD	Fall on and from ladder, subsequent encounter	Diagnosis	ICD-10-CM
W11.XXXS	Fall on and from ladder, sequela	Diagnosis	ICD-10-CM
W12.XXXA	Fall on and from scaffolding, initial encounter	Diagnosis	ICD-10-CM
W12.XXXD	Fall on and from scaffolding, subsequent encounter	Diagnosis	ICD-10-CM
W12.XXXS	Fall on and from scaffolding, sequela	Diagnosis	ICD-10-CM
W13.0XXA	Fall from, out of or through balcony, initial encounter	Diagnosis	ICD-10-CM
W13.0XXD	Fall from, out of or through balcony, subsequent encounter	Diagnosis	ICD-10-CM
W13.0XXS	Fall from, out of or through balcony, sequela	Diagnosis	ICD-10-CM
W13.1XXA	Fall from, out of or through bridge, initial encounter	Diagnosis	ICD-10-CM
W13.1XXD	Fall from, out of or through bridge, subsequent encounter	Diagnosis	ICD-10-CM
W13.1XXS	Fall from, out of or through bridge, sequela	Diagnosis	ICD-10-CM
W13.2XXA	Fall from, out of or through roof, initial encounter	Diagnosis	ICD-10-CM
W13.2XXD	Fall from, out of or through roof, subsequent encounter	Diagnosis	ICD-10-CM
W13.2XXS	Fall from, out of or through roof, sequela	Diagnosis	ICD-10-CM
W13.3XXA	Fall through floor, initial encounter	Diagnosis	ICD-10-CM
W13.3XXD	Fall through floor, subsequent encounter	Diagnosis	ICD-10-CM
W13.3XXS	Fall through floor, sequela	Diagnosis	ICD-10-CM
W13.4XXA	Fall from, out of or through window, initial encounter	Diagnosis	ICD-10-CM
W13.4XXD	Fall from, out of or through window, subsequent encounter	Diagnosis	ICD-10-CM
W13.4XXS	Fall from, out of or through window, sequela	Diagnosis	ICD-10-CM
W13.8XXA	Fall from, out of or through other building or structure, initial encounter	Diagnosis	ICD-10-CM
W13.8XXD	Fall from, out of or through other building or structure, subsequent encounter	Diagnosis	ICD-10-CM
W13.8XXS	Fall from, out of or through other building or structure, sequela	Diagnosis	ICD-10-CM
W13.9XXA	Fall from, out of or through building, not otherwise specified, initial encounter	Diagnosis	ICD-10-CM
W13.9XXD	Fall from, out of or through building, not otherwise specified, subsequent encounter	Diagnosis	ICD-10-CM
W13.9XXS	Fall from, out of or through building, not otherwise specified, sequela	Diagnosis	ICD-10-CM
W14.XXXA	Fall from tree, initial encounter	Diagnosis	ICD-10-CM
W14.XXXD	Fall from tree, subsequent encounter	Diagnosis	ICD-10-CM
W14.XXXS	Fall from tree, sequela	Diagnosis	ICD-10-CM
W15.XXXA	Fall from cliff, initial encounter	Diagnosis	ICD-10-CM
W15.XXXD	Fall from cliff, subsequent encounter	Diagnosis	ICD-10-CM
W15.XXXS	Fall from cliff, sequela	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
W16.011A	Fall into swimming pool striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.011D	Fall into swimming pool striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.011S	Fall into swimming pool striking water surface causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.012A	Fall into swimming pool striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.012D	Fall into swimming pool striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.012S	Fall into swimming pool striking water surface causing other injury, sequela	Diagnosis	ICD-10-CM
W16.021A	Fall into swimming pool striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.021D	Fall into swimming pool striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.021S	Fall into swimming pool striking bottom causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.022A	Fall into swimming pool striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.022D	Fall into swimming pool striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.022S	Fall into swimming pool striking bottom causing other injury, sequela	Diagnosis	ICD-10-CM
W16.031A	Fall into swimming pool striking wall causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.031D	Fall into swimming pool striking wall causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.031S	Fall into swimming pool striking wall causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.032A	Fall into swimming pool striking wall causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.032D	Fall into swimming pool striking wall causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.032S	Fall into swimming pool striking wall causing other injury, sequela	Diagnosis	ICD-10-CM
W16.111A	Fall into natural body of water striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.111D	Fall into natural body of water striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.111S	Fall into natural body of water striking water surface causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.112A	Fall into natural body of water striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.112D	Fall into natural body of water striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.112S	Fall into natural body of water striking water surface causing other injury, sequela	Diagnosis	ICD-10-CM
W16.121A	Fall into natural body of water striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.121D	Fall into natural body of water striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.121S	Fall into natural body of water striking bottom causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.122A	Fall into natural body of water striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.122D	Fall into natural body of water striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.122S	Fall into natural body of water striking bottom causing other injury, sequela	Diagnosis	ICD-10-CM
W16.131A	Fall into natural body of water striking side causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
W16.131D	Fall into natural body of water striking side causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.131S	Fall into natural body of water striking side causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.132A	Fall into natural body of water striking side causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.132D	Fall into natural body of water striking side causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.132S	Fall into natural body of water striking side causing other injury, sequela	Diagnosis	ICD-10-CM
W16.211A	Fall in (into) filled bathtub causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.211D	Fall in (into) filled bathtub causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.211S	Fall in (into) filled bathtub causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.212A	Fall in (into) filled bathtub causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.212D	Fall in (into) filled bathtub causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.212S	Fall in (into) filled bathtub causing other injury, sequela	Diagnosis	ICD-10-CM
W16.221A	Fall in (into) bucket of water causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.221D	Fall in (into) bucket of water causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.221S	Fall in (into) bucket of water causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.222A	Fall in (into) bucket of water causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.222D	Fall in (into) bucket of water causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.222S	Fall in (into) bucket of water causing other injury, sequela	Diagnosis	ICD-10-CM
W16.311A	Fall into other water striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.311D	Fall into other water striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.311S	Fall into other water striking water surface causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.312A	Fall into other water striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.312D	Fall into other water striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.312S	Fall into other water striking water surface causing other injury, sequela	Diagnosis	ICD-10-CM
W16.321A	Fall into other water striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.321D	Fall into other water striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.321S	Fall into other water striking bottom causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.322A	Fall into other water striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.322D	Fall into other water striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.322S	Fall into other water striking bottom causing other injury, sequela	Diagnosis	ICD-10-CM
W16.331A	Fall into other water striking wall causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.331D	Fall into other water striking wall causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.331S	Fall into other water striking wall causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.332A	Fall into other water striking wall causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.332D	Fall into other water striking wall causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.332S	Fall into other water striking wall causing other injury, sequela	Diagnosis	ICD-10-CM
W16.41XA	Fall into unspecified water causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.41XD	Fall into unspecified water causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.41XS	Fall into unspecified water causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.42XA	Fall into unspecified water causing other injury, initial encounter	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
W16.42XD	Fall into unspecified water causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.42XS	Fall into unspecified water causing other injury, sequela	Diagnosis	ICD-10-CM
W16.511A	Jumping or diving into swimming pool striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.511D	Jumping or diving into swimming pool striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.511S	Jumping or diving into swimming pool striking water surface causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.512A	Jumping or diving into swimming pool striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.512D	Jumping or diving into swimming pool striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.512S	Jumping or diving into swimming pool striking water surface causing other injury, sequela	Diagnosis	ICD-10-CM
W16.521A	Jumping or diving into swimming pool striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.521D	Jumping or diving into swimming pool striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.521S	Jumping or diving into swimming pool striking bottom causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.522A	Jumping or diving into swimming pool striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.522D	Jumping or diving into swimming pool striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.522S	Jumping or diving into swimming pool striking bottom causing other injury, sequela	Diagnosis	ICD-10-CM
W16.531A	Jumping or diving into swimming pool striking wall causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.531D	Jumping or diving into swimming pool striking wall causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.531S	Jumping or diving into swimming pool striking wall causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.532A	Jumping or diving into swimming pool striking wall causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.532D	Jumping or diving into swimming pool striking wall causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.532S	Jumping or diving into swimming pool striking wall causing other injury, sequela	Diagnosis	ICD-10-CM
W16.611A	Jumping or diving into natural body of water striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.611D	Jumping or diving into natural body of water striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.611S	Jumping or diving into natural body of water striking water surface causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.612A	Jumping or diving into natural body of water striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.612D	Jumping or diving into natural body of water striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
W16.612S	Jumping or diving into natural body of water striking water surface causing other injury, sequela	Diagnosis	ICD-10-CM
W16.621A	Jumping or diving into natural body of water striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.621D	Jumping or diving into natural body of water striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.621S	Jumping or diving into natural body of water striking bottom causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.622A	Jumping or diving into natural body of water striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.622D	Jumping or diving into natural body of water striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.622S	Jumping or diving into natural body of water striking bottom causing other injury, sequela	Diagnosis	ICD-10-CM
W16.711A	Jumping or diving from boat striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.711D	Jumping or diving from boat striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.711S	Jumping or diving from boat striking water surface causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.712A	Jumping or diving from boat striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.712D	Jumping or diving from boat striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.712S	Jumping or diving from boat striking water surface causing other injury, sequela	Diagnosis	ICD-10-CM
W16.721A	Jumping or diving from boat striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.721D	Jumping or diving from boat striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.721S	Jumping or diving from boat striking bottom causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.722A	Jumping or diving from boat striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.722D	Jumping or diving from boat striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.722S	Jumping or diving from boat striking bottom causing other injury, sequela	Diagnosis	ICD-10-CM
W16.811A	Jumping or diving into other water striking water surface causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.811D	Jumping or diving into other water striking water surface causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.811S	Jumping or diving into other water striking water surface causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.812A	Jumping or diving into other water striking water surface causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.812D	Jumping or diving into other water striking water surface causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.812S	Jumping or diving into other water striking water surface causing other injury, sequela	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
W16.821A	Jumping or diving into other water striking bottom causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.821D	Jumping or diving into other water striking bottom causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.821S	Jumping or diving into other water striking bottom causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.822A	Jumping or diving into other water striking bottom causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.822D	Jumping or diving into other water striking bottom causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.822S	Jumping or diving into other water striking bottom causing other injury, sequela	Diagnosis	ICD-10-CM
W16.831A	Jumping or diving into other water striking wall causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.831D	Jumping or diving into other water striking wall causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.831S	Jumping or diving into other water striking wall causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.832A	Jumping or diving into other water striking wall causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.832D	Jumping or diving into other water striking wall causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.832S	Jumping or diving into other water striking wall causing other injury, sequela	Diagnosis	ICD-10-CM
W16.91XA	Jumping or diving into unspecified water causing drowning and submersion, initial encounter	Diagnosis	ICD-10-CM
W16.91XD	Jumping or diving into unspecified water causing drowning and submersion, subsequent encounter	Diagnosis	ICD-10-CM
W16.91XS	Jumping or diving into unspecified water causing drowning and submersion, sequela	Diagnosis	ICD-10-CM
W16.92XA	Jumping or diving into unspecified water causing other injury, initial encounter	Diagnosis	ICD-10-CM
W16.92XD	Jumping or diving into unspecified water causing other injury, subsequent encounter	Diagnosis	ICD-10-CM
W16.92XS	Jumping or diving into unspecified water causing other injury, sequela	Diagnosis	ICD-10-CM
W17.0XXA	Fall into well, initial encounter	Diagnosis	ICD-10-CM
W17.0XXD	Fall into well, subsequent encounter	Diagnosis	ICD-10-CM
W17.0XXS	Fall into well, sequela	Diagnosis	ICD-10-CM
W17.1XXA	Fall into storm drain or manhole, initial encounter	Diagnosis	ICD-10-CM
W17.1XXD	Fall into storm drain or manhole, subsequent encounter	Diagnosis	ICD-10-CM
W17.1XXS	Fall into storm drain or manhole, sequela	Diagnosis	ICD-10-CM
W17.2XXA	Fall into hole, initial encounter	Diagnosis	ICD-10-CM
W17.2XXD	Fall into hole, subsequent encounter	Diagnosis	ICD-10-CM
W17.2XXS	Fall into hole, sequela	Diagnosis	ICD-10-CM
W17.3XXA	Fall into empty swimming pool, initial encounter	Diagnosis	ICD-10-CM
W17.3XXD	Fall into empty swimming pool, subsequent encounter	Diagnosis	ICD-10-CM
W17.3XXS	Fall into empty swimming pool, sequela	Diagnosis	ICD-10-CM
W17.4XXA	Fall from dock, initial encounter	Diagnosis	ICD-10-CM
W17.4XXD	Fall from dock, subsequent encounter	Diagnosis	ICD-10-CM
W17.4XXS	Fall from dock, sequela	Diagnosis	ICD-10-CM
W17.81XA	Fall down embankment (hill), initial encounter	Diagnosis	ICD-10-CM
W17.81XD	Fall down embankment (hill), subsequent encounter	Diagnosis	ICD-10-CM
W17.81XS	Fall down embankment (hill), sequela	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
W17.82XA	Fall from (out of) grocery cart, initial encounter	Diagnosis	ICD-10-CM
W17.82XD	Fall from (out of) grocery cart, subsequent encounter	Diagnosis	ICD-10-CM
W17.82XS	Fall from (out of) grocery cart, sequela	Diagnosis	ICD-10-CM
W17.89XA	Other fall from one level to another, initial encounter	Diagnosis	ICD-10-CM
W17.89XD	Other fall from one level to another, subsequent encounter	Diagnosis	ICD-10-CM
W17.89XS	Other fall from one level to another, sequela	Diagnosis	ICD-10-CM
W18.00XA	Striking against unspecified object with subsequent fall, initial encounter	Diagnosis	ICD-10-CM
W18.00XD	Striking against unspecified object with subsequent fall, subsequent encounter	Diagnosis	ICD-10-CM
W18.00XS	Striking against unspecified object with subsequent fall, sequela	Diagnosis	ICD-10-CM
W18.01XA	Striking against sports equipment with subsequent fall, initial encounter	Diagnosis	ICD-10-CM
W18.01XD	Striking against sports equipment with subsequent fall, subsequent encounter	Diagnosis	ICD-10-CM
W18.01XS	Striking against sports equipment with subsequent fall, sequela	Diagnosis	ICD-10-CM
W18.02XA	Striking against glass with subsequent fall, initial encounter	Diagnosis	ICD-10-CM
W18.02XD	Striking against glass with subsequent fall, subsequent encounter	Diagnosis	ICD-10-CM
W18.02XS	Striking against glass with subsequent fall, sequela	Diagnosis	ICD-10-CM
W18.09XA	Striking against other object with subsequent fall, initial encounter	Diagnosis	ICD-10-CM
W18.09XD	Striking against other object with subsequent fall, subsequent encounter	Diagnosis	ICD-10-CM
W18.09XS	Striking against other object with subsequent fall, sequela	Diagnosis	ICD-10-CM
W18.11XA	Fall from or off toilet without subsequent striking against object, initial encounter	Diagnosis	ICD-10-CM
W18.11XD	Fall from or off toilet without subsequent striking against object, subsequent encounter	Diagnosis	ICD-10-CM
W18.11XS	Fall from or off toilet without subsequent striking against object, sequela	Diagnosis	ICD-10-CM
W18.12XA	Fall from or off toilet with subsequent striking against object, initial encounter	Diagnosis	ICD-10-CM
W18.12XD	Fall from or off toilet with subsequent striking against object, subsequent encounter	Diagnosis	ICD-10-CM
W18.12XS	Fall from or off toilet with subsequent striking against object, sequela	Diagnosis	ICD-10-CM
W18.2XXA	Fall in (into) shower or empty bathtub, initial encounter	Diagnosis	ICD-10-CM
W18.2XXD	Fall in (into) shower or empty bathtub, subsequent encounter	Diagnosis	ICD-10-CM
W18.2XXS	Fall in (into) shower or empty bathtub, sequela	Diagnosis	ICD-10-CM
W18.30XA	Fall on same level, unspecified, initial encounter	Diagnosis	ICD-10-CM
W18.30XD	Fall on same level, unspecified, subsequent encounter	Diagnosis	ICD-10-CM
W18.30XS	Fall on same level, unspecified, sequela	Diagnosis	ICD-10-CM
W18.31XA	Fall on same level due to stepping on an object, initial encounter	Diagnosis	ICD-10-CM
W18.31XD	Fall on same level due to stepping on an object, subsequent encounter	Diagnosis	ICD-10-CM
W18.31XS	Fall on same level due to stepping on an object, sequela	Diagnosis	ICD-10-CM
W18.39XA	Other fall on same level, initial encounter	Diagnosis	ICD-10-CM
W18.39XD	Other fall on same level, subsequent encounter	Diagnosis	ICD-10-CM
W18.39XS	Other fall on same level, sequela	Diagnosis	ICD-10-CM
W18.40XA	Slipping, tripping and stumbling without falling, unspecified, initial encounter	Diagnosis	ICD-10-CM
W18.40XD	Slipping, tripping and stumbling without falling, unspecified, subsequent encounter	Diagnosis	ICD-10-CM
W18.40XS	Slipping, tripping and stumbling without falling, unspecified, sequela	Diagnosis	ICD-10-CM
W18.41XA	Slipping, tripping and stumbling without falling due to stepping on object, initial encounter	Diagnosis	ICD-10-CM
W18.41XD	Slipping, tripping and stumbling without falling due to stepping on object, subsequent encounter	Diagnosis	ICD-10-CM
W18.41XS	Slipping, tripping and stumbling without falling due to stepping on object, sequela	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
W18.42XA	Slipping, tripping and stumbling without falling due to stepping into hole or opening, initial encounter	Diagnosis	ICD-10-CM
W18.42XD	Slipping, tripping and stumbling without falling due to stepping into hole or opening, subsequent encounter	Diagnosis	ICD-10-CM
W18.42XS	Slipping, tripping and stumbling without falling due to stepping into hole or opening, sequela	Diagnosis	ICD-10-CM
W18.43XA	Slipping, tripping and stumbling without falling due to stepping from one level to another, initial encounter	Diagnosis	ICD-10-CM
W18.43XD	Slipping, tripping and stumbling without falling due to stepping from one level to another, subsequent encounter	Diagnosis	ICD-10-CM
W18.43XS	Slipping, tripping and stumbling without falling due to stepping from one level to another, sequela	Diagnosis	ICD-10-CM
W18.49XA	Other slipping, tripping and stumbling without falling, initial encounter	Diagnosis	ICD-10-CM
W18.49XD	Other slipping, tripping and stumbling without falling, subsequent encounter	Diagnosis	ICD-10-CM
W18.49XS	Other slipping, tripping and stumbling without falling, sequela	Diagnosis	ICD-10-CM
W19.XXXA	Unspecified fall, initial encounter	Diagnosis	ICD-10-CM
W19.XXXD	Unspecified fall, subsequent encounter	Diagnosis	ICD-10-CM
W19.XXXS	Unspecified fall, sequela	Diagnosis	ICD-10-CM
W50.0XXA	Accidental hit or strike by another person, initial encounter	Diagnosis	ICD-10-CM
W50.0XXD	Accidental hit or strike by another person, subsequent encounter	Diagnosis	ICD-10-CM
W50.1XXA	Accidental kick by another person, initial encounter	Diagnosis	ICD-10-CM
W50.1XXD	Accidental kick by another person, subsequent encounter	Diagnosis	ICD-10-CM
W50.2XXA	Accidental twist by another person, initial encounter	Diagnosis	ICD-10-CM
W50.2XXD	Accidental twist by another person, subsequent encounter	Diagnosis	ICD-10-CM
W50.4XXA	Accidental scratch by another person, initial encounter	Diagnosis	ICD-10-CM
W50.4XXD	Accidental scratch by another person, subsequent encounter	Diagnosis	ICD-10-CM
W51.XXXA	Accidental striking against or bumped into by another person, initial encounter	Diagnosis	ICD-10-CM
W51.XXXD	Accidental striking against or bumped into by another person, subsequent encounter	Diagnosis	ICD-10-CM
W52.XXXA	Crushed, pushed or stepped on by crowd or human stampede, initial encounter	Diagnosis	ICD-10-CM
S22.31XA	Fracture of one rib, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.31XB	Fracture of one rib, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.32XA	Fracture of one rib, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.32XB	Fracture of one rib, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.39XA	Fracture of one rib, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.39XB	Fracture of one rib, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.41XA	Multiple fractures of ribs, right side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.41XB	Multiple fractures of ribs, right side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.42XA	Multiple fractures of ribs, left side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.42XB	Multiple fractures of ribs, left side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.43XA	Multiple fractures of ribs, bilateral, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.43XB	Multiple fractures of ribs, bilateral, initial encounter for open fracture	Diagnosis	ICD-10-CM
S22.49XA	Multiple fractures of ribs, unspecified side, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S22.49XB	Multiple fractures of ribs, unspecified side, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.001A	Fracture of unspecified part of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S42.001B	Fracture of unspecified part of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.002A	Fracture of unspecified part of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.002B	Fracture of unspecified part of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.009A	Fracture of unspecified part of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.009B	Fracture of unspecified part of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.011A	Anterior displaced fracture of sternal end of right clavicle, initial encounter for closed	Diagnosis	ICD-10-CM
S42.011B	Anterior displaced fracture of sternal end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.012A	Anterior displaced fracture of sternal end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.012B	Anterior displaced fracture of sternal end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.013A	Anterior displaced fracture of sternal end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.013B	Anterior displaced fracture of sternal end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.014A	Posterior displaced fracture of sternal end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.014B	Posterior displaced fracture of sternal end of right clavicle, initial encounter for open	Diagnosis	ICD-10-CM
S42.015A	Posterior displaced fracture of sternal end of left clavicle, initial encounter for closed	Diagnosis	ICD-10-CM
S42.015B	Posterior displaced fracture of sternal end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.016A	Posterior displaced fracture of sternal end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.016B	Posterior displaced fracture of sternal end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.017A	Nondisplaced fracture of sternal end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.017B	Nondisplaced fracture of sternal end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.018A	Nondisplaced fracture of sternal end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.018B	Nondisplaced fracture of sternal end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.019A	Nondisplaced fracture of sternal end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.019B	Nondisplaced fracture of sternal end of unspecified clavicle, initial encounter for open	Diagnosis	ICD-10-CM
S42.021A	Displaced fracture of shaft of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.021B	Displaced fracture of shaft of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.022A	Displaced fracture of shaft of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.022B	Displaced fracture of shaft of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.023A	Displaced fracture of shaft of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.023B	Displaced fracture of shaft of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.024A	Nondisplaced fracture of shaft of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.024B	Nondisplaced fracture of shaft of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.025A	Nondisplaced fracture of shaft of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.025B	Nondisplaced fracture of shaft of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.026A	Nondisplaced fracture of shaft of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.026B	Nondisplaced fracture of shaft of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.031A	Displaced fracture of lateral end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.031B	Displaced fracture of lateral end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S42.032A	Displaced fracture of lateral end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.032B	Displaced fracture of lateral end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.033A	Displaced fracture of lateral end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.033B	Displaced fracture of lateral end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.034A	Nondisplaced fracture of lateral end of right clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.034B	Nondisplaced fracture of lateral end of right clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.035A	Nondisplaced fracture of lateral end of left clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.035B	Nondisplaced fracture of lateral end of left clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S42.036A	Nondisplaced fracture of lateral end of unspecified clavicle, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S42.036B	Nondisplaced fracture of lateral end of unspecified clavicle, initial encounter for open fracture	Diagnosis	ICD-10-CM
S52.001A	Unspecified fracture of upper end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.001B	Unspecified fracture of upper end of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.001C	Unspecified fracture of upper end of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.002A	Unspecified fracture of upper end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.002B	Unspecified fracture of upper end of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.002C	Unspecified fracture of upper end of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.009A	Unspecified fracture of upper end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.009B	Unspecified fracture of upper end of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.009C	Unspecified fracture of upper end of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.011A	Torus fracture of upper end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.012A	Torus fracture of upper end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.019A	Torus fracture of upper end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.021A	Displaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.021B	Displaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.021C	Displaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.022A	Displaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.022B	Displaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.022C	Displaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.023A	Displaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.023B	Displaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
S52.023C	Displaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.024A	Nondisplaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.024B	Nondisplaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.024C	Nondisplaced fracture of olecranon process without intraarticular extension of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.025A	Nondisplaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.025B	Nondisplaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.025C	Nondisplaced fracture of olecranon process without intraarticular extension of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.026A	Nondisplaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.026B	Nondisplaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.026C	Nondisplaced fracture of olecranon process without intraarticular extension of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.031A	Displaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.031B	Displaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.031C	Displaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.032A	Displaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.032B	Displaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.032C	Displaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.033A	Displaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.033B	Displaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.033C	Displaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.034A	Nondisplaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.034B	Nondisplaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
S52.034C	Nondisplaced fracture of olecranon process with intraarticular extension of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.035A	Nondisplaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.035B	Nondisplaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.035C	Nondisplaced fracture of olecranon process with intraarticular extension of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.036A	Nondisplaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.036B	Nondisplaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.036C	Nondisplaced fracture of olecranon process with intraarticular extension of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.041A	Displaced fracture of coronoid process of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.041B	Displaced fracture of coronoid process of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.041C	Displaced fracture of coronoid process of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.042A	Displaced fracture of coronoid process of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.042B	Displaced fracture of coronoid process of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.042C	Displaced fracture of coronoid process of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.043A	Displaced fracture of coronoid process of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.043B	Displaced fracture of coronoid process of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.043C	Displaced fracture of coronoid process of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.044A	Nondisplaced fracture of coronoid process of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.044B	Nondisplaced fracture of coronoid process of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.044C	Nondisplaced fracture of coronoid process of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.045A	Nondisplaced fracture of coronoid process of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.045B	Nondisplaced fracture of coronoid process of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.045C	Nondisplaced fracture of coronoid process of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.046A	Nondisplaced fracture of coronoid process of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.046B	Nondisplaced fracture of coronoid process of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.046C	Nondisplaced fracture of coronoid process of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.091A	Other fracture of upper end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.091B	Other fracture of upper end of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.091C	Other fracture of upper end of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.092A	Other fracture of upper end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.092B	Other fracture of upper end of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.092C	Other fracture of upper end of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.099A	Other fracture of upper end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.099B	Other fracture of upper end of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.099C	Other fracture of upper end of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.101A	Unspecified fracture of upper end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.101B	Unspecified fracture of upper end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.101C	Unspecified fracture of upper end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.102A	Unspecified fracture of upper end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.102B	Unspecified fracture of upper end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.102C	Unspecified fracture of upper end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.109A	Unspecified fracture of upper end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.109B	Unspecified fracture of upper end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.109C	Unspecified fracture of upper end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.111A	Torus fracture of upper end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.112A	Torus fracture of upper end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.119A	Torus fracture of upper end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.121A	Displaced fracture of head of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.121B	Displaced fracture of head of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.121C	Displaced fracture of head of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.122A	Displaced fracture of head of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.122B	Displaced fracture of head of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.122C	Displaced fracture of head of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.123A	Displaced fracture of head of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.123B	Displaced fracture of head of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.123C	Displaced fracture of head of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.124A	Nondisplaced fracture of head of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.124B	Nondisplaced fracture of head of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.124C	Nondisplaced fracture of head of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.125A	Nondisplaced fracture of head of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.125B	Nondisplaced fracture of head of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.125C	Nondisplaced fracture of head of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.126A	Nondisplaced fracture of head of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.126B	Nondisplaced fracture of head of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.126C	Nondisplaced fracture of head of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.131A	Displaced fracture of neck of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.131B	Displaced fracture of neck of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.131C	Displaced fracture of neck of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.132A	Displaced fracture of neck of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.132B	Displaced fracture of neck of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.132C	Displaced fracture of neck of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.133A	Displaced fracture of neck of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.133B	Displaced fracture of neck of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.133C	Displaced fracture of neck of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.134A	Nondisplaced fracture of neck of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.134B	Nondisplaced fracture of neck of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.134C	Nondisplaced fracture of neck of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.135A	Nondisplaced fracture of neck of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.135B	Nondisplaced fracture of neck of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.135C	Nondisplaced fracture of neck of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.136A	Nondisplaced fracture of neck of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.136B	Nondisplaced fracture of neck of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.136C	Nondisplaced fracture of neck of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.181A	Other fracture of upper end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.181B	Other fracture of upper end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.181C	Other fracture of upper end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.182A	Other fracture of upper end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.182B	Other fracture of upper end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.182C	Other fracture of upper end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.189A	Other fracture of upper end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.189B	Other fracture of upper end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.189C	Other fracture of upper end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.201A	Unspecified fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.201B	Unspecified fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.201C	Unspecified fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.202A	Unspecified fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.202B	Unspecified fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.202C	Unspecified fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.209A	Unspecified fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.209B	Unspecified fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.209C	Unspecified fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.211A	Greenstick fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.212A	Greenstick fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.219A	Greenstick fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.221A	Displaced transverse fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.221B	Displaced transverse fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.221C	Displaced transverse fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.222A	Displaced transverse fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.222B	Displaced transverse fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.222C	Displaced transverse fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.223A	Displaced transverse fracture of shaft of unspecified ulna, initial encounter for closed	Diagnosis	ICD-10-CM
S52.223B	Displaced transverse fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.223C	Displaced transverse fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.224A	Nondisplaced transverse fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.224B	Nondisplaced transverse fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.224C	Nondisplaced transverse fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.225A	Nondisplaced transverse fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.225B	Nondisplaced transverse fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.225C	Nondisplaced transverse fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.226A	Nondisplaced transverse fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.226B	Nondisplaced transverse fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.226C	Nondisplaced transverse fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.231A	Displaced oblique fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.231B	Displaced oblique fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.231C	Displaced oblique fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.232A	Displaced oblique fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.232B	Displaced oblique fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.232C	Displaced oblique fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.233A	Displaced oblique fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.233B	Displaced oblique fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.233C	Displaced oblique fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.234A	Nondisplaced oblique fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.234B	Nondisplaced oblique fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.234C	Nondisplaced oblique fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.235A	Nondisplaced oblique fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.235B	Nondisplaced oblique fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.235C	Nondisplaced oblique fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.236A	Nondisplaced oblique fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.236B	Nondisplaced oblique fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.236C	Nondisplaced oblique fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.241A	Displaced spiral fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.241B	Displaced spiral fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.241C	Displaced spiral fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.242A	Displaced spiral fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.242B	Displaced spiral fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.242C	Displaced spiral fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.243A	Displaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for closed	Diagnosis	ICD-10-CM
S52.243B	Displaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.243C	Displaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.244A	Nondisplaced spiral fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.244B	Nondisplaced spiral fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.244C	Nondisplaced spiral fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.245A	Nondisplaced spiral fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.245B	Nondisplaced spiral fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.245C	Nondisplaced spiral fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.246A	Nondisplaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.246B	Nondisplaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.246C	Nondisplaced spiral fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.251A	Displaced comminuted fracture of shaft of ulna, right arm, initial encounter for closed	Diagnosis	ICD-10-CM
S52.251B	Displaced comminuted fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.251C	Displaced comminuted fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.252A	Displaced comminuted fracture of shaft of ulna, left arm, initial encounter for closed	Diagnosis	ICD-10-CM
S52.252B	Displaced comminuted fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.252C	Displaced comminuted fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.253A	Displaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.253B	Displaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.253C	Displaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.254A	Nondisplaced comminuted fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.254B	Nondisplaced comminuted fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.254C	Nondisplaced comminuted fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.255A	Nondisplaced comminuted fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.255B	Nondisplaced comminuted fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.255C	Nondisplaced comminuted fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.256A	Nondisplaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.256B	Nondisplaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.256C	Nondisplaced comminuted fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.261A	Displaced segmental fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.261B	Displaced segmental fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.261C	Displaced segmental fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.262A	Displaced segmental fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.262B	Displaced segmental fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.262C	Displaced segmental fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.263A	Displaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.263B	Displaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.263C	Displaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.264A	Nondisplaced segmental fracture of shaft of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.264B	Nondisplaced segmental fracture of shaft of ulna, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.264C	Nondisplaced segmental fracture of shaft of ulna, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.265A	Nondisplaced segmental fracture of shaft of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.265B	Nondisplaced segmental fracture of shaft of ulna, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.265C	Nondisplaced segmental fracture of shaft of ulna, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.266A	Nondisplaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.266B	Nondisplaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.266C	Nondisplaced segmental fracture of shaft of ulna, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.271A	Monteggia's fracture of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.271B	Monteggia's fracture of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.271C	Monteggia's fracture of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.272A	Monteggia's fracture of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.272B	Monteggia's fracture of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.272C	Monteggia's fracture of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.279A	Monteggia's fracture of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.279B	Monteggia's fracture of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.279C	Monteggia's fracture of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.281A	Bent bone of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.281B	Bent bone of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.281C	Bent bone of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.282A	Bent bone of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.282B	Bent bone of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.282C	Bent bone of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.283A	Bent bone of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.283B	Bent bone of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.283C	Bent bone of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.291A	Other fracture of shaft of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.291B	Other fracture of shaft of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.291C	Other fracture of shaft of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.292A	Other fracture of shaft of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.292B	Other fracture of shaft of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.292C	Other fracture of shaft of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.299A	Other fracture of shaft of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.299B	Other fracture of shaft of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.299C	Other fracture of shaft of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.301A	Unspecified fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.301B	Unspecified fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
S52.301C	Unspecified fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.302A	Unspecified fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.302B	Unspecified fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.302C	Unspecified fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.309A	Unspecified fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.309B	Unspecified fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.309C	Unspecified fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.311A	Greenstick fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.312A	Greenstick fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.319A	Greenstick fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.321A	Displaced transverse fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.321B	Displaced transverse fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.321C	Displaced transverse fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.322A	Displaced transverse fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.322B	Displaced transverse fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.322C	Displaced transverse fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.323A	Displaced transverse fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.323B	Displaced transverse fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.323C	Displaced transverse fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.324A	Nondisplaced transverse fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.324B	Nondisplaced transverse fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.324C	Nondisplaced transverse fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.325A	Nondisplaced transverse fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.325B	Nondisplaced transverse fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.325C	Nondisplaced transverse fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.326A	Nondisplaced transverse fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.326B	Nondisplaced transverse fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.326C	Nondisplaced transverse fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.331A	Displaced oblique fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.331B	Displaced oblique fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.331C	Displaced oblique fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.332A	Displaced oblique fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.332B	Displaced oblique fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.332C	Displaced oblique fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.333A	Displaced oblique fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.333B	Displaced oblique fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.333C	Displaced oblique fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.334A	Nondisplaced oblique fracture of shaft of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.334B	Nondisplaced oblique fracture of shaft of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.334C	Nondisplaced oblique fracture of shaft of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.335A	Nondisplaced oblique fracture of shaft of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.335B	Nondisplaced oblique fracture of shaft of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.335C	Nondisplaced oblique fracture of shaft of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.336A	Nondisplaced oblique fracture of shaft of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.336B	Nondisplaced oblique fracture of shaft of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.336C	Nondisplaced oblique fracture of shaft of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.341A	Displaced spiral fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.341B	Displaced spiral fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.341C	Displaced spiral fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.342A	Displaced spiral fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.342B	Displaced spiral fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
S52.342C	Displaced spiral fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.343A	Displaced spiral fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.343B	Displaced spiral fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.343C	Displaced spiral fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.344A	Nondisplaced spiral fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.344B	Nondisplaced spiral fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.344C	Nondisplaced spiral fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.345A	Nondisplaced spiral fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.345B	Nondisplaced spiral fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.345C	Nondisplaced spiral fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.346A	Nondisplaced spiral fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.346B	Nondisplaced spiral fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.346C	Nondisplaced spiral fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.351A	Displaced comminuted fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.351B	Displaced comminuted fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.351C	Displaced comminuted fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.352A	Displaced comminuted fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.352B	Displaced comminuted fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.352C	Displaced comminuted fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.353A	Displaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.353B	Displaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.353C	Displaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.354A	Nondisplaced comminuted fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.354B	Nondisplaced comminuted fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.354C	Nondisplaced comminuted fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.355A	Nondisplaced comminuted fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.355B	Nondisplaced comminuted fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.355C	Nondisplaced comminuted fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.356A	Nondisplaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.356B	Nondisplaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.356C	Nondisplaced comminuted fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.361A	Displaced segmental fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.361B	Displaced segmental fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.361C	Displaced segmental fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.362A	Displaced segmental fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.362B	Displaced segmental fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.362C	Displaced segmental fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.363A	Displaced segmental fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.363B	Displaced segmental fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.363C	Displaced segmental fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.364A	Nondisplaced segmental fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.364B	Nondisplaced segmental fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.364C	Nondisplaced segmental fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.365A	Nondisplaced segmental fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.365B	Nondisplaced segmental fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.365C	Nondisplaced segmental fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.366A	Nondisplaced segmental fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.366B	Nondisplaced segmental fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.366C	Nondisplaced segmental fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.371A	Galeazzi's fracture of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.371B	Galeazzi's fracture of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.371C	Galeazzi's fracture of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.372A	Galeazzi's fracture of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.372B	Galeazzi's fracture of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.372C	Galeazzi's fracture of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.379A	Galeazzi's fracture of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.379B	Galeazzi's fracture of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.379C	Galeazzi's fracture of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.381A	Bent bone of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.381B	Bent bone of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.381C	Bent bone of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.382A	Bent bone of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.382B	Bent bone of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.382C	Bent bone of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.389A	Bent bone of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.389B	Bent bone of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.389C	Bent bone of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.391A	Other fracture of shaft of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.391B	Other fracture of shaft of radius, right arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.391C	Other fracture of shaft of radius, right arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.392A	Other fracture of shaft of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.392B	Other fracture of shaft of radius, left arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.392C	Other fracture of shaft of radius, left arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.399A	Other fracture of shaft of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.399B	Other fracture of shaft of radius, unspecified arm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.399C	Other fracture of shaft of radius, unspecified arm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.501A	Unspecified fracture of the lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
S52.501B	Unspecified fracture of the lower end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.501C	Unspecified fracture of the lower end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.502A	Unspecified fracture of the lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.502B	Unspecified fracture of the lower end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.502C	Unspecified fracture of the lower end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.509A	Unspecified fracture of the lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.509B	Unspecified fracture of the lower end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.509C	Unspecified fracture of the lower end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.511A	Displaced fracture of right radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.511B	Displaced fracture of right radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.511C	Displaced fracture of right radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.512A	Displaced fracture of left radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.512B	Displaced fracture of left radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.512C	Displaced fracture of left radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.513A	Displaced fracture of unspecified radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.513B	Displaced fracture of unspecified radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.513C	Displaced fracture of unspecified radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.514A	Nondisplaced fracture of right radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.514B	Nondisplaced fracture of right radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.514C	Nondisplaced fracture of right radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.515A	Nondisplaced fracture of left radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.515B	Nondisplaced fracture of left radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.515C	Nondisplaced fracture of left radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.516A	Nondisplaced fracture of unspecified radial styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.516B	Nondisplaced fracture of unspecified radial styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.516C	Nondisplaced fracture of unspecified radial styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.521A	Torus fracture of lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.522A	Torus fracture of lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.529A	Torus fracture of lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.531A	Colles' fracture of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.531B	Colles' fracture of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.531C	Colles' fracture of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.532A	Colles' fracture of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.532B	Colles' fracture of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.532C	Colles' fracture of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.539A	Colles' fracture of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.539B	Colles' fracture of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.539C	Colles' fracture of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.541A	Smith's fracture of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.541B	Smith's fracture of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.541C	Smith's fracture of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.542A	Smith's fracture of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.542B	Smith's fracture of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.542C	Smith's fracture of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.549A	Smith's fracture of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.549B	Smith's fracture of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.549C	Smith's fracture of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.551A	Other extraarticular fracture of lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.551B	Other extraarticular fracture of lower end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.551C	Other extraarticular fracture of lower end of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.552A	Other extraarticular fracture of lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.552B	Other extraarticular fracture of lower end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.552C	Other extraarticular fracture of lower end of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.559A	Other extraarticular fracture of lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.559B	Other extraarticular fracture of lower end of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.559C	Other extraarticular fracture of lower end of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.561A	Barton's fracture of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.561B	Barton's fracture of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.561C	Barton's fracture of right radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.562A	Barton's fracture of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.562B	Barton's fracture of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.562C	Barton's fracture of left radius, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.569A	Barton's fracture of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.569B	Barton's fracture of unspecified radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.569C	Barton's fracture of unspecified radius, initial encounter for open fracture type IIIA, IIIB, or	Diagnosis	ICD-10-CM
S52.571A	Other intraarticular fracture of lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.571B	Other intraarticular fracture of lower end of right radius, initial encounter for open fracture	Diagnosis	ICD-10-CM
	type I or II		
S52.571C	Other intraarticular fracture of lower end of right radius, initial encounter for open fracture	Diagnosis	ICD-10-CM
	type IIIA, IIIB, or IIIC		
S52.572A	Other intraarticular fracture of lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.572B	Other intraarticular fracture of lower end of left radius, initial encounter for open fracture	Diagnosis	ICD-10-CM
	type I or II		
S52.572C	Other intraarticular fracture of lower end of left radius, initial encounter for open fracture	Diagnosis	ICD-10-CM
	type IIIA, IIIB, or IIIC		
S52.579A	Other intraarticular fracture of lower end of unspecified radius, initial encounter for closed	Diagnosis	ICD-10-CM
	fracture		
S52.579B	Other intraarticular fracture of lower end of unspecified radius, initial encounter for open	Diagnosis	ICD-10-CM
	fracture type I or II		
S52.579C	Other intraarticular fracture of lower end of unspecified radius, initial encounter for open	Diagnosis	ICD-10-CM
	fracture type IIIA, IIIB, or IIIC		
S52.591A	Other fractures of lower end of right radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.591B	Other fractures of lower end of right radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.591C	Other fractures of lower end of right radius, initial encounter for open fracture type IIIA, IIIB,	Diagnosis	ICD-10-CM
	or IIIC		
S52.592A	Other fractures of lower end of left radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.592B	Other fractures of lower end of left radius, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.592C	Other fractures of lower end of left radius, initial encounter for open fracture type IIIA, IIIB,	Diagnosis	ICD-10-CM
	or IIIC		
S52.599A	Other fractures of lower end of unspecified radius, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.599B	Other fractures of lower end of unspecified radius, initial encounter for open fracture type I	Diagnosis	ICD-10-CM
	or II		
S52.599C	Other fractures of lower end of unspecified radius, initial encounter for open fracture type	Diagnosis	ICD-10-CM
	IIIA, IIIB, or IIIC		
S52.601A	Unspecified fracture of lower end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.601B	Unspecified fracture of lower end of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.601C	Unspecified fracture of lower end of right ulna, initial encounter for open fracture type IIIA,	Diagnosis	ICD-10-CM
	IIIB, or IIIC		
S52.602A	Unspecified fracture of lower end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.602B	Unspecified fracture of lower end of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.602C	Unspecified fracture of lower end of left ulna, initial encounter for open fracture type IIIA,	Diagnosis	ICD-10-CM
	IIIB, or IIIC		
S52.609A	Unspecified fracture of lower end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.609B	Unspecified fracture of lower end of unspecified ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.609C	Unspecified fracture of lower end of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.611A	Displaced fracture of right ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.611B	Displaced fracture of right ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.611C	Displaced fracture of right ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.612A	Displaced fracture of left ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.612B	Displaced fracture of left ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.612C	Displaced fracture of left ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.613A	Displaced fracture of unspecified ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.613B	Displaced fracture of unspecified ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.613C	Displaced fracture of unspecified ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.614A	Nondisplaced fracture of right ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.614B	Nondisplaced fracture of right ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.614C	Nondisplaced fracture of right ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.615A	Nondisplaced fracture of left ulna styloid process, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.615B	Nondisplaced fracture of left ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.615C	Nondisplaced fracture of left ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.616A	Nondisplaced fracture of unspecified ulna styloid process, initial encounter for closed	Diagnosis	ICD-10-CM
S52.616B	Nondisplaced fracture of unspecified ulna styloid process, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.616C	Nondisplaced fracture of unspecified ulna styloid process, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.621A	Torus fracture of lower end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.622A	Torus fracture of lower end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.629A	Torus fracture of lower end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.691A	Other fracture of lower end of right ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.691B	Other fracture of lower end of right ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.691C	Other fracture of lower end of right ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.692A	Other fracture of lower end of left ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.692B	Other fracture of lower end of left ulna, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.692C	Other fracture of lower end of left ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.699A	Other fracture of lower end of unspecified ulna, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S52.699B	Other fracture of lower end of unspecified ulna, initial encounter for open fracture type I or	Diagnosis	ICD-10-CM
S52.699C	Other fracture of lower end of unspecified ulna, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.90XA	Unspecified fracture of unspecified forearm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.90XB	Unspecified fracture of unspecified forearm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.90XC	Unspecified fracture of unspecified forearm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.91XA	Unspecified fracture of right forearm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.91XB	Unspecified fracture of right forearm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.91XC	Unspecified fracture of right forearm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S52.92XA	Unspecified fracture of left forearm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S52.92XB	Unspecified fracture of left forearm, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S52.92XC	Unspecified fracture of left forearm, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S59.001A	Unspecified physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.002A	Unspecified physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.009A	Unspecified physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.011A	Salter-Harris Type I physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.012A	Salter-Harris Type I physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.019A	Salter-Harris Type I physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.021A	Salter-Harris Type II physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.022A	Salter-Harris Type II physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.029A	Salter-Harris Type II physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.031A	Salter-Harris Type III physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.032A	Salter-Harris Type III physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.039A	Salter-Harris Type III physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.041A	Salter-Harris Type IV physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.042A	Salter-Harris Type IV physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.049A	Salter-Harris Type IV physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S59.091A	Other physeal fracture of lower end of ulna, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.092A	Other physeal fracture of lower end of ulna, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.099A	Other physeal fracture of lower end of ulna, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.101A	Unspecified physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.102A	Unspecified physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.109A	Unspecified physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.111A	Salter-Harris Type I physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.112A	Salter-Harris Type I physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.119A	Salter-Harris Type I physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.121A	Salter-Harris Type II physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.122A	Salter-Harris Type II physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.129A	Salter-Harris Type II physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.131A	Salter-Harris Type III physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.132A	Salter-Harris Type III physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.139A	Salter-Harris Type III physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.141A	Salter-Harris Type IV physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.142A	Salter-Harris Type IV physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.149A	Salter-Harris Type IV physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.191A	Other physeal fracture of upper end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.192A	Other physeal fracture of upper end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.199A	Other physeal fracture of upper end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.201A	Unspecified physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.202A	Unspecified physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
S59.209A	Unspecified physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.211A	Salter-Harris Type I physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.212A	Salter-Harris Type I physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.219A	Salter-Harris Type I physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.221A	Salter-Harris Type II physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.222A	Salter-Harris Type II physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.229A	Salter-Harris Type II physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.231A	Salter-Harris Type III physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.232A	Salter-Harris Type III physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.239A	Salter-Harris Type III physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.241A	Salter-Harris Type IV physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.242A	Salter-Harris Type IV physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.249A	Salter-Harris Type IV physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.291A	Other physeal fracture of lower end of radius, right arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.292A	Other physeal fracture of lower end of radius, left arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S59.299A	Other physeal fracture of lower end of radius, unspecified arm, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.001A	Fracture of unspecified part of neck of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.001B	Fracture of unspecified part of neck of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.001C	Fracture of unspecified part of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.002A	Fracture of unspecified part of neck of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.002B	Fracture of unspecified part of neck of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.002C	Fracture of unspecified part of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.009A	Fracture of unspecified part of neck of unspecified femur, initial encounter for closed	Diagnosis	ICD-10-CM
S72.009B	Fracture of unspecified part of neck of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S72.009C	Fracture of unspecified part of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.011A	Unspecified intracapsular fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.011B	Unspecified intracapsular fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.011C	Unspecified intracapsular fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.012A	Unspecified intracapsular fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.012B	Unspecified intracapsular fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.012C	Unspecified intracapsular fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.019A	Unspecified intracapsular fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.019B	Unspecified intracapsular fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.019C	Unspecified intracapsular fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.021A	Displaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.021B	Displaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.021C	Displaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.022A	Displaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.022B	Displaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.022C	Displaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.023A	Displaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.023B	Displaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.023C	Displaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.024A	Nondisplaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.024B	Nondisplaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.024C	Nondisplaced fracture of epiphysis (separation) (upper) of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.025A	Nondisplaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S72.025B	Nondisplaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.025C	Nondisplaced fracture of epiphysis (separation) (upper) of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.026A	Nondisplaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.026B	Nondisplaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.026C	Nondisplaced fracture of epiphysis (separation) (upper) of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.031A	Displaced midcervical fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.031B	Displaced midcervical fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.031C	Displaced midcervical fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.032A	Displaced midcervical fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.032B	Displaced midcervical fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.032C	Displaced midcervical fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.033A	Displaced midcervical fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.033B	Displaced midcervical fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.033C	Displaced midcervical fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.034A	Nondisplaced midcervical fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.034B	Nondisplaced midcervical fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.034C	Nondisplaced midcervical fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.035A	Nondisplaced midcervical fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.035B	Nondisplaced midcervical fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.035C	Nondisplaced midcervical fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.036A	Nondisplaced midcervical fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.036B	Nondisplaced midcervical fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.036C	Nondisplaced midcervical fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.041A	Displaced fracture of base of neck of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.041B	Displaced fracture of base of neck of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.041C	Displaced fracture of base of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.042A	Displaced fracture of base of neck of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.042B	Displaced fracture of base of neck of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
S72.042C	Displaced fracture of base of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.043A	Displaced fracture of base of neck of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.043B	Displaced fracture of base of neck of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.043C	Displaced fracture of base of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.044A	Nondisplaced fracture of base of neck of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.044B	Nondisplaced fracture of base of neck of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.044C	Nondisplaced fracture of base of neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.045A	Nondisplaced fracture of base of neck of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.045B	Nondisplaced fracture of base of neck of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.045C	Nondisplaced fracture of base of neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.046A	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.046B	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.046C	Nondisplaced fracture of base of neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.051A	Unspecified fracture of head of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.051B	Unspecified fracture of head of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.051C	Unspecified fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.052A	Unspecified fracture of head of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.052B	Unspecified fracture of head of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.052C	Unspecified fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.059A	Unspecified fracture of head of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.059B	Unspecified fracture of head of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.059C	Unspecified fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.061A	Displaced articular fracture of head of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.061B	Displaced articular fracture of head of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.061C	Displaced articular fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.062A	Displaced articular fracture of head of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.062B	Displaced articular fracture of head of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S72.062C	Displaced articular fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.063A	Displaced articular fracture of head of unspecified femur, initial encounter for closed	Diagnosis	ICD-10-CM
S72.063B	Displaced articular fracture of head of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.063C	Displaced articular fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.064A	Nondisplaced articular fracture of head of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.064B	Nondisplaced articular fracture of head of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.064C	Nondisplaced articular fracture of head of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.065A	Nondisplaced articular fracture of head of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.065B	Nondisplaced articular fracture of head of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.065C	Nondisplaced articular fracture of head of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.066A	Nondisplaced articular fracture of head of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.066B	Nondisplaced articular fracture of head of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.066C	Nondisplaced articular fracture of head of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.091A	Other fracture of head and neck of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.091B	Other fracture of head and neck of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.091C	Other fracture of head and neck of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.092A	Other fracture of head and neck of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.092B	Other fracture of head and neck of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.092C	Other fracture of head and neck of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.099A	Other fracture of head and neck of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.099B	Other fracture of head and neck of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.099C	Other fracture of head and neck of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.101A	Unspecified trochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.101B	Unspecified trochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.101C	Unspecified trochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.102A	Unspecified trochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.102B	Unspecified trochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
S72.102C	Unspecified trochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.109A	Unspecified trochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.109B	Unspecified trochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.109C	Unspecified trochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.111A	Displaced fracture of greater trochanter of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.111B	Displaced fracture of greater trochanter of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.111C	Displaced fracture of greater trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.112A	Displaced fracture of greater trochanter of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.112B	Displaced fracture of greater trochanter of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.112C	Displaced fracture of greater trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.113A	Displaced fracture of greater trochanter of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.113B	Displaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.113C	Displaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.114A	Nondisplaced fracture of greater trochanter of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.114B	Nondisplaced fracture of greater trochanter of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.114C	Nondisplaced fracture of greater trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.115A	Nondisplaced fracture of greater trochanter of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.115B	Nondisplaced fracture of greater trochanter of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.115C	Nondisplaced fracture of greater trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.116A	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.116B	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.116C	Nondisplaced fracture of greater trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.121A	Displaced fracture of lesser trochanter of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.121B	Displaced fracture of lesser trochanter of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S72.121C	Displaced fracture of lesser trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.122A	Displaced fracture of lesser trochanter of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.122B	Displaced fracture of lesser trochanter of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.122C	Displaced fracture of lesser trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.123A	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.123B	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.123C	Displaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.124A	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for closed	Diagnosis	ICD-10-CM
S72.124B	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.124C	Nondisplaced fracture of lesser trochanter of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.125A	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.125B	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.125C	Nondisplaced fracture of lesser trochanter of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.126A	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.126B	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.126C	Nondisplaced fracture of lesser trochanter of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.131A	Displaced apophyseal fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.131B	Displaced apophyseal fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.131C	Displaced apophyseal fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.132A	Displaced apophyseal fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.132B	Displaced apophyseal fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.132C	Displaced apophyseal fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.133A	Displaced apophyseal fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.133B	Displaced apophyseal fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.133C	Displaced apophyseal fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.134A	Nondisplaced apophyseal fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S72.134B	Nondisplaced apophyseal fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.134C	Nondisplaced apophyseal fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.135A	Nondisplaced apophyseal fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.135B	Nondisplaced apophyseal fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.135C	Nondisplaced apophyseal fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.136A	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.136B	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.136C	Nondisplaced apophyseal fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.141A	Displaced intertrochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.141B	Displaced intertrochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.141C	Displaced intertrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.142A	Displaced intertrochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.142B	Displaced intertrochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.142C	Displaced intertrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.143A	Displaced intertrochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.143B	Displaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.143C	Displaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.144A	Nondisplaced intertrochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.144B	Nondisplaced intertrochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.144C	Nondisplaced intertrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.145A	Nondisplaced intertrochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.145B	Nondisplaced intertrochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.145C	Nondisplaced intertrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.146A	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.146B	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
S72.146C	Nondisplaced intertrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.21XA	Displaced subtrochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.21XB	Displaced subtrochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.21XC	Displaced subtrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.22XA	Displaced subtrochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.22XB	Displaced subtrochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.22XC	Displaced subtrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.23XA	Displaced subtrochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.23XB	Displaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.23XC	Displaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.24XA	Nondisplaced subtrochanteric fracture of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.24XB	Nondisplaced subtrochanteric fracture of right femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.24XC	Nondisplaced subtrochanteric fracture of right femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.25XA	Nondisplaced subtrochanteric fracture of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.25XB	Nondisplaced subtrochanteric fracture of left femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.25XC	Nondisplaced subtrochanteric fracture of left femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S72.26XA	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S72.26XB	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type I or II	Diagnosis	ICD-10-CM
S72.26XC	Nondisplaced subtrochanteric fracture of unspecified femur, initial encounter for open fracture type IIIA, IIIB, or IIIC	Diagnosis	ICD-10-CM
S79.001A	Unspecified physeal fracture of upper end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.002A	Unspecified physeal fracture of upper end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.009A	Unspecified physeal fracture of upper end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.011A	Salter-Harris Type I physeal fracture of upper end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.012A	Salter-Harris Type I physeal fracture of upper end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.019A	Salter-Harris Type I physeal fracture of upper end of unspecified femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.091A	Other physeal fracture of upper end of right femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
S79.092A	Other physal fracture of upper end of left femur, initial encounter for closed fracture	Diagnosis	ICD-10-CM
S79.099A	Other physal fracture of upper end of unspecified femur, initial encounter for closed	Diagnosis	ICD-10-CM
OPBH0ZZ	Excision of Right Radius, Open Approach	Procedure	ICD-10-PCS
OPBJ0ZZ	Excision of Left Radius, Open Approach	Procedure	ICD-10-PCS
OPBK0ZZ	Excision of Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPBL0ZZ	Excision of Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPH004Z	Insertion of Internal Fixation Device into Sternum, Open Approach	Procedure	ICD-10-PCS
OPH034Z	Insertion of Internal Fixation Device into Sternum, Percutaneous Approach	Procedure	ICD-10-PCS
OPH044Z	Insertion of Internal Fixation Device into Sternum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPH104Z	Insertion of Internal Fixation Device into 1 to 2 Ribs, Open Approach	Procedure	ICD-10-PCS
OPH134Z	Insertion of Internal Fixation Device into 1 to 2 Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPH144Z	Insertion of Internal Fixation Device into 1 to 2 Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPH204Z	Insertion of Internal Fixation Device into 3 or More Ribs, Open Approach	Procedure	ICD-10-PCS
OPH234Z	Insertion of Internal Fixation Device into 3 or More Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPH244Z	Insertion of Internal Fixation Device into 3 or More Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPH504Z	Insertion of Internal Fixation Device into Right Scapula, Open Approach	Procedure	ICD-10-PCS
OPH534Z	Insertion of Internal Fixation Device into Right Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPH544Z	Insertion of Internal Fixation Device into Right Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPH604Z	Insertion of Internal Fixation Device into Left Scapula, Open Approach	Procedure	ICD-10-PCS
OPH634Z	Insertion of Internal Fixation Device into Left Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPH644Z	Insertion of Internal Fixation Device into Left Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPH704Z	Insertion of Internal Fixation Device into Right Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPH734Z	Insertion of Internal Fixation Device into Right Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPH744Z	Insertion of Internal Fixation Device into Right Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPH804Z	Insertion of Internal Fixation Device into Left Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPH834Z	Insertion of Internal Fixation Device into Left Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPH844Z	Insertion of Internal Fixation Device into Left Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPH904Z	Insertion of Internal Fixation Device into Right Clavicle, Open Approach	Procedure	ICD-10-PCS
OPH934Z	Insertion of Internal Fixation Device into Right Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPH944Z	Insertion of Internal Fixation Device into Right Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHB04Z	Insertion of Internal Fixation Device into Left Clavicle, Open Approach	Procedure	ICD-10-PCS
OPHB34Z	Insertion of Internal Fixation Device into Left Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPHB44Z	Insertion of Internal Fixation Device into Left Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHH04Z	Insertion of Internal Fixation Device into Right Radius, Open Approach	Procedure	ICD-10-PCS
OPHH05Z	Insertion of External Fixation Device into Right Radius, Open Approach	Procedure	ICD-10-PCS
OPHH06Z	Insertion of Intramedullary Internal Fixation Device into Right Radius, Open Approach	Procedure	ICD-10-PCS
OPHH0BZ	Insertion of Monoplanar External Fixation Device into Right Radius, Open Approach	Procedure	ICD-10-PCS
OPHH0CZ	Insertion of Ring External Fixation Device into Right Radius, Open Approach	Procedure	ICD-10-PCS
OPHH0DZ	Insertion of Hybrid External Fixation Device into Right Radius, Open Approach	Procedure	ICD-10-PCS
OPHH34Z	Insertion of Internal Fixation Device into Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHH35Z	Insertion of External Fixation Device into Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPHH36Z	Insertion of Intramedullary Internal Fixation Device into Right Radius, Percutaneous	Procedure	ICD-10-PCS
OPHH3BZ	Insertion of Monoplanar External Fixation Device into Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHH3CZ	Insertion of Ring External Fixation Device into Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHH3DZ	Insertion of Hybrid External Fixation Device into Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHH44Z	Insertion of Internal Fixation Device into Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHH45Z	Insertion of External Fixation Device into Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHH46Z	Insertion of Intramedullary Internal Fixation Device into Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHH4BZ	Insertion of Monoplanar External Fixation Device into Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHH4CZ	Insertion of Ring External Fixation Device into Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHH4DZ	Insertion of Hybrid External Fixation Device into Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHJ04Z	Insertion of Internal Fixation Device into Left Radius, Open Approach	Procedure	ICD-10-PCS
OPHJ05Z	Insertion of External Fixation Device into Left Radius, Open Approach	Procedure	ICD-10-PCS
OPHJ06Z	Insertion of Intramedullary Internal Fixation Device into Left Radius, Open Approach	Procedure	ICD-10-PCS
OPHJ0BZ	Insertion of Monoplanar External Fixation Device into Left Radius, Open Approach	Procedure	ICD-10-PCS
OPHJ0CZ	Insertion of Ring External Fixation Device into Left Radius, Open Approach	Procedure	ICD-10-PCS
OPHJ0DZ	Insertion of Hybrid External Fixation Device into Left Radius, Open Approach	Procedure	ICD-10-PCS
OPHJ34Z	Insertion of Internal Fixation Device into Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHJ35Z	Insertion of External Fixation Device into Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHJ36Z	Insertion of Intramedullary Internal Fixation Device into Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHJ3BZ	Insertion of Monoplanar External Fixation Device into Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHJ3CZ	Insertion of Ring External Fixation Device into Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHJ3DZ	Insertion of Hybrid External Fixation Device into Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPHJ44Z	Insertion of Internal Fixation Device into Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHJ45Z	Insertion of External Fixation Device into Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHJ46Z	Insertion of Intramedullary Internal Fixation Device into Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHJ4BZ	Insertion of Monoplanar External Fixation Device into Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHJ4CZ	Insertion of Ring External Fixation Device into Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHJ4DZ	Insertion of Hybrid External Fixation Device into Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHK04Z	Insertion of Internal Fixation Device into Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPHK05Z	Insertion of External Fixation Device into Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPHK06Z	Insertion of Intramedullary Internal Fixation Device into Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPHK0BZ	Insertion of Monoplanar External Fixation Device into Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPHK0CZ	Insertion of Ring External Fixation Device into Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPHK0DZ	Insertion of Hybrid External Fixation Device into Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPHK34Z	Insertion of Internal Fixation Device into Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHK35Z	Insertion of External Fixation Device into Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS

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Code	Description	Code	
		Category	Code Type
OPHK36Z	Insertion of Intramedullary Internal Fixation Device into Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHK3BZ	Insertion of Monoplanar External Fixation Device into Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHK3CZ	Insertion of Ring External Fixation Device into Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHK3DZ	Insertion of Hybrid External Fixation Device into Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHK44Z	Insertion of Internal Fixation Device into Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHK45Z	Insertion of External Fixation Device into Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHK46Z	Insertion of Intramedullary Internal Fixation Device into Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHK4BZ	Insertion of Monoplanar External Fixation Device into Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHK4CZ	Insertion of Ring External Fixation Device into Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHK4DZ	Insertion of Hybrid External Fixation Device into Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHL04Z	Insertion of Internal Fixation Device into Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPHL05Z	Insertion of External Fixation Device into Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPHL06Z	Insertion of Intramedullary Internal Fixation Device into Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPHL0BZ	Insertion of Monoplanar External Fixation Device into Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPHL0CZ	Insertion of Ring External Fixation Device into Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPHL0DZ	Insertion of Hybrid External Fixation Device into Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPHL34Z	Insertion of Internal Fixation Device into Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHL35Z	Insertion of External Fixation Device into Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHL36Z	Insertion of Intramedullary Internal Fixation Device into Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHL3BZ	Insertion of Monoplanar External Fixation Device into Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHL3CZ	Insertion of Ring External Fixation Device into Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHL3DZ	Insertion of Hybrid External Fixation Device into Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPHL44Z	Insertion of Internal Fixation Device into Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHL45Z	Insertion of External Fixation Device into Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHL46Z	Insertion of Intramedullary Internal Fixation Device into Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHL4BZ	Insertion of Monoplanar External Fixation Device into Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHL4CZ	Insertion of Ring External Fixation Device into Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPHL4DZ	Insertion of Hybrid External Fixation Device into Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPN00ZZ	Release Sternum, Open Approach	Procedure	ICD-10-PCS
OPN03ZZ	Release Sternum, Percutaneous Approach	Procedure	ICD-10-PCS
OPN04ZZ	Release Sternum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPN10ZZ	Release 1 to 2 Ribs, Open Approach	Procedure	ICD-10-PCS
OPN13ZZ	Release 1 to 2 Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPN14ZZ	Release 1 to 2 Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPN20ZZ	Release 3 or More Ribs, Open Approach	Procedure	ICD-10-PCS
OPN23ZZ	Release 3 or More Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPN24ZZ	Release 3 or More Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPN50ZZ	Release Right Scapula, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPN53ZZ	Release Right Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPN54ZZ	Release Right Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPN60ZZ	Release Left Scapula, Open Approach	Procedure	ICD-10-PCS
OPN63ZZ	Release Left Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPN64ZZ	Release Left Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPN70ZZ	Release Right Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPN73ZZ	Release Right Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPN74ZZ	Release Right Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPN80ZZ	Release Left Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPN83ZZ	Release Left Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPN84ZZ	Release Left Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPN90ZZ	Release Right Clavicle, Open Approach	Procedure	ICD-10-PCS
OPN93ZZ	Release Right Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPN94ZZ	Release Right Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPNB0ZZ	Release Left Clavicle, Open Approach	Procedure	ICD-10-PCS
OPNB3ZZ	Release Left Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPNB4ZZ	Release Left Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPNH0ZZ	Release Right Radius, Open Approach	Procedure	ICD-10-PCS
OPNH3ZZ	Release Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPNH4ZZ	Release Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPNJ0ZZ	Release Left Radius, Open Approach	Procedure	ICD-10-PCS
OPNJ3ZZ	Release Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPNJ4ZZ	Release Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPNK0ZZ	Release Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPNK3ZZ	Release Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPNK4ZZ	Release Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPNL0ZZ	Release Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPNL3ZZ	Release Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPNL4ZZ	Release Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP004Z	Removal of Internal Fixation Device from Sternum, Open Approach	Procedure	ICD-10-PCS
OPP007Z	Removal of Autologous Tissue Substitute from Sternum, Open Approach	Procedure	ICD-10-PCS
OPP00JZ	Removal of Synthetic Substitute from Sternum, Open Approach	Procedure	ICD-10-PCS
OPP00KZ	Removal of Nonautologous Tissue Substitute from Sternum, Open Approach	Procedure	ICD-10-PCS
OPP034Z	Removal of Internal Fixation Device from Sternum, Percutaneous Approach	Procedure	ICD-10-PCS
OPP037Z	Removal of Autologous Tissue Substitute from Sternum, Percutaneous Approach	Procedure	ICD-10-PCS
OPP03JZ	Removal of Synthetic Substitute from Sternum, Percutaneous Approach	Procedure	ICD-10-PCS
OPP03KZ	Removal of Nonautologous Tissue Substitute from Sternum, Percutaneous Approach	Procedure	ICD-10-PCS
OPP044Z	Removal of Internal Fixation Device from Sternum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP047Z	Removal of Autologous Tissue Substitute from Sternum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP04JZ	Removal of Synthetic Substitute from Sternum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP04KZ	Removal of Nonautologous Tissue Substitute from Sternum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP104Z	Removal of Internal Fixation Device from 1 to 2 Ribs, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPP107Z	Removal of Autologous Tissue Substitute from 1 to 2 Ribs, Open Approach	Procedure	ICD-10-PCS
OPP10JZ	Removal of Synthetic Substitute from 1 to 2 Ribs, Open Approach	Procedure	ICD-10-PCS
OPP10KZ	Removal of Nonautologous Tissue Substitute from 1 to 2 Ribs, Open Approach	Procedure	ICD-10-PCS
OPP134Z	Removal of Internal Fixation Device from 1 to 2 Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPP137Z	Removal of Autologous Tissue Substitute from 1 to 2 Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPP13JZ	Removal of Synthetic Substitute from 1 to 2 Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPP13KZ	Removal of Nonautologous Tissue Substitute from 1 to 2 Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPP144Z	Removal of Internal Fixation Device from 1 to 2 Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP147Z	Removal of Autologous Tissue Substitute from 1 to 2 Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP14JZ	Removal of Synthetic Substitute from 1 to 2 Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP14KZ	Removal of Nonautologous Tissue Substitute from 1 to 2 Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP204Z	Removal of Internal Fixation Device from 3 or More Ribs, Open Approach	Procedure	ICD-10-PCS
OPP207Z	Removal of Autologous Tissue Substitute from 3 or More Ribs, Open Approach	Procedure	ICD-10-PCS
OPP20JZ	Removal of Synthetic Substitute from 3 or More Ribs, Open Approach	Procedure	ICD-10-PCS
OPP20KZ	Removal of Nonautologous Tissue Substitute from 3 or More Ribs, Open Approach	Procedure	ICD-10-PCS
OPP234Z	Removal of Internal Fixation Device from 3 or More Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPP237Z	Removal of Autologous Tissue Substitute from 3 or More Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPP23JZ	Removal of Synthetic Substitute from 3 or More Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPP23KZ	Removal of Nonautologous Tissue Substitute from 3 or More Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPP244Z	Removal of Internal Fixation Device from 3 or More Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP247Z	Removal of Autologous Tissue Substitute from 3 or More Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP24JZ	Removal of Synthetic Substitute from 3 or More Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP24KZ	Removal of Nonautologous Tissue Substitute from 3 or More Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP504Z	Removal of Internal Fixation Device from Right Scapula, Open Approach	Procedure	ICD-10-PCS
OPP507Z	Removal of Autologous Tissue Substitute from Right Scapula, Open Approach	Procedure	ICD-10-PCS
OPP50JZ	Removal of Synthetic Substitute from Right Scapula, Open Approach	Procedure	ICD-10-PCS
OPP50KZ	Removal of Nonautologous Tissue Substitute from Right Scapula, Open Approach	Procedure	ICD-10-PCS
OPP534Z	Removal of Internal Fixation Device from Right Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPP537Z	Removal of Autologous Tissue Substitute from Right Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPP53JZ	Removal of Synthetic Substitute from Right Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPP53KZ	Removal of Nonautologous Tissue Substitute from Right Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPP544Z	Removal of Internal Fixation Device from Right Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP547Z	Removal of Autologous Tissue Substitute from Right Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP54JZ	Removal of Synthetic Substitute from Right Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP54KZ	Removal of Nonautologous Tissue Substitute from Right Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP604Z	Removal of Internal Fixation Device from Left Scapula, Open Approach	Procedure	ICD-10-PCS
OPP607Z	Removal of Autologous Tissue Substitute from Left Scapula, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPP60JZ	Removal of Synthetic Substitute from Left Scapula, Open Approach	Procedure	ICD-10-PCS
OPP60KZ	Removal of Nonautologous Tissue Substitute from Left Scapula, Open Approach	Procedure	ICD-10-PCS
OPP634Z	Removal of Internal Fixation Device from Left Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPP637Z	Removal of Autologous Tissue Substitute from Left Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPP63JZ	Removal of Synthetic Substitute from Left Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPP63KZ	Removal of Nonautologous Tissue Substitute from Left Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPP644Z	Removal of Internal Fixation Device from Left Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP647Z	Removal of Autologous Tissue Substitute from Left Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP64JZ	Removal of Synthetic Substitute from Left Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP64KZ	Removal of Nonautologous Tissue Substitute from Left Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP704Z	Removal of Internal Fixation Device from Right Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPP707Z	Removal of Autologous Tissue Substitute from Right Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPP70JZ	Removal of Synthetic Substitute from Right Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPP70KZ	Removal of Nonautologous Tissue Substitute from Right Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPP734Z	Removal of Internal Fixation Device from Right Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPP737Z	Removal of Autologous Tissue Substitute from Right Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPP73JZ	Removal of Synthetic Substitute from Right Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPP73KZ	Removal of Nonautologous Tissue Substitute from Right Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPP744Z	Removal of Internal Fixation Device from Right Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP747Z	Removal of Autologous Tissue Substitute from Right Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP74JZ	Removal of Synthetic Substitute from Right Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP74KZ	Removal of Nonautologous Tissue Substitute from Right Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP804Z	Removal of Internal Fixation Device from Left Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPP807Z	Removal of Autologous Tissue Substitute from Left Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPP80JZ	Removal of Synthetic Substitute from Left Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPP80KZ	Removal of Nonautologous Tissue Substitute from Left Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPP834Z	Removal of Internal Fixation Device from Left Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPP837Z	Removal of Autologous Tissue Substitute from Left Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPP83JZ	Removal of Synthetic Substitute from Left Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPP83KZ	Removal of Nonautologous Tissue Substitute from Left Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPP844Z	Removal of Internal Fixation Device from Left Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP847Z	Removal of Autologous Tissue Substitute from Left Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP84JZ	Removal of Synthetic Substitute from Left Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPP84KZ	Removal of Nonautologous Tissue Substitute from Left Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP904Z	Removal of Internal Fixation Device from Right Clavicle, Open Approach	Procedure	ICD-10-PCS
OPP907Z	Removal of Autologous Tissue Substitute from Right Clavicle, Open Approach	Procedure	ICD-10-PCS
OPP90JZ	Removal of Synthetic Substitute from Right Clavicle, Open Approach	Procedure	ICD-10-PCS
OPP90KZ	Removal of Nonautologous Tissue Substitute from Right Clavicle, Open Approach	Procedure	ICD-10-PCS
OPP934Z	Removal of Internal Fixation Device from Right Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPP937Z	Removal of Autologous Tissue Substitute from Right Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPP93JZ	Removal of Synthetic Substitute from Right Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPP93KZ	Removal of Nonautologous Tissue Substitute from Right Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPP944Z	Removal of Internal Fixation Device from Right Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP947Z	Removal of Autologous Tissue Substitute from Right Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP94JZ	Removal of Synthetic Substitute from Right Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPP94KZ	Removal of Nonautologous Tissue Substitute from Right Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPB04Z	Removal of Internal Fixation Device from Left Clavicle, Open Approach	Procedure	ICD-10-PCS
OPPB07Z	Removal of Autologous Tissue Substitute from Left Clavicle, Open Approach	Procedure	ICD-10-PCS
OPPB0JZ	Removal of Synthetic Substitute from Left Clavicle, Open Approach	Procedure	ICD-10-PCS
OPPB0KZ	Removal of Nonautologous Tissue Substitute from Left Clavicle, Open Approach	Procedure	ICD-10-PCS
OPPB34Z	Removal of Internal Fixation Device from Left Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPPB37Z	Removal of Autologous Tissue Substitute from Left Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPPB3JZ	Removal of Synthetic Substitute from Left Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPPB3KZ	Removal of Nonautologous Tissue Substitute from Left Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPPB44Z	Removal of Internal Fixation Device from Left Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPB47Z	Removal of Autologous Tissue Substitute from Left Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPB4JZ	Removal of Synthetic Substitute from Left Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPB4KZ	Removal of Nonautologous Tissue Substitute from Left Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPH04Z	Removal of Internal Fixation Device from Right Radius, Open Approach	Procedure	ICD-10-PCS
OPPH05Z	Removal of External Fixation Device from Right Radius, Open Approach	Procedure	ICD-10-PCS
OPPH07Z	Removal of Autologous Tissue Substitute from Right Radius, Open Approach	Procedure	ICD-10-PCS
OPPH0JZ	Removal of Synthetic Substitute from Right Radius, Open Approach	Procedure	ICD-10-PCS
OPPH0KZ	Removal of Nonautologous Tissue Substitute from Right Radius, Open Approach	Procedure	ICD-10-PCS
OPPH34Z	Removal of Internal Fixation Device from Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPH35Z	Removal of External Fixation Device from Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPH37Z	Removal of Autologous Tissue Substitute from Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPH3JZ	Removal of Synthetic Substitute from Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPH3KZ	Removal of Nonautologous Tissue Substitute from Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPH44Z	Removal of Internal Fixation Device from Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPH45Z	Removal of External Fixation Device from Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPPH47Z	Removal of Autologous Tissue Substitute from Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPH4JZ	Removal of Synthetic Substitute from Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPH4KZ	Removal of Nonautologous Tissue Substitute from Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPJ04Z	Removal of Internal Fixation Device from Left Radius, Open Approach	Procedure	ICD-10-PCS
OPPJ05Z	Removal of External Fixation Device from Left Radius, Open Approach	Procedure	ICD-10-PCS
OPPJ07Z	Removal of Autologous Tissue Substitute from Left Radius, Open Approach	Procedure	ICD-10-PCS
OPPJ0JZ	Removal of Synthetic Substitute from Left Radius, Open Approach	Procedure	ICD-10-PCS
OPPJ0KZ	Removal of Nonautologous Tissue Substitute from Left Radius, Open Approach	Procedure	ICD-10-PCS
OPPJ34Z	Removal of Internal Fixation Device from Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPJ35Z	Removal of External Fixation Device from Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPJ37Z	Removal of Autologous Tissue Substitute from Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPJ3JZ	Removal of Synthetic Substitute from Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPJ3KZ	Removal of Nonautologous Tissue Substitute from Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPPJ44Z	Removal of Internal Fixation Device from Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPJ45Z	Removal of External Fixation Device from Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPJ47Z	Removal of Autologous Tissue Substitute from Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPJ4JZ	Removal of Synthetic Substitute from Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPJ4KZ	Removal of Nonautologous Tissue Substitute from Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPK04Z	Removal of Internal Fixation Device from Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPPK05Z	Removal of External Fixation Device from Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPPK07Z	Removal of Autologous Tissue Substitute from Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPPK0JZ	Removal of Synthetic Substitute from Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPPK0KZ	Removal of Nonautologous Tissue Substitute from Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPPK34Z	Removal of Internal Fixation Device from Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPK35Z	Removal of External Fixation Device from Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPK37Z	Removal of Autologous Tissue Substitute from Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPK3JZ	Removal of Synthetic Substitute from Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPK3KZ	Removal of Nonautologous Tissue Substitute from Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPK44Z	Removal of Internal Fixation Device from Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPK45Z	Removal of External Fixation Device from Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPK47Z	Removal of Autologous Tissue Substitute from Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPK4JZ	Removal of Synthetic Substitute from Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPK4KZ	Removal of Nonautologous Tissue Substitute from Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPL04Z	Removal of Internal Fixation Device from Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPPL05Z	Removal of External Fixation Device from Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPPL07Z	Removal of Autologous Tissue Substitute from Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPPL0JZ	Removal of Synthetic Substitute from Left Ulna, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPPL0KZ	Removal of Nonautologous Tissue Substitute from Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPPL34Z	Removal of Internal Fixation Device from Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPL35Z	Removal of External Fixation Device from Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPL37Z	Removal of Autologous Tissue Substitute from Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPL3JZ	Removal of Synthetic Substitute from Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPL3KZ	Removal of Nonautologous Tissue Substitute from Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPPL44Z	Removal of Internal Fixation Device from Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPL45Z	Removal of External Fixation Device from Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPL47Z	Removal of Autologous Tissue Substitute from Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPL4JZ	Removal of Synthetic Substitute from Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPPL4KZ	Removal of Nonautologous Tissue Substitute from Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPQ00ZZ	Repair Sternum, Open Approach	Procedure	ICD-10-PCS
OPQ03ZZ	Repair Sternum, Percutaneous Approach	Procedure	ICD-10-PCS
OPQ04ZZ	Repair Sternum, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPQ0XZZ	Repair Sternum, External Approach	Procedure	ICD-10-PCS
OPQ10ZZ	Repair 1 to 2 Ribs, Open Approach	Procedure	ICD-10-PCS
OPQ13ZZ	Repair 1 to 2 Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPQ14ZZ	Repair 1 to 2 Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPQ1XZZ	Repair 1 to 2 Ribs, External Approach	Procedure	ICD-10-PCS
OPQ20ZZ	Repair 3 or More Ribs, Open Approach	Procedure	ICD-10-PCS
OPQ23ZZ	Repair 3 or More Ribs, Percutaneous Approach	Procedure	ICD-10-PCS
OPQ24ZZ	Repair 3 or More Ribs, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPQ2XZZ	Repair 3 or More Ribs, External Approach	Procedure	ICD-10-PCS
OPQ50ZZ	Repair Right Scapula, Open Approach	Procedure	ICD-10-PCS
OPQ53ZZ	Repair Right Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPQ54ZZ	Repair Right Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPQ5XZZ	Repair Right Scapula, External Approach	Procedure	ICD-10-PCS
OPQ60ZZ	Repair Left Scapula, Open Approach	Procedure	ICD-10-PCS
OPQ63ZZ	Repair Left Scapula, Percutaneous Approach	Procedure	ICD-10-PCS
OPQ64ZZ	Repair Left Scapula, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPQ6XZZ	Repair Left Scapula, External Approach	Procedure	ICD-10-PCS
OPQ70ZZ	Repair Right Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPQ73ZZ	Repair Right Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPQ74ZZ	Repair Right Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPQ7XZZ	Repair Right Glenoid Cavity, External Approach	Procedure	ICD-10-PCS
OPQ80ZZ	Repair Left Glenoid Cavity, Open Approach	Procedure	ICD-10-PCS
OPQ83ZZ	Repair Left Glenoid Cavity, Percutaneous Approach	Procedure	ICD-10-PCS
OPQ84ZZ	Repair Left Glenoid Cavity, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPQ8XZZ	Repair Left Glenoid Cavity, External Approach	Procedure	ICD-10-PCS
OPQ90ZZ	Repair Right Clavicle, Open Approach	Procedure	ICD-10-PCS
OPQ93ZZ	Repair Right Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
OPQ94ZZ	Repair Right Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0PQ9XZZ	Repair Right Clavicle, External Approach	Procedure	ICD-10-PCS
0PQB0ZZ	Repair Left Clavicle, Open Approach	Procedure	ICD-10-PCS
0PQB3ZZ	Repair Left Clavicle, Percutaneous Approach	Procedure	ICD-10-PCS
0PQB4ZZ	Repair Left Clavicle, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PQBXZZ	Repair Left Clavicle, External Approach	Procedure	ICD-10-PCS
0PQH0ZZ	Repair Right Radius, Open Approach	Procedure	ICD-10-PCS
0PQH3ZZ	Repair Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
0PQH4ZZ	Repair Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PQHZZ	Repair Right Radius, External Approach	Procedure	ICD-10-PCS
0PQJ0ZZ	Repair Left Radius, Open Approach	Procedure	ICD-10-PCS
0PQJ3ZZ	Repair Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
0PQJ4ZZ	Repair Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PQJXZZ	Repair Left Radius, External Approach	Procedure	ICD-10-PCS
0PQK0ZZ	Repair Right Ulna, Open Approach	Procedure	ICD-10-PCS
0PQK3ZZ	Repair Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
0PQK4ZZ	Repair Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PQKXZZ	Repair Right Ulna, External Approach	Procedure	ICD-10-PCS
0PQL0ZZ	Repair Left Ulna, Open Approach	Procedure	ICD-10-PCS
0PQL3ZZ	Repair Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
0PQL4ZZ	Repair Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PQLXZZ	Repair Left Ulna, External Approach	Procedure	ICD-10-PCS
0PR00JZ	Replacement of Sternum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0PR03JZ	Replacement of Sternum with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0PR04JZ	Replacement of Sternum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PR10JZ	Replacement of 1 to 2 Ribs with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0PR13JZ	Replacement of 1 to 2 Ribs with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0PR14JZ	Replacement of 1 to 2 Ribs with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PR20JZ	Replacement of 3 or More Ribs with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0PR23JZ	Replacement of 3 or More Ribs with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0PR24JZ	Replacement of 3 or More Ribs with Synthetic Substitute, Percutaneous Endoscopic	Procedure	ICD-10-PCS
0PR50JZ	Replacement of Right Scapula with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0PR53JZ	Replacement of Right Scapula with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0PR54JZ	Replacement of Right Scapula with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PR60JZ	Replacement of Left Scapula with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0PR63JZ	Replacement of Left Scapula with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0PR64JZ	Replacement of Left Scapula with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PR70JZ	Replacement of Right Glenoid Cavity with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0PR73JZ	Replacement of Right Glenoid Cavity with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0PR74JZ	Replacement of Right Glenoid Cavity with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0PR80JZ	Replacement of Left Glenoid Cavity with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0PR83JZ	Replacement of Left Glenoid Cavity with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPR84JZ	Replacement of Left Glenoid Cavity with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPR90JZ	Replacement of Right Clavicle with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPR93JZ	Replacement of Right Clavicle with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPR94JZ	Replacement of Right Clavicle with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPRB0JZ	Replacement of Left Clavicle with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPRB3JZ	Replacement of Left Clavicle with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPRB4JZ	Replacement of Left Clavicle with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPRH0JZ	Replacement of Right Radius with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPRH3JZ	Replacement of Right Radius with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPRH4JZ	Replacement of Right Radius with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPRJ0JZ	Replacement of Left Radius with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPRJ3JZ	Replacement of Left Radius with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPRJ4JZ	Replacement of Left Radius with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPRK0JZ	Replacement of Right Ulna with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPRK3JZ	Replacement of Right Ulna with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPRK4JZ	Replacement of Right Ulna with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPRL0JZ	Replacement of Left Ulna with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPRL3JZ	Replacement of Left Ulna with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPRL4JZ	Replacement of Left Ulna with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSH04Z	Reposition Right Radius with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSH05Z	Reposition Right Radius with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSH06Z	Reposition Right Radius with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSH0BZ	Reposition Right Radius with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSH0CZ	Reposition Right Radius with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSH0DZ	Reposition Right Radius with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSH0ZZ	Reposition Right Radius, Open Approach	Procedure	ICD-10-PCS
OPSH34Z	Reposition Right Radius with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSH35Z	Reposition Right Radius with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSH36Z	Reposition Right Radius with Intramedullary Internal Fixation Device, Percutaneous	Procedure	ICD-10-PCS
OPSH3BZ	Reposition Right Radius with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSH3CZ	Reposition Right Radius with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSH3DZ	Reposition Right Radius with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSH3ZZ	Reposition Right Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPSH44Z	Reposition Right Radius with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSH45Z	Reposition Right Radius with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSH46Z	Reposition Right Radius with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSH4BZ	Reposition Right Radius with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSH4CZ	Reposition Right Radius with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPSH4DZ	Reposition Right Radius with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSH4ZZ	Reposition Right Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSHXZZ	Reposition Right Radius, External Approach	Procedure	ICD-10-PCS
OPSI04Z	Reposition Left Radius with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSI05Z	Reposition Left Radius with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSI06Z	Reposition Left Radius with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSI0BZ	Reposition Left Radius with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSI0CZ	Reposition Left Radius with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSI0DZ	Reposition Left Radius with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSI0ZZ	Reposition Left Radius, Open Approach	Procedure	ICD-10-PCS
OPSI34Z	Reposition Left Radius with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSI35Z	Reposition Left Radius with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSI36Z	Reposition Left Radius with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSI3BZ	Reposition Left Radius with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSI3CZ	Reposition Left Radius with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSI3DZ	Reposition Left Radius with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSI3ZZ	Reposition Left Radius, Percutaneous Approach	Procedure	ICD-10-PCS
OPSI44Z	Reposition Left Radius with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSI45Z	Reposition Left Radius with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSI46Z	Reposition Left Radius with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSI4BZ	Reposition Left Radius with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSI4CZ	Reposition Left Radius with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSI4DZ	Reposition Left Radius with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSI4ZZ	Reposition Left Radius, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSIJZZ	Reposition Left Radius, External Approach	Procedure	ICD-10-PCS
OPSK04Z	Reposition Right Ulna with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSK05Z	Reposition Right Ulna with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSK06Z	Reposition Right Ulna with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSK0BZ	Reposition Right Ulna with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSK0CZ	Reposition Right Ulna with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSK0DZ	Reposition Right Ulna with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSK0ZZ	Reposition Right Ulna, Open Approach	Procedure	ICD-10-PCS
OPSK34Z	Reposition Right Ulna with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSK35Z	Reposition Right Ulna with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSK36Z	Reposition Right Ulna with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSK3BZ	Reposition Right Ulna with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSK3CZ	Reposition Right Ulna with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSK3DZ	Reposition Right Ulna with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSK3ZZ	Reposition Right Ulna, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPSK44Z	Reposition Right Ulna with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSK45Z	Reposition Right Ulna with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSK46Z	Reposition Right Ulna with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSK4BZ	Reposition Right Ulna with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSK4CZ	Reposition Right Ulna with Ring External Fixation Device, Percutaneous Endoscopic	Procedure	ICD-10-PCS
OPSK4DZ	Reposition Right Ulna with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSK4ZZ	Reposition Right Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSKXZZ	Reposition Right Ulna, External Approach	Procedure	ICD-10-PCS
OPSL04Z	Reposition Left Ulna with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSL05Z	Reposition Left Ulna with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSL06Z	Reposition Left Ulna with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSL0BZ	Reposition Left Ulna with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSL0CZ	Reposition Left Ulna with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSL0DZ	Reposition Left Ulna with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
OPSL0ZZ	Reposition Left Ulna, Open Approach	Procedure	ICD-10-PCS
OPSL34Z	Reposition Left Ulna with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSL35Z	Reposition Left Ulna with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSL36Z	Reposition Left Ulna with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSL3BZ	Reposition Left Ulna with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSL3CZ	Reposition Left Ulna with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSL3DZ	Reposition Left Ulna with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
OPSL3ZZ	Reposition Left Ulna, Percutaneous Approach	Procedure	ICD-10-PCS
OPSL44Z	Reposition Left Ulna with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSL45Z	Reposition Left Ulna with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSL46Z	Reposition Left Ulna with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSL4BZ	Reposition Left Ulna with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSL4CZ	Reposition Left Ulna with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSL4DZ	Reposition Left Ulna with Hybrid External Fixation Device, Percutaneous Endoscopic	Procedure	ICD-10-PCS
OPSL4ZZ	Reposition Left Ulna, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPSLXZZ	Reposition Left Ulna, External Approach	Procedure	ICD-10-PCS
OPU00JZ	Supplement Sternum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPU03JZ	Supplement Sternum with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPU04JZ	Supplement Sternum with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPU10JZ	Supplement 1 to 2 Ribs with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPU13JZ	Supplement 1 to 2 Ribs with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPU14JZ	Supplement 1 to 2 Ribs with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPU20JZ	Supplement 3 or More Ribs with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPU23JZ	Supplement 3 or More Ribs with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
OPU24JZ	Supplement 3 or More Ribs with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPU50JZ	Supplement Right Scapula with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPU53JZ	Supplement Right Scapula with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPU54JZ	Supplement Right Scapula with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPU60JZ	Supplement Left Scapula with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPU63JZ	Supplement Left Scapula with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPU64JZ	Supplement Left Scapula with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPU70JZ	Supplement Right Glenoid Cavity with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPU73JZ	Supplement Right Glenoid Cavity with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPU74JZ	Supplement Right Glenoid Cavity with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPU80JZ	Supplement Left Glenoid Cavity with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPU83JZ	Supplement Left Glenoid Cavity with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPU84JZ	Supplement Left Glenoid Cavity with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPU90JZ	Supplement Right Clavicle with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPU93JZ	Supplement Right Clavicle with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPU94JZ	Supplement Right Clavicle with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPUB0JZ	Supplement Left Clavicle with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPUB3JZ	Supplement Left Clavicle with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPUB4JZ	Supplement Left Clavicle with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPUH0JZ	Supplement Right Radius with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPUH3JZ	Supplement Right Radius with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPUH4JZ	Supplement Right Radius with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPUJ0JZ	Supplement Left Radius with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPUJ3JZ	Supplement Left Radius with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPUJ4JZ	Supplement Left Radius with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPUK0JZ	Supplement Right Ulna with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPUK3JZ	Supplement Right Ulna with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPUK4JZ	Supplement Right Ulna with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OPUL0JZ	Supplement Left Ulna with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
OPUL3JZ	Supplement Left Ulna with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
OPUL4JZ	Supplement Left Ulna with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
OQB60ZZ	Excision of Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
OQB70ZZ	Excision of Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
OQB80ZZ	Excision of Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
OQB90ZZ	Excision of Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
OQBB0ZZ	Excision of Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
OQBC0ZZ	Excision of Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
OQH604Z	Insertion of Internal Fixation Device into Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
OQH605Z	Insertion of External Fixation Device into Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
OQH606Z	Insertion of Intramedullary Internal Fixation Device into Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
OQH60BZ	Insertion of Monoplanar External Fixation Device into Right Upper Femur, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QH60CZ	Insertion of Ring External Fixation Device into Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QH60DZ	Insertion of Hybrid External Fixation Device into Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QH634Z	Insertion of Internal Fixation Device into Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH635Z	Insertion of External Fixation Device into Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH636Z	Insertion of Intramedullary Internal Fixation Device into Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH63BZ	Insertion of Monoplanar External Fixation Device into Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH63CZ	Insertion of Ring External Fixation Device into Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH63DZ	Insertion of Hybrid External Fixation Device into Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH644Z	Insertion of Internal Fixation Device into Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH645Z	Insertion of External Fixation Device into Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH646Z	Insertion of Intramedullary Internal Fixation Device into Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH64BZ	Insertion of Monoplanar External Fixation Device into Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH64CZ	Insertion of Ring External Fixation Device into Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH64DZ	Insertion of Hybrid External Fixation Device into Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH704Z	Insertion of Internal Fixation Device into Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QH705Z	Insertion of External Fixation Device into Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QH706Z	Insertion of Intramedullary Internal Fixation Device into Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QH70BZ	Insertion of Monoplanar External Fixation Device into Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QH70CZ	Insertion of Ring External Fixation Device into Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QH70DZ	Insertion of Hybrid External Fixation Device into Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QH734Z	Insertion of Internal Fixation Device into Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH735Z	Insertion of External Fixation Device into Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH736Z	Insertion of Intramedullary Internal Fixation Device into Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH73BZ	Insertion of Monoplanar External Fixation Device into Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH73CZ	Insertion of Ring External Fixation Device into Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH73DZ	Insertion of Hybrid External Fixation Device into Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QH744Z	Insertion of Internal Fixation Device into Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH745Z	Insertion of External Fixation Device into Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH746Z	Insertion of Intramedullary Internal Fixation Device into Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QH74BZ	Insertion of Monoplanar External Fixation Device into Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH74CZ	Insertion of Ring External Fixation Device into Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH74DZ	Insertion of Hybrid External Fixation Device into Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH804Z	Insertion of Internal Fixation Device into Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH805Z	Insertion of External Fixation Device into Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH806Z	Insertion of Intramedullary Internal Fixation Device into Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH80BZ	Insertion of Monoplanar External Fixation Device into Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH80CZ	Insertion of Ring External Fixation Device into Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH80DZ	Insertion of Hybrid External Fixation Device into Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH834Z	Insertion of Internal Fixation Device into Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH835Z	Insertion of External Fixation Device into Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH836Z	Insertion of Intramedullary Internal Fixation Device into Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH83BZ	Insertion of Monoplanar External Fixation Device into Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH83CZ	Insertion of Ring External Fixation Device into Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH83DZ	Insertion of Hybrid External Fixation Device into Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH844Z	Insertion of Internal Fixation Device into Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH845Z	Insertion of External Fixation Device into Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH846Z	Insertion of Intramedullary Internal Fixation Device into Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH84BZ	Insertion of Monoplanar External Fixation Device into Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH84CZ	Insertion of Ring External Fixation Device into Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH84DZ	Insertion of Hybrid External Fixation Device into Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH904Z	Insertion of Internal Fixation Device into Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH905Z	Insertion of External Fixation Device into Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH906Z	Insertion of Intramedullary Internal Fixation Device into Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH90BZ	Insertion of Monoplanar External Fixation Device into Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH90CZ	Insertion of Ring External Fixation Device into Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH90DZ	Insertion of Hybrid External Fixation Device into Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QH934Z	Insertion of Internal Fixation Device into Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH935Z	Insertion of External Fixation Device into Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH936Z	Insertion of Intramedullary Internal Fixation Device into Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QH93BZ	Insertion of Monoplanar External Fixation Device into Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH93CZ	Insertion of Ring External Fixation Device into Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH93DZ	Insertion of Hybrid External Fixation Device into Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QH944Z	Insertion of Internal Fixation Device into Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH945Z	Insertion of External Fixation Device into Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH946Z	Insertion of Intramedullary Internal Fixation Device into Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH94BZ	Insertion of Monoplanar External Fixation Device into Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH94CZ	Insertion of Ring External Fixation Device into Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QH94DZ	Insertion of Hybrid External Fixation Device into Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHB04Z	Insertion of Internal Fixation Device into Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHB05Z	Insertion of External Fixation Device into Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHB06Z	Insertion of Intramedullary Internal Fixation Device into Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHB0BZ	Insertion of Monoplanar External Fixation Device into Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHB0CZ	Insertion of Ring External Fixation Device into Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHB0DZ	Insertion of Hybrid External Fixation Device into Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHB34Z	Insertion of Internal Fixation Device into Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHB35Z	Insertion of External Fixation Device into Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHB36Z	Insertion of Intramedullary Internal Fixation Device into Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHB3BZ	Insertion of Monoplanar External Fixation Device into Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHB3CZ	Insertion of Ring External Fixation Device into Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHB3DZ	Insertion of Hybrid External Fixation Device into Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHB44Z	Insertion of Internal Fixation Device into Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHB45Z	Insertion of External Fixation Device into Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHB46Z	Insertion of Intramedullary Internal Fixation Device into Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHB4BZ	Insertion of Monoplanar External Fixation Device into Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHB4CZ	Insertion of Ring External Fixation Device into Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHB4DZ	Insertion of Hybrid External Fixation Device into Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHC04Z	Insertion of Internal Fixation Device into Left Lower Femur, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QHC05Z	Insertion of External Fixation Device into Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHC06Z	Insertion of Intramedullary Internal Fixation Device into Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHC0BZ	Insertion of Monoplanar External Fixation Device into Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHC0CZ	Insertion of Ring External Fixation Device into Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHC0DZ	Insertion of Hybrid External Fixation Device into Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QHC34Z	Insertion of Internal Fixation Device into Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHC35Z	Insertion of External Fixation Device into Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHC36Z	Insertion of Intramedullary Internal Fixation Device into Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHC3BZ	Insertion of Monoplanar External Fixation Device into Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHC3CZ	Insertion of Ring External Fixation Device into Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHC3DZ	Insertion of Hybrid External Fixation Device into Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QHC44Z	Insertion of Internal Fixation Device into Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHC45Z	Insertion of External Fixation Device into Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHC46Z	Insertion of Intramedullary Internal Fixation Device into Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHC4BZ	Insertion of Monoplanar External Fixation Device into Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHC4CZ	Insertion of Ring External Fixation Device into Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QHC4DZ	Insertion of Hybrid External Fixation Device into Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QN60ZZ	Release Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QN63ZZ	Release Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QN64ZZ	Release Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QN70ZZ	Release Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QN73ZZ	Release Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QN74ZZ	Release Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QN80ZZ	Release Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QN83ZZ	Release Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QN84ZZ	Release Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QN90ZZ	Release Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QN93ZZ	Release Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QN94ZZ	Release Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QNB0ZZ	Release Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QNB3ZZ	Release Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QNB4ZZ	Release Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QNC0ZZ	Release Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QNC3ZZ	Release Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QNC4ZZ	Release Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QP604Z	Removal of Internal Fixation Device from Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP605Z	Removal of External Fixation Device from Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP607Z	Removal of Autologous Tissue Substitute from Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP60JZ	Removal of Synthetic Substitute from Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP60KZ	Removal of Nonautologous Tissue Substitute from Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP634Z	Removal of Internal Fixation Device from Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP635Z	Removal of External Fixation Device from Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP637Z	Removal of Autologous Tissue Substitute from Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP63JZ	Removal of Synthetic Substitute from Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP63KZ	Removal of Nonautologous Tissue Substitute from Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP644Z	Removal of Internal Fixation Device from Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP645Z	Removal of External Fixation Device from Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP647Z	Removal of Autologous Tissue Substitute from Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP64JZ	Removal of Synthetic Substitute from Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP64KZ	Removal of Nonautologous Tissue Substitute from Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP704Z	Removal of Internal Fixation Device from Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP705Z	Removal of External Fixation Device from Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP707Z	Removal of Autologous Tissue Substitute from Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP70JZ	Removal of Synthetic Substitute from Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP70KZ	Removal of Nonautologous Tissue Substitute from Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QP734Z	Removal of Internal Fixation Device from Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP735Z	Removal of External Fixation Device from Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP737Z	Removal of Autologous Tissue Substitute from Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP73JZ	Removal of Synthetic Substitute from Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP73KZ	Removal of Nonautologous Tissue Substitute from Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QP744Z	Removal of Internal Fixation Device from Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP745Z	Removal of External Fixation Device from Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP747Z	Removal of Autologous Tissue Substitute from Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP74JZ	Removal of Synthetic Substitute from Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP74KZ	Removal of Nonautologous Tissue Substitute from Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP804Z	Removal of Internal Fixation Device from Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP805Z	Removal of External Fixation Device from Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP807Z	Removal of Autologous Tissue Substitute from Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP80JZ	Removal of Synthetic Substitute from Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QP80KZ	Removal of Nonautologous Tissue Substitute from Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP834Z	Removal of Internal Fixation Device from Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP835Z	Removal of External Fixation Device from Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP837Z	Removal of Autologous Tissue Substitute from Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP83JZ	Removal of Synthetic Substitute from Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP83KZ	Removal of Nonautologous Tissue Substitute from Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP844Z	Removal of Internal Fixation Device from Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP845Z	Removal of External Fixation Device from Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP847Z	Removal of Autologous Tissue Substitute from Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP84JZ	Removal of Synthetic Substitute from Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP84KZ	Removal of Nonautologous Tissue Substitute from Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP904Z	Removal of Internal Fixation Device from Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP905Z	Removal of External Fixation Device from Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP907Z	Removal of Autologous Tissue Substitute from Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP90JZ	Removal of Synthetic Substitute from Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP90KZ	Removal of Nonautologous Tissue Substitute from Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QP934Z	Removal of Internal Fixation Device from Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP935Z	Removal of External Fixation Device from Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP937Z	Removal of Autologous Tissue Substitute from Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP93JZ	Removal of Synthetic Substitute from Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP93KZ	Removal of Nonautologous Tissue Substitute from Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QP944Z	Removal of Internal Fixation Device from Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP945Z	Removal of External Fixation Device from Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP947Z	Removal of Autologous Tissue Substitute from Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP94JZ	Removal of Synthetic Substitute from Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QP94KZ	Removal of Nonautologous Tissue Substitute from Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPB04Z	Removal of Internal Fixation Device from Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPB05Z	Removal of External Fixation Device from Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPB07Z	Removal of Autologous Tissue Substitute from Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPB0JZ	Removal of Synthetic Substitute from Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPB0KZ	Removal of Nonautologous Tissue Substitute from Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPB34Z	Removal of Internal Fixation Device from Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QPB35Z	Removal of External Fixation Device from Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPB37Z	Removal of Autologous Tissue Substitute from Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPB3JZ	Removal of Synthetic Substitute from Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPB3KZ	Removal of Nonautologous Tissue Substitute from Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPB44Z	Removal of Internal Fixation Device from Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPB45Z	Removal of External Fixation Device from Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPB47Z	Removal of Autologous Tissue Substitute from Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPB4JZ	Removal of Synthetic Substitute from Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPB4KZ	Removal of Nonautologous Tissue Substitute from Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPC04Z	Removal of Internal Fixation Device from Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPC05Z	Removal of External Fixation Device from Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPC07Z	Removal of Autologous Tissue Substitute from Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPC0JZ	Removal of Synthetic Substitute from Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPC0KZ	Removal of Nonautologous Tissue Substitute from Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QPC34Z	Removal of Internal Fixation Device from Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPC35Z	Removal of External Fixation Device from Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPC37Z	Removal of Autologous Tissue Substitute from Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPC3JZ	Removal of Synthetic Substitute from Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPC3KZ	Removal of Nonautologous Tissue Substitute from Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QPC44Z	Removal of Internal Fixation Device from Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPC45Z	Removal of External Fixation Device from Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPC47Z	Removal of Autologous Tissue Substitute from Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPC4JZ	Removal of Synthetic Substitute from Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QPC4KZ	Removal of Nonautologous Tissue Substitute from Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QQ60ZZ	Repair Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QQ63ZZ	Repair Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QQ64ZZ	Repair Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QQ6XZZ	Repair Right Upper Femur, External Approach	Procedure	ICD-10-PCS
0QQ70ZZ	Repair Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QQ73ZZ	Repair Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QQ74ZZ	Repair Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QQ7XZZ	Repair Left Upper Femur, External Approach	Procedure	ICD-10-PCS
0QQ80ZZ	Repair Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QQ83ZZ	Repair Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QQ84ZZ	Repair Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QQ8XZZ	Repair Right Femoral Shaft, External Approach	Procedure	ICD-10-PCS
0QQ90ZZ	Repair Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QQ93ZZ	Repair Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QQ94ZZ	Repair Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QQ9XZZ	Repair Left Femoral Shaft, External Approach	Procedure	ICD-10-PCS
0QQB0ZZ	Repair Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QQB3ZZ	Repair Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QQB4ZZ	Repair Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QQBXZZ	Repair Right Lower Femur, External Approach	Procedure	ICD-10-PCS
0QQC0ZZ	Repair Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QQC3ZZ	Repair Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QQC4ZZ	Repair Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QQCXZZ	Repair Left Lower Femur, External Approach	Procedure	ICD-10-PCS
0QR60JZ	Replacement of Right Upper Femur with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QR63JZ	Replacement of Right Upper Femur with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QR64JZ	Replacement of Right Upper Femur with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QR70JZ	Replacement of Left Upper Femur with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QR73JZ	Replacement of Left Upper Femur with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QR74JZ	Replacement of Left Upper Femur with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QR80JZ	Replacement of Right Femoral Shaft with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QR83JZ	Replacement of Right Femoral Shaft with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QR84JZ	Replacement of Right Femoral Shaft with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QR90JZ	Replacement of Left Femoral Shaft with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QR93JZ	Replacement of Left Femoral Shaft with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QR94JZ	Replacement of Left Femoral Shaft with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QRB0JZ	Replacement of Right Lower Femur with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QRB3JZ	Replacement of Right Lower Femur with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QRB4JZ	Replacement of Right Lower Femur with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QRC0JZ	Replacement of Left Lower Femur with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QRC3JZ	Replacement of Left Lower Femur with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QRC4JZ	Replacement of Left Lower Femur with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS604Z	Reposition Right Upper Femur with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS605Z	Reposition Right Upper Femur with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS606Z	Reposition Right Upper Femur with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS60BZ	Reposition Right Upper Femur with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS60CZ	Reposition Right Upper Femur with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QS60DZ	Reposition Right Upper Femur with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS60ZZ	Reposition Right Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QS634Z	Reposition Right Upper Femur with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS635Z	Reposition Right Upper Femur with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS636Z	Reposition Right Upper Femur with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS63BZ	Reposition Right Upper Femur with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS63CZ	Reposition Right Upper Femur with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS63DZ	Reposition Right Upper Femur with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS63ZZ	Reposition Right Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QS644Z	Reposition Right Upper Femur with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS645Z	Reposition Right Upper Femur with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS646Z	Reposition Right Upper Femur with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS64BZ	Reposition Right Upper Femur with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS64CZ	Reposition Right Upper Femur with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS64DZ	Reposition Right Upper Femur with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS64ZZ	Reposition Right Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS6XZZ	Reposition Right Upper Femur, External Approach	Procedure	ICD-10-PCS
0QS704Z	Reposition Left Upper Femur with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS705Z	Reposition Left Upper Femur with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS706Z	Reposition Left Upper Femur with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS70BZ	Reposition Left Upper Femur with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS70CZ	Reposition Left Upper Femur with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS70DZ	Reposition Left Upper Femur with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS70ZZ	Reposition Left Upper Femur, Open Approach	Procedure	ICD-10-PCS
0QS734Z	Reposition Left Upper Femur with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS735Z	Reposition Left Upper Femur with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS736Z	Reposition Left Upper Femur with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS73BZ	Reposition Left Upper Femur with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS73CZ	Reposition Left Upper Femur with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS73DZ	Reposition Left Upper Femur with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS73ZZ	Reposition Left Upper Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QS744Z	Reposition Left Upper Femur with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QS745Z	Reposition Left Upper Femur with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS746Z	Reposition Left Upper Femur with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS74BZ	Reposition Left Upper Femur with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS74CZ	Reposition Left Upper Femur with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS74DZ	Reposition Left Upper Femur with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS74ZZ	Reposition Left Upper Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS7XZZ	Reposition Left Upper Femur, External Approach	Procedure	ICD-10-PCS
0QS804Z	Reposition Right Femoral Shaft with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS805Z	Reposition Right Femoral Shaft with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS806Z	Reposition Right Femoral Shaft with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS80BZ	Reposition Right Femoral Shaft with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS80CZ	Reposition Right Femoral Shaft with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS80DZ	Reposition Right Femoral Shaft with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS80ZZ	Reposition Right Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QS834Z	Reposition Right Femoral Shaft with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS835Z	Reposition Right Femoral Shaft with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS836Z	Reposition Right Femoral Shaft with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS83BZ	Reposition Right Femoral Shaft with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS83CZ	Reposition Right Femoral Shaft with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS83DZ	Reposition Right Femoral Shaft with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS83ZZ	Reposition Right Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QS844Z	Reposition Right Femoral Shaft with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS845Z	Reposition Right Femoral Shaft with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS846Z	Reposition Right Femoral Shaft with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS84BZ	Reposition Right Femoral Shaft with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS84CZ	Reposition Right Femoral Shaft with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS84DZ	Reposition Right Femoral Shaft with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS84ZZ	Reposition Right Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS8XZZ	Reposition Right Femoral Shaft, External Approach	Procedure	ICD-10-PCS
0QS904Z	Reposition Left Femoral Shaft with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QS905Z	Reposition Left Femoral Shaft with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS906Z	Reposition Left Femoral Shaft with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS90BZ	Reposition Left Femoral Shaft with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS90CZ	Reposition Left Femoral Shaft with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS90DZ	Reposition Left Femoral Shaft with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QS90ZZ	Reposition Left Femoral Shaft, Open Approach	Procedure	ICD-10-PCS
0QS934Z	Reposition Left Femoral Shaft with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS935Z	Reposition Left Femoral Shaft with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS936Z	Reposition Left Femoral Shaft with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS93BZ	Reposition Left Femoral Shaft with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS93CZ	Reposition Left Femoral Shaft with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS93DZ	Reposition Left Femoral Shaft with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QS93ZZ	Reposition Left Femoral Shaft, Percutaneous Approach	Procedure	ICD-10-PCS
0QS944Z	Reposition Left Femoral Shaft with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS945Z	Reposition Left Femoral Shaft with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS946Z	Reposition Left Femoral Shaft with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS94BZ	Reposition Left Femoral Shaft with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS94CZ	Reposition Left Femoral Shaft with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS94DZ	Reposition Left Femoral Shaft with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS94ZZ	Reposition Left Femoral Shaft, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QS9XZZ	Reposition Left Femoral Shaft, External Approach	Procedure	ICD-10-PCS
0QSB04Z	Reposition Right Lower Femur with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSB05Z	Reposition Right Lower Femur with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSB06Z	Reposition Right Lower Femur with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSB0BZ	Reposition Right Lower Femur with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSB0CZ	Reposition Right Lower Femur with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSB0DZ	Reposition Right Lower Femur with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSB0ZZ	Reposition Right Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QSB34Z	Reposition Right Lower Femur with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSB35Z	Reposition Right Lower Femur with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSB36Z	Reposition Right Lower Femur with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSB3BZ	Reposition Right Lower Femur with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSB3CZ	Reposition Right Lower Femur with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QSB3DZ	Reposition Right Lower Femur with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSB3ZZ	Reposition Right Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QSB44Z	Reposition Right Lower Femur with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSB45Z	Reposition Right Lower Femur with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSB46Z	Reposition Right Lower Femur with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSB4BZ	Reposition Right Lower Femur with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSB4CZ	Reposition Right Lower Femur with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSB4DZ	Reposition Right Lower Femur with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSB4ZZ	Reposition Right Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSBXZZ	Reposition Right Lower Femur, External Approach	Procedure	ICD-10-PCS
0QSC04Z	Reposition Left Lower Femur with Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSC05Z	Reposition Left Lower Femur with External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSC06Z	Reposition Left Lower Femur with Intramedullary Internal Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSC0BZ	Reposition Left Lower Femur with Monoplanar External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSC0CZ	Reposition Left Lower Femur with Ring External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSC0DZ	Reposition Left Lower Femur with Hybrid External Fixation Device, Open Approach	Procedure	ICD-10-PCS
0QSC0ZZ	Reposition Left Lower Femur, Open Approach	Procedure	ICD-10-PCS
0QSC34Z	Reposition Left Lower Femur with Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSC35Z	Reposition Left Lower Femur with External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSC36Z	Reposition Left Lower Femur with Intramedullary Internal Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSC3BZ	Reposition Left Lower Femur with Monoplanar External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSC3CZ	Reposition Left Lower Femur with Ring External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSC3DZ	Reposition Left Lower Femur with Hybrid External Fixation Device, Percutaneous Approach	Procedure	ICD-10-PCS
0QSC3ZZ	Reposition Left Lower Femur, Percutaneous Approach	Procedure	ICD-10-PCS
0QSC44Z	Reposition Left Lower Femur with Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSC45Z	Reposition Left Lower Femur with External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSC46Z	Reposition Left Lower Femur with Intramedullary Internal Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSC4BZ	Reposition Left Lower Femur with Monoplanar External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSC4CZ	Reposition Left Lower Femur with Ring External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
0QSC4DZ	Reposition Left Lower Femur with Hybrid External Fixation Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSC4ZZ	Reposition Left Lower Femur, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QSCXZZ	Reposition Left Lower Femur, External Approach	Procedure	ICD-10-PCS
0QU60JZ	Supplement Right Upper Femur with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QU63JZ	Supplement Right Upper Femur with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QU64JZ	Supplement Right Upper Femur with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QU70JZ	Supplement Left Upper Femur with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QU73JZ	Supplement Left Upper Femur with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QU74JZ	Supplement Left Upper Femur with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QU80JZ	Supplement Right Femoral Shaft with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QU83JZ	Supplement Right Femoral Shaft with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QU84JZ	Supplement Right Femoral Shaft with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QU90JZ	Supplement Left Femoral Shaft with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QU93JZ	Supplement Left Femoral Shaft with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QU94JZ	Supplement Left Femoral Shaft with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QUB0JZ	Supplement Right Lower Femur with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QUB3JZ	Supplement Right Lower Femur with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QUB4JZ	Supplement Right Lower Femur with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0QUC0JZ	Supplement Left Lower Femur with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0QUC3JZ	Supplement Left Lower Femur with Synthetic Substitute, Percutaneous Approach	Procedure	ICD-10-PCS
0QUC4JZ	Supplement Left Lower Femur with Synthetic Substitute, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0XH23YZ	Insertion of Other Device into Right Shoulder Region, Percutaneous Approach	Procedure	ICD-10-PCS
0XH33YZ	Insertion of Other Device into Left Shoulder Region, Percutaneous Approach	Procedure	ICD-10-PCS
R55	Syncope and collapse	Diagnosis	ICD-10-CM
Cardioversion			
99.61	Atrial cardioversion	Procedure	ICD-9-CM
99.62	Other electric countershock of heart	Procedure	ICD-9-CM
92960	External shock to heart to regulate heart beat	Procedure	CPT-4
92961	Internal shock to heart to regulate heart beat	Procedure	CPT-4
5A2204Z	Restoration of Cardiac Rhythm, Single	Procedure	ICD-10-PCS
Cardioablation			
37.33	Excision or destruction of other lesion or tissue of heart, open approach	Procedure	ICD-9-CM
37.34	Excision or destruction of other lesion or tissue of heart, other approach	Procedure	ICD-9-CM
33250	Operative ablation of supraventricular arrhythmogenic focus or pathway (eg, Wolff-Parkinson-White, atrioventricular node re-entry), tract(s) and/or focus (foci); without cardiopulmonary bypass	Procedure	CPT-4
33251	Operative ablation of supraventricular arrhythmogenic focus or pathway (eg, Wolff-Parkinson-White, atrioventricular node re-entry), tract(s) and/or focus (foci); with cardiopulmonary bypass	Procedure	CPT-4

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
33254	Operative tissue ablation and reconstruction of atria, limited (eg, modified maze procedure)	Procedure	CPT-4
33255	Operative tissue ablation and reconstruction of atria, extensive (eg, maze procedure); without cardiopulmonary bypass	Procedure	CPT-4
33256	Operative tissue ablation and reconstruction of atria, extensive (eg, maze procedure); with cardiopulmonary bypass	Procedure	CPT-4
33257	Operative tissue ablation and reconstruction of atria, performed at the time of other cardiac procedure(s), limited (eg, modified maze procedure) (List separately in addition to code for primary procedure)	Procedure	CPT-4
33258	Operative tissue ablation and reconstruction of atria, performed at the time of other cardiac procedure(s), extensive (eg, maze procedure), without cardiopulmonary bypass (List separately in addition to code for primary procedure)	Procedure	CPT-4
33259	Operative tissue ablation and reconstruction of atria, performed at the time of other cardiac procedure(s), extensive (eg, maze procedure), with cardiopulmonary bypass (List separately in addition to code for primary procedure)	Procedure	CPT-4
33261	Operative ablation of ventricular arrhythmogenic focus with cardiopulmonary bypass	Procedure	CPT-4
33265	Endoscopy, surgical; operative tissue ablation and reconstruction of atria, limited (eg, modified maze procedure), without cardiopulmonary bypass	Procedure	CPT-4
33266	Endoscopy, surgical; operative tissue ablation and reconstruction of atria, extensive (eg, maze procedure), without cardiopulmonary bypass	Procedure	CPT-4
93650	Intracardiac catheter ablation of atrioventricular node function, atrioventricular conduction for creation of complete heart block, with or without temporary pacemaker placement	Procedure	CPT-4
93651	Intracardiac catheter ablation of arrhythmogenic focus; for treatment of supraventricular tachycardia by ablation of fast or slow atrioventricular pathways, accessory atrioventricular connections or other atrial foci, singly or in combination	Procedure	CPT-4
93652	Intracardiac catheter ablation of arrhythmogenic focus; for treatment of ventricular tachycardia	Procedure	CPT-4
C1732	Catheter, electrophysiology, diagnostic/ablation, 3D or vector mapping	Procedure	HCPCS
C1733	Catheter, electrophysiology, diagnostic/ablation, other than 3D or vector mapping, other than cool-tip	Procedure	HCPCS
C2630	Catheter, electrophysiology, diagnostic/ablation, other than 3D or vector mapping, cool-tip	Procedure	HCPCS
02550ZZ	Destruction of Atrial Septum, Open Approach	Procedure	ICD-10-PCS
02553ZZ	Destruction of Atrial Septum, Percutaneous Approach	Procedure	ICD-10-PCS
02560ZZ	Destruction of Right Atrium, Open Approach	Procedure	ICD-10-PCS
02563ZZ	Destruction of Right Atrium, Percutaneous Approach	Procedure	ICD-10-PCS
02570ZZ	Destruction of Left Atrium, Open Approach	Procedure	ICD-10-PCS
02573ZZ	Destruction of Left Atrium, Percutaneous Approach	Procedure	ICD-10-PCS
02580ZZ	Destruction of Conduction Mechanism, Open Approach	Procedure	ICD-10-PCS
02583ZZ	Destruction of Conduction Mechanism, Percutaneous Approach	Procedure	ICD-10-PCS
02590ZZ	Destruction of Chordae Tendineae, Open Approach	Procedure	ICD-10-PCS
02593ZZ	Destruction of Chordae Tendineae, Percutaneous Approach	Procedure	ICD-10-PCS
025F0ZZ	Destruction of Aortic Valve, Open Approach	Procedure	ICD-10-PCS
025F3ZZ	Destruction of Aortic Valve, Percutaneous Approach	Procedure	ICD-10-PCS
025G0ZZ	Destruction of Mitral Valve, Open Approach	Procedure	ICD-10-PCS

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
025G3ZZ	Destruction of Mitral Valve, Percutaneous Approach	Procedure	ICD-10-PCS
025H0ZZ	Destruction of Pulmonary Valve, Open Approach	Procedure	ICD-10-PCS
025H3ZZ	Destruction of Pulmonary Valve, Percutaneous Approach	Procedure	ICD-10-PCS
025J0ZZ	Destruction of Tricuspid Valve, Open Approach	Procedure	ICD-10-PCS
025J3ZZ	Destruction of Tricuspid Valve, Percutaneous Approach	Procedure	ICD-10-PCS
025K0ZZ	Destruction of Right Ventricle, Open Approach	Procedure	ICD-10-PCS
025K3ZZ	Destruction of Right Ventricle, Percutaneous Approach	Procedure	ICD-10-PCS
025L0ZZ	Destruction of Left Ventricle, Open Approach	Procedure	ICD-10-PCS
025L3ZZ	Destruction of Left Ventricle, Percutaneous Approach	Procedure	ICD-10-PCS
025M0ZZ	Destruction of Ventricular Septum, Open Approach	Procedure	ICD-10-PCS
025M3ZZ	Destruction of Ventricular Septum, Percutaneous Approach	Procedure	ICD-10-PCS
02B50ZZ	Excision of Atrial Septum, Open Approach	Procedure	ICD-10-PCS
02B53ZZ	Excision of Atrial Septum, Percutaneous Approach	Procedure	ICD-10-PCS
02B60ZZ	Excision of Right Atrium, Open Approach	Procedure	ICD-10-PCS
02B63ZZ	Excision of Right Atrium, Percutaneous Approach	Procedure	ICD-10-PCS
02B70ZZ	Excision of Left Atrium, Open Approach	Procedure	ICD-10-PCS
02B73ZZ	Excision of Left Atrium, Percutaneous Approach	Procedure	ICD-10-PCS
02B80ZZ	Excision of Conduction Mechanism, Open Approach	Procedure	ICD-10-PCS
02B83ZZ	Excision of Conduction Mechanism, Percutaneous Approach	Procedure	ICD-10-PCS
02B90ZZ	Excision of Chordae Tendineae, Open Approach	Procedure	ICD-10-PCS
02B93ZZ	Excision of Chordae Tendineae, Percutaneous Approach	Procedure	ICD-10-PCS
02BF0ZZ	Excision of Aortic Valve, Open Approach	Procedure	ICD-10-PCS
02BF3ZZ	Excision of Aortic Valve, Percutaneous Approach	Procedure	ICD-10-PCS
02BG0ZZ	Excision of Mitral Valve, Open Approach	Procedure	ICD-10-PCS
02BG3ZZ	Excision of Mitral Valve, Percutaneous Approach	Procedure	ICD-10-PCS
02BH0ZZ	Excision of Pulmonary Valve, Open Approach	Procedure	ICD-10-PCS
02BH3ZZ	Excision of Pulmonary Valve, Percutaneous Approach	Procedure	ICD-10-PCS
02BJ0ZZ	Excision of Tricuspid Valve, Open Approach	Procedure	ICD-10-PCS
02BJ3ZZ	Excision of Tricuspid Valve, Percutaneous Approach	Procedure	ICD-10-PCS
02BK0ZZ	Excision of Right Ventricle, Open Approach	Procedure	ICD-10-PCS
02BK3ZZ	Excision of Right Ventricle, Percutaneous Approach	Procedure	ICD-10-PCS
02BL0ZZ	Excision of Left Ventricle, Open Approach	Procedure	ICD-10-PCS
02BL3ZZ	Excision of Left Ventricle, Percutaneous Approach	Procedure	ICD-10-PCS
02BM0ZZ	Excision of Ventricular Septum, Open Approach	Procedure	ICD-10-PCS
02BM3ZZ	Excision of Ventricular Septum, Percutaneous Approach	Procedure	ICD-10-PCS
02T80ZZ	Resection of Conduction Mechanism, Open Approach	Procedure	ICD-10-PCS
02T83ZZ	Resection of Conduction Mechanism, Percutaneous Approach	Procedure	ICD-10-PCS
C2618	Probe/needle, cryoablation	Procedure	HCPCS
Hospitalized for bleeding			
280.0	Iron deficiency anemia secondary to blood loss (chronic)	Diagnosis	ICD-9-CM
285.1	Acute posthemorrhagic anemia	Diagnosis	ICD-9-CM
285.9	Unspecified anemia	Diagnosis	ICD-9-CM
423.0	Hemopericardium	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
430	Subarachnoid hemorrhage	Diagnosis	ICD-9-CM
431	Intracerebral hemorrhage	Diagnosis	ICD-9-CM
432.0	Nontraumatic extradural hemorrhage	Diagnosis	ICD-9-CM
432.1	Subdural hemorrhage	Diagnosis	ICD-9-CM
432.9	Unspecified intracranial hemorrhage	Diagnosis	ICD-9-CM
455	Hemorrhoids	Diagnosis	ICD-9-CM
455.0	Internal hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.1	Internal thrombosed hemorrhoids	Diagnosis	ICD-9-CM
455.2	Internal hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.3	External hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.4	External thrombosed hemorrhoids	Diagnosis	ICD-9-CM
455.5	External hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.6	Unspecified hemorrhoids without mention of complication	Diagnosis	ICD-9-CM
455.7	Unspecified thrombosed hemorrhoids	Diagnosis	ICD-9-CM
455.8	Unspecified hemorrhoids with other complication	Diagnosis	ICD-9-CM
455.9	Residual hemorrhoidal skin tags	Diagnosis	ICD-9-CM
456.0	Esophageal varices with bleeding	Diagnosis	ICD-9-CM
456.20	Esophageal varices with bleeding in diseases classified elsewhere	Diagnosis	ICD-9-CM
459.0	Unspecified hemorrhage	Diagnosis	ICD-9-CM
530.1	Esophagitis	Diagnosis	ICD-9-CM
530.10	Unspecified esophagitis	Diagnosis	ICD-9-CM
530.11	Reflux esophagitis	Diagnosis	ICD-9-CM
530.12	Acute esophagitis	Diagnosis	ICD-9-CM
530.13	Eosinophilic esophagitis	Diagnosis	ICD-9-CM
530.19	Other esophagitis	Diagnosis	ICD-9-CM
530.7	Gastroesophageal laceration-hemorrhage syndrome	Diagnosis	ICD-9-CM
530.82	Esophageal hemorrhage	Diagnosis	ICD-9-CM
531.0	Acute gastric ulcer with hemorrhage	Diagnosis	ICD-9-CM
531.00	Acute gastric ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
531.01	Acute gastric ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
531.1	Acute gastric ulcer with perforation	Diagnosis	ICD-9-CM
531.10	Acute gastric ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.11	Acute gastric ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
531.2	Acute gastric ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
531.20	Acute gastric ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.21	Acute gastric ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
531.3	Acute gastric ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
531.30	Acute gastric ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
531.31	Acute gastric ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
531.4	Chronic or unspecified gastric ulcer with hemorrhage	Diagnosis	ICD-9-CM
531.40	Chronic or unspecified gastric ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
531.41	Chronic or unspecified gastric ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
531.5	Chronic or unspecified gastric ulcer with perforation	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
531.50	Chronic or unspecified gastric ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.51	Chronic or unspecified gastric ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
531.6	Chronic or unspecified gastric ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
531.60	Chronic or unspecified gastric ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.61	Chronic or unspecified gastric ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
531.7	Chronic gastric ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
531.70	Chronic gastric ulcer without mention of hemorrhage, perforation, without mention of obstruction	Diagnosis	ICD-9-CM
531.71	Chronic gastric ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
531.9	Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage or	Diagnosis	ICD-9-CM
531.90	Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
531.91	Gastric ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
532.0	Acute duodenal ulcer with hemorrhage	Diagnosis	ICD-9-CM
532.00	Acute duodenal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
532.01	Acute duodenal ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
532.1	Acute duodenal ulcer with perforation	Diagnosis	ICD-9-CM
532.10	Acute duodenal ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.11	Acute duodenal ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
532.2	Acute duodenal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
532.20	Acute duodenal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.21	Acute duodenal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
532.3	Acute duodenal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.30	Acute duodenal ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
532.31	Acute duodenal ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
532.4	Chronic or unspecified duodenal ulcer with hemorrhage	Diagnosis	ICD-9-CM
532.40	Duodenal ulcer, chronic or unspecified, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
532.41	Chronic or unspecified duodenal ulcer with hemorrhage and obstruction	Diagnosis	ICD-9-CM
532.5	Chronic or unspecified duodenal ulcer with perforation	Diagnosis	ICD-9-CM
532.50	Chronic or unspecified duodenal ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.51	Chronic or unspecified duodenal ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
532.6	Chronic or unspecified duodenal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
532.60	Chronic or unspecified duodenal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
532.61	Chronic or unspecified duodenal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
532.7	Chronic duodenal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
532.70	Chronic duodenal ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
532.71	Chronic duodenal ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
532.9	Duodenal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
532.90	Duodenal ulcer, unspecified as acute or chronic, without hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
532.91	Duodenal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
533.0	Acute peptic ulcer, unspecified site, with hemorrhage	Diagnosis	ICD-9-CM
533.00	Acute peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
533.01	Acute peptic ulcer, unspecified site, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
533.1	Acute peptic ulcer, unspecified site, with perforation	Diagnosis	ICD-9-CM
533.10	Acute peptic ulcer, unspecified site, with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.11	Acute peptic ulcer, unspecified site, with perforation and obstruction	Diagnosis	ICD-9-CM
533.2	Acute peptic ulcer, unspecified site, with hemorrhage and perforation	Diagnosis	ICD-9-CM
533.20	Acute peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.21	Acute peptic ulcer, unspecified site, with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
533.3	Acute peptic ulcer, unspecified site, without mention of hemorrhage and perforation	Diagnosis	ICD-9-CM
533.30	Acute peptic ulcer, unspecified site, without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
533.31	Acute peptic ulcer, unspecified site, without mention of hemorrhage and perforation, with obstruction	Diagnosis	ICD-9-CM
533.4	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage	Diagnosis	ICD-9-CM
533.40	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
533.41	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
533.5	Chronic or unspecified peptic ulcer, unspecified site, with perforation	Diagnosis	ICD-9-CM
533.50	Chronic or unspecified peptic ulcer, unspecified site, with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.51	Chronic or unspecified peptic ulcer, unspecified site, with perforation and obstruction	Diagnosis	ICD-9-CM
533.6	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and perforation	Diagnosis	ICD-9-CM
533.60	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
533.61	Chronic or unspecified peptic ulcer, unspecified site, with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
533.7	Chronic peptic ulcer, unspecified site, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
533.70	Chronic peptic ulcer, unspecified site, without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
533.71	Chronic peptic ulcer of unspecified site without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
533.9	Peptic ulcer, unspecified site, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
533.90	Peptic ulcer, unspecified site, unspecified as acute or chronic, without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
533.91	Peptic ulcer, unspecified site, unspecified as acute or chronic, without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code	
		Category	Code Type
534.0	Acute gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-9-CM
534.00	Acute gastrojejunal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
534.01	Acute gastrojejunal ulcer, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
534.1	Acute gastrojejunal ulcer with perforation	Diagnosis	ICD-9-CM
534.10	Acute gastrojejunal ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.11	Acute gastrojejunal ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
534.2	Acute gastrojejunal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
534.20	Acute gastrojejunal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.21	Acute gastrojejunal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
534.3	Acute gastrojejunal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.30	Acute gastrojejunal ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
534.31	Acute gastrojejunal ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
534.4	Chronic or unspecified gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-9-CM
534.40	Chronic or unspecified gastrojejunal ulcer with hemorrhage, without mention of obstruction	Diagnosis	ICD-9-CM
534.41	Chronic or unspecified gastrojejunal ulcer, with hemorrhage and obstruction	Diagnosis	ICD-9-CM
534.5	Chronic or unspecified gastrojejunal ulcer with perforation	Diagnosis	ICD-9-CM
534.50	Chronic or unspecified gastrojejunal ulcer with perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.51	Chronic or unspecified gastrojejunal ulcer with perforation and obstruction	Diagnosis	ICD-9-CM
534.6	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation	Diagnosis	ICD-9-CM
534.60	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation, without mention of obstruction	Diagnosis	ICD-9-CM
534.61	Chronic or unspecified gastrojejunal ulcer with hemorrhage, perforation, and obstruction	Diagnosis	ICD-9-CM
534.7	Chronic gastrojejunal ulcer without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.70	Chronic gastrojejunal ulcer without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
534.71	Chronic gastrojejunal ulcer without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
534.9	Gastrojejunal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation	Diagnosis	ICD-9-CM
534.90	Gastrojejunal ulcer, unspecified as acute or chronic, without mention of hemorrhage, perforation, or obstruction	Diagnosis	ICD-9-CM
534.91	Gastrojejunal ulcer, unspecified as acute or chronic, without mention of hemorrhage or perforation, with obstruction	Diagnosis	ICD-9-CM
535.00	Acute gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.01	Acute gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.10	Atrophic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.11	Atrophic gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.20	Gastric mucosal hypertrophy without mention of hemorrhage	Diagnosis	ICD-9-CM
535.21	Gastric mucosal hypertrophy with hemorrhage	Diagnosis	ICD-9-CM
535.30	Alcoholic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.31	Alcoholic gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.40	Other specified gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.41	Other specified gastritis with hemorrhage	Diagnosis	ICD-9-CM
535.50	Unspecified gastritis and gastroduodenitis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.51	Unspecified gastritis and gastroduodenitis with hemorrhage	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
535.60	Duodenitis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.61	Duodenitis with hemorrhage	Diagnosis	ICD-9-CM
537.83	Angiodysplasia of stomach and duodenum with hemorrhage	Diagnosis	ICD-9-CM
562.00	Diverticulosis of small intestine (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.01	Diverticulitis of small intestine (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.02	Diverticulosis of small intestine with hemorrhage	Diagnosis	ICD-9-CM
562.03	Diverticulitis of small intestine with hemorrhage	Diagnosis	ICD-9-CM
562.10	Diverticulosis of colon (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.11	Diverticulitis of colon (without mention of hemorrhage)	Diagnosis	ICD-9-CM
562.12	Diverticulosis of colon with hemorrhage	Diagnosis	ICD-9-CM
562.13	Diverticulitis of colon with hemorrhage	Diagnosis	ICD-9-CM
568.81	Hemoperitoneum (nontraumatic)	Diagnosis	ICD-9-CM
569.3	Hemorrhage of rectum and anus	Diagnosis	ICD-9-CM
569.85	Angiodysplasia of intestine with hemorrhage	Diagnosis	ICD-9-CM
578.0	Hematemesis	Diagnosis	ICD-9-CM
578.1	Blood in stool	Diagnosis	ICD-9-CM
578.9	Hemorrhage of gastrointestinal tract, unspecified	Diagnosis	ICD-9-CM
593.81	Vascular disorders of kidney	Diagnosis	ICD-9-CM
599.7	Hematuria	Diagnosis	ICD-9-CM
599.70	Hematuria, unspecified	Diagnosis	ICD-9-CM
599.71	Gross hematuria	Diagnosis	ICD-9-CM
599.72	Microscopic hematuria	Diagnosis	ICD-9-CM
623.8	Other specified noninflammatory disorder of vagina	Diagnosis	ICD-9-CM
626.2	Excessive or frequent menstruation	Diagnosis	ICD-9-CM
626.6	Metrorrhagia	Diagnosis	ICD-9-CM
719.1	Hemarthrosis	Diagnosis	ICD-9-CM
719.10	Hemarthrosis, site unspecified	Diagnosis	ICD-9-CM
719.11	Hemarthrosis, shoulder region	Diagnosis	ICD-9-CM
719.12	Hemarthrosis, upper arm	Diagnosis	ICD-9-CM
719.13	Hemarthrosis, forearm	Diagnosis	ICD-9-CM
719.14	Hemarthrosis, hand	Diagnosis	ICD-9-CM
719.15	Hemarthrosis, pelvic region and thigh	Diagnosis	ICD-9-CM
719.16	Hemarthrosis, lower leg	Diagnosis	ICD-9-CM
719.17	Hemarthrosis, ankle and foot	Diagnosis	ICD-9-CM
719.18	Hemarthrosis, other specified site	Diagnosis	ICD-9-CM
719.19	Hemarthrosis, multiple sites	Diagnosis	ICD-9-CM
784.7	Epistaxis	Diagnosis	ICD-9-CM
784.8	Hemorrhage from throat	Diagnosis	ICD-9-CM
786.3	Hemoptysis	Diagnosis	ICD-9-CM
790.92	Abnormal coagulation profile	Diagnosis	ICD-9-CM
852.0	Subarachnoid hemorrhage following injury without mention of open intracranial wound	Diagnosis	ICD-9-CM
852.00	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, unspecified state of consciousness	Diagnosis	ICD-9-CM

Appendix H. List of Healthcare Common Procedure Coding System (HCPCS) Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, International Classification of Diseases, Tenth Revision (ICD-10-PCS), Procedure Codes, International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes, Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
852.01	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, no loss of consciousness	Diagnosis	ICD-9-CM
852.02	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, brief (less than 1 hour) loss of consciousness	Diagnosis	ICD-9-CM
852.03	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
852.04	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.05	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.06	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
852.09	Subarachnoid hemorrhage following injury, without mention of open intracranial wound, unspecified concussion	Diagnosis	ICD-9-CM
852.2	Subdural hemorrhage following injury without mention of open intracranial wound	Diagnosis	ICD-9-CM
852.20	Subdural hemorrhage following injury, without mention of open intracranial wound, unspecified state of consciousness	Diagnosis	ICD-9-CM
852.21	Subdural hemorrhage following injury, without mention of open intracranial wound, no loss of consciousness	Diagnosis	ICD-9-CM
852.22	Subdural hemorrhage following injury, without mention of open intracranial wound, brief (less than one hour) loss of consciousness	Diagnosis	ICD-9-CM
852.23	Subdural hemorrhage following injury, without mention of open intracranial wound, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
852.24	Subdural hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.25	Subdural hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.26	Subdural hemorrhage following injury, without mention of open intracranial wound, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
852.29	Subdural hemorrhage following injury, without mention of open intracranial wound, unspecified concussion	Diagnosis	ICD-9-CM
852.4	Extradural hemorrhage following injury without mention of open intracranial wound	Diagnosis	ICD-9-CM
852.40	Extradural hemorrhage following injury, without mention of open intracranial wound, unspecified state of consciousness	Diagnosis	ICD-9-CM
852.41	Extradural hemorrhage following injury, without mention of open intracranial wound, no loss of consciousness	Diagnosis	ICD-9-CM
852.42	Extradural hemorrhage following injury, without mention of open intracranial wound, brief (less than 1 hour) loss of consciousness	Diagnosis	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
852.43	Extradural hemorrhage following injury, without mention of open intracranial wound, moderate (1-24 hours) loss of consciousness	Diagnosis	ICD-9-CM
852.44	Extradural hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness and return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.45	Extradural hemorrhage following injury, without mention of open intracranial wound, prolonged (more than 24 hours) loss of consciousness, without return to pre-existing conscious level	Diagnosis	ICD-9-CM
852.46	Extradural hemorrhage following injury, without mention of open intracranial wound, loss of consciousness of unspecified duration	Diagnosis	ICD-9-CM
852.49	Extradural hemorrhage following injury, without mention of open intracranial wound, unspecified concussion	Diagnosis	ICD-9-CM
853.0	Other and unspecified intracranial hemorrhage following injury, without mention of open intracranial wound	Diagnosis	ICD-9-CM
D50.0	Iron deficiency anemia secondary to blood loss (chronic)	Diagnosis	ICD-10-CM
D62	Acute posthemorrhagic anemia	Diagnosis	ICD-10-CM
D64.9	Anemia, unspecified	Diagnosis	ICD-10-CM
I31.2	Hemopericardium, not elsewhere classified	Diagnosis	ICD-10-CM
I60.00	Nontraumatic subarachnoid hemorrhage from unspecified carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.01	Nontraumatic subarachnoid hemorrhage from right carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.02	Nontraumatic subarachnoid hemorrhage from left carotid siphon and bifurcation	Diagnosis	ICD-10-CM
I60.10	Nontraumatic subarachnoid hemorrhage from unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I60.11	Nontraumatic subarachnoid hemorrhage from right middle cerebral artery	Diagnosis	ICD-10-CM
I60.12	Nontraumatic subarachnoid hemorrhage from left middle cerebral artery	Diagnosis	ICD-10-CM
I60.2	Nontraumatic subarachnoid hemorrhage from anterior communicating artery	Diagnosis	ICD-10-CM
I60.30	Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery	Diagnosis	ICD-10-CM
I60.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery	Diagnosis	ICD-10-CM
I60.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery	Diagnosis	ICD-10-CM
I60.4	Nontraumatic subarachnoid hemorrhage from basilar artery	Diagnosis	ICD-10-CM
I60.50	Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery	Diagnosis	ICD-10-CM
I60.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery	Diagnosis	ICD-10-CM
I60.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery	Diagnosis	ICD-10-CM
I60.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries	Diagnosis	ICD-10-CM
I60.7	Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery	Diagnosis	ICD-10-CM
I60.8	Other nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I60.9	Nontraumatic subarachnoid hemorrhage, unspecified	Diagnosis	ICD-10-CM
I61.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical	Diagnosis	ICD-10-CM
I61.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical	Diagnosis	ICD-10-CM
I61.2	Nontraumatic intracerebral hemorrhage in hemisphere, unspecified	Diagnosis	ICD-10-CM
I61.3	Nontraumatic intracerebral hemorrhage in brain stem	Diagnosis	ICD-10-CM
I61.4	Nontraumatic intracerebral hemorrhage in cerebellum	Diagnosis	ICD-10-CM
I61.5	Nontraumatic intracerebral hemorrhage, intraventricular	Diagnosis	ICD-10-CM
I61.6	Nontraumatic intracerebral hemorrhage, multiple localized	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
I61.8	Other nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I61.9	Nontraumatic intracerebral hemorrhage, unspecified	Diagnosis	ICD-10-CM
I62.00	Nontraumatic subdural hemorrhage, unspecified	Diagnosis	ICD-10-CM
I62.01	Nontraumatic acute subdural hemorrhage	Diagnosis	ICD-10-CM
I62.02	Nontraumatic subacute subdural hemorrhage	Diagnosis	ICD-10-CM
I62.03	Nontraumatic chronic subdural hemorrhage	Diagnosis	ICD-10-CM
I62.1	Nontraumatic extradural hemorrhage	Diagnosis	ICD-10-CM
I62.9	Nontraumatic intracranial hemorrhage, unspecified	Diagnosis	ICD-10-CM
I85.01	Esophageal varices with bleeding	Diagnosis	ICD-10-CM
I85.11	Secondary esophageal varices with bleeding	Diagnosis	ICD-10-CM
K20.0	Eosinophilic esophagitis	Diagnosis	ICD-10-CM
K20.8	Other esophagitis	Diagnosis	ICD-10-CM
K20.9	Esophagitis, unspecified	Diagnosis	ICD-10-CM
K21.0	Gastro-esophageal reflux disease with esophagitis	Diagnosis	ICD-10-CM
K22.6	Gastro-esophageal laceration-hemorrhage syndrome	Diagnosis	ICD-10-CM
K22.8	Other specified diseases of esophagus	Diagnosis	ICD-10-CM
K25.0	Acute gastric ulcer with hemorrhage	Diagnosis	ICD-10-CM
K25.1	Acute gastric ulcer with perforation	Diagnosis	ICD-10-CM
K25.2	Acute gastric ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K25.3	Acute gastric ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K25.4	Chronic or unspecified gastric ulcer with hemorrhage	Diagnosis	ICD-10-CM
K25.5	Chronic or unspecified gastric ulcer with perforation	Diagnosis	ICD-10-CM
K25.6	Chronic or unspecified gastric ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K25.7	Chronic gastric ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K25.9	Gastric ulcer, unspecified as acute or chronic, without hemorrhage or perforation	Diagnosis	ICD-10-CM
K26.0	Acute duodenal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K26.1	Acute duodenal ulcer with perforation	Diagnosis	ICD-10-CM
K26.2	Acute duodenal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K26.3	Acute duodenal ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K26.4	Chronic or unspecified duodenal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K26.5	Chronic or unspecified duodenal ulcer with perforation	Diagnosis	ICD-10-CM
K26.6	Chronic or unspecified duodenal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K26.7	Chronic duodenal ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K26.9	Duodenal ulcer, unspecified as acute or chronic, without hemorrhage or perforation	Diagnosis	ICD-10-CM
K27.0	Acute peptic ulcer, site unspecified, with hemorrhage	Diagnosis	ICD-10-CM
K27.1	Acute peptic ulcer, site unspecified, with perforation	Diagnosis	ICD-10-CM
K27.2	Acute peptic ulcer, site unspecified, with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K27.3	Acute peptic ulcer, site unspecified, without hemorrhage or perforation	Diagnosis	ICD-10-CM
K27.4	Chronic or unspecified peptic ulcer, site unspecified, with hemorrhage	Diagnosis	ICD-10-CM
K27.5	Chronic or unspecified peptic ulcer, site unspecified, with perforation	Diagnosis	ICD-10-CM
K27.6	Chronic or unspecified peptic ulcer, site unspecified, with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K27.7	Chronic peptic ulcer, site unspecified, without hemorrhage or perforation	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
K27.9	Peptic ulcer, site unspecified, unspecified as acute or chronic, without hemorrhage or perforation	Diagnosis	ICD-10-CM
K28.0	Acute gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K28.1	Acute gastrojejunal ulcer with perforation	Diagnosis	ICD-10-CM
K28.2	Acute gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K28.3	Acute gastrojejunal ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K28.4	Chronic or unspecified gastrojejunal ulcer with hemorrhage	Diagnosis	ICD-10-CM
K28.5	Chronic or unspecified gastrojejunal ulcer with perforation	Diagnosis	ICD-10-CM
K28.6	Chronic or unspecified gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K28.7	Chronic gastrojejunal ulcer without hemorrhage or perforation	Diagnosis	ICD-10-CM
K28.9	Gastrojejunal ulcer, unspecified as acute or chronic, without hemorrhage or perforation	Diagnosis	ICD-10-CM
K29.00	Acute gastritis without bleeding	Diagnosis	ICD-10-CM
K29.01	Acute gastritis with bleeding	Diagnosis	ICD-10-CM
K29.20	Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.21	Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.30	Chronic superficial gastritis without bleeding	Diagnosis	ICD-10-CM
K29.31	Chronic superficial gastritis with bleeding	Diagnosis	ICD-10-CM
K29.40	Chronic atrophic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.41	Chronic atrophic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.50	Unspecified chronic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.51	Unspecified chronic gastritis with bleeding	Diagnosis	ICD-10-CM
K29.60	Other gastritis without bleeding	Diagnosis	ICD-10-CM
K29.61	Other gastritis with bleeding	Diagnosis	ICD-10-CM
K29.70	Gastritis, unspecified, without bleeding	Diagnosis	ICD-10-CM
K29.71	Gastritis, unspecified, with bleeding	Diagnosis	ICD-10-CM
K29.80	Duodenitis without bleeding	Diagnosis	ICD-10-CM
K29.81	Duodenitis with bleeding	Diagnosis	ICD-10-CM
K29.90	Gastroduodenitis, unspecified, without bleeding	Diagnosis	ICD-10-CM
K29.91	Gastroduodenitis, unspecified, with bleeding	Diagnosis	ICD-10-CM
K31.811	Angiodysplasia of stomach and duodenum with bleeding	Diagnosis	ICD-10-CM
K55.21	Angiodysplasia of colon with hemorrhage	Diagnosis	ICD-10-CM
K56.699	Other intestinal obstruction unspecified as to partial versus complete obstruction	Diagnosis	ICD-10-CM
K57.00	Diverticulitis of small intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.01	Diverticulitis of small intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.10	Diverticulosis of small intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.11	Diverticulosis of small intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.12	Diverticulitis of small intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.13	Diverticulitis of small intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.20	Diverticulitis of large intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.21	Diverticulitis of large intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.30	Diverticulosis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.31	Diverticulosis of large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.32	Diverticulitis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
K57.33	Diverticulitis of large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.40	Diverticulitis of both small and large intestine with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.41	Diverticulitis of both small and large intestine with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.50	Diverticulosis of both small and large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.51	Diverticulosis of both small and large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.52	Diverticulitis of both small and large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.53	Diverticulitis of both small and large intestine without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.80	Diverticulitis of intestine, part unspecified, with perforation and abscess without bleeding	Diagnosis	ICD-10-CM
K57.81	Diverticulitis of intestine, part unspecified, with perforation and abscess with bleeding	Diagnosis	ICD-10-CM
K57.90	Diverticulosis of intestine, part unspecified, without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.91	Diverticulosis of intestine, part unspecified, without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K57.92	Diverticulitis of intestine, part unspecified, without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
K57.93	Diverticulitis of intestine, part unspecified, without perforation or abscess with bleeding	Diagnosis	ICD-10-CM
K62.5	Hemorrhage of anus and rectum	Diagnosis	ICD-10-CM
K64.0	First degree hemorrhoids	Diagnosis	ICD-10-CM
K64.1	Second degree hemorrhoids	Diagnosis	ICD-10-CM
K64.2	Third degree hemorrhoids	Diagnosis	ICD-10-CM
K64.3	Fourth degree hemorrhoids	Diagnosis	ICD-10-CM
K64.4	Residual hemorrhoidal skin tags	Diagnosis	ICD-10-CM
K64.5	Perianal venous thrombosis	Diagnosis	ICD-10-CM
K64.8	Other hemorrhoids	Diagnosis	ICD-10-CM
K64.9	Unspecified hemorrhoids	Diagnosis	ICD-10-CM
K66.1	Hemoperitoneum	Diagnosis	ICD-10-CM
K92.0	Hematemesis	Diagnosis	ICD-10-CM
K92.1	Melena	Diagnosis	ICD-10-CM
K92.2	Gastrointestinal hemorrhage, unspecified	Diagnosis	ICD-10-CM
M25.00	Hemarthrosis, unspecified joint	Diagnosis	ICD-10-CM
M25.011	Hemarthrosis, right shoulder	Diagnosis	ICD-10-CM
M25.012	Hemarthrosis, left shoulder	Diagnosis	ICD-10-CM
M25.019	Hemarthrosis, unspecified shoulder	Diagnosis	ICD-10-CM
M25.021	Hemarthrosis, right elbow	Diagnosis	ICD-10-CM
M25.022	Hemarthrosis, left elbow	Diagnosis	ICD-10-CM
M25.029	Hemarthrosis, unspecified elbow	Diagnosis	ICD-10-CM
M25.031	Hemarthrosis, right wrist	Diagnosis	ICD-10-CM
M25.032	Hemarthrosis, left wrist	Diagnosis	ICD-10-CM
M25.039	Hemarthrosis, unspecified wrist	Diagnosis	ICD-10-CM
M25.041	Hemarthrosis, right hand	Diagnosis	ICD-10-CM
M25.042	Hemarthrosis, left hand	Diagnosis	ICD-10-CM
M25.049	Hemarthrosis, unspecified hand	Diagnosis	ICD-10-CM
M25.051	Hemarthrosis, right hip	Diagnosis	ICD-10-CM
M25.052	Hemarthrosis, left hip	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
M25.059	Hemarthrosis, unspecified hip	Diagnosis	ICD-10-CM
M25.061	Hemarthrosis, right knee	Diagnosis	ICD-10-CM
M25.062	Hemarthrosis, left knee	Diagnosis	ICD-10-CM
M25.069	Hemarthrosis, unspecified knee	Diagnosis	ICD-10-CM
M25.071	Hemarthrosis, right ankle	Diagnosis	ICD-10-CM
M25.072	Hemarthrosis, left ankle	Diagnosis	ICD-10-CM
M25.073	Hemarthrosis, unspecified ankle	Diagnosis	ICD-10-CM
M25.074	Hemarthrosis, right foot	Diagnosis	ICD-10-CM
M25.075	Hemarthrosis, left foot	Diagnosis	ICD-10-CM
M25.076	Hemarthrosis, unspecified foot	Diagnosis	ICD-10-CM
M25.08	Hemarthrosis, other specified site	Diagnosis	ICD-10-CM
N28.0	Ischemia and infarction of kidney	Diagnosis	ICD-10-CM
N89.8	Other specified noninflammatory disorders of vagina	Diagnosis	ICD-10-CM
N92.0	Excessive and frequent menstruation with regular cycle	Diagnosis	ICD-10-CM
N92.1	Excessive and frequent menstruation with irregular cycle	Diagnosis	ICD-10-CM
R04.0	Epistaxis	Diagnosis	ICD-10-CM
R04.1	Hemorrhage from throat	Diagnosis	ICD-10-CM
R31.0	Gross hematuria	Diagnosis	ICD-10-CM
R31.1	Benign essential microscopic hematuria	Diagnosis	ICD-10-CM
R31.21	Asymptomatic microscopic hematuria	Diagnosis	ICD-10-CM
R31.29	Other microscopic hematuria	Diagnosis	ICD-10-CM
R31.9	Hematuria, unspecified	Diagnosis	ICD-10-CM
R58	Hemorrhage, not elsewhere classified	Diagnosis	ICD-10-CM
R79.1	Abnormal coagulation profile	Diagnosis	ICD-10-CM
S06.4X0A	Epidural hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X1A	Epidural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.4X2A	Epidural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.4X3A	Epidural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.4X4A	Epidural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.4X5A	Epidural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.4X6A	Epidural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.4X7A	Epidural hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X8A	Epidural hemorrhage with loss of consciousness of any duration with death due to other causes prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.4X9A	Epidural hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.5X0A	Traumatic subdural hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X1A	Traumatic subdural hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code	
		Category	Code Type
S06.5X2A	Traumatic subdural hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.5X3A	Traumatic subdural hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.5X4A	Traumatic subdural hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.5X5A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.5X6A	Traumatic subdural hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.5X7A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to brain injury before regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X8A	Traumatic subdural hemorrhage with loss of consciousness of any duration with death due to other cause before regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.5X9A	Traumatic subdural hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.6X0A	Traumatic subarachnoid hemorrhage without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.6X1A	Traumatic subarachnoid hemorrhage with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.6X2A	Traumatic subarachnoid hemorrhage with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.6X3A	Traumatic subarachnoid hemorrhage with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.6X4A	Traumatic subarachnoid hemorrhage with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.6X5A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.6X6A	Traumatic subarachnoid hemorrhage with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.6X7A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.6X8A	Traumatic subarachnoid hemorrhage with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.6X9A	Traumatic subarachnoid hemorrhage with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM

Appendix I. Evaluation Windows Used to Define Baseline Characteristics in this Request

Characteristic	Evaluation Window	Care Settings
KEY: Highlighted = Table 1, not in Propensity Score (PS)		
Age (continuous)	Index date	
Age-group		
21-49	Index date	
50-64	Index date	
Sex		
Female	Index date	
Male	Index date	
Other	Index date	
Race/ethnicity		
American Indian or Alaska Native	Index date	
Asian	Index date	
Black or African American	Index date	
Native Hawaiian or Other Pacific Islander	Index date	
White	Index date	
Unknown	Index date	
Year		
2010	Index date	
2011	Index date	
2012	Index date	
2013	Index date	
2014	Index date	
2015	Index date	
2016	Index date	
2017	Index date	
2018	Index date	
2019	Index date	
2020	Index date	
2021	Index date	
Medical comorbidities		
Diabetes	-183 to 0	Any
Hypercholesterolemia	-183 to 0	Any
Hypertension	-183 to 0	Any
Kidney failure - Chronic	-183 to 0	Any
Kidney failure - Acute	-183 to 0	Any
Obesity	-183 to 0	Any
Peptic ulcer disease	-183 to 0	Any
Nicotine dependency	-183 to 0	IPP or IPS
Hospitalized AMI (past 0-30 days)	-30 to 0	IPP or IPS
Hospitalized AMI (past 31-183 days)	-183 to -31	Any
Coronary revascularization	-183 to 0	IP* or ED*
Hospitalized heart failure	-183 to 0	AV* or OA*
Outpatient heart failure	-183 to 0	Any
Other ischemic heart disease	-183 to 0	IPP
Hospitalized stroke (past 0-30 days)	-30 to 0	IPP
Hospitalized stroke (past 31-183 days)	-183 to -31	Any
Transient ischemic attack	-183 to 0	Any
Other medical conditions (falls, fractures, syncope, walker use)e, walker use)	-183 to 0	Any

Appendix I. Evaluation Windows Used to Define Baseline Characteristics in this Request

Characteristic	Evaluation Window	Care Settings
Cardioversion	-183 to 0	Any
Cardioablation	-183 to 0	IPP
Hospitalized for bleeding	-183 to 0	
Medication use		-
Estrogen replacement	-183 to 0	-
H2-antagonist	-183 to 0	-
NSAIDs	-183 to 0	-
Proton pump inhibitors	-183 to 0	-
SSRI antidepressants	-183 to 0	-
Insulin	-183 to 0	-
Metformin (Biguanide)	-183 to 0	-
Sulfonylureas	-183 to 0	-
Other Diabetes Medications	-183 to 0	-
ACEI/ARB	-183 to 0	-
Antiarrhythmics	-183 to 0	-
Anti-coagulant (injectable)	-183 to 0	-
Anti-platelets	-183 to 0	-
Beta-blockers	-183 to 0	-
Calcium channel blockers	-183 to 0	-
Digoxin	-183 to 0	-
Diuretics - Loop	-183 to 0	-
Diuretics - Potassium sparing	-183 to 0	-
Diuretics - Thiazide	-183 to 0	-
Nitrates	-183 to 0	-
Statins	-183 to 0	-
Fibrates	-183 to 0	-
Amiodarone	-183 to 0	-
Dronedarone	-183 to 0	
CHA₂DS₂-VASc score (continuous)	-183 to 0	
CHA₂DS₂-VASc score (categorical)		-
0	-183 to 0	-
1	-183 to 0	-
2	-183 to 0	-
3	-183 to 0	-
4	-183 to 0	-
5+	-183 to 0	-
HAS-BLED score (continuous)	-183 to 0	
HAS-BLED score (categorical)		-
0	-183 to 0	-
1	-183 to 0	-
2	-183 to 0	-
3+	-183 to 0	-
Health care utilization		IP*
Number of inpatient hospital stays	-183 to 0	AV*
Number of ambulatory visits	-183 to 0	
Number of emergency room encounters		ED*
0 visit	-30 to 0	ED*
At least 1 visit	-30 to 0	ED*

Appendix I. Evaluation Windows Used to Define Baseline Characteristics in this Request

Characteristic	Evaluation Window	Care Settings
2+ visits	-30 to 0	
Number of emergency room encounters		ED*
0 visit	-183 to -31	ED*
At least 1 visit	-183 to -31	ED*
2+ visits	-183 to -31	-
Number of unique generics dispensed	-183 to 0	

Appendix J. Specifications Defining Parameters for this Request

The Center for Drug Evaluation and Research has requested execution of the Cohort Identification and Descriptive Analysis (CIDA) tool v11.3.0 with additional programming to compare risk of stroke and bleeding associated with use of apixaban and rivaroxaban in those aged 64 years or younger in the Sentinel Distributed Database (SDD).

Query period: 10/19/2010 - 02/28/2022
Coverage requirement: Medical and drug coverage
Pre-index enrollment requirement: 183 days
Post-Index Enrollment Requirement: None
Enrollment gap: 45 days
Age groups: 21-49, 50-64 years
Stratifications: None
Censor Output Categorization: None
Envelope macro: No reclassification
Freeze data: Yes
Additional programming needed: Risk scores, daily dose requirement, custom forest plots, custom weight distribution output
Output Denominator: No

	Comparison 1		Comparison 2		Comparison 3		Comparison 4	
	Overall		Overall		Overall		Overall	
Drug/Exposure	Rivaroxaban, 20 mg	Apixaban, 5 mg	Rivaroxaban, 20 mg	Apixaban, 5 mg	Rivaroxaban, 20 mg	Apixaban, 5 mg	Rivaroxaban, 20 mg	Apixaban, 5 mg
Exposure/Comparator	Once daily	Twice daily	Once daily	Twice daily	Once daily	Twice daily	Once daily	Twice daily
Daily Dose Requirement	Rivaroxaban 20 mg	Apixaban, 5 mg	Rivaroxaban 20 mg	Apixaban, 5 mg	Rivaroxaban 20 mg	Apixaban, 5 mg	Rivaroxaban 20 mg	Apixaban, 5 mg
Incident w/ Respect to:	Dispensing date or days supply		Dispensing date or days supply		Dispensing date or days supply		Dispensing date or days supply	
Incidence Assessment	183		183		183		183	
Washout (days)	First valid incident exposure episode		First valid incident exposure episode		First valid incident exposure episode		First valid incident exposure episode	
Cohort Definition	33%		33%		33%		33%	
Stockpiling overlapping	3		3		3		3	
Episode Gap	3		3		3		3	
Episode Extension Period	1		1		1		1	
Minimum Episode Duration	None		None		None		None	
Maximum Episode Duration	1		1		1		1	
Minimum Days Supplied	N/A		N/A		N/A		N/A	
Minimum cumulative dose of index medication	N/A		N/A		N/A		N/A	
Maximum cumulative dose of index medication								

Appendix J. Specifications Defining Parameters for this Request								
Evaluation period for cumulative dose determination	N/A		N/A		N/A		N/A	
Minimum Current Filled Daily Dose of index	N/A		N/A		N/A		N/A	
Maximum Current Filled Daily Dose of index	N/A		N/A		N/A		N/A	
Forced supply to attach to dispensings	N/A		N/A		N/A		N/A	
Tensor Criteria	Death, DP end date, Disenrollment, Event, End of exposure episode, Comparator drug dispensing, Low-dose of current exposure, Warfarin dispensing, Edoxaban dispensing, Dabigatran dispensing, Kidney transplant, Dialysis, IS encounter, Major extracranial bleeding, Gastrointestinal hemorrhage, Intracranial hemorrhage		Death, DP end date, Disenrollment, Event, End of exposure episode, Comparator drug dispensing, Low-dose of current exposure, Warfarin dispensing, Edoxaban dispensing, Dabigatran dispensing, Kidney transplant, Dialysis, IS encounter, Thromboembolic stroke, Gastrointestinal hemorrhage, Intracranial hemorrhage		Death, DP end date, Disenrollment, Event, End of exposure episode, Comparator drug dispensing, Low-dose of current exposure, Warfarin dispensing, Edoxaban dispensing, Dabigatran dispensing, Kidney transplant, Dialysis, IS encounter, Thromboembolic stroke, Major extracranial bleeding, Intracranial hemorrhage		Death, DP end date, Disenrollment, Event, End of exposure episode, Comparator drug dispensing, Low-dose of current exposure, Warfarin dispensing, Edoxaban dispensing, Dabigatran dispensing, Kidney transplant, Dialysis, IS encounter, Thromboembolic stroke, Major extracranial bleeding, Gastrointestinal hemorrhage	
Create Baseline Table?	Yes		Yes		Yes		Yes	
Inclusion/Exclusion Pre-Existing Condition	Atrial fibrillation or flutter		Atrial fibrillation or flutter		Atrial fibrillation or flutter		Atrial fibrillation or flutter	
Include/Exclude	Include		Include		Include		Include	
Care Setting/PDX	Any		Any		Any		Any	
Lookback Period	-183, 0		-183, 0		-183, 0		-183, 0	
Number of instances the criteria should be found in evaluation period	≥ 1		≥ 1		≥ 1		≥ 1	
Pre-Existing Condition	Low-dose rivaroxaban, dabigatran, apixaban, edoxaban, warfarin	Low-dose apixaban, rivaroxaban, dabigatran, edoxaban, warfarin	Low-dose rivaroxaban, dabigatran, apixaban, edoxaban, warfarin	Low-dose apixaban, rivaroxaban, dabigatran, edoxaban, warfarin	Low-dose rivaroxaban, dabigatran, apixaban, edoxaban, warfarin	Low-dose apixaban, rivaroxaban, dabigatran, edoxaban, warfarin	Low-dose rivaroxaban, dabigatran, apixaban, edoxaban, warfarin	Low-dose apixaban, rivaroxaban, dabigatran, edoxaban, warfarin

Appendix J. Specifications Defining Parameters for this Request

Include/Exclude	Exclude	Exclude	Exclude	Exclude
Lookback Period	-183, 0	-183, 0	-183, 0	-183, 0
Lookback period to define condition looks for evidence of a date or evidence of an interval	Dispensing date or days supply	Dispensing date or days supply	Dispensing date or days supply	Dispensing date or days supply
Number of instances the criteria should be found in evaluation period	≥ 1	≥ 1	≥ 1	≥ 1
Minimum Days Supplied	1	1	1	1
Minimum cumulative dose	N/A	N/A	N/A	N/A
Minimum average filled daily dose	N/A	N/A	N/A	N/A
Maximum average filled daily dose	N/A	N/A	N/A	N/A
Minimum current filled daily dose	N/A	N/A	N/A	N/A
Maximum current filled daily dose	N/A	N/A	N/A	N/A
Forced supply to attach to dispensings	N/A	N/A	N/A	N/A
Pre-Existing Condition	Institutional stay encounter	Institutional stay encounter	Institutional stay encounter	Institutional stay encounter
Include/Exclude	Exclude	Exclude	Exclude	Exclude
Lookback Period	0, 0	0, 0	0, 0	0, 0
Number of instances the criteria should be found in evaluation period	≥ 1	≥ 1	≥ 1	≥ 1
Pre-Existing Condition	Dialysis, Kidney replacement, Deep vein thrombosis, Pulmonary embolism, Joint replacement, Mitral valve disease, Valve replacement, Valve repair	Dialysis, Kidney replacement, Deep vein thrombosis, Pulmonary embolism, Joint replacement, Mitral valve disease, Valve replacement, Valve repair	Dialysis, Kidney replacement, Deep vein thrombosis, Pulmonary embolism, Joint replacement, Mitral valve disease, Valve replacement, Valve repair	Dialysis, Kidney replacement, Deep vein thrombosis, Pulmonary embolism, Joint replacement, Mitral valve disease, Valve replacement, Valve repair
Include/Exclude	Exclude	Exclude	Exclude	Exclude
Care Setting/PDX	Any, except AV/OA for dialysis	Any, except AV/OA for dialysis	Any, except AV/OA for dialysis	Any, except AV/OA for dialysis
Lookback Period	-183, 0	-183, 0	-183, 0	-183, 0

Appendix J. Specifications Defining Parameters for this Request				
Number of instances the criteria should be found in evaluation period	≥ 1	≥ 1	≥ 1	≥ 1
Event/Outcome	Thromboembolic stroke	Major Extracranial Bleeding ¹	Gastrointestinal hemorrhage ²	Intracranial Hemorrhage
Event/Outcome Care Setting/PDX	IPP	IPP	IPP	IPP
Washout (days)	0	0	0	0
Event de-duplication	De-duplicates occurrences of the same event group on the same day	De-duplicates occurrences of the same event group on the same day	De-duplicates occurrences of the same event group on the same day	De-duplicates occurrences of the same event group on the same day
Forced supply to attach to dispensings	N/A	N/A	N/A	N/A
Risk Window Interval Start	N/A	N/A	N/A	N/A
Blackout Period	1	1	1	1
¹ The major extracranial bleed outcome is defined as a) one code from "MEB_1" tab in the primary inpatient position AND no code from "MEB_trauma_exclusion" on the same day OR b) one code from "MEB_2" in the primary inpatient position AND one code from "MEB_1" in secondary or unspecified inpatient position on the same day AND no code from "MEB_trauma_exclusion" on the same day				
² The gastrointestinal hemorrhage outcome is defined as a) one code from "GI_1" tab in the primary inpatient position OR b) one code from "GI_2" in the primary inpatient position AND one code from "GI_1" in secondary or unspecified inpatient position on the same day				
ICD-9, ICD-10, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."				

Appendix K. Specifications for Propensity Score (PS) Models

The Center for Drug Evaluation and Research has requested execution of the Cohort Identification and Descriptive Analysis (CIDA) tool with additional programming to compare risk of stroke and bleeding associated with use of apixaban and rivaroxaban in those aged 64 years or younger in the Sentinel Distributed Database (SDD).

PS Models		Comparison				Analyses		
Model	Comparison	EOI	REF	PS Model Label	PS Model Label (plus programming)	Analysis name 1	Analysis name 2	Analysis name 3
1 Overall	Rivaroxaban vs. Apixaban, Stroke	riv_stroke	api_stroke	riv_api_stroke	riv_api	riv_api_stroke_0	riv_api_stroke_1	riv_api_stroke_2.5
2 Overall	Rivaroxaban vs. Apixaban, Major Extracranial Bleeding	riv_meb	api_meb	riv_api_meb	riv_api	riv_api_meb_0	riv_api_meb_1	riv_api_meb_2.5
3 Overall	Rivaroxaban vs. Apixaban, Gastrointestinal Hemorrhage	riv_gi	api_gi	riv_api_gi	riv_api	riv_api_gi_0	riv_api_gi_1	riv_api_gi_2.5
4 Overall	Rivaroxaban vs. Apixaban, Intracranial Hemorrhage	riv_ich	api_ich	riv_api_ich	riv_api	riv_api_ich_0	riv_api_ich_1	riv_api_ich_2.5

Appendix K. Specifications for Propensity Score (PS) Models

Propensity Score Estimation Parameters	Firth Logistic Intercept Corrected Method	No
	High-dimensional Propensity Score	No

Analysis Group		
Propensity Score Analysis	Analysis name	All listed above
	IP weight calculation	ATE Stabilized
	Weight truncation?	- No truncation - 1st percentile truncation - 2.5 percentile truncation

Analysis Group					
Subgroups	Analysis name	All listed above			
	Subgroups	Sex	Age Group	CHA2DS2-VASc	HAS-BLED
	Subgroup Categories	Females, Males	21-49, 50-64	0, 1, 2, 3, 4, 5+	0, 1, 2, 3+
	Firth Logistic Intercept Corrected Method	No	No	No	No
	Re-estimate Propensity Score	Yes: the propensity score will be re-estimated			