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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_wp045 (Main report)

Request ID: cder_mpl2p_wp045_nsdv_v02

Note: This request ID consists of two parts, Part 1 (v01) and 2 (v02), where the part 2 or v02 analytic package and report represents the final analysis for this study. The v02 analysis includes certain updates to the implementation of selection and censoring criteria for the non-ustekinumab biologics group compared to the v01 analysis.

Request Description: In this report, we investigated the comparative risk of serious infection associated with use of ustekinumab and comparator non-ustekinumab biologics (infliximab, adalimumab, or vedolizumab) in adults with Crohn's disease (CD) in the Sentinel Distributed Database (SDD).

Sentinel Routine Querying Module: Cohort Identification and Descriptive Analysis (CIDA) module, version 12.1.2, with Propensity Score Analysis module and custom programming.

Data Source: We distributed the original request i.e., the v01 analytic package to six Data Partners (DPs) on December 18, 2023. The study period included data from October 1, 2016 to June 30, 2023. The present v02 analytic package was distributed on 22nd April 2024 and was run on the frozen dataset retained from the original v01 distribution request at the respective DPs. See Appendix A for a list of the latest dates of available data for each DP included in this report.

Study Design: The study used a retrospective, active comparator, new user cohort design. We identified cohorts of incident ustekinumab and comparator non-ustekinumab biologic users (infliximab, adalimumab or vedolizumab) among health plan members who were at least 18 years of age with CD and compared the occurrence of serious infection among these cohorts. We conducted a Propensity Score Analysis (PSA) comparing the two treatment groups using inverse probability of treatment weighting (IPTW) to adjust for confounding, specifically weights estimating the average treatment effect in the treated (ATT). We also conducted a PS matching analysis. This is a Type 2 analysis using the Propensity Score Analysis module in the Query Request Package (QRP) documentation.

Exposures: We defined the exposure of interest, ustekinumab, and the non-ustekinumab comparators of interest, infliximab, adalimumab, and vedolizumab, using National Drug Codes (NDCs) and Healthcare Common Procedure Coding System (HCPCS) procedure codes.

- We defined incident use in the exposed as no prior dispensing or administration of ustekinumab in the 183 days prior to the first qualifying dispensing (index).
- Similarly, incident use in the comparator group was no prior dispensing or administration of the same indexing comparator in the 183 days prior to the index dispensing.

See Appendix N for a list of non-proprietary and proprietary names of medical products and Appendix O for a list of procedure codes used to define exposures and comparators in this request.

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Outcomes: We defined the primary outcome as serious infection (SI) or coronavirus disease (COVID-19).

- We defined SI as an inpatient diagnosis of any one of seven component conditions: acute meningitis, acute osteomyelitis, bacteremia, pneumonia, pyelonephritis, serious gastrointestinal infection, or skin or soft tissue infection, with no evidence of nosocomial origins of the condition. To avoid capture of nosocomial events, we required the inpatient diagnosis of the serious infection to be preceded by a diagnosis of any serious or non-serious infection in the outpatient or emergency department setting, or any outpatient antimicrobial dispensing in the seven days prior to and including inpatient admission date.
- We defined COVID-19 as an inpatient diagnosis in the primary diagnosis position.
- Each of the seven infections included in the composite SI algorithm outcome were additionally assessed as separate outcomes.
- We also assessed the stand-alone SI composite outcome during the full study period, as well as separately during the pre-COVID-19 pandemic period of October 1, 2016 to March 31, 2020 and the post-pandemic period of April 1, 2020 to June 30, 2023.

See Appendix P for a list of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnosis codes, and Appendix Q for a list of non-proprietary and proprietary names of medical products used to define outcomes of interest in this request.

Note: Due to the mechanics of the above algorithm, any patients identified as having the outcome of SI composite or COVID-19 within 7 days (and including) of the index exposure or comparator dispensing or administration were excluded from the study, as listed in the cohort eligibility criteria.

Cohort Eligibility Criteria: We required patients 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. We included the following age groups in the cohort: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+ years.

We required evidence of CD in the 183 days prior to or on the index date.

We excluded individuals with the following:

- Diagnosis of ulcerative colitis (UC), plaque psoriasis, psoriatic arthritis, rheumatoid arthritis, ankylosing spondylitis, juvenile rheumatoid arthritis, hidradenitis suppurativa, or uveitis in the 183 days prior to and including the index date
- Diagnosis of Human Immunodeficiency Virus (HIV) or Acquired Immunodeficiency Syndrome (AIDS) in all available pre-index enrollment history including the index date
- Use of ustekinumab, infliximab, adalimumab, or vedolizumab on the index date when not the index-defining treatment
- Use of other biologics or small molecule drugs i.e., certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, or risankizumab on the index date
- Use of ustekinumab in the 183 days prior to the index date in the comparator cohort
- Presence of SI composite outcome in any position or COVID-19 in the principal diagnosis position in the inpatient care setting, in the 7 days following and inclusive of the index date

See Appendix R for list of non-proprietary and proprietary names of medical products and Appendix S for a list of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) codes used to define inclusion and exclusion criteria in this request.

Overview for Request: cder_mpl2p_wp045 (Main report)

Follow-up: We created exposure episodes based on

- A 56-days' supply applied to ustekinumab, infliximab, and vedolizumab administrations and a 28-days' supply applied to adalimumab administrations, or,
- The number of days of product supplied per pharmacy dispensing.
- For ustekinumab, infliximab, and vedolizumab episodes, if a gap of up to 56 days occurred between consecutive claims of a particular treatment, we bridged these claims into a single treatment episode. For adalimumab episodes, we bridged consecutive claims with gaps of up to 28 days.
- We extended the end of each ustekinumab, infliximab, and vedolizumab episode by 56 days and extended the end of each adalimumab episode by 28 days.

These treatment episodes defined the outcome assessment risk window.

Follow-up began on the day of the index dispensing and continued until the first occurrence of any of the following: 1) disenrollment; 2) death; 3) the end of the data provided by each Data Partner; 4) the end of the query period; 5) occurrence of the outcome; 6) end of exposure episode; 7) use of a non-index defining comparator drug (infliximab, adalimumab, or vedolizumab) or one of the following biologics and small-molecule drugs: certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab; or 8) use of ustekinumab (for the comparator users only). See Appendix T for a list of non-proprietary and proprietary names of medical products, and Appendix U for a list of HCPCS procedure codes used to define censoring criteria in this request.

Baseline Characteristics: We assessed the following characteristics:

- Demographic characteristics on the index date: age, sex, race, Hispanic ethnicity, and year of index.
- Health characteristics in the 183 days prior to and including the index date: combined comorbidity score¹, health service and drug utilization, serious infection, markers of CD severity (weight loss, anemia, deficiency anemia, malnutrition, intestinal perforation, intestinal obstruction, intestinal fistula, intra-abdominal abscess, colitis, perianal disease/abscess, Clostridioides difficile, and testing for C. difficile), obesity, alcohol or drug abuse, asthma, atrial fibrillation, benign prostatic hyperplasia, cancer, cataract, chronic kidney disease, COPD/bronchiectasis, depression, diabetes, glaucoma, heart failure, hyperlipidemia, hypertension, ischemic heart disease, acute myocardial infarction, stroke/TIA, osteoporosis, rheumatoid arthritis/osteoarthritis, hip/pelvic fracture, acquired hypothyroidism, Alzheimer's disease, non-Alzheimer's dementia, Parkinson's disease and secondary parkinsonism.
- Use of biologics (non-index) and small molecule drugs for CD in the 183 days prior to date of index: infliximab, adalimumab, vedolizumab, certolizumab pegol, golimumab, risankizumab, natalizumab, tofacitinib, upadacitinib, and ozanimod.
- Other prescription medication use in the 183 days prior to and including the day of index: aminosalicylates (5-ASA), immunomodulators, corticosteroids (intravenous, oral and rectal), antibiotics, antivirals, anticoagulants, antidiabetics, antihypertensives, antiplatelets, lipid-lowering drugs, non-steroidal anti-inflammatory drugs and opioids.
- Vaccination status in either all available data prior to index (e.g., COVID-19, meningococcal, pneumococcal) or in the 365 days prior to index (flu vaccine).

See Appendix V for a list of non-proprietary and proprietary names of medical products, and Appendix W for a list of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) codes used to define baseline covariates in this request. See Appendix AB for evaluation windows used to define covariates.

Overview for Request: cder_mpl2p_wp045 (Main report)

Propensity Score Estimation: We fit a logistic regression model with the first valid eligible exposure episode per patient to estimate the propensity score (PS) based on the potential confounders indicated in Appendix AB. Specifically, each patient contributes one eligible exposure episode to the comparative analysis. If the patient has more than one eligible exposure episode (e.g., one for ustekinumab and one for comparator), the earlier of the two is included. We used the PS to conduct an IPTW analysis. After PS estimation and exclusion (i.e., trimming) of patients in non-overlapping regions of the PS distributions, we used the PS to create an inverse probability of treatment weight estimating the average treatment effect in the treated (IPTW ATT) for each patient.

We initially applied three candidate weight truncation percentile thresholds to deal with potential extreme 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 IPTW weights for the three truncation thresholds that was blinded to effect estimates, we applied the 1% percentile threshold to all analyses. We also included results of analyses with the 0% truncation threshold, as a sensitivity analysis.

See Appendices B-M for the distribution of IPT weights in the overall population, as well as in each subgroup of interest.

Statistical Analysis: We used case-centered logistic regression to generate HRs and associated robust 95% CIs for analyses adjusted only for the Data Partner and the hybrid quasi-Newton least squared method to generate estimates for conditional fully-adjusted analyses, using aggregated risk-set-level datasets received from each DP.

Subgroup analyses for effect estimation included prior treatment-experience (treatment-experienced or not treatment-experienced), defined by dispensing or administration of a study drug (ustekinumab, infliximab, adalimumab, or vedolizumab) or other biologic/small molecule drugs for CD or UC (certolizumab pegol, golimumab, natalizumab, risankizumab, tofacitinib, upadacitinib, or ozanimod) in the 183 days prior to index date. 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. We also evaluated the outcome of serious infection composite in patients before and after the start of the COVID-19 pandemic in the United States i.e., dividing the query period into before and after April 1, 2020.

Finally, we used the PS to conduct a 1:1 nearest neighbor PS matching analysis with a caliper of 0.05 in the overall, full study period cohort capturing the SI composite or COVID-19 outcome.

Please see Appendices X-AA for the specifications of 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>).

¹ The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

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Appendix A Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (December 18, 2023)

Appendix B Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite or COVID-19, 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated(ATT)

Appendix C Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite or COVID-19, 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Treatment-experienced, Weight: Average Treatment Effect in the Treated (ATT)

Appendix D Distribution of Inverse Probability of Treatment Weights After Trimming for COVID-19 infection, 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Appendix E Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite, 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Appendix F Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite (pre-April 1, 2020), 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Appendix G Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite (post-April 1, 2020), 1% Weight Truncation, in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

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Appendix I Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite or COVID-19, 0% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Treatment-experienced, Weight: Average Treatment Effect in the Treated (ATT)

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Appendix K Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite, 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Appendix L Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite (pre-April 1, 2020), 0% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Appendix M Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite (post-April 1, 2020), 0% Weight Truncation, in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Appendix N List of Non-proprietary and Proprietary Names of Medical Products Used to Define Exposures in this Request

Appendix O List of Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Exposures in this Request

Appendix P List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Appendix Q List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Appendix R List of Non-proprietary and Proprietary Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request

Appendix S List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Appendix T List of Non-proprietary and Proprietary Names of Medical Products Used to Define Exposure Censoring Criteria in this Request

Appendix U List of Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Exposure Censoring Criteria in this Request

Appendix V List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

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Appendix W List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Appendix X Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01)

Appendix Y Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 02)

Appendix Z Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 03, run 04)

Appendix AA Specifications Defining Parameters for the Propensity Score (PS) Models

Appendix AB Specifications Defining Baseline Characteristics/Covariates

Appendix AC Design Diagram Specifying Cohort Entry Requirements and Index Exposure

**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).

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

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.

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 requests.

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

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

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.

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 Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Patient Characteristics ¹	Medical Product		Covariate Balance			
	Ustekinumab Users	Comparator Users	Absolute Difference	Standardized Difference		
	Number	Percent ²	Number	Percent ²		
Unique patients	15,565	100.0%	52,109	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	47.7	14.2	45.8	14.2	1.957	0.138
Age						
18-24 years	1,572	10.1%	7,452	14.3%	-4.201	-0.129
25-34 years	2,894	18.6%	10,818	20.8%	-2.167	-0.055
35-44 years	2,972	19.1%	9,209	17.7%	1.422	0.037
45-54 years	2,548	16.4%	7,476	14.3%	2.023	0.056
55-64 years	2,070	13.3%	6,114	11.7%	1.566	0.047
65-74 years	2,600	16.7%	7,963	15.3%	1.423	0.039
≥ 75 years	909	5.8%	3,077	5.9%	-0.065	-0.003
Sex						
Female	8,942	57.4%	28,524	54.7%	2.710	0.055
Male	6,623	42.6%	23,585	45.3%	-2.710	-0.055
Race ³						
American Indian or Alaska Native	29	0.2%	163	0.3%	-0.126	-0.025
Asian	106	0.7%	394	0.8%	-0.075	-0.009
Black or African American	845	5.4%	3,908	7.5%	-2.071	-0.084
Multi-racial	105	0.7%	335	0.6%	0.032	0.004
Native Hawaiian or Other Pacific Islander	11	0.1%	42	0.1%	-0.010	-0.004
Unknown	7,374	47.4%	23,005	44.1%	3.228	0.065
White	7,095	45.6%	24,262	46.6%	-0.977	-0.020

Table 1a. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	283	1.8%	1,343	2.6%	-0.759	-0.052
No	6,968	44.8%	26,191	50.3%	-5.495	-0.110
Unknown	8,314	53.4%	24,575	47.2%	6.254	0.125
Year						
2016	282	1.8%	2,743	5.3%	-3.452	-0.188
2017	2,349	15.1%	10,200	19.6%	-4.483	-0.119
2018	2,436	15.7%	9,580	18.4%	-2.734	-0.073
2019	2,775	17.8%	9,304	17.9%	-0.026	-0.001
2020	2,710	17.4%	9,208	17.7%	-0.260	-0.007
2021	2,181	14.0%	5,374	10.3%	3.699	0.113
2022	2,338	15.0%	4,770	9.2%	5.867	0.181
2023	494	3.2%	930	1.8%	1.389	0.089
Time						
Before April 1, 2020 (pre-pandemic)	8,545	54.9%	34,445	66.1%	-11.203	-0.231
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,747	11.2%	5,807	11.1%	0.080	0.003
December 1, 2020 through most recent data (pandemic after vaccine)	5,273	33.9%	11,857	22.8%	11.123	0.249

Table 1a. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Acquired hypothyroidism	1,478	9.5%	4,390	8.4%	1.071	0.038
Acute myocardial infarction	90	0.6%	329	0.6%	-0.053	-0.007
Alcohol or drug abuse	1,085	7.0%	3,763	7.2%	-0.251	-0.010
Alzheimers disease	27	0.2%	85	0.2%	0.010	0.003
Anemia	5,133	33.0%	14,947	28.7%	4.294	0.093
Asthma	1,290	8.3%	4,219	8.1%	0.191	0.007
Atrial fibrillation	567	3.6%	1,875	3.6%	0.045	0.002
Benign prostatic hyperplasia	640	4.1%	1,956	3.8%	0.358	0.018
Cancer, history of	1,020	6.6%	3,379	6.5%	0.069	0.003
Cancer, breast	194	1.2%	727	1.4%	-0.149	-0.013
Cancer, colorectal	157	1.0%	487	0.9%	0.074	0.008
Cancer, endometrial	28	0.2%	97	0.2%	-0.006	-0.001
Cancer, lung	49	0.3%	244	0.5%	-0.153	-0.025
Cancer, prostate	156	1.0%	515	1.0%	0.014	0.001
Cataract	997	6.4%	3,059	5.9%	0.535	0.022
Chronic kidney disease	1,094	7.0%	3,154	6.1%	0.976	0.039
COPD/bronchiectasis	1,052	6.8%	3,915	7.5%	-0.754	-0.029
Depression	3,385	21.7%	10,397	20.0%	1.795	0.044
Diabetes	1,445	9.3%	5,113	9.8%	-0.528	-0.018
Glaucoma	486	3.1%	1,584	3.0%	0.083	0.005
Heart failure	521	3.3%	1,563	3.0%	0.348	0.020
Hip/pelvic fracture	29	0.2%	87	0.2%	0.019	0.005
Hyperlipidemia	3,183	20.4%	10,521	20.2%	0.259	0.006
Hypertension (CCW)	4,411	28.3%	14,453	27.7%	0.603	0.013

Table 1a. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Serious infection	1,188	7.6%	4,382	8.4%	-0.777	-0.029
Intestinal perforation	173	1.1%	813	1.6%	-0.449	-0.039
Intestine, fistula	3,165	20.3%	8,504	16.3%	4.014	0.104
Intestine, obstruction	4,090	26.3%	11,015	21.1%	5.139	0.121
Intra-abdominal abscess	1,294	8.3%	4,312	8.3%	0.039	0.001
Ischemic heart disease	852	5.5%	3,023	5.8%	-0.327	-0.014
Obesity	2,008	12.9%	6,659	12.8%	0.122	0.004
Osteoporosis	1,145	7.4%	2,526	4.8%	2.509	0.105
CD Colitis	11,408	73.3%	34,582	66.4%	6.928	0.151
Perianal disease/abscess	4,830	31.0%	15,384	29.5%	1.508	0.033
Rheumatoid arthritis/osteoarthritis	2,397	15.4%	7,236	13.9%	1.514	0.043
Stroke/TIA	208	1.3%	751	1.4%	-0.105	-0.009

Table 1a. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.5	2.0	1.4	2.0	0.088	0.044
Metastatic cancer	95	0.6%	390	0.7%	-0.138	-0.017
Congestive heart failure	711	4.6%	2,308	4.4%	0.139	0.007
Dementia	85	0.5%	358	0.7%	-0.141	-0.018
Renal failure	986	6.3%	2,839	5.4%	0.887	0.038
Weight loss	1,891	12.1%	6,257	12.0%	0.142	0.004
Hemiplegia	51	0.3%	188	0.4%	-0.033	-0.006
Alcohol abuse	241	1.5%	998	1.9%	-0.367	-0.028
Any tumor	1,304	8.4%	3,575	6.9%	1.517	0.057
Cardiac arrhythmias	2,138	13.7%	6,727	12.9%	0.826	0.024
Chronic pulmonary disease	2,199	14.1%	7,568	14.5%	-0.396	-0.011
Coagulopathy	492	3.2%	1,403	2.7%	0.469	0.028
Complicated diabetes	801	5.1%	2,924	5.6%	-0.465	-0.021
Deficiency anemias	4,585	29.5%	13,501	25.9%	3.548	0.079
Fluid and electrolyte disorders	2,551	16.4%	8,417	16.2%	0.237	0.006
Liver disease	1,636	10.5%	4,896	9.4%	1.115	0.037
Peripheral vascular disorder	737	4.7%	2,648	5.1%	-0.347	-0.016
Psychosis	3,242	20.8%	10,034	19.3%	1.573	0.039
Pulmonary circulation disorders	301	1.9%	811	1.6%	0.377	0.029
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN
Hypertension	4,402	28.3%	14,430	27.7%	0.589	0.013
Malnutrition	993	6.4%	2,850	5.5%	0.910	0.039
C. diff testing	2,698	17.3%	8,355	16.0%	1.300	0.035
C. diff diagnosis	341	2.2%	1,144	2.2%	-0.005	-0.000
Cancer, urologic (kidney, renal pevis, and ureter)	75	0.5%	280	0.5%	-0.055	-0.008
Non-Alzheimers dementia	88	0.6%	362	0.7%	-0.129	-0.016
Parkinsons disease and secondary parkinsonism	50	0.3%	147	0.3%	0.039	0.007

Table 1a. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Use on Index Date [0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Adalimumab on index date	0	0.0%	20,665	39.7%	NaN	NaN
Infliximab on index date	0	0.0%	17,739	34.0%	NaN	NaN
Vedolizumab on index date	0	0.0%	13,705	26.3%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Recorded History of Use From [-183, -1]:						
Adalimumab	2,678	17.2%	2,413	4.6%	12.575	0.412
Certolizumab pegol	725	4.7%	788	1.5%	3.146	0.183
Golimumab	38	0.2%	27	0.1%	0.192	0.050
Infliximab	1,538	9.9%	2,738	5.3%	4.627	0.176
Natalizumab	*****	*****	*****	*****	0.026	0.014
Ozanimod	*****	*****	*****	*****	0.005	0.007
Tofacitinib	14	0.1%	18	0.0%	0.055	0.022
Upadacitinib	*****	*****	*****	*****	0.003	0.004
Vedolizumab	1,561	10.0%	529	1.0%	9.014	0.403
Risankizumab	*****	*****	*****	*****	0.007	0.004
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	787	5.1%	854	1.6%	3.417	0.191
Treatment-experienced - any biologic or small molecule drug	6,478	41.6%	6,467	12.4%	29.208	0.697

Table 1a. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Number	Percent ²	Number	Percent ²		
Days with a biologic dispensing						
1	505	3.2%	518	1.0%	2.250	0.157
2	885	5.7%	1,021	2.0%	3.726	0.195
3-4	2,335	15.0%	2,713	5.2%	9.795	0.329
5-6	2,154	13.8%	1,742	3.3%	10.496	0.381
7+	599	3.8%	473	0.9%	2.941	0.194
Recorded History of Use From [-183, 0]						
Aminosalicylates (5-ASA)	2,167	13.9%	11,001	21.1%	-7.189	-0.190
Immunomodulators	3,075	19.8%	10,728	20.6%	-0.832	-0.021
Corticosteroids, intravenous	17	0.1%	40	0.1%	0.032	0.011
Corticosteroids, oral	6,409	41.2%	21,755	41.7%	-0.573	-0.012
Corticosteroids, rectal	267	1.7%	625	1.2%	0.516	0.043
Antibiotics	7,848	50.4%	26,062	50.0%	0.406	0.008
Antivirals	1,058	6.8%	2,912	5.6%	1.209	0.050
Anticoagulants	1,511	9.7%	4,205	8.1%	1.638	0.058
Antidiabetics	1,011	6.5%	3,682	7.1%	-0.571	-0.023
Antihypertensives	2,960	19.0%	9,834	18.9%	0.145	0.004
Antiplatelets	334	2.1%	1,163	2.2%	-0.086	-0.006
Lipid-lowering drugs	3,245	20.8%	10,155	19.5%	1.360	0.034
Non-steroidal anti-inflammatory drugs	2,357	15.1%	9,060	17.4%	-2.244	-0.061
Opioids	5,375	34.5%	17,414	33.4%	1.114	0.024
Immunization From [-365, 0]						
Flu (Influenza) vaccination	6,279	40.3%	18,401	35.3%	5.028	0.104

Table 1a. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Immunization From [ever, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Covid-19 vaccination	2,848	18.3%	5,879	11.3%	7.015	0.199
Diphtheria, tetanus, and pertussis (DTaP) vaccination	3,589	23.1%	11,493	22.1%	1.002	0.024
Haemophilus influenza type B vaccination	19	0.1%	60	0.1%	0.007	0.002
Measles, mumps, and rubella (MMR) vaccination	119	0.8%	414	0.8%	-0.030	-0.003
Meningococcal vaccination	600	3.9%	2,468	4.7%	-0.881	-0.043
Pneumococcal vaccination	4,550	29.2%	13,207	25.3%	3.887	0.087
Varicella (VAR) vaccination	1,078	6.9%	3,218	6.2%	0.750	0.030
Zoster recombinant vaccination	892	5.7%	2,279	4.4%	1.357	0.062
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	18.2	16.8	16.9	17.1	1.263	0.074
Mean number of unique drug classes dispensed	7.3	4.8	7.0	5.0	0.283	0.058
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.4	11.2	12.3	10.8	1.168	0.106
Mean number of emergency room encounters	0.6	1.6	0.7	1.6	-0.063	-0.040
Mean number of inpatient hospital encounters	0.3	0.8	0.4	0.8	-0.016	-0.020
Mean number of non-acute institutional	0.0	0.2	0.0	0.2	-0.005	-0.028
Mean number of other ambulatory encounters	5.2	11.0	5.3	12.2	-0.126	-0.011
Number of emergency department encounters						
0	11,023	70.8%	35,382	67.9%	2.919	0.063
1	2,656	17.1%	9,519	18.3%	-1.204	-0.032
2-3	1,347	8.7%	5,164	9.9%	-1.256	-0.043
4	539	3.5%	2,044	3.9%	-0.460	-0.024
Number of ambulatory encounters						
0	50	0.3%	768	1.5%	-1.153	-0.122
1	236	1.5%	1,346	2.6%	-1.067	-0.075
2-3	1,019	6.5%	4,299	8.3%	-1.703	-0.065
4	14,260	91.6%	45,696	87.7%	3.923	0.129

Table 1a. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Number of inpatient encounters						
0	12,053	77.4%	39,530	75.9%	1.576	0.037
1	2,345	15.1%	8,622	16.5%	-1.480	-0.041
2-3	990	6.4%	3,374	6.5%	-0.114	-0.005
4	177	1.1%	583	1.1%	0.018	0.002
Number of days with GI-related emergency department encounter						
0	12,968	83.3%	43,268	83.0%	0.281	0.008
1	1,773	11.4%	6,183	11.9%	-0.475	-0.015
2-3	627	4.0%	2,082	4.0%	0.033	0.002
4	197	1.3%	576	1.1%	0.160	0.015
Number of days with GI-related inpatient encounter						
0	13,368	85.9%	44,315	85.0%	0.842	0.024
1	1,703	10.9%	6,214	11.9%	-0.984	-0.031
2-3	456	2.9%	1,467	2.8%	0.114	0.007
4	38	0.2%	113	0.2%	0.027	0.006

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Data represented by NaN (Not a Number) is due to their inability to be calculated.

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Patient Characteristics ¹	Number	Percent ²	Number	Percent ²		
Unique patients	15,490	99.5%	51,503	98.8%	N/A	N/A
Demographic Characteristics						
Age (years)	47.7	14.2	45.7	14.2	2.027	0.143
Age						
18-24 years	1,562	10.1%	7,379	14.3%	-4.243	-0.130
25-34 years	2,886	18.6%	10,760	20.9%	-2.261	-0.057
35-44 years	2,954	19.1%	9,125	17.7%	1.353	0.035
45-54 years	2,534	16.4%	7,360	14.3%	2.069	0.057
55-64 years	2,054	13.3%	6,002	11.7%	1.606	0.049
65-74 years	2,596	16.8%	7,861	15.3%	1.496	0.041
≥ 75 years	904	5.8%	3,016	5.9%	-0.020	-0.001
Sex						
Female	8,898	57.4%	28,197	54.7%	2.695	0.054
Male	6,592	42.6%	23,306	45.3%	-2.695	-0.054
Race ³						
American Indian or Alaska Native	29	0.2%	161	0.3%	-0.125	-0.025
Asian	106	0.7%	391	0.8%	-0.075	-0.009
Black or African American	843	5.4%	3,848	7.5%	-2.029	-0.083
Multi-racial	105	0.7%	329	0.6%	0.039	0.005
Native Hawaiian or Other Pacific Islander	11	0.1%	41	0.1%	-0.009	-0.003
Unknown	7,336	47.4%	22,782	44.2%	3.125	0.063
White	7,060	45.6%	23,951	46.5%	-0.926	-0.019

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	282	1.8%	1,323	2.6%	-0.748	-0.051
No	6,939	44.8%	25,864	50.2%	-5.422	-0.109
Unknown	8,269	53.4%	24,316	47.2%	6.170	0.124
Year						
2016	282	1.8%	2,544	4.9%	-3.119	-0.173
2017	2,341	15.1%	10,162	19.7%	-4.618	-0.122
2018	2,428	15.7%	9,555	18.6%	-2.878	-0.076
2019	2,757	17.8%	9,284	18.0%	-0.228	-0.006
2020	2,675	17.3%	8,913	17.3%	-0.037	-0.001
2021	2,178	14.1%	5,360	10.4%	3.654	0.112
2022	2,335	15.1%	4,759	9.2%	5.834	0.179
2023	494	3.2%	926	1.8%	1.391	0.089
Time						
Before April 1, 2020 (pre-pandemic)	8,510	54.9%	34,160	66.3%	-11.388	-0.235
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,732	11.2%	5,602	10.9%	0.304	0.010
December 1, 2020 through most recent data (pandemic after vaccine)	5,248	33.9%	11,741	22.8%	11.083	0.248

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Acquired hypothyroidism	1,469	9.5%	4,309	8.4%	1.117	0.039
Acute myocardial infarction	88	0.6%	305	0.6%	-0.024	-0.003
Alcohol or drug abuse	1,074	6.9%	3,681	7.1%	-0.214	-0.008
Alzheimers disease	26	0.2%	77	0.1%	0.018	0.005
Anemia	5,098	32.9%	14,710	28.6%	4.350	0.094
Asthma	1,281	8.3%	4,131	8.0%	0.249	0.009
Atrial fibrillation	563	3.6%	1,830	3.6%	0.081	0.004
Benign prostatic hyperplasia	636	4.1%	1,910	3.7%	0.397	0.021
Cancer, history of	1,014	6.5%	3,265	6.3%	0.207	0.008
Cancer, breast	193	1.2%	700	1.4%	-0.113	-0.010
Cancer, colorectal	154	1.0%	475	0.9%	0.072	0.007
Cancer, endometrial	28	0.2%	83	0.2%	0.020	0.005
Cancer, lung	49	0.3%	226	0.4%	-0.122	-0.020
Cancer, prostate	155	1.0%	499	1.0%	0.032	0.003
Cataract	991	6.4%	3,024	5.9%	0.526	0.022
Chronic kidney disease	1,084	7.0%	3,080	6.0%	1.018	0.041
COPD/bronchiectasis	1,049	6.8%	3,812	7.4%	-0.629	-0.025
Depression	3,359	21.7%	10,231	19.9%	1.820	0.045
Diabetes	1,438	9.3%	4,961	9.6%	-0.349	-0.012
Glaucoma	481	3.1%	1,552	3.0%	0.092	0.005
Heart failure	514	3.3%	1,518	2.9%	0.371	0.021
Hip/pelvic fracture	28	0.2%	83	0.2%	0.020	0.005
Hyperlipidemia	3,171	20.5%	10,299	20.0%	0.474	0.012
Hypertension (CCW)	4,387	28.3%	14,143	27.5%	0.861	0.019

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Serious infection	1,179	7.6%	4,258	8.3%	-0.656	-0.024
Intestinal perforation	171	1.1%	784	1.5%	-0.418	-0.037
Intestine, fistula	3,138	20.3%	8,419	16.3%	3.912	0.101
Intestine, obstruction	4,066	26.2%	10,887	21.1%	5.111	0.120
Intra-abdominal abscess	1,284	8.3%	4,232	8.2%	0.072	0.003
Ischemic heart disease	846	5.5%	2,943	5.7%	-0.253	-0.011
Obesity	1,998	12.9%	6,530	12.7%	0.220	0.007
Osteoporosis	1,126	7.3%	2,495	4.8%	2.425	0.102
CD Colitis	11,342	73.2%	34,215	66.4%	6.788	0.148
Perianal disease/abscess	4,800	31.0%	15,163	29.4%	1.547	0.034
Rheumatoid arthritis/osteoarthritis	2,384	15.4%	7,087	13.8%	1.630	0.046
Stroke/TIA	207	1.3%	713	1.4%	-0.048	-0.004

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.5	2.0	1.4	2.0	0.100	0.051
Metastatic cancer	95	0.6%	371	0.7%	-0.107	-0.013
Congestive heart failure	704	4.5%	2,250	4.4%	0.176	0.009
Dementia	84	0.5%	325	0.6%	-0.089	-0.012
Renal failure	978	6.3%	2,770	5.4%	0.935	0.040
Weight loss	1,877	12.1%	6,126	11.9%	0.223	0.007
Hemiplegia	51	0.3%	181	0.4%	-0.022	-0.004
Alcohol abuse	240	1.5%	978	1.9%	-0.350	-0.027
Any tumor	1,294	8.4%	3,466	6.7%	1.624	0.062
Cardiac arrhythmias	2,121	13.7%	6,586	12.8%	0.905	0.027
Chronic pulmonary disease	2,187	14.1%	7,398	14.4%	-0.245	-0.007
Coagulopathy	485	3.1%	1,370	2.7%	0.471	0.028
Complicated diabetes	797	5.1%	2,838	5.5%	-0.365	-0.016
Deficiency anemias	4,555	29.4%	13,282	25.8%	3.617	0.081
Fluid and electrolyte disorders	2,531	16.3%	8,209	15.9%	0.401	0.011
Liver disease	1,628	10.5%	4,807	9.3%	1.177	0.039
Peripheral vascular disorder	731	4.7%	2,568	5.0%	-0.267	-0.012
Psychosis	3,216	20.8%	9,875	19.2%	1.588	0.040
Pulmonary circulation disorders	299	1.9%	789	1.5%	0.398	0.031
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Number	Percent ²	Number	Percent ²		
Hypertension	4,378	28.3%	14,120	27.4%	0.848	0.019
Malnutrition	982	6.3%	2,786	5.4%	0.930	0.040
C. diff testing	2,681	17.3%	8,234	16.0%	1.321	0.035
C. diff diagnosis	337	2.2%	1,121	2.2%	-0.001	-0.000
Cancer, urologic (kidney, renal pevis, and ureter)	75	0.5%	245	0.5%	0.008	0.001
Non-Alzheimers dementia	88	0.6%	328	0.6%	-0.069	-0.009
Parkinsons disease and secondary parkinsonism	48	0.3%	134	0.3%	0.050	0.009
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	20,409	39.6%	NaN	NaN
Infliximab on index date	0	0.0%	17,531	34.0%	NaN	NaN
Vedolizumab on index date	0	0.0%	13,563	26.3%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Number	Percent ²	Number	Percent ²		
Adalimumab	2,671	17.2%	2,397	4.7%	12.589	0.412
Certolizumab pegol	721	4.7%	784	1.5%	3.132	0.182
Golimumab	38	0.2%	27	0.1%	0.193	0.050
Infliximab	1,531	9.9%	2,721	5.3%	4.601	0.174
Natalizumab	*****	*****	*****	*****	0.026	0.014
Ozanimod	*****	*****	*****	*****	0.005	0.007
Tofacitinib	14	0.1%	18	0.0%	0.055	0.022
Upadacitinib	*****	*****	*****	*****	0.003	0.004
Vedolizumab	1,517	9.8%	524	1.0%	8.776	0.396
Risankizumab	*****	*****	*****	*****	0.006	0.004
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	783	5.1%	850	1.7%	3.404	0.190
Treatment-experienced - any biologic or small molecule drug	6,417	41.4%	6,425	12.5%	28.952	0.690
Days with a biologic dispensing						
1	496	3.2%	516	1.0%	2.200	0.154
2	877	5.7%	1,010	2.0%	3.701	0.194
3-4	2,322	15.0%	2,697	5.2%	9.754	0.328
5-6	2,127	13.7%	1,734	3.4%	10.365	0.377
7+	595	3.8%	468	0.9%	2.933	0.193

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Number	Percent ²	Number	Percent ²		
Aminosalicilates (5-ASA)	2,162	14.0%	10,757	20.9%	-6.929	-0.183
Immunomodulators	3,056	19.7%	10,591	20.6%	-0.835	-0.021
Corticosteroids, intravenous	16	0.1%	28	0.1%	0.049	0.017
Corticosteroids, oral	6,371	41.1%	21,445	41.6%	-0.509	-0.010
Corticosteroids, rectal	261	1.7%	613	1.2%	0.495	0.042
Antibiotics	7,797	50.3%	25,686	49.9%	0.463	0.009
Antivirals	1,052	6.8%	2,888	5.6%	1.184	0.049
Anticoagulants	1,493	9.6%	4,113	8.0%	1.653	0.058
Antidiabetics	1,005	6.5%	3,576	6.9%	-0.455	-0.018
Antihypertensives	2,941	19.0%	9,623	18.7%	0.302	0.008
Antiplatelets	331	2.1%	1,121	2.2%	-0.040	-0.003
Lipid-lowering drugs	3,231	20.9%	9,969	19.4%	1.502	0.037
Non-steroidal anti-inflammatory drugs	2,349	15.2%	8,896	17.3%	-2.108	-0.057
Opioids	5,338	34.5%	17,160	33.3%	1.142	0.024
Immunization From [-365, 0]						
Flu (Influenza) vaccination	6,244	40.3%	18,172	35.3%	5.026	0.104
Immunization From [ever, 0]						
Covid-19 vaccination	2,845	18.4%	5,863	11.4%	6.983	0.197
Diphtheria, tetanus, and pertussis (DTaP)	3,570	23.0%	11,358	22.1%	0.994	0.024
Haemophilus influenza type B vaccination	17	0.1%	45	0.1%	0.022	0.007
Measles, mumps, and rubella (MMR) vaccination	119	0.8%	392	0.8%	0.007	0.001
Meningococcal vaccination	595	3.8%	2,434	4.7%	-0.885	-0.044
Pneumococcal vaccination	4,530	29.2%	13,057	25.4%	3.893	0.087
Varicella (VAR) vaccination	1,073	6.9%	3,177	6.2%	0.758	0.031
Zoster recombinant vaccination	886	5.7%	2,237	4.3%	1.376	0.063

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Number	Percent ²	Number	Percent ²		
Mean number of filled prescriptions	18.2	16.8	16.8	17.0	1.319	0.078
Mean number of unique drug classes dispensed	7.2	4.8	6.9	5.0	0.304	0.062
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.4	11.1	12.2	10.8	1.177	0.108
Mean number of emergency room encounters	0.6	1.5	0.6	1.5	-0.054	-0.036
Mean number of inpatient hospital encounters	0.3	0.8	0.4	0.8	-0.011	-0.014
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.2	-0.004	-0.022
Mean number of other ambulatory encounters	5.1	10.8	5.2	12.0	-0.111	-0.010
Number of emergency department encounters						
0	10,974	70.8%	35,071	68.1%	2.751	0.060
1	2,643	17.1%	9,405	18.3%	-1.198	-0.031
2-3	1,341	8.7%	5,063	9.8%	-1.173	-0.041
4	532	3.4%	1,964	3.8%	-0.379	-0.020
Number of ambulatory encounters						
0	49	0.3%	765	1.5%	-1.169	-0.124
1	236	1.5%	1,340	2.6%	-1.078	-0.076
2-3	1,018	6.6%	4,285	8.3%	-1.748	-0.067
4	14,187	91.6%	45,113	87.6%	3.995	0.131

Table 1b. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users			
Number of inpatient encounters						
0	12,002	77.5%	39,199	76.1%	1.372	0.033
1	2,335	15.1%	8,466	16.4%	-1.364	-0.037
2-3	977	6.3%	3,297	6.4%	-0.094	-0.004
4	176	1.1%	541	1.1%	0.086	0.008
Number of days with GI-related emergency department encounter						
0	12,907	83.3%	42,824	83.1%	0.176	0.005
1	1,767	11.4%	6,090	11.8%	-0.417	-0.013
2-3	624	4.0%	2,042	4.0%	0.064	0.003
4	192	1.2%	547	1.1%	0.177	0.017
Number of days with GI-related inpatient encounter						
0	13,312	85.9%	43,872	85.2%	0.756	0.022
1	1,693	10.9%	6,094	11.8%	-0.903	-0.028
2-3	448	2.9%	1,443	2.8%	0.090	0.005
4	37	0.2%	94	0.2%	0.056	0.012

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

*The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. J Clin Epidemiol. 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. Med Care. 2017;55(12):1046-1051)

****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Patient Characteristics ^{1,2}	Number	Percent ²	Number	Percent ²		
Weighted patients	15,490	N/A	14,641	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	47.7	14.2	47.8	14.6	-0.060	-0.004
Age						
18-24 years	1,562	10.1%	1,584	10.8%	-0.737	-0.025
25-34 years	2,886	18.6%	2,807	19.2%	-0.538	-0.014
35-44 years	2,954	19.1%	2,599	17.8%	1.318	0.034
45-54 years	2,534	16.4%	2,238	15.3%	1.073	0.030
55-64 years	2,054	13.3%	1,918	13.1%	0.162	0.005
65-74 years	2,596	16.8%	2,593	17.7%	-0.948	-0.029
≥ 75 years	904	5.8%	903	6.2%	-0.330	-0.015
Sex						
Female	8,898	57.4%	8,419	57.5%	-0.056	-0.001
Male	6,592	42.6%	6,223	42.5%	0.056	0.001
Race ⁴						
American Indian or Alaska Native	29	0.2%	*****	*****	-0.063	-0.014
Asian	106	0.7%	89	0.6%	0.080	0.010
Black or African American	843	5.4%	890	6.1%	-0.634	-0.028
Multi-racial	105	0.7%	117	0.8%	-0.123	-0.015
Native Hawaiian or Other Pacific Islander	11	0.1%	*****	*****	0.011	0.004
Unknown	7,336	47.4%	6,917	47.2%	0.113	0.004
White	7,060	45.6%	6,583	45.0%	0.617	0.018

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Demographic Characteristics	Number	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	282	1.8%	270	1.8%	-0.021	-0.002
No	6,939	44.8%	6,572	44.9%	-0.092	-0.004
Unknown	8,269	53.4%	7,799	53.3%	0.113	0.005
Year						
2016	282	1.8%	260	1.8%	0.044	0.003
2017	2,341	15.1%	2,134	14.6%	0.537	0.015
2018	2,428	15.7%	2,296	15.7%	-0.010	-0.000
2019	2,757	17.8%	2,599	17.8%	0.046	0.001
2020	2,675	17.3%	2,498	17.1%	0.209	0.006
2021	2,178	14.1%	2,107	14.4%	-0.333	-0.010
2022	2,335	15.1%	2,261	15.4%	-0.369	-0.010
2023	494	3.2%	485	3.3%	-0.123	-0.007
Time						
Before April 1, 2020 (pre-pandemic)	8,510	54.9%	7,966	54.4%	0.533	0.011
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,732	11.2%	1,603	10.9%	0.232	0.007
December 1, 2020 through most recent data (pandemic after vaccine)	5,248	33.9%	5,072	34.6%	-0.765	-0.017

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Acquired hypothyroidism	1,469	9.5%	1,381	9.4%	0.052	0.002
Acute myocardial infarction	88	0.6%	81	0.6%	0.014	0.002
Alcohol or drug abuse	1,074	6.9%	1,010	6.9%	0.038	0.002
Alzheimers disease	26	0.2%	22	0.2%	0.016	0.004
Anemia	5,098	32.9%	4,741	32.4%	0.531	0.011
Asthma	1,281	8.3%	1,178	8.0%	0.225	0.008
Atrial fibrillation	563	3.6%	544	3.7%	-0.084	-0.005
Benign prostatic hyperplasia	636	4.1%	599	4.1%	0.018	0.001
Cancer, history of	1,014	6.5%	961	6.6%	-0.016	-0.001
Cancer, breast	193	1.2%	191	1.3%	-0.055	-0.005
Cancer, colorectal	154	1.0%	146	1.0%	-0.005	-0.000
Cancer, endometrial	28	0.2%	24	0.2%	0.019	0.005
Cancer, lung	49	0.3%	45	0.3%	0.008	0.002
Cancer, prostate	155	1.0%	145	1.0%	0.010	0.001
Cataract	991	6.4%	964	6.6%	-0.184	-0.008
Chronic kidney disease	1,084	7.0%	1,025	7.0%	-0.002	-0.000
COPD/bronchiectasis	1,049	6.8%	986	6.7%	0.037	0.002
Depression	3,359	21.7%	3,096	21.1%	0.542	0.013
Diabetes	1,438	9.3%	1,374	9.4%	-0.103	-0.004
Glaucoma	481	3.1%	462	3.2%	-0.049	-0.003
Heart failure	514	3.3%	493	3.4%	-0.046	-0.003
Hip/pelvic fracture	28	0.2%	23	0.2%	0.021	0.005
Hyperlipidemia	3,171	20.5%	3,042	20.8%	-0.308	-0.008
Hypertension (CCW)	4,387	28.3%	4,158	28.4%	-0.079	-0.002

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Serious infection	1,179	7.6%	1,112	7.6%	0.014	0.001
Intestinal perforation	171	1.1%	159	1.1%	0.021	0.002
Intestine, fistula	3,138	20.3%	2,901	19.8%	0.445	0.011
Intestine, obstruction	4,066	26.2%	3,714	25.4%	0.881	0.020
Intra-abdominal abscess	1,284	8.3%	1,203	8.2%	0.072	0.003
Ischemic heart disease	846	5.5%	808	5.5%	-0.054	-0.002
Obesity	1,998	12.9%	1,903	13.0%	-0.101	-0.003
Osteoporosis	1,126	7.3%	1,033	7.1%	0.217	0.009
CD Colitis	11,342	73.2%	10,697	73.1%	0.157	0.004
Perianal disease/abscess	4,800	31.0%	4,506	30.8%	0.214	0.005
Rheumatoid arthritis/osteoarthritis	2,384	15.4%	2,242	15.3%	0.077	0.002
Stroke/TIA	207	1.3%	195	1.3%	0.003	0.000

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁵	1.5	2.0	1.5	2.0	0.019	0.010
Metastatic cancer	95	0.6%	95	0.7%	-0.038	-0.005
Congestive heart failure	704	4.5%	672	4.6%	-0.042	-0.002
Dementia	84	0.5%	80	0.5%	-0.003	-0.000
Renal failure	978	6.3%	931	6.4%	-0.044	-0.002
Weight loss	1,877	12.1%	1,765	12.1%	0.059	0.002
Hemiplegia	51	0.3%	48	0.3%	0.001	0.000
Alcohol abuse	240	1.5%	260	1.8%	-0.229	-0.018
Any tumor	1,294	8.4%	1,093	7.5%	0.885	0.033
Cardiac arrhythmias	2,121	13.7%	1,939	13.2%	0.446	0.013
Chronic pulmonary disease	2,187	14.1%	2,045	14.0%	0.151	0.004
Coagulopathy	485	3.1%	439	3.0%	0.129	0.008
Complicated diabetes	797	5.1%	786	5.4%	-0.221	-0.010
Deficiency anemias	4,555	29.4%	4,261	29.1%	0.302	0.007
Fluid and electrolyte disorders	2,531	16.3%	2,396	16.4%	-0.023	-0.001
Liver disease	1,628	10.5%	1,533	10.5%	0.041	0.001
Peripheral vascular disorder	731	4.7%	700	4.8%	-0.061	-0.003
Psychosis	3,216	20.8%	2,958	20.2%	0.561	0.014
Pulmonary circulation disorders	299	1.9%	266	1.8%	0.116	0.009
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN
Hypertension	4,378	28.3%	4,151	28.3%	-0.087	-0.002
Malnutrition	982	6.3%	910	6.2%	0.125	0.005
C. diff testing	2,681	17.3%	2,513	17.2%	0.145	0.004
C. diff diagnosis	337	2.2%	313	2.1%	0.040	0.003
Cancer, urologic (kidney, renal pevis, and ureter)	75	0.5%	71	0.5%	-0.004	-0.001
Non-Alzheimers dementia	88	0.6%	80	0.5%	0.020	0.003
Parkinsons disease and secondary parkinsonism	48	0.3%	40	0.3%	0.038	0.007

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Use on Index Date [0]	Number	Percent ²	Number	Percent ²		
Adalimumab on index date	0	0.0%	4,514	30.8%	NaN	NaN
Infliximab on index date	0	0.0%	5,001	34.2%	NaN	NaN
Vedolizumab on index date	0	0.0%	5,126	35.0%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Recorded History of Use From [-183, -1]:	Number	Percent ²	Number	Percent ²	Absolute Difference	Standardized Difference
Adalimumab	2,671	17.2%	2,499	17.1%	0.173	0.005
Certolizumab pegol	721	4.7%	682	4.7%	-0.001	-0.000
Golimumab	38	0.2%	29	0.2%	0.051	0.011
Infliximab	1,531	9.9%	1,526	10.4%	-0.539	-0.018
Natalizumab	*****	*****	11	0.1%	-0.032	-0.013
Ozanimod	*****	*****	*****	*****	-0.000	-0.001
Tofacitinib	14	0.1%	19	0.1%	-0.042	-0.013
Upadacitinib	*****	*****	*****	*****	-0.020	-0.016
Vedolizumab	1,517	9.8%	898	6.1%	3.663	0.136
Risankizumab	*****	*****	13	0.1%	-0.064	-0.027

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Number	Percent ²	Number	Percent ²		
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	783	5.1%	757	5.2%	-0.114	-0.005
Treatment-experienced - any biologic or small molecule drug	6,417	41.4%	5,614	38.3%	3.081	0.063
Days with a biologic dispensing						
1	496	3.2%	412	2.8%	0.386	0.023
2	877	5.7%	772	5.3%	0.391	0.017
3-4	2,322	15.0%	2,036	13.9%	1.086	0.031
5-6	2,127	13.7%	1,875	12.8%	0.926	0.027
7+	595	3.8%	520	3.5%	0.291	0.016
Recorded History of Use From [-183, 0]	Number	Percent ²	Number	Percent ²	Absolute Difference	Standardized Difference
Aminosalicylates (5-ASA)	2,162	14.0%	2,096	14.3%	-0.361	-0.010
Immunomodulators	3,056	19.7%	2,877	19.7%	0.076	0.002
Corticosteroids, intravenous	16	0.1%	13	0.1%	0.012	0.004
Corticosteroids, oral	6,371	41.1%	6,015	41.1%	0.047	0.001
Corticosteroids, rectal	261	1.7%	232	1.6%	0.099	0.008
Antibiotics	7,797	50.3%	7,347	50.2%	0.156	0.003
Antivirals	1,052	6.8%	1,000	6.8%	-0.037	-0.001
Anticoagulants	1,493	9.6%	1,391	9.5%	0.138	0.005
Antidiabetics	1,005	6.5%	970	6.6%	-0.140	-0.006
Antihypertensives	2,941	19.0%	2,784	19.0%	-0.029	-0.001
Antiplatelets	331	2.1%	301	2.1%	0.081	0.006
Lipid-lowering drugs	3,231	20.9%	3,036	20.7%	0.119	0.003
Non-steroidal anti-inflammatory drugs	2,349	15.2%	2,226	15.2%	-0.037	-0.001
Opioids	5,338	34.5%	5,029	34.3%	0.114	0.002

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Immunization From [-365, 0]						
Flu (Influenza) vaccination	6,244	40.3%	5,879	40.2%	0.156	0.003
Immunization From [ever, 0]						
Covid-19 vaccination	2,845	18.4%	2,736	18.7%	-0.319	-0.008
Diphtheria, tetanus, and pertussis (DTaP) vaccination	3,570	23.0%	3,400	23.2%	-0.176	-0.004
Haemophilus influenza type B vaccination	17	0.1%	17	0.1%	-0.005	-0.001
Measles, mumps, and rubella (MMR) vaccination	119	0.8%	115	0.8%	-0.015	-0.002
Meningococcal vaccination	595	3.8%	563	3.8%	-0.002	-0.000
Pneumococcal vaccination	4,530	29.2%	4,261	29.1%	0.143	0.003
Varicella (VAR) vaccination	1,073	6.9%	1,006	6.9%	0.058	0.002
Zoster recombinant vaccination	886	5.7%	837	5.7%	0.005	0.000
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	18.2	16.8	17.9	17.7	0.211	0.012
Mean number of unique drug classes dispensed	7.2	4.8	7.2	5.0	0.044	0.009
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.4	11.1	13.2	11.4	0.183	0.016
Mean number of emergency room encounters	0.6	1.5	0.6	1.3	0.013	0.009
Mean number of inpatient hospital encounters	0.3	0.8	0.3	0.8	0.004	0.005
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.1	0.001	0.010
Mean number of other ambulatory encounters	5.1	10.8	5.1	11.2	0.061	0.006
Number of emergency department encounters						
0	10,974	70.8%	10,322	70.5%	0.345	0.008
1	2,643	17.1%	2,533	17.3%	-0.240	-0.006
2-3	1,341	8.7%	1,290	8.8%	-0.156	-0.006
4	532	3.4%	495	3.4%	0.051	0.003

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Number of ambulatory encounters						
0	49	0.3%	119	0.8%	-0.495	-0.066
1	236	1.5%	258	1.8%	-0.237	-0.019
2-3	1,018	6.6%	1,008	6.9%	-0.314	-0.013
4	14,187	91.6%	13,256	90.5%	1.046	0.037
Number of inpatient encounters						
0	12,002	77.5%	11,337	77.4%	0.052	0.001
1	2,335	15.1%	2,230	15.2%	-0.160	-0.004
2-3	977	6.3%	918	6.3%	0.034	0.001
4	176	1.1%	156	1.1%	0.073	0.007

Table 1c. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users			
Health Service Utilization Intensity Metrics From [-183, -1]						
Number of days with GI-related emergency department encounter						
0	12,907	83.3%	12,241	83.6%	-0.279	-0.008
1	1,767	11.4%	1,639	11.2%	0.211	0.007
2-3	624	4.0%	586	4.0%	0.025	0.001
4	192	1.2%	175	1.2%	0.044	0.004
Number of days with GI-related inpatient encounter						
0	13,312	85.9%	12,616	86.2%	-0.229	-0.007
1	1,693	10.9%	1,579	10.8%	0.144	0.005
2-3	448	2.9%	412	2.8%	0.078	0.005
4	37	0.2%	34	0.2%	0.007	0.001

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Patient Characteristics ¹	Ustekinumab Users		Comparator Users		Covariate Balance	
	Number	Percent ²	Number	Percent ²	Absolute Difference	Standardized Difference
Unique patients	9,073	100.0%	45,078	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	48.8	14.0	45.6	14.2	3.162	0.224
Age						
18-24 years	815	9.0%	6,556	14.5%	-5.561	-0.173
25-34 years	1,640	18.1%	9,425	20.9%	-2.833	-0.072
35-44 years	1,658	18.3%	7,991	17.7%	0.547	0.014
45-54 years	1,491	16.4%	6,421	14.2%	2.189	0.061
55-64 years	1,204	13.3%	5,243	11.6%	1.639	0.050
65-74 years	1,690	18.6%	6,791	15.1%	3.562	0.095
≥ 75 years	575	6.3%	2,651	5.9%	0.457	0.019
Sex						
Female	5,297	58.4%	24,614	54.6%	3.779	0.076
Male	3,776	41.6%	20,464	45.4%	-3.779	-0.076
Race ³						
American Indian or Alaska Native	*****	*****	143	0.3%	-0.130	-0.026
Asian	58	0.6%	349	0.8%	-0.135	-0.016
Black or African American	530	5.8%	3,462	7.7%	-1.839	-0.073
Multi-racial	69	0.8%	288	0.6%	0.122	0.015
Native Hawaiian or Other Pacific Islander	*****	*****	37	0.1%	-0.038	-0.015
Unknown	4,037	44.5%	19,855	44.0%	0.449	0.009
White	4,358	48.0%	20,944	46.5%	1.571	0.031

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	158	1.7%	1,193	2.6%	-0.905	-0.062
No	4,303	47.4%	22,782	50.5%	-3.113	-0.062
Unknown	4,612	50.8%	21,103	46.8%	4.018	0.080
Year						
2016	93	1.0%	2,011	4.5%	-3.436	-0.212
2017	1,046	11.5%	8,648	19.2%	-7.656	-0.214
2018	1,375	15.2%	8,474	18.8%	-3.644	-0.097
2019	1,590	17.5%	8,249	18.3%	-0.775	-0.020
2020	1,641	18.1%	7,904	17.5%	0.553	0.014
2021	1,381	15.2%	4,732	10.5%	4.724	0.141
2022	1,571	17.3%	4,223	9.4%	7.947	0.235
2023	376	4.1%	837	1.9%	2.287	0.134
Time						
Before April 1, 2020 (pre-pandemic)	4,536	50.0%	29,710	65.9%	-15.913	-0.327
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,057	11.6%	4,951	11.0%	0.667	0.021
December 1, 2020 through most recent data (pandemic after vaccine)	3,480	38.4%	10,417	23.1%	15.247	0.335

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Acquired hypothyroidism	936	10.3%	3,779	8.4%	1.933	0.066
Acute myocardial infarction	62	0.7%	264	0.6%	0.098	0.012
Alcohol or drug abuse	694	7.6%	3,288	7.3%	0.355	0.014
Alzheimers disease	19	0.2%	66	0.1%	0.063	0.015
Anemia	2,958	32.6%	12,748	28.3%	4.322	0.094
Asthma	745	8.2%	3,610	8.0%	0.203	0.007
Atrial fibrillation	378	4.2%	1,582	3.5%	0.657	0.034
Benign prostatic hyperplasia	401	4.4%	1,668	3.7%	0.719	0.036
Cancer, history of	664	7.3%	2,891	6.4%	0.905	0.036
Cancer, breast	132	1.5%	616	1.4%	0.088	0.007
Cancer, colorectal	101	1.1%	428	0.9%	0.164	0.016
Cancer, endometrial	18	0.2%	72	0.2%	0.039	0.009
Cancer, lung	33	0.4%	206	0.5%	-0.093	-0.015
Cancer, prostate	106	1.2%	436	1.0%	0.201	0.020
Cataract	615	6.8%	2,580	5.7%	1.055	0.044
Chronic kidney disease	696	7.7%	2,676	5.9%	1.735	0.069
COPD/bronchiectasis	663	7.3%	3,371	7.5%	-0.171	-0.007
Depression	1,989	21.9%	8,934	19.8%	2.103	0.052
Diabetes	908	10.0%	4,297	9.5%	0.475	0.016
Glaucoma	292	3.2%	1,332	3.0%	0.263	0.015
Heart failure	359	4.0%	1,361	3.0%	0.938	0.051
Hip/pelvic fracture	18	0.2%	73	0.2%	0.036	0.009
Hyperlipidemia	2,033	22.4%	8,974	19.9%	2.499	0.061
Hypertension (CCW)	2,696	29.7%	12,319	27.3%	2.386	0.053

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Serious infection	728	8.0%	3,765	8.4%	-0.328	-0.012
Intestinal perforation	101	1.1%	703	1.6%	-0.446	-0.039
Intestine, fistula	1,713	18.9%	7,237	16.1%	2.826	0.074
Intestine, obstruction	2,327	25.6%	9,589	21.3%	4.376	0.103
Intra-abdominal abscess	723	8.0%	3,674	8.2%	-0.182	-0.007
Ischemic heart disease	564	6.2%	2,593	5.8%	0.464	0.020
Obesity	1,196	13.2%	5,644	12.5%	0.661	0.020
Osteoporosis	665	7.3%	2,093	4.6%	2.686	0.113
CD Colitis	6,384	70.4%	29,396	65.2%	5.151	0.110
Perianal disease/abscess	2,808	30.9%	13,369	29.7%	1.291	0.028
Rheumatoid arthritis/osteoarthritis	1,436	15.8%	6,103	13.5%	2.288	0.065
Stroke/TIA	140	1.5%	628	1.4%	0.150	0.012

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.6	2.1	1.4	2.0	0.173	0.086
Metastatic cancer	55	0.6%	330	0.7%	-0.126	-0.015
Congestive heart failure	481	5.3%	2,022	4.5%	0.816	0.038
Dementia	59	0.7%	294	0.7%	-0.002	-0.000
Renal failure	630	6.9%	2,396	5.3%	1.628	0.068
Weight loss	1,168	12.9%	5,455	12.1%	0.772	0.023
Hemiplegia	36	0.4%	158	0.4%	0.046	0.008
Alcohol abuse	157	1.7%	875	1.9%	-0.211	-0.016
Any tumor	753	8.3%	2,953	6.6%	1.748	0.067
Cardiac arrhythmias	1,331	14.7%	5,783	12.8%	1.841	0.053
Chronic pulmonary disease	1,334	14.7%	6,498	14.4%	0.288	0.008
Coagulopathy	293	3.2%	1,175	2.6%	0.623	0.037
Complicated diabetes	517	5.7%	2,463	5.5%	0.234	0.010
Deficiency anemias	2,646	29.2%	11,513	25.5%	3.623	0.081
Fluid and electrolyte disorders	1,581	17.4%	7,243	16.1%	1.358	0.036
Liver disease	1,004	11.1%	4,221	9.4%	1.702	0.056
Peripheral vascular disorder	475	5.2%	2,275	5.0%	0.189	0.009
Psychosis	1,912	21.1%	8,654	19.2%	1.876	0.047
Pulmonary circulation disorders	183	2.0%	682	1.5%	0.504	0.038
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN
Hypertension	2,689	29.6%	12,300	27.3%	2.351	0.052
Malnutrition	620	6.8%	2,475	5.5%	1.343	0.056
C. diff testing	1,465	16.1%	7,047	15.6%	0.514	0.014
C. diff diagnosis	197	2.2%	973	2.2%	0.013	0.001
Cancer, urologic (kidney, renal pevis, and ureter)	56	0.6%	207	0.5%	0.158	0.022
Non-Alzheimers dementia	60	0.7%	296	0.7%	0.005	0.001
Parkinsons disease and secondary parkinsonism	35	0.4%	119	0.3%	0.122	0.021

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Use on Index Date [0]	Number	Percent ²	Number	Percent ²		
Adalimumab on index date	0	0.0%	18,928	42.0%	NaN	NaN
Infliximab on index date	0	0.0%	15,916	35.3%	NaN	NaN
Vedolizumab on index date	0	0.0%	10,234	22.7%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Recorded History of Use From [-183, -1]:	Number	Percent ²	Number	Percent ²	Absolute Difference	Standardized Difference
Adalimumab	0	0.0%	0	0.0%	NaN	NaN
Certolizumab pegol	0	0.0%	0	0.0%	NaN	NaN
Golimumab	0	0.0%	0	0.0%	NaN	NaN
Infliximab	0	0.0%	0	0.0%	NaN	NaN
Natalizumab	0	0.0%	0	0.0%	NaN	NaN
Ozanimod	0	0.0%	0	0.0%	NaN	NaN
Tofacitinib	0	0.0%	0	0.0%	NaN	NaN
Upadacitinib	0	0.0%	0	0.0%	NaN	NaN
Vedolizumab	0	0.0%	0	0.0%	NaN	NaN
Risankizumab	0	0.0%	0	0.0%	NaN	NaN
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Treatment-experienced - any biologic or small molecule drug	0	0.0%	0	0.0%	NaN	NaN

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Number	Percent ²	Number	Percent ²		
Days with a biologic dispensing						
1	0	0.0%	0	0.0%	NaN	NaN
2	0	0.0%	0	0.0%	NaN	NaN
3-4	0	0.0%	0	0.0%	NaN	NaN
5-6	0	0.0%	0	0.0%	NaN	NaN
7+	0	0.0%	0	0.0%	NaN	NaN
Recorded History of Use From [-183, 0]	Number	Percent ²	Number	Percent ²	Absolute Difference	Standardized Difference
Aminosalicylates (5-ASA)	1,366	15.1%	9,759	21.6%	-6.593	-0.171
Immunomodulators	1,406	15.5%	8,867	19.7%	-4.174	-0.110
Corticosteroids, intravenous	*****	*****	23	0.1%	-0.007	-0.003
Corticosteroids, oral	3,505	38.6%	18,527	41.1%	-2.469	-0.050
Corticosteroids, rectal	113	1.2%	484	1.1%	0.172	0.016
Antibiotics	4,382	48.3%	22,169	49.2%	-0.882	-0.018
Antivirals	586	6.5%	2,441	5.4%	1.044	0.044
Anticoagulants	893	9.8%	3,529	7.8%	2.014	0.071
Antidiabetics	636	7.0%	3,082	6.8%	0.173	0.007
Antihypertensives	1,728	19.0%	8,343	18.5%	0.538	0.014
Antiplatelets	205	2.3%	994	2.2%	0.054	0.004
Lipid-lowering drugs	1,908	21.0%	8,561	19.0%	2.038	0.051
Non-steroidal anti-inflammatory drugs	1,390	15.3%	7,804	17.3%	-1.992	-0.054
Opioids	3,134	34.5%	14,768	32.8%	1.781	0.038
Immunization From [-365, 0]	Number	Percent ²	Number	Percent ²	Absolute Difference	Standardized Difference
Flu (Influenza) vaccination	3,574	39.4%	15,610	34.6%	4.763	0.099

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Immunization From [ever, 0]	Number	Percent ²	Number	Percent ²		
Covid-19 vaccination	1,881	20.7%	5,195	11.5%	9.207	0.252
Diphtheria, tetanus, and pertussis (DTaP) vaccination	2,097	23.1%	9,888	21.9%	1.177	0.028
Haemophilus influenza type B vaccination	*****	*****	39	0.1%	0.024	0.008
Measles, mumps, and rubella (MMR) vaccination	80	0.9%	356	0.8%	0.092	0.010
Meningococcal vaccination	303	3.3%	2,106	4.7%	-1.332	-0.068
Pneumococcal vaccination	2,586	28.5%	11,190	24.8%	3.679	0.083
Varicella (VAR) vaccination	636	7.0%	2,775	6.2%	0.854	0.034
Zoster recombinant vaccination	577	6.4%	1,974	4.4%	1.980	0.088
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	16.5	16.4	16.3	16.7	0.168	0.010
Mean number of unique drug classes dispensed	6.8	4.8	6.8	4.9	0.056	0.012
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.0	11.7	12.0	10.8	1.063	0.094
Mean number of emergency room encounters	0.6	1.6	0.6	1.5	-0.034	-0.022
Mean number of inpatient hospital encounters	0.4	0.8	0.4	0.8	0.003	0.004
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.2	-0.003	-0.019
Mean number of other ambulatory encounters	5.2	11.1	5.3	12.1	-0.064	-0.006
Health Service Utilization Intensity Metrics From [-183, -1]						
Number of emergency department encounters						
0	6,400	70.5%	30,601	67.9%	2.654	0.058
1	1,523	16.8%	8,264	18.3%	-1.547	-0.041
2-3	802	8.8%	4,493	10.0%	-1.128	-0.039
4	348	3.8%	1,720	3.8%	0.020	0.001

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Number of ambulatory encounters						
0	44	0.5%	759	1.7%	-1.199	-0.116
1	181	2.0%	1,299	2.9%	-0.887	-0.058
2-3	694	7.6%	3,986	8.8%	-1.193	-0.043
4	8,154	89.9%	39,034	86.6%	3.279	0.102
Number of inpatient encounters						
0	6,919	76.3%	34,136	75.7%	0.533	0.012
1	1,433	15.8%	7,534	16.7%	-0.919	-0.025
2-3	613	6.8%	2,933	6.5%	0.250	0.010
4	108	1.2%	475	1.1%	0.137	0.013

Table 1d. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users			
Health Service Utilization Intensity Metrics From [-183, -1]						
Number of days with GI-related emergency department encounter						
0	7,584	83.6%	37,555	83.3%	0.278	0.007
1	998	11.0%	5,309	11.8%	-0.778	-0.024
2-3	371	4.1%	1,754	3.9%	0.198	0.010
4	120	1.3%	460	1.0%	0.302	0.028
Number of days with GI-related inpatient encounter						
0	7,798	85.9%	38,307	85.0%	0.968	0.027
1	999	11.0%	5,429	12.0%	-1.033	-0.032
2-3	258	2.8%	1,267	2.8%	0.033	0.002
4	18	0.2%	75	0.2%	0.032	0.008

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. J Clin Epidemiol. 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. Med Care. 2017;55(12):1046-1051)

****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Unique patients	9,036	99.6%	44,847	99.5%	N/A	N/A
Demographic Characteristics						
Age (years)	48.7	14.0	45.6	14.2	3.157	0.224
Age						
18-24 years	814	9.0%	6,530	14.6%	-5.552	-0.173
25-34 years	1,636	18.1%	9,395	20.9%	-2.844	-0.072
35-44 years	1,652	18.3%	7,953	17.7%	0.549	0.014
45-54 years	1,486	16.4%	6,384	14.2%	2.210	0.061
55-64 years	1,196	13.2%	5,199	11.6%	1.643	0.050
65-74 years	1,682	18.6%	6,751	15.1%	3.561	0.095
≥ 75 years	570	6.3%	2,635	5.9%	0.433	0.018
Sex						
Female	5,273	58.4%	24,486	54.6%	3.756	0.076
Male	3,763	41.6%	20,361	45.4%	-3.756	-0.076
Race ³						
American Indian or Alaska Native	*****	*****	142	0.3%	-0.128	-0.026
Asian	58	0.6%	348	0.8%	-0.134	-0.016
Black or African American	528	5.8%	3,436	7.7%	-1.818	-0.073
Multi-racial	69	0.8%	287	0.6%	0.124	0.015
Native Hawaiian or Other Pacific	*****	*****	37	0.1%	-0.038	-0.015
Unknown	4,021	44.5%	19,751	44.0%	0.459	0.009
White	4,339	48.0%	20,846	46.5%	1.537	0.031

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	155	1.7%	1,188	2.6%	-0.934	-0.064
No	4,288	47.5%	22,675	50.6%	-3.106	-0.062
Unknown	4,593	50.8%	20,984	46.8%	4.040	0.081
Year						
2016	91	1.0%	1,977	4.4%	-3.401	-0.211
2017	1,045	11.6%	8,634	19.3%	-7.687	-0.214
2018	1,373	15.2%	8,458	18.9%	-3.665	-0.098
2019	1,588	17.6%	8,239	18.4%	-0.797	-0.021
2020	1,617	17.9%	7,780	17.3%	0.547	0.014
2021	1,379	15.3%	4,716	10.5%	4.745	0.142
2022	1,571	17.4%	4,207	9.4%	8.005	0.237
2023	372	4.1%	836	1.9%	2.253	0.133
Time						
Before April 1, 2020 (pre-pandemic)	4,528	50.1%	29,634	66.1%	-15.967	-0.328
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,036	11.5%	4,843	10.8%	0.666	0.021
December 1, 2020 through most recent data (pandemic after vaccine)	3,472	38.4%	10,370	23.1%	15.301	0.336

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Acquired hypothyroidism	932	10.3%	3,755	8.4%	1.941	0.067
Acute myocardial infarction	61	0.7%	256	0.6%	0.104	0.013
Alcohol or drug abuse	685	7.6%	3,266	7.3%	0.298	0.011
Alzheimers disease	18	0.2%	64	0.1%	0.056	0.014
Anemia	2,936	32.5%	12,657	28.2%	4.270	0.093
Asthma	738	8.2%	3,588	8.0%	0.167	0.006
Atrial fibrillation	370	4.1%	1,555	3.5%	0.627	0.033
Benign prostatic hyperplasia	399	4.4%	1,652	3.7%	0.732	0.037
Cancer, history of	658	7.3%	2,851	6.4%	0.925	0.037
Cancer, breast	129	1.4%	610	1.4%	0.067	0.006
Cancer, colorectal	100	1.1%	423	0.9%	0.163	0.016
Cancer, endometrial	17	0.2%	69	0.2%	0.034	0.008
Cancer, lung	32	0.4%	197	0.4%	-0.085	-0.014
Cancer, prostate	105	1.2%	427	1.0%	0.210	0.021
Cataract	613	6.8%	2,567	5.7%	1.060	0.044
Chronic kidney disease	691	7.6%	2,654	5.9%	1.729	0.069
COPD/bronchiectasis	659	7.3%	3,335	7.4%	-0.143	-0.005
Depression	1,975	21.9%	8,863	19.8%	2.094	0.052
Diabetes	900	10.0%	4,250	9.5%	0.483	0.016
Glaucoma	292	3.2%	1,318	2.9%	0.293	0.017
Heart failure	349	3.9%	1,332	3.0%	0.892	0.049
Hip/pelvic fracture	18	0.2%	65	0.1%	0.054	0.013
Hyperlipidemia	2,021	22.4%	8,904	19.9%	2.512	0.062
Hypertension (CCW)	2,677	29.6%	12,201	27.2%	2.420	0.054

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Serious infection	720	8.0%	3,720	8.3%	-0.327	-0.012
Intestinal perforation	100	1.1%	681	1.5%	-0.412	-0.036
Intestine, fistula	1,704	18.9%	7,194	16.0%	2.817	0.074
Intestine, obstruction	2,310	25.6%	9,521	21.2%	4.334	0.103
Intra-abdominal abscess	719	8.0%	3,641	8.1%	-0.162	-0.006
Ischemic heart disease	557	6.2%	2,548	5.7%	0.483	0.020
Obesity	1,192	13.2%	5,590	12.5%	0.727	0.022
Osteoporosis	660	7.3%	2,079	4.6%	2.668	0.113
CD Colitis	6,356	70.3%	29,251	65.2%	5.117	0.110
Perianal disease/abscess	2,797	31.0%	13,294	29.6%	1.311	0.029
Rheumatoid arthritis/osteoarthritis	1,426	15.8%	6,051	13.5%	2.289	0.065
Stroke/TIA	139	1.5%	616	1.4%	0.165	0.014

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.6	2.0	1.4	2.0	0.170	0.085
Metastatic cancer	55	0.6%	322	0.7%	-0.109	-0.013
Congestive heart failure	470	5.2%	1,985	4.4%	0.775	0.036
Dementia	58	0.6%	286	0.6%	0.004	0.001
Renal failure	626	6.9%	2,375	5.3%	1.632	0.068
Weight loss	1,156	12.8%	5,413	12.1%	0.723	0.022
Hemiplegia	36	0.4%	152	0.3%	0.059	0.010
Alcohol abuse	156	1.7%	874	1.9%	-0.222	-0.017
Any tumor	747	8.3%	2,912	6.5%	1.774	0.068
Cardiac arrhythmias	1,313	14.5%	5,716	12.7%	1.785	0.052
Chronic pulmonary disease	1,322	14.6%	6,444	14.4%	0.262	0.007
Coagulopathy	289	3.2%	1,162	2.6%	0.607	0.036
Complicated diabetes	512	5.7%	2,433	5.4%	0.241	0.011
Deficiency anemias	2,627	29.1%	11,431	25.5%	3.584	0.081
Fluid and electrolyte disorders	1,561	17.3%	7,161	16.0%	1.308	0.035
Liver disease	992	11.0%	4,176	9.3%	1.667	0.055
Peripheral vascular disorder	472	5.2%	2,241	5.0%	0.227	0.010
Psychosis	1,898	21.0%	8,583	19.1%	1.866	0.047
Pulmonary circulation disorders	179	2.0%	664	1.5%	0.500	0.038
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Hypertension	2,670	29.5%	12,182	27.2%	2.385	0.053
Malnutrition	610	6.8%	2,448	5.5%	1.292	0.054
C. diff testing	1,460	16.2%	6,998	15.6%	0.553	0.015
C. diff diagnosis	195	2.2%	964	2.1%	0.009	0.001
Cancer, urologic (kidney, renal pevis, and ureter)	55	0.6%	205	0.5%	0.152	0.021
Non-Alzheimers dementia	59	0.7%	288	0.6%	0.011	0.001
Parkinsons disease and secondary parkinsonism	32	0.4%	116	0.3%	0.095	0.017
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	18,831	42.0%	NaN	NaN
Infliximab on index date	0	0.0%	15,833	35.3%	NaN	NaN
Vedolizumab on index date	0	0.0%	10,183	22.7%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Number	Percent ²	Number	Percent ²		
Adalimumab	0	0.0%	0	0.0%	NaN	NaN
Certolizumab pegol	0	0.0%	0	0.0%	NaN	NaN
Golimumab	0	0.0%	0	0.0%	NaN	NaN
Infliximab	0	0.0%	0	0.0%	NaN	NaN
Natalizumab	0	0.0%	0	0.0%	NaN	NaN
Ozanimod	0	0.0%	0	0.0%	NaN	NaN
Tofacitinib	0	0.0%	0	0.0%	NaN	NaN
Upadacitinib	0	0.0%	0	0.0%	NaN	NaN
Vedolizumab	0	0.0%	0	0.0%	NaN	NaN
Risankizumab	0	0.0%	0	0.0%	NaN	NaN
Any biologic, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Treatment-experienced - any biologic or small molecule drug	0	0.0%	0	0.0%	NaN	NaN
Days with a biologic dispensing						
1	0	0.0%	0	0.0%	NaN	NaN
2	0	0.0%	0	0.0%	NaN	NaN
3-4	0	0.0%	0	0.0%	NaN	NaN
5-6	0	0.0%	0	0.0%	NaN	NaN
7+	0	0.0%	0	0.0%	NaN	NaN

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Use From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Aminosalicylates (5-ASA)	1,357	15.0%	9,693	21.6%	-6.596	-0.171
Immunomodulators	1,404	15.5%	8,820	19.7%	-4.129	-0.109
Corticosteroids, intravenous	*****	*****	*****	*****	0.011	0.007
Corticosteroids, oral	3,485	38.6%	18,424	41.1%	-2.514	-0.051
Corticosteroids, rectal	113	1.3%	480	1.1%	0.180	0.017
Antibiotics	4,358	48.2%	22,025	49.1%	-0.882	-0.018
Antivirals	580	6.4%	2,431	5.4%	0.998	0.042
Anticoagulants	887	9.8%	3,489	7.8%	2.037	0.072
Antidiabetics	631	7.0%	3,049	6.8%	0.185	0.007
Antihypertensives	1,720	19.0%	8,274	18.4%	0.586	0.015
Antiplatelets	202	2.2%	978	2.2%	0.055	0.004
Lipid-lowering drugs	1,899	21.0%	8,490	18.9%	2.085	0.052
Non-steroidal anti-inflammatory drugs	1,376	15.2%	7,745	17.3%	-2.042	-0.055
Opioids	3,110	34.4%	14,678	32.7%	1.689	0.036
Immunization From [-365, 0]						
Flu (Influenza) vaccination	3,557	39.4%	15,514	34.6%	4.772	0.099
Immunization From [ever, 0]						
Covid-19 vaccination	1,876	20.8%	5,174	11.5%	9.224	0.253
Diphtheria, tetanus, and pertussis (DTaP) vaccination	2,091	23.1%	9,820	21.9%	1.244	0.030
Haemophilus influenza type B vaccination	*****	*****	27	0.1%	0.050	0.017
Measles, mumps, and rubella (MMR) vaccination	79	0.9%	332	0.7%	0.134	0.015
Meningococcal vaccination	302	3.3%	2,090	4.7%	-1.318	-0.067
Pneumococcal vaccination	2,582	28.6%	11,132	24.8%	3.752	0.085
Varicella (VAR) vaccination	628	6.9%	2,752	6.1%	0.814	0.033
Zoster recombinant vaccination	577	6.4%	1,966	4.4%	2.002	0.089

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Drug Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Mean number of filled prescriptions	16.4	16.3	16.2	16.6	0.167	0.010
Mean number of unique drug classes dispensed	6.8	4.8	6.8	4.9	0.055	0.011
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.0	11.5	12.0	10.8	1.038	0.093
Mean number of emergency room encounters	0.6	1.6	0.6	1.5	-0.032	-0.021
Mean number of inpatient hospital encounters	0.4	0.8	0.4	0.8	0.001	0.001
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.2	-0.003	-0.018
Mean number of other ambulatory encounters	5.2	11.0	5.2	12.1	-0.065	-0.006
Number of emergency department encounters						
0	6,385	70.7%	30,483	68.0%	2.691	0.058
1	1,512	16.7%	8,217	18.3%	-1.589	-0.042
2-3	797	8.8%	4,462	9.9%	-1.129	-0.039
4	342	3.8%	1,685	3.8%	0.028	0.001
Number of ambulatory encounters						
0	44	0.5%	755	1.7%	-1.197	-0.116
1	181	2.0%	1,296	2.9%	-0.887	-0.057
2-3	694	7.7%	3,979	8.9%	-1.192	-0.043
4	8,117	89.8%	38,817	86.6%	3.275	0.102

Table 1e. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product		Covariate Balance			
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ²	Number	Percent ²		
Number of inpatient encounters						
0	6,903	76.4%	33,989	75.8%	0.606	0.014
1	1,428	15.8%	7,491	16.7%	-0.900	-0.024
2-3	600	6.6%	2,906	6.5%	0.160	0.006
4	105	1.2%	461	1.0%	0.134	0.013
Number of days with GI-related emergency department encounter						
0	7,558	83.6%	37,377	83.3%	0.300	0.008
1	990	11.0%	5,275	11.8%	-0.806	-0.025
2-3	370	4.1%	1,742	3.9%	0.210	0.011
4	118	1.3%	453	1.0%	0.296	0.028
Number of days with GI-related inpatient encounter						
0	7,773	86.0%	38,127	85.0%	1.007	0.029
1	991	11.0%	5,396	12.0%	-1.065	-0.033
2-3	254	2.8%	1,252	2.8%	0.019	0.001
4	18	0.2%	72	0.2%	0.039	0.009

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Patient Characteristics ^{1,2}	Number	Percent ³	Number	Percent ³		
Weighted patients	9,036	N/A	8,959	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	48.7	14.0	48.8	14.7	-0.047	-0.003
Age						
18-24 years	814	9.0%	928	10.4%	-1.347	-0.047
25-34 years	1,636	18.1%	1,621	18.1%	0.012	0.000
35-44 years	1,652	18.3%	1,535	17.1%	1.144	0.030
45-54 years	1,486	16.4%	1,356	15.1%	1.312	0.036
55-64 years	1,196	13.2%	1,171	13.1%	0.164	0.005
65-74 years	1,682	18.6%	1,705	19.0%	-0.414	-0.012
≥ 75 years	570	6.3%	643	7.2%	-0.872	-0.036
Sex						
Female	5,273	58.4%	5,226	58.3%	0.025	0.001
Male	3,763	41.6%	3,733	41.7%	-0.025	-0.001
Race ⁴						
American Indian or Alaska Native	*****	*****	*****	*****	-0.048	-0.010
Asian	58	0.6%	58	0.7%	-0.009	-0.001
Black or African American	528	5.8%	593	6.6%	-0.781	-0.033
Multi-racial	69	0.8%	82	0.9%	-0.150	-0.017
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****	-0.020	-0.009
Unknown	4,021	44.5%	3,974	44.4%	0.146	0.005
White	4,339	48.0%	4,225	47.2%	0.861	0.025

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Hispanic origin						
Yes	155	1.7%	173	1.9%	-0.212	-0.016
No	4,288	47.5%	4,268	47.6%	-0.185	-0.008
Unknown	4,593	50.8%	4,518	50.4%	0.397	0.018
Year						
2016	91	1.0%	94	1.0%	-0.038	-0.004
2017	1,045	11.6%	1,038	11.6%	-0.025	-0.001
2018	1,373	15.2%	1,368	15.3%	-0.076	-0.002
2019	1,588	17.6%	1,586	17.7%	-0.125	-0.003
2020	1,617	17.9%	1,579	17.6%	0.266	0.007
2021	1,379	15.3%	1,365	15.2%	0.020	0.001
2022	1,571	17.4%	1,559	17.4%	-0.017	-0.000
2023	372	4.1%	369	4.1%	-0.005	-0.000
Time						
Before April 1, 2020 (pre-pandemic)	4,528	50.1%	4,515	50.4%	-0.290	-0.006
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,036	11.5%	1,004	11.2%	0.257	0.008
December 1, 2020 through most recent data (pandemic after vaccine)	3,472	38.4%	3,439	38.4%	0.033	0.001

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Acquired hypothyroidism	932	10.3%	917	10.2%	0.081	0.003
Acute myocardial infarction	61	0.7%	57	0.6%	0.034	0.004
Alcohol or drug abuse	685	7.6%	676	7.5%	0.031	0.001
Alzheimers disease	18	0.2%	18	0.2%	-0.002	-0.000
Anemia	2,936	32.5%	2,891	32.3%	0.228	0.005
Asthma	738	8.2%	724	8.1%	0.090	0.003
Atrial fibrillation	370	4.1%	362	4.0%	0.050	0.003
Benign prostatic hyperplasia	399	4.4%	391	4.4%	0.053	0.003
Cancer, history of	658	7.3%	650	7.3%	0.027	0.001
Cancer, breast	129	1.4%	131	1.5%	-0.033	-0.003
Cancer, colorectal	100	1.1%	95	1.1%	0.042	0.004
Cancer, endometrial	17	0.2%	15	0.2%	0.020	0.005
Cancer, lung	32	0.4%	30	0.3%	0.018	0.003
Cancer, prostate	105	1.2%	103	1.1%	0.015	0.001
Cataract	613	6.8%	616	6.9%	-0.092	-0.004
Chronic kidney disease	691	7.6%	685	7.6%	0.001	0.000
COPD/bronchiectasis	659	7.3%	649	7.2%	0.049	0.002
Depression	1,975	21.9%	1,942	21.7%	0.186	0.005
Diabetes	900	10.0%	891	9.9%	0.020	0.001
Glaucoma	292	3.2%	293	3.3%	-0.041	-0.002
Heart failure	349	3.9%	343	3.8%	0.036	0.002
Hip/pelvic fracture	18	0.2%	18	0.2%	-0.003	-0.001
Hyperlipidemia	2,021	22.4%	2,006	22.4%	-0.023	-0.001
Hypertension (CCW)	2,677	29.6%	2,653	29.6%	0.015	0.000

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Serious infection	720	8.0%	709	7.9%	0.057	0.002
Intestinal perforation	100	1.1%	99	1.1%	-0.002	-0.000
Intestine, fistula	1,704	18.9%	1,678	18.7%	0.131	0.003
Intestine, obstruction	2,310	25.6%	2,275	25.4%	0.171	0.004
Intra-abdominal abscess	719	8.0%	712	7.9%	0.015	0.001
Ischemic heart disease	557	6.2%	554	6.2%	-0.018	-0.001
Obesity	1,192	13.2%	1,173	13.1%	0.099	0.003
Osteoporosis	660	7.3%	651	7.3%	0.041	0.002
CD Colitis	6,356	70.3%	6,296	70.3%	0.060	0.001
Perianal disease/abscess	2,797	31.0%	2,779	31.0%	-0.068	-0.001
Rheumatoid arthritis/osteoarthritis	1,426	15.8%	1,412	15.8%	0.017	0.000
Stroke/TIA	139	1.5%	137	1.5%	0.005	0.000

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Charlson/Elixhauser combined comorbidity score ⁵	1.6	2.0	1.6	2.1	0.011	0.005
Metastatic cancer	55	0.6%	67	0.7%	-0.137	-0.017
Congestive heart failure	470	5.2%	472	5.3%	-0.065	-0.003
Dementia	58	0.6%	57	0.6%	0.005	0.001
Renal failure	626	6.9%	620	6.9%	0.002	0.000
Weight loss	1,156	12.8%	1,140	12.7%	0.068	0.002
Hemiplegia	36	0.4%	31	0.3%	0.049	0.008
Alcohol abuse	156	1.7%	170	1.9%	-0.168	-0.013
Any tumor	747	8.3%	658	7.3%	0.925	0.035
Cardiac arrhythmias	1,313	14.5%	1,248	13.9%	0.597	0.017
Chronic pulmonary disease	1,322	14.6%	1,298	14.5%	0.146	0.004
Coagulopathy	289	3.2%	278	3.1%	0.097	0.006
Complicated diabetes	512	5.7%	520	5.8%	-0.134	-0.006
Deficiency anemias	2,627	29.1%	2,611	29.1%	-0.071	-0.002
Fluid and electrolyte disorders	1,561	17.3%	1,539	17.2%	0.095	0.003
Liver disease	992	11.0%	989	11.0%	-0.057	-0.002
Peripheral vascular disorder	472	5.2%	464	5.2%	0.044	0.002
Psychosis	1,898	21.0%	1,863	20.8%	0.212	0.005
Pulmonary circulation disorders	179	2.0%	173	1.9%	0.046	0.003
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Hypertension	2,670	29.5%	2,647	29.5%	0.002	0.000
Malnutrition	610	6.8%	594	6.6%	0.123	0.005
C. diff testing	1,460	16.2%	1,441	16.1%	0.076	0.002
C. diff diagnosis	195	2.2%	189	2.1%	0.052	0.004
Cancer, urologic (kidney, renal pevis, and ureter)	55	0.6%	53	0.6%	0.021	0.003
Non-Alzheimers dementia	59	0.7%	57	0.6%	0.012	0.001
Parkinsons disease and secondary parkinsonism	32	0.4%	29	0.3%	0.031	0.005
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	3,398	37.9%	NaN	NaN
Infliximab on index date	0	0.0%	3,083	34.4%	NaN	NaN
Vedolizumab on index date	0	0.0%	2,479	27.7%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Use From [-183, -1]:	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Adalimumab	0	0.0%	0	0.0%	NaN	NaN
Certolizumab pegol	0	0.0%	0	0.0%	NaN	NaN
Golimumab	0	0.0%	0	0.0%	NaN	NaN
Infliximab	0	0.0%	0	0.0%	NaN	NaN
Natalizumab	0	0.0%	0	0.0%	NaN	NaN
Ozanimod	0	0.0%	0	0.0%	NaN	NaN
Tofacitinib	0	0.0%	0	0.0%	NaN	NaN
Upadacitinib	0	0.0%	0	0.0%	NaN	NaN
Vedolizumab	0	0.0%	0	0.0%	NaN	NaN
Risankizumab	0	0.0%	0	0.0%	NaN	NaN
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Treatment-experienced - any biologic or small molecule drug	0	0.0%	0	0.0%	NaN	NaN
Days with a biologic dispensing						
1	0	0.0%	0	0.0%	NaN	NaN
2	0	0.0%	0	0.0%	NaN	NaN
3-4	0	0.0%	0	0.0%	NaN	NaN
5-6	0	0.0%	0	0.0%	NaN	NaN
7+	0	0.0%	0	0.0%	NaN	NaN

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Use From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Aminosalicylates (5-ASA)	1,357	15.0%	1,362	15.2%	-0.183	-0.005
Immunomodulators	1,404	15.5%	1,397	15.6%	-0.053	-0.001
Corticosteroids, intravenous	*****	*****	*****	*****	-0.002	-0.001
Corticosteroids, oral	3,485	38.6%	3,442	38.4%	0.145	0.003
Corticosteroids, rectal	113	1.3%	112	1.3%	-0.004	-0.000
Antibiotics	4,358	48.2%	4,328	48.3%	-0.085	-0.002
Antivirals	580	6.4%	575	6.4%	0.001	0.000
Anticoagulants	887	9.8%	866	9.7%	0.146	0.005
Antidiabetics	631	7.0%	625	7.0%	0.011	0.000
Antihypertensives	1,720	19.0%	1,713	19.1%	-0.081	-0.002
Antiplatelets	202	2.2%	200	2.2%	0.004	0.000
Lipid-lowering drugs	1,899	21.0%	1,890	21.1%	-0.083	-0.002
Non-steroidal anti-inflammatory drugs	1,376	15.2%	1,363	15.2%	0.013	0.000
Opioids	3,110	34.4%	3,067	34.2%	0.181	0.004
Immunization From [-365, 0]						
Flu (Influenza) vaccination	3,557	39.4%	3,533	39.4%	-0.069	-0.001
Immunization From [ever, 0]						
Covid-19 vaccination	1,876	20.8%	1,854	20.7%	0.062	0.002
Diphtheria, tetanus, and pertussis (DTaP) vaccination	2,091	23.1%	2,072	23.1%	0.016	0.000
Haemophilus influenzae type B vaccination	*****	*****	11	0.1%	-0.008	-0.002
Measles, mumps, and rubella (MMR) vaccination	79	0.9%	80	0.9%	-0.014	-0.001
Meningococcal vaccination	302	3.3%	301	3.4%	-0.022	-0.001
Pneumococcal vaccination	2,582	28.6%	2,570	28.7%	-0.107	-0.003
Varicella (VAR) vaccination	628	6.9%	617	6.9%	0.064	0.003
Zoster recombinant vaccination	577	6.4%	570	6.4%	0.028	0.001

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Number	Percent ³	Number	Percent ³		
Mean number of filled prescriptions	16.4	16.3	16.4	17.0	0.038	0.002
Mean number of unique drug classes dispensed	6.8	4.8	6.8	4.9	-0.001	-0.000
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.0	11.5	13.0	11.9	0.035	0.003
Mean number of emergency room encounters	0.6	1.6	0.6	1.4	0.009	0.006
Mean number of inpatient hospital encounters	0.4	0.8	0.4	0.8	0.003	0.003
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.2	0.000	0.001
Mean number of other ambulatory encounters	5.2	11.0	5.1	11.3	0.030	0.003
Number of emergency department encounters						
0	6,385	70.7%	6,259	69.9%	0.799	0.018
1	1,512	16.7%	1,552	17.3%	-0.595	-0.016
2-3	797	8.8%	831	9.3%	-0.450	-0.016
4	342	3.8%	317	3.5%	0.246	0.013
Number of ambulatory encounters						
0	44	0.5%	112	1.2%	-0.759	-0.082
1	181	2.0%	222	2.5%	-0.472	-0.032
2-3	694	7.7%	707	7.9%	-0.206	-0.008
4	8,117	89.8%	7,919	88.4%	1.438	0.047

Table 1f. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Number of inpatient encounters						
0	6,903	76.4%	6,830	76.2%	0.161	0.004
1	1,428	15.8%	1,450	16.2%	-0.381	-0.010
2-3	600	6.6%	579	6.5%	0.176	0.007
4	105	1.2%	100	1.1%	0.044	0.004
Number of days with GI-related emergency department encounter						
0	7,558	83.6%	7,504	83.8%	-0.115	-0.003
1	990	11.0%	983	11.0%	-0.017	-0.001
2-3	370	4.1%	360	4.0%	0.074	0.004
4	118	1.3%	112	1.2%	0.058	0.005
Number of days with GI-related inpatient encounter						
0	7,773	86.0%	7,716	86.1%	-0.101	-0.003
1	991	11.0%	980	10.9%	0.029	0.001
2-3	254	2.8%	246	2.7%	0.063	0.004
4	18	0.2%	17	0.2%	0.010	0.002

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted 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 assigned a weight of 1. Reference patients are weighted by their propensity score (PS) divided by 1 minus their PS.

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. J Clin Epidemiol. 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. Med Care. 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Patient Characteristics ¹	Medical Product		Covariate Balance			
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Unique patients	6,417	100.0%	6,425	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	46.3	14.3	46.4	14.1	-0.122	-0.009
Age						
18-24 years	747	11.6%	823	12.8%	-1.168	-0.036
25-34 years	1,246	19.4%	1,335	20.8%	-1.361	-0.034
35-44 years	1,296	20.2%	1,134	17.6%	2.547	0.065
45-54 years	1,043	16.3%	939	14.6%	1.639	0.045
55-64 years	850	13.2%	759	11.8%	1.433	0.043
65-74 years	906	14.1%	1,070	16.7%	-2.535	-0.070
≥ 75 years	329	5.1%	365	5.7%	-0.554	-0.025
Sex						
Female	3,601	56.1%	3,583	55.8%	0.350	0.007
Male	2,816	43.9%	2,842	44.2%	-0.350	-0.007
Race ³						
American Indian or Alaska Native	*****	*****	*****	*****	-0.093	-0.019
Asian	48	0.7%	42	0.7%	0.094	0.011
Black or African American	313	4.9%	386	6.0%	-1.130	-0.050
Multi-racial	36	0.6%	41	0.6%	-0.077	-0.010
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****	0.047	0.016
Unknown	3,299	51.4%	2,927	45.6%	5.854	0.117
White	2,702	42.1%	3,007	46.8%	-4.695	-0.095

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	124	1.9%	130	2.0%	-0.091	-0.007
No	2,636	41.1%	3,082	48.0%	-6.890	-0.139
Unknown	3,657	57.0%	3,213	50.0%	6.981	0.140
Year						
2016	189	2.9%	533	8.3%	-5.350	-0.234
2017	1,295	20.2%	1,514	23.6%	-3.383	-0.082
2018	1,053	16.4%	1,081	16.8%	-0.415	-0.011
2019	1,167	18.2%	1,035	16.1%	2.077	0.055
2020	1,034	16.1%	1,009	15.7%	0.409	0.011
2021	797	12.4%	628	9.8%	2.646	0.084
2022	764	11.9%	536	8.3%	3.563	0.118
2023	118	1.8%	89	1.4%	0.454	0.036
Time						
Before April 1, 2020 (pre-pandemic)	3,974	61.9%	4,450	69.3%	-7.331	-0.155
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	675	10.5%	651	10.1%	0.387	0.013
December 1, 2020 through most recent data (pandemic after vaccine)	1,768	27.6%	1,324	20.6%	6.945	0.163

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Acquired hypothyroidism	533	8.3%	530	8.2%	0.057	0.002
Acute myocardial infarction	26	0.4%	41	0.6%	-0.233	-0.032
Alcohol or drug abuse	380	5.9%	393	6.1%	-0.195	-0.008
Alzheimers disease	*****	*****	11	0.2%	-0.062	-0.017
Anemia	2,140	33.3%	1,962	30.5%	2.812	0.060
Asthma	536	8.4%	521	8.1%	0.244	0.009
Atrial fibrillation	185	2.9%	248	3.9%	-0.977	-0.054
Benign prostatic hyperplasia	235	3.7%	242	3.8%	-0.104	-0.006
Cancer, history of	350	5.5%	374	5.8%	-0.367	-0.016
Cancer, breast	61	1.0%	84	1.3%	-0.357	-0.034
Cancer, colorectal	53	0.8%	47	0.7%	0.094	0.011
Cancer, endometrial	*****	*****	11	0.2%	-0.015	-0.004
Cancer, lung	16	0.2%	20	0.3%	-0.062	-0.012
Cancer, prostate	49	0.8%	63	1.0%	-0.217	-0.023
Cataract	376	5.9%	444	6.9%	-1.051	-0.043
Chronic kidney disease	388	6.0%	404	6.3%	-0.241	-0.010
COPD/bronchiectasis	386	6.0%	441	6.9%	-0.849	-0.035
Depression	1,370	21.3%	1,297	20.2%	1.163	0.029
Diabetes	530	8.3%	664	10.3%	-2.075	-0.072
Glaucoma	189	2.9%	220	3.4%	-0.479	-0.027
Heart failure	155	2.4%	157	2.4%	-0.028	-0.002
Hip/pelvic fracture	*****	*****	*****	*****	0.000	0.000
Hyperlipidemia	1,138	17.7%	1,325	20.6%	-2.888	-0.073
Hypertension (CCW)	1,691	26.4%	1,824	28.4%	-2.037	-0.046

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Serious infection	451	7.0%	493	7.7%	-0.645	-0.025
Intestinal perforation	70	1.1%	81	1.3%	-0.170	-0.016
Intestine, fistula	1,425	22.2%	1,182	18.4%	3.810	0.095
Intestine, obstruction	1,739	27.1%	1,298	20.2%	6.898	0.163
Intra-abdominal abscess	561	8.7%	558	8.7%	0.058	0.002
Ischemic heart disease	282	4.4%	350	5.4%	-1.053	-0.049
Obesity	802	12.5%	886	13.8%	-1.292	-0.038
Osteoporosis	461	7.2%	402	6.3%	0.927	0.037
CD Colitis	4,958	77.3%	4,819	75.0%	2.260	0.053
Perianal disease/abscess	1,992	31.0%	1,794	27.9%	3.120	0.068
Rheumatoid arthritis/osteoarthritis	948	14.8%	984	15.3%	-0.542	-0.015
Stroke/TIA	67	1.0%	85	1.3%	-0.279	-0.026

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.4	1.9	1.4	1.9	0.031	0.016
Metastatic cancer	40	0.6%	41	0.6%	-0.015	-0.002
Congestive heart failure	223	3.5%	228	3.5%	-0.073	-0.004
Dementia	25	0.4%	31	0.5%	-0.093	-0.014
Renal failure	348	5.4%	374	5.8%	-0.398	-0.017
Weight loss	709	11.0%	671	10.4%	0.605	0.020
Hemiplegia	15	0.2%	23	0.4%	-0.124	-0.023
Alcohol abuse	83	1.3%	103	1.6%	-0.310	-0.026
Any tumor	541	8.4%	513	8.0%	0.446	0.016
Cardiac arrhythmias	790	12.3%	803	12.5%	-0.187	-0.006
Chronic pulmonary disease	853	13.3%	900	14.0%	-0.715	-0.021
Coagulopathy	192	3.0%	195	3.0%	-0.043	-0.003
Complicated diabetes	280	4.4%	375	5.8%	-1.473	-0.067
Deficiency anemias	1,909	29.7%	1,769	27.5%	2.216	0.049
Fluid and electrolyte disorders	950	14.8%	966	15.0%	-0.231	-0.006
Liver disease	624	9.7%	586	9.1%	0.604	0.021
Peripheral vascular disorder	256	4.0%	293	4.6%	-0.571	-0.028
Psychosis	1,304	20.3%	1,221	19.0%	1.317	0.033
Pulmonary circulation disorders	116	1.8%	107	1.7%	0.142	0.011
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hypertension	1,689	26.3%	1,820	28.3%	-2.006	-0.045
Malnutrition	362	5.6%	311	4.8%	0.801	0.036
C. diff testing	1,216	18.9%	1,187	18.5%	0.475	0.012
C. diff diagnosis	140	2.2%	148	2.3%	-0.122	-0.008
Cancer, urologic (kidney, renal pevis, and ureter)	19	0.3%	38	0.6%	-0.295	-0.044
Non-Alzheimers dementia	28	0.4%	32	0.5%	-0.062	-0.009
Parkinsons disease and secondary parkinsonism	13	0.2%	15	0.2%	-0.031	-0.007
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	1,481	23.1%	NaN	NaN
Infliximab on index date	0	0.0%	1,615	25.1%	NaN	NaN
Vedolizumab on index date	0	0.0%	3,329	51.8%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Use From [-183, -1]:	Medical Product		Covariate Balance			
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Adalimumab	2,671	41.6%	2,397	37.3%	4.316	0.088
Certolizumab pegol	721	11.2%	784	12.2%	-0.967	-0.030
Golimumab	38	0.6%	27	0.4%	0.172	0.024
Infliximab	1,531	23.9%	2,721	42.4%	-18.492	-0.401
Natalizumab	*****	*****	*****	*****	-0.047	-0.013
Ozanimod	*****	*****	*****	*****	0.000	0.000
Tofacitinib	14	0.2%	18	0.3%	-0.062	-0.012
Upadacitinib	*****	*****	*****	*****	-0.016	-0.010
Vedolizumab	1,517	23.6%	524	8.2%	15.485	0.433
Risankizumab	*****	*****	*****	*****	-0.093	-0.028
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	783	12.2%	850	13.2%	-1.028	-0.031
Treatment-experienced - any biologic or small molecule drug	6,417	100.0%	6,425	100.0%	0.000	NaN
Days with a biologic dispensing						
1	496	7.7%	516	8.0%	-0.302	-0.011
2	877	13.7%	1,010	15.7%	-2.053	-0.058
3-4	2,322	36.2%	2,697	42.0%	-5.792	-0.119
5-6	2,127	33.1%	1,734	27.0%	6.158	0.135
7+	595	9.3%	468	7.3%	1.988	0.072

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Aminosalicylates (5-ASA)	796	12.4%	998	15.5%	-3.129	-0.090
Immunomodulators	1,650	25.7%	1,724	26.8%	-1.120	-0.025
Corticosteroids, intravenous	12	0.2%	*****	*****	0.109	0.030
Corticosteroids, oral	2,866	44.7%	2,918	45.4%	-0.754	-0.015
Corticosteroids, rectal	148	2.3%	129	2.0%	0.299	0.021
Antibiotics	3,415	53.2%	3,517	54.7%	-1.521	-0.031
Antivirals	466	7.3%	447	7.0%	0.305	0.012
Anticoagulants	600	9.4%	584	9.1%	0.261	0.009
Antidiabetics	369	5.8%	494	7.7%	-1.938	-0.077
Antihypertensives	1,213	18.9%	1,280	19.9%	-1.019	-0.026
Antiplatelets	126	2.0%	127	2.0%	-0.013	-0.001
Lipid-lowering drugs	1,323	20.6%	1,408	21.9%	-1.297	-0.032
Non-steroidal anti-inflammatory drugs	959	14.9%	1,092	17.0%	-2.051	-0.056
Opioids	2,204	34.3%	2,392	37.2%	-2.883	-0.060
Immunization From [-365, 0]						
Flu (Influenza) vaccination	2,670	41.6%	2,562	39.9%	1.733	0.035

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Immunization From [ever, 0]	Numer	Percent ²	Number	Percent ²		
Covid-19 vaccination	964	15.0%	668	10.4%	4.626	0.139
Diphtheria, tetanus, and pertussis (DTaP) vaccination	1,473	23.0%	1,470	22.9%	0.075	0.002
Haemophilus influenza type B vaccination	*****	*****	*****	*****	0.016	0.005
Measles, mumps, and rubella (MMR) vaccination	39	0.6%	36	0.6%	0.047	0.006
Meningococcal vaccination	292	4.6%	328	5.1%	-0.555	-0.026
Pneumococcal vaccination	1,944	30.3%	1,867	29.1%	1.236	0.027
Varicella (VAR) vaccination	437	6.8%	402	6.3%	0.553	0.022
Zoster recombinant vaccination	309	4.8%	263	4.1%	0.722	0.035
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	20.6	16.9	20.7	18.7	-0.136	-0.008
Mean number of unique drug classes	7.8	4.8	7.9	5.0	-0.158	-0.032
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.9	10.3	13.9	10.1	-0.033	-0.003
Mean number of emergency room encounters	0.6	1.5	0.6	1.4	-0.058	-0.040
Mean number of inpatient hospital encounters	0.3	0.8	0.3	0.8	-0.000	-0.000
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.1	0.001	0.011
Mean number of other ambulatory encounters	5.0	10.4	5.0	10.9	-0.014	-0.001
Number of emergency department encounters						
0	4,574	71.3%	4,470	69.6%	1.707	0.037
1	1,120	17.5%	1,141	17.8%	-0.305	-0.008
2-3	539	8.4%	570	8.9%	-0.472	-0.017
4	184	2.9%	244	3.8%	-0.930	-0.052

Table 1g. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product		Covariate Balance			
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Number of ambulatory encounters						
0	*****	*****	*****	*****	-0.015	-0.005
1	*****	*****	*****	*****	0.219	0.025
2-3	324	5.0%	299	4.7%	0.395	0.018
4	6,033	94.0%	6,079	94.6%	-0.599	-0.026
Number of inpatient encounters						
0	5,083	79.2%	5,063	78.8%	0.410	0.010
1	902	14.1%	932	14.5%	-0.449	-0.013
2-3	364	5.7%	364	5.7%	0.007	0.000
4	68	1.1%	66	1.0%	0.032	0.003
Number of days with GI-related emergency department encounter						
0	5,323	83.0%	5,269	82.0%	0.944	0.025
1	769	12.0%	781	12.2%	-0.172	-0.005
2-3	253	3.9%	288	4.5%	-0.540	-0.027
4	72	1.1%	87	1.4%	-0.232	-0.021
Number of days with GI-related inpatient encounter						
0	5,514	85.9%	5,565	86.6%	-0.687	-0.020
1	694	10.8%	665	10.4%	0.465	0.015
2-3	190	3.0%	176	2.7%	0.222	0.013
4	19	0.3%	19	0.3%	0.000	0.000

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Unique patients	13,449	86.4%	13,449	25.8%	N/A	N/A
Demographic Characteristics						
Age (years)	47.6	14.1	47.7	14.5	-0.030	-0.002
Age						
18-24 years	1,408	10.5%	1,504	11.2%	-0.714	-0.023
25-34 years	2,523	18.8%	2,585	19.2%	-0.461	-0.012
35-44 years	2,522	18.8%	2,366	17.6%	1.160	0.030
45-54 years	2,172	16.1%	2,040	15.2%	0.981	0.027
55-64 years	1,752	13.0%	1,743	13.0%	0.067	0.002
65-74 years	2,291	17.0%	2,378	17.7%	-0.647	-0.017
≥ 75 years	781	5.8%	833	6.2%	-0.387	-0.016
Sex						
Female	7,701	57.3%	7,738	57.5%	-0.275	-0.006
Male	5,748	42.7%	5,711	42.5%	0.275	0.006
Race ³						
American Indian or Alaska Native	26	0.2%	*****	*****	-0.030	-0.007
Asian	96	0.7%	80	0.6%	0.119	0.015
Black or African American	754	5.6%	864	6.4%	-0.818	-0.034
Multi-racial	90	0.7%	103	0.8%	-0.097	-0.011
Native Hawaiian or Other Pacific Islander	11	0.1%	*****	*****	0.015	0.005
Unknown	6,296	46.8%	6,274	46.7%	0.164	0.003
White	6,176	45.9%	6,089	45.3%	0.647	0.013

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	249	1.9%	279	2.1%	-0.223	-0.016
No	6,126	45.5%	6,158	45.8%	-0.238	-0.005
Unknown	7,074	52.6%	7,012	52.1%	0.461	0.009
Year						
2016	249	1.9%	233	1.7%	0.119	0.009
2017	2,005	14.9%	1,946	14.5%	0.439	0.012
2018	2,146	16.0%	2,135	15.9%	0.082	0.002
2019	2,391	17.8%	2,356	17.5%	0.260	0.007
2020	2,273	16.9%	2,340	17.4%	-0.498	-0.013
2021	1,938	14.4%	1,942	14.4%	-0.030	-0.001
2022	2,010	14.9%	2,040	15.2%	-0.223	-0.006
2023	437	3.2%	457	3.4%	-0.149	-0.008
Time						
Before April 1, 2020 (pre-pandemic)	7,405	55.1%	7,273	54.1%	0.981	0.020
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,456	10.8%	1,517	11.3%	-0.454	-0.014
December 1, 2020 through most recent data (pandemic after vaccine)	4,588	34.1%	4,659	34.6%	-0.528	-0.011

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Acquired hypothyroidism	1,264	9.4%	1,260	9.4%	0.030	0.001
Acute myocardial infarction	77	0.6%	70	0.5%	0.052	0.007
Alcohol or drug abuse	924	6.9%	934	6.9%	-0.074	-0.003
Alzheimers disease	22	0.2%	22	0.2%	0.000	0.000
Anemia	4,258	31.7%	4,330	32.2%	-0.535	-0.011
Asthma	1,074	8.0%	1,058	7.9%	0.119	0.004
Atrial fibrillation	490	3.6%	473	3.5%	0.126	0.007
Benign prostatic hyperplasia	546	4.1%	564	4.2%	-0.134	-0.007
Cancer, history of	872	6.5%	862	6.4%	0.074	0.003
Cancer, breast	167	1.2%	169	1.3%	-0.015	-0.001
Cancer, colorectal	138	1.0%	131	1.0%	0.052	0.005
Cancer, endometrial	20	0.1%	16	0.1%	0.030	0.008
Cancer, lung	42	0.3%	45	0.3%	-0.022	-0.004
Cancer, prostate	135	1.0%	133	1.0%	0.015	0.001
Cataract	869	6.5%	892	6.6%	-0.171	-0.007
Chronic kidney disease	940	7.0%	958	7.1%	-0.134	-0.005
COPD/bronchiectasis	924	6.9%	920	6.8%	0.030	0.001
Depression	2,854	21.2%	2,904	21.6%	-0.372	-0.009
Diabetes	1,264	9.4%	1,293	9.6%	-0.216	-0.007
Glaucoma	426	3.2%	415	3.1%	0.082	0.005
Heart failure	445	3.3%	436	3.2%	0.067	0.004
Hip/pelvic fracture	21	0.2%	24	0.2%	-0.022	-0.005
Hyperlipidemia	2,799	20.8%	2,833	21.1%	-0.253	-0.006
Hypertension (CCW)	3,828	28.5%	3,827	28.5%	0.007	0.000

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Serious infection	1,011	7.5%	1,022	7.6%	-0.082	-0.003
Intestinal perforation	149	1.1%	147	1.1%	0.015	0.001
Intestine, fistula	2,625	19.5%	2,616	19.5%	0.067	0.002
Intestine, obstruction	3,342	24.8%	3,336	24.8%	0.045	0.001
Intra-abdominal abscess	1,094	8.1%	1,113	8.3%	-0.141	-0.005
Ischemic heart disease	764	5.7%	770	5.7%	-0.045	-0.002
Obesity	1,742	13.0%	1,734	12.9%	0.059	0.002
Osteoporosis	902	6.7%	949	7.1%	-0.349	-0.014
CD Colitis	9,670	71.9%	9,688	72.0%	-0.134	-0.003
Perianal disease/abscess	4,129	30.7%	4,135	30.7%	-0.045	-0.001
Rheumatoid arthritis/osteoarthritis	2,056	15.3%	2,011	15.0%	0.335	0.009
Stroke/TIA	179	1.3%	193	1.4%	-0.104	-0.009

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.5	2.0	1.5	2.0	-0.016	-0.008
Metastatic cancer	78	0.6%	84	0.6%	-0.045	-0.006
Congestive heart failure	617	4.6%	618	4.6%	-0.007	-0.000
Dementia	75	0.6%	79	0.6%	-0.030	-0.004
Renal failure	846	6.3%	876	6.5%	-0.223	-0.009
Weight loss	1,606	11.9%	1,614	12.0%	-0.059	-0.002
Hemiplegia	46	0.3%	41	0.3%	0.037	0.007
Alcohol abuse	211	1.6%	243	1.8%	-0.238	-0.018
Any tumor	1,092	8.1%	984	7.3%	0.803	0.030
Cardiac arrhythmias	1,798	13.4%	1,748	13.0%	0.372	0.011
Chronic pulmonary disease	1,869	13.9%	1,860	13.8%	0.067	0.002
Coagulopathy	398	3.0%	414	3.1%	-0.119	-0.007
Complicated diabetes	705	5.2%	750	5.6%	-0.335	-0.015
Deficiency anemias	3,808	28.3%	3,903	29.0%	-0.706	-0.016
Fluid and electrolyte disorders	2,155	16.0%	2,174	16.2%	-0.141	-0.004
Liver disease	1,376	10.2%	1,390	10.3%	-0.104	-0.003
Peripheral vascular disorder	627	4.7%	633	4.7%	-0.045	-0.002
Psychosis	2,729	20.3%	2,758	20.5%	-0.216	-0.005
Pulmonary circulation disorders	233	1.7%	248	1.8%	-0.112	-0.008
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Hypertension	3,820	28.4%	3,820	28.4%	0.000	0.000
Malnutrition	810	6.0%	796	5.9%	0.104	0.004
C. diff testing	2,249	16.7%	2,271	16.9%	-0.164	-0.004
C. diff diagnosis	284	2.1%	302	2.2%	-0.134	-0.009
Cancer, urologic (kidney, renal pevis, and ureter)	66	0.5%	69	0.5%	-0.022	-0.003
Non-Alzheimers dementia	78	0.6%	80	0.6%	-0.015	-0.002
Parkinsons disease and secondary parkinsonism	40	0.3%	44	0.3%	-0.030	-0.005
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	4,354	32.4%	NaN	NaN
Infliximab on index date	0	0.0%	4,423	32.9%	NaN	NaN
Vedolizumab on index date	0	0.0%	4,672	34.7%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Recorded History of Use From [-183, -1]:						
Adalimumab	1,967	14.6%	1,861	13.8%	0.788	0.023
Certolizumab pegol	588	4.4%	583	4.3%	0.037	0.002
Golimumab	30	0.2%	24	0.2%	0.045	0.010
Infliximab	1,396	10.4%	1,461	10.9%	-0.483	-0.016
Natalizumab	*****	*****	*****	*****	-0.022	-0.009
Ozanimod	0	0.0%	*****	*****	NaN	NaN
Tofacitinib	*****	*****	11	0.1%	-0.015	-0.005
Upadacitinib	*****	*****	*****	*****	-0.007	-0.007
Vedolizumab	535	4.0%	502	3.7%	0.245	0.013
Risankizumab	*****	*****	*****	*****	-0.052	-0.026

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent²	Number	Percent²		
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	635	4.7%	637	4.7%	-0.015	-0.001
Treatment-experienced - any biologic or small molecule drug	4,471	33.2%	4,408	32.8%	0.468	0.010
Days with a biologic dispensing						
1	328	2.4%	340	2.5%	-0.089	-0.006
2	630	4.7%	628	4.7%	0.015	0.001
3-4	1,663	12.4%	1,667	12.4%	-0.030	-0.001
5-6	1,432	10.6%	1,396	10.4%	0.268	0.009
7+	418	3.1%	377	2.8%	0.305	0.018
Recorded History of Use From [-183, 0]						
Aminosalicylates (5-ASA)	1,994	14.8%	1,953	14.5%	0.305	0.009
Immunomodulators	2,621	19.5%	2,571	19.1%	0.372	0.009
Corticosteroids, intravenous	*****	*****	13	0.1%	-0.022	-0.008
Corticosteroids, oral	5,423	40.3%	5,452	40.5%	-0.216	-0.004
Corticosteroids, rectal	200	1.5%	208	1.5%	-0.059	-0.005
Antibiotics	6,674	49.6%	6,740	50.1%	-0.491	-0.010
Antivirals	878	6.5%	906	6.7%	-0.208	-0.008
Anticoagulants	1,235	9.2%	1,263	9.4%	-0.208	-0.007
Antidiabetics	889	6.6%	894	6.6%	-0.037	-0.001
Antihypertensives	2,548	18.9%	2,555	19.0%	-0.052	-0.001
Antiplatelets	283	2.1%	275	2.0%	0.059	0.004
Lipid-lowering drugs	2,781	20.7%	2,752	20.5%	0.216	0.005
Non-steroidal anti-inflammatory drugs	2,056	15.3%	2,086	15.5%	-0.223	-0.006
Opioids	4,540	33.8%	4,588	34.1%	-0.357	-0.008

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Immunization From [-365, 0]	Numer	Percent ²	Number	Percent ²		
Flu (Influenza) vaccination	5,364	39.9%	5,356	39.8%	0.059	0.001
Immunization From [ever, 0]						
Covid-19 vaccination	2,460	18.3%	2,516	18.7%	-0.416	-0.011
Diphtheria, tetanus, and pertussis (DTaP) vaccination	3,100	23.1%	3,049	22.7%	0.379	0.009
Haemophilus influenza type B vaccination	14	0.1%	13	0.1%	0.007	0.002
Measles, mumps, and rubella (MMR) vaccination	107	0.8%	106	0.8%	0.007	0.001
Meningococcal vaccination	535	4.0%	517	3.8%	0.134	0.007
Pneumococcal vaccination	3,877	28.8%	3,881	28.9%	-0.030	-0.001
Varicella (VAR) vaccination	932	6.9%	937	7.0%	-0.037	-0.001
Zoster recombinant vaccination	768	5.7%	757	5.6%	0.082	0.004
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	17.7	16.6	17.6	17.4	0.026	0.002
Mean number of unique drug classes dispensed	7.1	4.8	7.1	5.0	-0.021	-0.004
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.0	10.8	13.0	11.0	0.034	0.003
Mean number of emergency room encounters	0.6	1.5	0.6	1.3	-0.010	-0.007
Mean number of inpatient hospital encounters	0.3	0.8	0.3	0.8	0.005	0.006
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.2	-0.000	-0.002
Mean number of other ambulatory encounters	5.1	10.7	5.2	11.6	-0.073	-0.007
Number of emergency department encounters						
0	9,567	71.1%	9,446	70.2%	0.900	0.020
1	2,266	16.8%	2,321	17.3%	-0.409	-0.011
2-3	1,182	8.8%	1,221	9.1%	-0.290	-0.010
4	434	3.2%	461	3.4%	-0.201	-0.011

Table 1j. Aggregated Adjusted Characteristics of Ustekinumab Users and Comparator Users (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Number of ambulatory encounters						
0	49	0.4%	111	0.8%	-0.461	-0.060
1	223	1.7%	257	1.9%	-0.253	-0.019
2-3	948	7.0%	929	6.9%	0.141	0.006
4	12,229	90.9%	12,152	90.4%	0.573	0.020
Number of inpatient encounters						
0	10,440	77.6%	10,397	77.3%	0.320	0.008
1	2,028	15.1%	2,109	15.7%	-0.602	-0.017
2-3	835	6.2%	812	6.0%	0.171	0.007
4	146	1.1%	131	1.0%	0.112	0.011
Number of days with GI-related emergency department encounter						
0	11,262	83.7%	11,244	83.6%	0.134	0.004
1	1,506	11.2%	1,507	11.2%	-0.007	-0.000
2-3	533	4.0%	536	4.0%	-0.022	-0.001
4	148	1.1%	162	1.2%	-0.104	-0.010
Number of days with GI-related inpatient encounter						
0	11,583	86.1%	11,590	86.2%	-0.052	-0.002
1	1,461	10.9%	1,465	10.9%	-0.030	-0.001
2-3	381	2.8%	368	2.7%	0.097	0.006
4	24	0.2%	26	0.2%	-0.015	-0.003

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Unique patients	6,019	93.8%	5,985	93.2%	N/A	N/A
Demographic Characteristics						
Age (years)	46.2	14.2	46.3	14.0	-0.146	-0.010
Age						
18-24 years	717	11.9%	771	12.9%	-0.970	-0.029
25-34 years	1,170	19.4%	1,249	20.9%	-1.430	-0.036
35-44 years	1,224	20.3%	1,069	17.9%	2.474	0.063
45-54 years	964	16.0%	862	14.4%	1.613	0.045
55-64 years	767	12.7%	679	11.3%	1.398	0.043
65-74 years	864	14.4%	1,017	17.0%	-2.638	-0.073
≥ 75 years	313	5.2%	338	5.6%	-0.447	-0.020
Sex						
Female	3,356	55.8%	3,329	55.6%	0.134	0.003
Male	2,663	44.2%	2,656	44.4%	-0.134	-0.003
Race ³						
American Indian or Alaska Native	*****	*****	*****	*****	-0.135	-0.028
Asian	44	0.7%	39	0.7%	0.079	0.010
Black or African American	292	4.9%	351	5.9%	-1.013	-0.045
Multi-racial	33	0.5%	37	0.6%	-0.070	-0.009
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****	0.049	0.016
Unknown	3,132	52.0%	2,748	45.9%	6.120	0.123
White	2,501	41.6%	2,788	46.6%	-5.031	-0.101

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	108	1.8%	126	2.1%	-0.311	-0.022
No	2,496	41.5%	2,890	48.3%	-6.819	-0.137
Unknown	3,415	56.7%	2,969	49.6%	7.130	0.143
Year						
2016	184	3.1%	461	7.7%	-4.646	-0.207
2017	1,267	21.1%	1,471	24.6%	-3.528	-0.084
2018	1,042	17.3%	1,059	17.7%	-0.382	-0.010
2019	1,140	18.9%	1,018	17.0%	1.931	0.050
2020	852	14.2%	815	13.6%	0.538	0.016
2021	719	11.9%	582	9.7%	2.221	0.072
2022	703	11.7%	493	8.2%	3.442	0.115
2023	112	1.9%	86	1.4%	0.424	0.033
Time						
Before April 1, 2020 (pre-pandemic)	3,896	64.7%	4,289	71.7%	-6.934	-0.149
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	520	8.6%	488	8.2%	0.486	0.018
December 1, 2020 through most recent data (pandemic after vaccine)	1,603	26.6%	1,208	20.2%	6.449	0.153

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Acquired hypothyroidism	495	8.2%	495	8.3%	-0.047	-0.002
Acute myocardial infarction	25	0.4%	31	0.5%	-0.103	-0.015
Alcohol or drug abuse	349	5.8%	362	6.0%	-0.250	-0.011
Alzheimers disease	*****	*****	*****	*****	-0.067	-0.018
Anemia	1,964	32.6%	1,802	30.1%	2.521	0.054
Asthma	497	8.3%	472	7.9%	0.371	0.014
Atrial fibrillation	177	2.9%	218	3.6%	-0.702	-0.039
Benign prostatic hyperplasia	220	3.7%	220	3.7%	-0.021	-0.001
Cancer, history of	306	5.1%	322	5.4%	-0.296	-0.013
Cancer, breast	53	0.9%	72	1.2%	-0.322	-0.032
Cancer, colorectal	41	0.7%	35	0.6%	0.096	0.012
Cancer, endometrial	*****	*****	*****	*****	0.033	0.010
Cancer, lung	13	0.2%	13	0.2%	-0.001	-0.000
Cancer, prostate	42	0.7%	51	0.9%	-0.154	-0.018
Cataract	347	5.8%	400	6.7%	-0.918	-0.038
Chronic kidney disease	355	5.9%	368	6.1%	-0.251	-0.011
COPD/bronchiectasis	354	5.9%	391	6.5%	-0.652	-0.027
Depression	1,260	20.9%	1,191	19.9%	1.034	0.026
Diabetes	482	8.0%	598	10.0%	-1.984	-0.069
Glaucoma	176	2.9%	211	3.5%	-0.601	-0.034
Heart failure	141	2.3%	136	2.3%	0.070	0.005
Hip/pelvic fracture	*****	*****	*****	*****	-0.017	-0.005
Hyperlipidemia	1,045	17.4%	1,203	20.1%	-2.739	-0.070
Hypertension (CCW)	1,568	26.1%	1,662	27.8%	-1.719	-0.039

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Serious infection	411	6.8%	435	7.3%	-0.440	-0.017
Intestinal perforation	58	1.0%	63	1.1%	-0.089	-0.009
Intestine, fistula	1,311	21.8%	1,090	18.2%	3.569	0.089
Intestine, obstruction	1,610	26.7%	1,220	20.4%	6.364	0.150
Intra-abdominal abscess	519	8.6%	500	8.4%	0.268	0.010
Ischemic heart disease	263	4.4%	311	5.2%	-0.827	-0.039
Obesity	731	12.1%	815	13.6%	-1.473	-0.044
Osteoporosis	425	7.1%	370	6.2%	0.879	0.035
CD Colitis	4,636	77.0%	4,482	74.9%	2.136	0.050
Perianal disease/abscess	1,863	31.0%	1,663	27.8%	3.166	0.070
Rheumatoid arthritis/osteoarthritis	884	14.7%	892	14.9%	-0.217	-0.006
Stroke/TIA	59	1.0%	64	1.1%	-0.089	-0.009

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.4	1.8	1.3	1.8	0.035	0.019
Metastatic cancer	36	0.6%	33	0.6%	0.047	0.006
Congestive heart failure	206	3.4%	197	3.3%	0.131	0.007
Dementia	20	0.3%	26	0.4%	-0.102	-0.017
Renal failure	318	5.3%	342	5.7%	-0.431	-0.019
Weight loss	648	10.8%	605	10.1%	0.657	0.021
Hemiplegia	13	0.2%	20	0.3%	-0.118	-0.023
Alcohol abuse	77	1.3%	94	1.6%	-0.291	-0.025
Any tumor	484	8.0%	445	7.4%	0.606	0.023
Cardiac arrhythmias	725	12.0%	726	12.1%	-0.085	-0.003
Chronic pulmonary disease	781	13.0%	808	13.5%	-0.525	-0.015
Coagulopathy	173	2.9%	177	3.0%	-0.083	-0.005
Complicated diabetes	248	4.1%	334	5.6%	-1.460	-0.068
Deficiency anemias	1,752	29.1%	1,623	27.1%	1.990	0.044
Fluid and electrolyte disorders	872	14.5%	860	14.4%	0.118	0.003
Liver disease	567	9.4%	539	9.0%	0.414	0.014
Peripheral vascular disorder	223	3.7%	261	4.4%	-0.656	-0.033
Psychosis	1,197	19.9%	1,123	18.8%	1.123	0.028
Pulmonary circulation disorders	99	1.6%	94	1.6%	0.074	0.006
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hypertension	1,566	26.0%	1,658	27.7%	-1.685	-0.038
Malnutrition	322	5.3%	273	4.6%	0.788	0.036
C. diff testing	1,138	18.9%	1,092	18.2%	0.661	0.017
C. diff diagnosis	130	2.2%	126	2.1%	0.055	0.004
Cancer, urologic (kidney, renal pevis, and	16	0.3%	30	0.5%	-0.235	-0.038
Non-Alzheimers dementia	23	0.4%	27	0.5%	-0.069	-0.011
Parkinsons disease and secondary parkinsonism	12	0.2%	13	0.2%	-0.018	-0.004
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	1,356	22.7%	NaN	NaN
Infliximab on index date	0	0.0%	1,524	25.5%	NaN	NaN
Vedolizumab on index date	0	0.0%	3,105	51.9%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Recorded History of Use From [-183, -1]:						
Adalimumab	2,522	41.9%	2,268	37.9%	4.006	0.082
Certolizumab pegol	688	11.4%	749	12.5%	-1.084	-0.033
Golimumab	37	0.6%	25	0.4%	0.197	0.027
Infliximab	1,429	23.7%	2,486	41.5%	-17.796	-0.387
Natalizumab	*****	*****	*****	*****	-0.067	-0.018
Ozanimod	*****	*****	*****	*****	-0.000	-0.000
Tofacitinib	14	0.2%	15	0.3%	-0.018	-0.004
Upadacitinib	*****	*****	*****	*****	-0.017	-0.011
Vedolizumab	1,403	23.3%	486	8.1%	15.189	0.427
Risankizumab	*****	*****	*****	*****	-0.084	-0.026

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent ²	Number	Percent ²		
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	748	12.4%	809	13.5%	-1.090	-0.032
Treatment-experienced - any biologic or small molecule drug	6,019	100.0%	5,985	100.0%	0.000	NaN
Days with a biologic dispensing						
1	463	7.7%	471	7.9%	-0.177	-0.007
2	817	13.6%	932	15.6%	-1.999	-0.057
3-4	2,188	36.4%	2,501	41.8%	-5.436	-0.112
5-6	1,992	33.1%	1,636	27.3%	5.760	0.126
7+	559	9.3%	445	7.4%	1.852	0.067
Recorded History of Use From [-183, 0]						
Aminosalicylates (5-ASA)	749	12.4%	927	15.5%	-3.045	-0.088
Immunomodulators	1,550	25.8%	1,606	26.8%	-1.082	-0.025
Corticosteroids, intravenous	*****	*****	*****	*****	0.033	0.013
Corticosteroids, oral	2,677	44.5%	2,704	45.2%	-0.704	-0.014
Corticosteroids, rectal	129	2.1%	110	1.8%	0.305	0.022
Antibiotics	3,177	52.8%	3,252	54.3%	-1.553	-0.031
Antivirals	437	7.3%	409	6.8%	0.427	0.017
Anticoagulants	538	8.9%	508	8.5%	0.450	0.016
Antidiabetics	335	5.6%	435	7.3%	-1.702	-0.070
Antihypertensives	1,129	18.8%	1,165	19.5%	-0.708	-0.018
Antiplatelets	114	1.9%	102	1.7%	0.190	0.014
Lipid-lowering drugs	1,230	20.4%	1,288	21.5%	-1.085	-0.027
Non-steroidal anti-inflammatory drugs	882	14.7%	989	16.5%	-1.871	-0.052
Opioids	2,052	34.1%	2,197	36.7%	-2.616	-0.055

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Immunization From [-365, 0]	Numer	Percent ²	Number	Percent ²		
Flu (Influenza) vaccination	2,487	41.3%	2,379	39.7%	1.570	0.032
Immunization From [ever, 0]						
Covid-19 vaccination	890	14.8%	627	10.5%	4.310	0.130
Diphtheria, tetanus, and pertussis (DTaP) vaccination	1,398	23.2%	1,364	22.8%	0.436	0.010
Haemophilus influenza type B vaccination	*****	*****	*****	*****	0.016	0.005
Measles, mumps, and rubella (MMR)	37	0.6%	27	0.5%	0.164	0.022
Meningococcal vaccination	281	4.7%	303	5.1%	-0.394	-0.018
Pneumococcal vaccination	1,850	30.7%	1,755	29.3%	1.413	0.031
Varicella (VAR) vaccination	415	6.9%	369	6.2%	0.729	0.030
Zoster recombinant vaccination	278	4.6%	234	3.9%	0.709	0.035
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	20.5	16.9	20.4	18.6	0.030	0.002
Mean number of unique drug classes dispensed	7.7	4.7	7.8	4.9	-0.116	-0.024
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.7	9.7	13.7	9.7	-0.032	-0.003
Mean number of emergency room encounters	0.5	1.3	0.6	1.3	-0.051	-0.039
Mean number of inpatient hospital encounters	0.3	0.7	0.3	0.7	0.000	0.000
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.1	0.001	0.007
Mean number of other ambulatory encounters	5.0	10.0	4.9	10.8	0.044	0.004
Number of emergency department encounters						
0	4,331	72.0%	4,211	70.4%	1.596	0.035
1	1,049	17.4%	1,054	17.6%	-0.183	-0.005
2-3	488	8.1%	522	8.7%	-0.614	-0.022
4	151	2.5%	198	3.3%	-0.800	-0.048

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Number of ambulatory encounters						
0	*****	*****	*****	*****	-0.017	-0.006
1	*****	*****	*****	*****	0.262	0.030
2-3	316	5.3%	295	4.9%	0.321	0.015
4	5,643	93.8%	5,645	94.3%	-0.566	-0.024
Number of inpatient encounters						
0	4,793	79.6%	4,742	79.2%	0.400	0.010
1	837	13.9%	868	14.5%	-0.597	-0.017
2-3	335	5.6%	320	5.3%	0.219	0.010
4	54	0.9%	55	0.9%	-0.022	-0.002

Table 1h. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users			
Health Service Utilization Intensity Metrics From [-183, -1]						
Number of days with GI-related emergency department encounter						
0	5,013	83.3%	4,937	82.5%	0.797	0.021
1	723	12.0%	721	12.0%	-0.035	-0.001
2-3	227	3.8%	261	4.4%	-0.590	-0.030
4	56	0.9%	66	1.1%	-0.172	-0.017
Number of days with GI-related inpatient encounter						
0	5,186	86.2%	5,182	86.6%	-0.423	-0.012
1	649	10.8%	626	10.5%	0.323	0.010
2-3	170	2.8%	161	2.7%	0.134	0.008
4	14	0.2%	16	0.3%	-0.035	-0.007

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Weighted patients	6,019	N/A	5,686	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	46.2	14.2	45.8	14.3	0.386	0.027
Age						
18-24 years	717	11.9%	682	12.0%	-0.074	-0.002
25-34 years	1,170	19.4%	1,249	22.0%	-2.524	-0.064
35-44 years	1,224	20.3%	1,030	18.1%	2.222	0.057
45-54 years	964	16.0%	872	15.3%	0.677	0.019
55-64 years	767	12.7%	692	12.2%	0.571	0.017
65-74 years	864	14.4%	914	16.1%	-1.725	-0.056
≥ 75 years	313	5.2%	247	4.3%	0.854	0.042
Sex						
Female	3,356	55.8%	3,112	54.7%	1.023	0.021
Male	2,663	44.2%	2,574	45.3%	-1.023	-0.021
Race ⁴						
American Indian or Alaska Native	*****	*****	*****	*****	-0.068	-0.015
Asian	44	0.7%	27	0.5%	0.250	0.032
Black or African American	292	4.9%	288	5.1%	-0.221	-0.010
Multi-racial	33	0.5%	32	0.6%	-0.016	-0.002
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****	0.052	0.017
Unknown	3,132	52.0%	2,924	51.4%	0.616	0.024
White	2,501	41.6%	2,398	42.2%	-0.612	-0.019

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Hispanic origin						
Yes	108	1.8%	96	1.7%	0.097	0.008
No	2,496	41.5%	2,369	41.7%	-0.189	-0.009
Unknown	3,415	56.7%	3,221	56.6%	0.092	0.005
Year						
2016	184	3.1%	166	2.9%	0.133	0.008
2017	1,267	21.1%	1,164	20.5%	0.585	0.014
2018	1,042	17.3%	1,034	18.2%	-0.868	-0.023
2019	1,140	18.9%	1,107	19.5%	-0.525	-0.013
2020	852	14.2%	735	12.9%	1.221	0.036
2021	719	11.9%	722	12.7%	-0.748	-0.023
2022	703	11.7%	660	11.6%	0.067	0.002
2023	112	1.9%	98	1.7%	0.133	0.010
Time						
Before April 1, 2020 (pre-pandemic)	3,896	64.7%	3,719	65.4%	-0.678	-0.014
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	520	8.6%	435	7.6%	0.994	0.037
December 1, 2020 through most recent data (pandemic after vaccine)	1,603	26.6%	1,532	26.9%	-0.316	-0.007

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Acquired hypothyroidism	495	8.2%	474	8.3%	-0.117	-0.004
Acute myocardial infarction	25	0.4%	23	0.4%	0.012	0.002
Alcohol or drug abuse	349	5.8%	314	5.5%	0.272	0.012
Alzheimers disease	*****	*****	*****	*****	0.061	0.023
Anemia	1,964	32.6%	1,810	31.8%	0.802	0.017
Asthma	497	8.3%	446	7.8%	0.412	0.015
Atrial fibrillation	177	2.9%	159	2.8%	0.150	0.009
Benign prostatic hyperplasia	220	3.7%	202	3.6%	0.094	0.005
Cancer, history of	306	5.1%	264	4.7%	0.433	0.020
Cancer, breast	53	0.9%	55	1.0%	-0.084	-0.009
Cancer, colorectal	41	0.7%	37	0.6%	0.032	0.004
Cancer, endometrial	*****	*****	*****	*****	0.036	0.010
Cancer, lung	13	0.2%	14	0.2%	-0.027	-0.006
Cancer, prostate	42	0.7%	32	0.6%	0.141	0.018
Cataract	347	5.8%	330	5.8%	-0.035	-0.002
Chronic kidney disease	355	5.9%	321	5.7%	0.244	0.011
COPD/bronchiectasis	354	5.9%	298	5.2%	0.635	0.028
Depression	1,260	20.9%	1,129	19.9%	1.075	0.027
Diabetes	482	8.0%	436	7.7%	0.340	0.013
Glaucoma	176	2.9%	159	2.8%	0.129	0.008
Heart failure	141	2.3%	121	2.1%	0.206	0.014
Hip/pelvic fracture	*****	*****	*****	*****	0.054	0.020
Hyperlipidemia	1,045	17.4%	978	17.2%	0.169	0.005
Hypertension (CCW)	1,568	26.1%	1,421	25.0%	1.054	0.026

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Serious infection	411	6.8%	401	7.0%	-0.215	-0.009
Intestinal perforation	58	1.0%	51	0.9%	0.059	0.006
Intestine, fistula	1,311	21.8%	1,235	21.7%	0.063	0.002
Intestine, obstruction	1,610	26.7%	1,487	26.1%	0.602	0.014
Intra-abdominal abscess	519	8.6%	505	8.9%	-0.250	-0.009
Ischemic heart disease	263	4.4%	241	4.2%	0.137	0.007
Obesity	731	12.1%	692	12.2%	-0.017	-0.001
Osteoporosis	425	7.1%	357	6.3%	0.780	0.032
CD Colitis	4,636	77.0%	4,388	77.2%	-0.153	-0.004
Perianal disease/abscess	1,863	31.0%	1,771	31.1%	-0.186	-0.004
Rheumatoid arthritis/osteoarthritis	884	14.7%	813	14.3%	0.386	0.011
Stroke/TIA	59	1.0%	48	0.8%	0.138	0.015

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Charlson/Elixhauser combined comorbidity score ⁵	1.4	1.8	1.3	1.8	0.066	0.037
Metastatic cancer	36	0.6%	19	0.3%	0.256	0.038
Congestive heart failure	206	3.4%	179	3.2%	0.268	0.015
Dementia	20	0.3%	16	0.3%	0.053	0.010
Renal failure	318	5.3%	287	5.1%	0.228	0.011
Weight loss	648	10.8%	600	10.6%	0.213	0.007
Hemiplegia	13	0.2%	16	0.3%	-0.065	-0.013
Alcohol abuse	77	1.3%	80	1.4%	-0.130	-0.011
Any tumor	484	8.0%	410	7.2%	0.831	0.032
Cardiac arrhythmias	725	12.0%	661	11.6%	0.423	0.013
Chronic pulmonary disease	781	13.0%	699	12.3%	0.680	0.021
Coagulopathy	173	2.9%	138	2.4%	0.451	0.028
Complicated diabetes	248	4.1%	231	4.1%	0.054	0.003
Deficiency anemias	1,752	29.1%	1,621	28.5%	0.609	0.014
Fluid and electrolyte disorders	872	14.5%	835	14.7%	-0.195	-0.006
Liver disease	567	9.4%	502	8.8%	0.595	0.021
Peripheral vascular disorder	223	3.7%	216	3.8%	-0.087	-0.005
Psychosis	1,197	19.9%	1,056	18.6%	1.318	0.034
Pulmonary circulation disorders	99	1.6%	71	1.3%	0.393	0.033
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Hypertension	1,566	26.0%	1,420	25.0%	1.053	0.025
Malnutrition	322	5.3%	295	5.2%	0.153	0.007
C. diff testing	1,138	18.9%	1,084	19.1%	-0.158	-0.004
C. diff diagnosis	130	2.2%	128	2.2%	-0.087	-0.006
Cancer, urologic (kidney, renal pevis, and ureter)	16	0.3%	14	0.2%	0.024	0.005
Non-Alzheimers dementia	23	0.4%	16	0.3%	0.100	0.017
Parkinsons disease and secondary parkinsonism	12	0.2%	*****	*****	0.069	0.017
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	1,110	19.5%	NaN	NaN
Infliximab on index date	0	0.0%	2,073	36.5%	NaN	NaN
Vedolizumab on index date	0	0.0%	2,503	44.0%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Recorded History of Use From [-183, -1]:						
Adalimumab	2,522	41.9%	2,434	42.8%	-0.911	-0.019
Certolizumab pegol	688	11.4%	651	11.5%	-0.027	-0.001
Golimumab	37	0.6%	28	0.5%	0.130	0.018
Infliximab	1,429	23.7%	1,408	24.8%	-1.027	-0.024
Natalizumab	*****	*****	11	0.2%	-0.095	-0.025
Ozanimod	*****	*****	0	0.0%	0.009	0.008
Tofacitinib	14	0.2%	15	0.3%	-0.030	-0.006
Upadacitinib	*****	*****	*****	*****	-0.048	-0.024
Vedolizumab	1,403	23.3%	1,201	21.1%	2.179	0.053
Risankizumab	*****	*****	11	0.2%	-0.123	-0.034

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Recorded History of Use From [-183, -1]:	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	748	12.4%	719	12.6%	-0.216	-0.007
Treatment-experienced - any biologic or small molecule drug	6,019	100.0%	5,686	100.0%	0.000	NaN
Days with a biologic dispensing						
1	463	7.7%	412	7.2%	0.455	0.017
2	817	13.6%	801	14.1%	-0.505	-0.015
3-4	2,188	36.4%	2,086	36.7%	-0.341	-0.007
5-6	1,992	33.1%	1,878	33.0%	0.076	0.002
7+	559	9.3%	510	9.0%	0.316	0.011
Recorded History of Use From [-183, 0]						
Aminosalicylates (5-ASA)	749	12.4%	739	13.0%	-0.560	-0.017
Immunomodulators	1,550	25.8%	1,517	26.7%	-0.926	-0.021
Corticosteroids, intravenous	*****	*****	*****	*****	-0.042	-0.013
Corticosteroids, oral	2,677	44.5%	2,578	45.3%	-0.870	-0.018
Corticosteroids, rectal	129	2.1%	121	2.1%	0.009	0.001
Antibiotics	3,177	52.8%	2,987	52.5%	0.255	0.005
Antivirals	437	7.3%	399	7.0%	0.240	0.009
Anticoagulants	538	8.9%	462	8.1%	0.807	0.029
Antidiabetics	335	5.6%	304	5.4%	0.214	0.009
Antihypertensives	1,129	18.8%	1,067	18.8%	-0.011	-0.000
Antiplatelets	114	1.9%	93	1.6%	0.257	0.020
Lipid-lowering drugs	1,230	20.4%	1,118	19.7%	0.770	0.020
Non-steroidal anti-inflammatory drugs	882	14.7%	848	14.9%	-0.268	-0.008
Opioids	2,052	34.1%	1,894	33.3%	0.781	0.017

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Immunization From [-365, 0]	Number	Percent ³	Number	Percent ³		
Flu (Influenza) vaccination	2,487	41.3%	2,336	41.1%	0.236	0.005
Immunization From [ever, 0]						
Covid-19 vaccination	890	14.8%	851	15.0%	-0.184	-0.005
Diphtheria, tetanus, and pertussis (DTaP) vaccination	1,398	23.2%	1,301	22.9%	0.348	0.008
Haemophilus influenza type B vaccination	*****	*****	*****	*****	-0.022	-0.007
Measles, mumps, and rubella (MMR) vaccination	37	0.6%	29	0.5%	0.108	0.015
Meningococcal vaccination	281	4.7%	271	4.8%	-0.095	-0.005
Pneumococcal vaccination	1,850	30.7%	1,724	30.3%	0.420	0.010
Varicella (VAR) vaccination	415	6.9%	399	7.0%	-0.119	-0.005
Zoster recombinant vaccination	278	4.6%	248	4.4%	0.264	0.013
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	20.5	16.9	20.2	19.9	0.293	0.016
Mean number of unique drug classes dispensed	7.7	4.7	7.6	4.8	0.101	0.021

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Mean number of ambulatory encounters	13.7	9.7	13.4	9.4	0.295	0.031
Mean number of emergency room encounters	0.5	1.3	0.5	1.1	0.040	0.033
Mean number of inpatient hospital encounters	0.3	0.7	0.3	0.7	0.010	0.014
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.1	0.003	0.028
Mean number of other ambulatory encounters	5.0	10.0	5.1	11.7	-0.134	-0.012
Number of emergency department encounters						
0	4,331	72.0%	4,138	72.8%	-0.809	-0.018
1	1,049	17.4%	974	17.1%	0.296	0.008
2-3	488	8.1%	441	7.8%	0.347	0.013
4	151	2.5%	133	2.3%	0.166	0.011
Number of ambulatory encounters						
0	*****	*****	*****	*****	-0.023	-0.007
1	*****	*****	*****	*****	0.261	0.030
2-3	316	5.3%	313	5.5%	-0.250	-0.011
4	5,643	93.8%	5,330	93.7%	0.012	0.000

Table 1i. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced; Event: Serious Infection Composite or COVID-19

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Number of inpatient encounters						
0	4,793	79.6%	4,522	79.5%	0.101	0.003
1	837	13.9%	806	14.2%	-0.269	-0.008
2-3	335	5.6%	317	5.6%	-0.005	-0.000
4	54	0.9%	41	0.7%	0.174	0.019
Number of days with GI-related emergency department encounter						
0	5,013	83.3%	4,793	84.3%	-1.003	-0.027
1	723	12.0%	644	11.3%	0.695	0.022
2-3	227	3.8%	211	3.7%	0.056	0.003
4	56	0.9%	39	0.7%	0.252	0.028
Number of days with GI-related inpatient encounter						
0	5,186	86.2%	4,893	86.1%	0.103	0.003
1	649	10.8%	630	11.1%	-0.302	-0.010
2-3	170	2.8%	*****	*****	0.140	0.009
4	14	0.2%	*****	*****	0.059	0.013

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Unique patients	15,565	100.0%	52,109	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	47.7	14.2	45.8	14.2	1.957	0.138
Age						
18-24 years	1,572	10.1%	7,452	14.3%	-4.201	-0.129
25-34 years	2,894	18.6%	10,818	20.8%	-2.167	-0.055
35-44 years	2,972	19.1%	9,209	17.7%	1.422	0.037
45-54 years	2,548	16.4%	7,476	14.3%	2.023	0.056
55-64 years	2,070	13.3%	6,114	11.7%	1.566	0.047
65-74 years	2,600	16.7%	7,963	15.3%	1.423	0.039
≥ 75 years	909	5.8%	3,077	5.9%	-0.065	-0.003
Sex						
Female	8,942	57.4%	28,524	54.7%	2.710	0.055
Male	6,623	42.6%	23,585	45.3%	-2.710	-0.055
Race ³						
American Indian or Alaska Native	29	0.2%	163	0.3%	-0.126	-0.025
Asian	106	0.7%	394	0.8%	-0.075	-0.009
Black or African American	845	5.4%	3,908	7.5%	-2.071	-0.084
Multi-racial	105	0.7%	335	0.6%	0.032	0.004
Native Hawaiian or Other Pacific Islander	11	0.1%	42	0.1%	-0.010	-0.004
Unknown	7,374	47.4%	23,005	44.1%	3.228	0.065
White	7,095	45.6%	24,262	46.6%	-0.977	-0.020

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	283	1.8%	1,343	2.6%	-0.759	-0.052
No	6,968	44.8%	26,191	50.3%	-5.495	-0.110
Unknown	8,314	53.4%	24,575	47.2%	6.254	0.125
Year						
2016	282	1.8%	2,743	5.3%	-3.452	-0.188
2017	2,349	15.1%	10,200	19.6%	-4.483	-0.119
2018	2,436	15.7%	9,580	18.4%	-2.734	-0.073
2019	2,775	17.8%	9,304	17.9%	-0.026	-0.001
2020	2,710	17.4%	9,208	17.7%	-0.260	-0.007
2021	2,181	14.0%	5,374	10.3%	3.699	0.113
2022	2,338	15.0%	4,770	9.2%	5.867	0.181
2023	494	3.2%	930	1.8%	1.389	0.089
Time						
Before April 1, 2020 (pre-pandemic)	8,545	54.9%	34,445	66.1%	-11.203	-0.231
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,747	11.2%	5,807	11.1%	0.080	0.003
December 1, 2020 through most recent data (pandemic after vaccine)	5,273	33.9%	11,857	22.8%	11.123	0.249

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Acquired hypothyroidism	1,478	9.5%	4,390	8.4%	1.071	0.038
Acute myocardial infarction	90	0.6%	329	0.6%	-0.053	-0.007
Alcohol or drug abuse	1,085	7.0%	3,763	7.2%	-0.251	-0.010
Alzheimers disease	27	0.2%	85	0.2%	0.010	0.003
Anemia	5,133	33.0%	14,947	28.7%	4.294	0.093
Asthma	1,290	8.3%	4,219	8.1%	0.191	0.007
Atrial fibrillation	567	3.6%	1,875	3.6%	0.045	0.002
Benign prostatic hyperplasia	640	4.1%	1,956	3.8%	0.358	0.018
Cancer, history of	1,020	6.6%	3,379	6.5%	0.069	0.003
Cancer, breast	194	1.2%	727	1.4%	-0.149	-0.013
Cancer, colorectal	157	1.0%	487	0.9%	0.074	0.008
Cancer, endometrial	28	0.2%	97	0.2%	-0.006	-0.001
Cancer, lung	49	0.3%	244	0.5%	-0.153	-0.025
Cancer, prostate	156	1.0%	515	1.0%	0.014	0.001
Cataract	997	6.4%	3,059	5.9%	0.535	0.022
Chronic kidney disease	1,094	7.0%	3,154	6.1%	0.976	0.039
COPD/bronchiectasis	1,052	6.8%	3,915	7.5%	-0.754	-0.029
Depression	3,385	21.7%	10,397	20.0%	1.795	0.044
Diabetes	1,445	9.3%	5,113	9.8%	-0.528	-0.018
Glaucoma	486	3.1%	1,584	3.0%	0.083	0.005
Heart failure	521	3.3%	1,563	3.0%	0.348	0.020
Hip/pelvic fracture	29	0.2%	87	0.2%	0.019	0.005
Hyperlipidemia	3,183	20.4%	10,521	20.2%	0.259	0.006
Hypertension (CCW)	4,411	28.3%	14,453	27.7%	0.603	0.013

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Serious infection	1,188	7.6%	4,382	8.4%	-0.777	-0.029
Intestinal perforation	173	1.1%	813	1.6%	-0.449	-0.039
Intestine, fistula	3,165	20.3%	8,504	16.3%	4.014	0.104
Intestine, obstruction	4,090	26.3%	11,015	21.1%	5.139	0.121
Intra-abdominal abscess	1,294	8.3%	4,312	8.3%	0.039	0.001
Ischemic heart disease	852	5.5%	3,023	5.8%	-0.327	-0.014
Obesity	2,008	12.9%	6,659	12.8%	0.122	0.004
Osteoporosis	1,145	7.4%	2,526	4.8%	2.509	0.105
CD Colitis	11,408	73.3%	34,582	66.4%	6.928	0.151
Perianal disease/abscess	4,830	31.0%	15,384	29.5%	1.508	0.033
Rheumatoid arthritis/osteoarthritis	2,397	15.4%	7,236	13.9%	1.514	0.043
Stroke/TIA	208	1.3%	751	1.4%	-0.105	-0.009

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.5	2.0	1.4	2.0	0.088	0.044
Metastatic cancer	95	0.6%	390	0.7%	-0.138	-0.017
Congestive heart failure	711	4.6%	2,308	4.4%	0.139	0.007
Dementia	85	0.5%	358	0.7%	-0.141	-0.018
Renal failure	986	6.3%	2,839	5.4%	0.887	0.038
Weight loss	1,891	12.1%	6,257	12.0%	0.142	0.004
Hemiplegia	51	0.3%	188	0.4%	-0.033	-0.006
Alcohol abuse	241	1.5%	998	1.9%	-0.367	-0.028
Any tumor	1,304	8.4%	3,575	6.9%	1.517	0.057
Cardiac arrhythmias	2,138	13.7%	6,727	12.9%	0.826	0.024
Chronic pulmonary disease	2,199	14.1%	7,568	14.5%	-0.396	-0.011
Coagulopathy	492	3.2%	1,403	2.7%	0.469	0.028
Complicated diabetes	801	5.1%	2,924	5.6%	-0.465	-0.021
Deficiency anemias	4,585	29.5%	13,501	25.9%	3.548	0.079
Fluid and electrolyte disorders	2,551	16.4%	8,417	16.2%	0.237	0.006
Liver disease	1,636	10.5%	4,896	9.4%	1.115	0.037
Peripheral vascular disorder	737	4.7%	2,648	5.1%	-0.347	-0.016
Psychosis	3,242	20.8%	10,034	19.3%	1.573	0.039
Pulmonary circulation disorders	301	1.9%	811	1.6%	0.377	0.029
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN
Hypertension	4,402	28.3%	14,430	27.7%	0.589	0.013
Malnutrition	993	6.4%	2,850	5.5%	0.910	0.039
C. diff testing	2,698	17.3%	8,355	16.0%	1.300	0.035
C. diff diagnosis	341	2.2%	1,144	2.2%	-0.005	-0.000
Cancer, urologic (kidney, renal pevis, and ureter)	75	0.5%	280	0.5%	-0.055	-0.008
Non-Alzheimers dementia	88	0.6%	362	0.7%	-0.129	-0.016
Parkinsons disease and secondary parkinsonism	50	0.3%	147	0.3%	0.039	0.007

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Use on Index Date [0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Adalimumab on index date	0	0.0%	20,665	39.7%	NaN	NaN
Infliximab on index date	0	0.0%	17,739	34.0%	NaN	NaN
Vedolizumab on index date	0	0.0%	13,705	26.3%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN
Recorded History of Use From [-183, -1]:						
Adalimumab	2,678	17.2%	2,413	4.6%	12.575	0.412
Certolizumab pegol	725	4.7%	788	1.5%	3.146	0.183
Golimumab	38	0.2%	27	0.1%	0.192	0.050
Infliximab	1,538	9.9%	2,738	5.3%	4.627	0.176
Natalizumab	*****	*****	*****	*****	0.026	0.014
Ozanimod	*****	*****	*****	*****	0.005	0.007
Tofacitinib	14	0.1%	18	0.0%	0.055	0.022
Upadacitinib	*****	*****	*****	*****	0.003	0.004
Vedolizumab	1,561	10.0%	529	1.0%	9.014	0.403
Risankizumab	*****	*****	*****	*****	0.007	0.004
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	787	5.1%	854	1.6%	3.417	0.191
Treatment-experienced - any biologic or small molecule drug	6,478	41.6%	6,467	12.4%	29.208	0.697

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent ²	Number	Percent ²		
Days with a biologic dispensing						
1	505	3.2%	518	1.0%	2.250	0.157
2	885	5.7%	1,021	2.0%	3.726	0.195
3-4	2,335	15.0%	2,713	5.2%	9.795	0.329
5-6	2,154	13.8%	1,742	3.3%	10.496	0.381
7+	599	3.8%	473	0.9%	2.941	0.194
Recorded History of Use From [-183, 0]						
Aminosalicylates (5-ASA)	2,167	13.9%	11,001	21.1%	-7.189	-0.190
Immunomodulators	3,075	19.8%	10,728	20.6%	-0.832	-0.021
Corticosteroids, intravenous	17	0.1%	40	0.1%	0.032	0.011
Corticosteroids, oral	6,409	41.2%	21,755	41.7%	-0.573	-0.012
Corticosteroids, rectal	267	1.7%	625	1.2%	0.516	0.043
Antibiotics	7,848	50.4%	26,062	50.0%	0.406	0.008
Antivirals	1,058	6.8%	2,912	5.6%	1.209	0.050
Anticoagulants	1,511	9.7%	4,205	8.1%	1.638	0.058
Antidiabetics	1,011	6.5%	3,682	7.1%	-0.571	-0.023
Antihypertensives	2,960	19.0%	9,834	18.9%	0.145	0.004
Antiplatelets	334	2.1%	1,163	2.2%	-0.086	-0.006
Lipid-lowering drugs	3,245	20.8%	10,155	19.5%	1.360	0.034
Non-steroidal anti-inflammatory drugs	2,357	15.1%	9,060	17.4%	-2.244	-0.061
Opioids	5,375	34.5%	17,414	33.4%	1.114	0.024
Immunization From [-365, 0]						
Flu (Influenza) vaccination	6,279	40.3%	18,401	35.3%	5.028	0.104

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Immunization From [ever, 0]	Numer	Percent ²	Number	Percent ²		
Covid-19 vaccination	2,848	18.3%	5,879	11.3%	7.015	0.199
Diphtheria, tetanus, and pertussis (DTaP) vaccination	3,589	23.1%	11,493	22.1%	1.002	0.024
Haemophilus influenza type B vaccination	19	0.1%	60	0.1%	0.007	0.002
Measles, mumps, and rubella (MMR) vaccination	119	0.8%	414	0.8%	-0.030	-0.003
Meningococcal vaccination	600	3.9%	2,468	4.7%	-0.881	-0.043
Pneumococcal vaccination	4,550	29.2%	13,207	25.3%	3.887	0.087
Varicella (VAR) vaccination	1,078	6.9%	3,218	6.2%	0.750	0.030
Zoster recombinant vaccination	892	5.7%	2,279	4.4%	1.357	0.062
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	18.2	16.8	16.9	17.1	1.263	0.074
Mean number of unique drug classes dispensed	7.3	4.8	7.0	5.0	0.283	0.058
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.4	11.2	12.3	10.8	1.168	0.106
Mean number of emergency room encounters	0.6	1.6	0.7	1.6	-0.063	-0.040
Mean number of inpatient hospital encounters	0.3	0.8	0.4	0.8	-0.016	-0.020
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.2	-0.005	-0.028
Mean number of other ambulatory encounters	5.2	11.0	5.3	12.2	-0.126	-0.011
Number of emergency department encounters						
0	11,023	70.8%	35,382	67.9%	2.919	0.063
1	2,656	17.1%	9,519	18.3%	-1.204	-0.032
2-3	1,347	8.7%	5,164	9.9%	-1.256	-0.043
4	539	3.5%	2,044	3.9%	-0.460	-0.024

Table 1k. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Number of ambulatory encounters						
0	50	0.3%	768	1.5%	-1.153	-0.122
1	236	1.5%	1,346	2.6%	-1.067	-0.075
2-3	1,019	6.5%	4,299	8.3%	-1.703	-0.065
4	14,260	91.6%	45,696	87.7%	3.923	0.129
Number of inpatient encounters						
0	12,053	77.4%	39,530	75.9%	1.576	0.037
1	2,345	15.1%	8,622	16.5%	-1.480	-0.041
2-3	990	6.4%	3,374	6.5%	-0.114	-0.005
4	177	1.1%	583	1.1%	0.018	0.002
Number of days with GI-related emergency department encounter						
0	12,968	83.3%	43,268	83.0%	0.281	0.008
1	1,773	11.4%	6,183	11.9%	-0.475	-0.015
2-3	627	4.0%	2,082	4.0%	0.033	0.002
4	197	1.3%	576	1.1%	0.160	0.015
Number of days with GI-related inpatient encounter						
0	13,368	85.9%	44,315	85.0%	0.842	0.024
1	1,703	10.9%	6,214	11.9%	-0.984	-0.031
2-3	456	2.9%	1,467	2.8%	0.114	0.007
4	38	0.2%	113	0.2%	0.027	0.006

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. J Clin Epidemiol. 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. Med Care. 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Unique patients	15,490	99.5%	51,503	98.8%	N/A	N/A
Demographic Characteristics						
Age (years)	47.7	14.2	45.7	14.2	2.027	0.143
Age						
18-24 years	1,562	10.1%	7,379	14.3%	-4.243	-0.130
25-34 years	2,886	18.6%	10,760	20.9%	-2.261	-0.057
35-44 years	2,954	19.1%	9,125	17.7%	1.353	0.035
45-54 years	2,534	16.4%	7,360	14.3%	2.069	0.057
55-64 years	2,054	13.3%	6,002	11.7%	1.606	0.049
65-74 years	2,596	16.8%	7,861	15.3%	1.496	0.041
≥ 75 years	904	5.8%	3,016	5.9%	-0.020	-0.001
Sex						
Female	8,898	57.4%	28,197	54.7%	2.695	0.054
Male	6,592	42.6%	23,306	45.3%	-2.695	-0.054
Race ³						
American Indian or Alaska Native	29	0.2%	161	0.3%	-0.125	-0.025
Asian	106	0.7%	391	0.8%	-0.075	-0.009
Black or African American	843	5.4%	3,848	7.5%	-2.029	-0.083
Multi-racial	105	0.7%	329	0.6%	0.039	0.005
Native Hawaiian or Other Pacific Islander	11	0.1%	41	0.1%	-0.009	-0.003
Unknown	7,336	47.4%	22,782	44.2%	3.125	0.063
White	7,060	45.6%	23,951	46.5%	-0.926	-0.019

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	282	1.8%	1,323	2.6%	-0.748	-0.051
No	6,939	44.8%	25,864	50.2%	-5.422	-0.109
Unknown	8,269	53.4%	24,316	47.2%	6.170	0.124
Year						
2016	282	1.8%	2,544	4.9%	-3.119	-0.173
2017	2,341	15.1%	10,162	19.7%	-4.618	-0.122
2018	2,428	15.7%	9,555	18.6%	-2.878	-0.076
2019	2,757	17.8%	9,284	18.0%	-0.228	-0.006
2020	2,675	17.3%	8,913	17.3%	-0.037	-0.001
2021	2,178	14.1%	5,360	10.4%	3.654	0.112
2022	2,335	15.1%	4,759	9.2%	5.834	0.179
2023	494	3.2%	926	1.8%	1.391	0.089
Time						
Before April 1, 2020 (pre-pandemic)	8,510	54.9%	34,160	66.3%	-11.388	-0.235
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,732	11.2%	5,602	10.9%	0.304	0.010
December 1, 2020 through most recent data (pandemic after vaccine)	5,248	33.9%	11,741	22.8%	11.083	0.248

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Acquired hypothyroidism	1,469	9.5%	4,309	8.4%	1.117	0.039
Acute myocardial infarction	88	0.6%	305	0.6%	-0.024	-0.003
Alcohol or drug abuse	1,074	6.9%	3,681	7.1%	-0.214	-0.008
Alzheimers disease	26	0.2%	77	0.1%	0.018	0.005
Anemia	5,098	32.9%	14,710	28.6%	4.350	0.094
Asthma	1,281	8.3%	4,131	8.0%	0.249	0.009
Atrial fibrillation	563	3.6%	1,830	3.6%	0.081	0.004
Benign prostatic hyperplasia	636	4.1%	1,910	3.7%	0.397	0.021
Cancer, history of	1,014	6.5%	3,265	6.3%	0.207	0.008
Cancer, breast	193	1.2%	700	1.4%	-0.113	-0.010
Cancer, colorectal	154	1.0%	475	0.9%	0.072	0.007
Cancer, endometrial	28	0.2%	83	0.2%	0.020	0.005
Cancer, lung	49	0.3%	226	0.4%	-0.122	-0.020
Cancer, prostate	155	1.0%	499	1.0%	0.032	0.003
Cataract	991	6.4%	3,024	5.9%	0.526	0.022
Chronic kidney disease	1,084	7.0%	3,080	6.0%	1.018	0.041
COPD/bronchiectasis	1,049	6.8%	3,812	7.4%	-0.629	-0.025
Depression	3,359	21.7%	10,231	19.9%	1.820	0.045
Diabetes	1,438	9.3%	4,961	9.6%	-0.349	-0.012
Glaucoma	481	3.1%	1,552	3.0%	0.092	0.005
Heart failure	514	3.3%	1,518	2.9%	0.371	0.021
Hip/pelvic fracture	28	0.2%	83	0.2%	0.020	0.005
Hyperlipidemia	3,171	20.5%	10,299	20.0%	0.474	0.012
Hypertension (CCW)	4,387	28.3%	14,143	27.5%	0.861	0.019

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Serious infection	1,179	7.6%	4,258	8.3%	-0.656	-0.024
Intestinal perforation	171	1.1%	784	1.5%	-0.418	-0.037
Intestine, fistula	3,138	20.3%	8,419	16.3%	3.912	0.101
Intestine, obstruction	4,066	26.2%	10,887	21.1%	5.111	0.120
Intra-abdominal abscess	1,284	8.3%	4,232	8.2%	0.072	0.003
Ischemic heart disease	846	5.5%	2,943	5.7%	-0.253	-0.011
Obesity	1,998	12.9%	6,530	12.7%	0.220	0.007
Osteoporosis	1,126	7.3%	2,495	4.8%	2.425	0.102
CD Colitis	11,342	73.2%	34,215	66.4%	6.788	0.148
Perianal disease/abscess	4,800	31.0%	15,163	29.4%	1.547	0.034
Rheumatoid arthritis/osteoarthritis	2,384	15.4%	7,087	13.8%	1.630	0.046
Stroke/TIA	207	1.3%	713	1.4%	-0.048	-0.004

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.5	2.0	1.4	2.0	0.100	0.051
Metastatic cancer	95	0.6%	371	0.7%	-0.107	-0.013
Congestive heart failure	704	4.5%	2,250	4.4%	0.176	0.009
Dementia	84	0.5%	325	0.6%	-0.089	-0.012
Renal failure	978	6.3%	2,770	5.4%	0.935	0.040
Weight loss	1,877	12.1%	6,126	11.9%	0.223	0.007
Hemiplegia	51	0.3%	181	0.4%	-0.022	-0.004
Alcohol abuse	240	1.5%	978	1.9%	-0.350	-0.027
Any tumor	1,294	8.4%	3,466	6.7%	1.624	0.062
Cardiac arrhythmias	2,121	13.7%	6,586	12.8%	0.905	0.027
Chronic pulmonary disease	2,187	14.1%	7,398	14.4%	-0.245	-0.007
Coagulopathy	485	3.1%	1,370	2.7%	0.471	0.028
Complicated diabetes	797	5.1%	2,838	5.5%	-0.365	-0.016
Deficiency anemias	4,555	29.4%	13,282	25.8%	3.617	0.081
Fluid and electrolyte disorders	2,531	16.3%	8,209	15.9%	0.401	0.011
Liver disease	1,628	10.5%	4,807	9.3%	1.177	0.039
Peripheral vascular disorder	731	4.7%	2,568	5.0%	-0.267	-0.012
Psychosis	3,216	20.8%	9,875	19.2%	1.588	0.040
Pulmonary circulation disorders	299	1.9%	789	1.5%	0.398	0.031
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Hypertension	4,378	28.3%	14,120	27.4%	0.848	0.019
Malnutrition	982	6.3%	2,786	5.4%	0.930	0.040
C. diff testing	2,681	17.3%	8,234	16.0%	1.321	0.035
C. diff diagnosis	337	2.2%	1,121	2.2%	-0.001	-0.000
Cancer, urologic (kidney, renal pevis, and ureter)	75	0.5%	245	0.5%	0.008	0.001
Non-Alzheimers dementia	88	0.6%	328	0.6%	-0.069	-0.009
Parkinsons disease and secondary parkinsonism	48	0.3%	134	0.3%	0.050	0.009
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	20,409	39.6%	NaN	NaN
Infliximab on index date	0	0.0%	17,531	34.0%	NaN	NaN
Vedolizumab on index date	0	0.0%	13,563	26.3%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent ²	Number	Percent ²		
Adalimumab	2,671	17.2%	2,397	4.7%	12.589	0.412
Certolizumab pegol	721	4.7%	784	1.5%	3.132	0.182
Golimumab	38	0.2%	27	0.1%	0.193	0.050
Infliximab	1,531	9.9%	2,721	5.3%	4.601	0.174
Natalizumab	*****	*****	*****	*****	0.026	0.014
Ozanimod	*****	*****	*****	*****	0.005	0.007
Tofacitinib	14	0.1%	18	0.0%	0.055	0.022
Upadacitinib	*****	*****	*****	*****	0.003	0.004
Vedolizumab	1,517	9.8%	524	1.0%	8.776	0.396
Risankizumab	*****	*****	*****	*****	0.006	0.004
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	783	5.1%	850	1.7%	3.404	0.190
Treatment-experienced - any biologic or small molecule drug	6,417	41.4%	6,425	12.5%	28.952	0.690
Days with a biologic dispensing						
1	496	3.2%	516	1.0%	2.200	0.154
2	877	5.7%	1,010	2.0%	3.701	0.194
3-4	2,322	15.0%	2,697	5.2%	9.754	0.328
5-6	2,127	13.7%	1,734	3.4%	10.365	0.377
7+	595	3.8%	468	0.9%	2.933	0.193

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Aminosalicylates (5-ASA)	2,162	14.0%	10,757	20.9%	-6.929	-0.183
Immunomodulators	3,056	19.7%	10,591	20.6%	-0.835	-0.021
Corticosteroids, intravenous	16	0.1%	28	0.1%	0.049	0.017
Corticosteroids, oral	6,371	41.1%	21,445	41.6%	-0.509	-0.010
Corticosteroids, rectal	261	1.7%	613	1.2%	0.495	0.042
Antibiotics	7,797	50.3%	25,686	49.9%	0.463	0.009
Antivirals	1,052	6.8%	2,888	5.6%	1.184	0.049
Anticoagulants	1,493	9.6%	4,113	8.0%	1.653	0.058
Antidiabetics	1,005	6.5%	3,576	6.9%	-0.455	-0.018
Antihypertensives	2,941	19.0%	9,623	18.7%	0.302	0.008
Antiplatelets	331	2.1%	1,121	2.2%	-0.040	-0.003
Lipid-lowering drugs	3,231	20.9%	9,969	19.4%	1.502	0.037
Non-steroidal anti-inflammatory drugs	2,349	15.2%	8,896	17.3%	-2.108	-0.057
Opioids	5,338	34.5%	17,160	33.3%	1.142	0.024
Immunization From [-365, 0]						
Flu (Influenza) vaccination	6,244	40.3%	18,172	35.3%	5.026	0.104
Immunization From [ever, 0]						
Covid-19 vaccination	2,845	18.4%	5,863	11.4%	6.983	0.197
Diphtheria, tetanus, and pertussis (DTaP) vaccination	3,570	23.0%	11,358	22.1%	0.994	0.024
Haemophilus influenza type B vaccination	17	0.1%	45	0.1%	0.022	0.007
Measles, mumps, and rubella (MMR) vaccination	119	0.8%	392	0.8%	0.007	0.001
Meningococcal vaccination	595	3.8%	2,434	4.7%	-0.885	-0.044
Pneumococcal vaccination	4,530	29.2%	13,057	25.4%	3.893	0.087
Varicella (VAR) vaccination	1,073	6.9%	3,177	6.2%	0.758	0.031
Zoster recombinant vaccination	886	5.7%	2,237	4.3%	1.376	0.063

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Numer	Percent ²	Number	Percent ²		
Mean number of filled prescriptions	18.2	16.8	16.8	17.0	1.319	0.078
Mean number of unique drug classes dispensed	7.2	4.8	6.9	5.0	0.304	0.062
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.4	11.1	12.2	10.8	1.177	0.108
Mean number of emergency room encounters	0.6	1.5	0.6	1.5	-0.054	-0.036
Mean number of inpatient hospital encounters	0.3	0.8	0.4	0.8	-0.011	-0.014
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.2	-0.004	-0.022
Mean number of other ambulatory encounters	5.1	10.8	5.2	12.0	-0.111	-0.010
Number of emergency department encounters						
0	10,974	70.8%	35,071	68.1%	2.751	0.060
1	2,643	17.1%	9,405	18.3%	-1.198	-0.031
2-3	1,341	8.7%	5,063	9.8%	-1.173	-0.041
4	532	3.4%	1,964	3.8%	-0.379	-0.020
Number of ambulatory encounters						
0	49	0.3%	765	1.5%	-1.169	-0.124
1	236	1.5%	1,340	2.6%	-1.078	-0.076
2-3	1,018	6.6%	4,285	8.3%	-1.748	-0.067
4	14,187	91.6%	45,113	87.6%	3.995	0.131

Table 11. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Number of inpatient encounters						
0	12,002	77.5%	39,199	76.1%	1.372	0.033
1	2,335	15.1%	8,466	16.4%	-1.364	-0.037
2-3	977	6.3%	3,297	6.4%	-0.094	-0.004
4	176	1.1%	541	1.1%	0.086	0.008
Number of days with GI-related emergency department encounter						
0	12,907	83.3%	42,824	83.1%	0.176	0.005
1	1,767	11.4%	6,090	11.8%	-0.417	-0.013
2-3	624	4.0%	2,042	4.0%	0.064	0.003
4	192	1.2%	547	1.1%	0.177	0.017
Number of days with GI-related inpatient encounter						
0	13,312	85.9%	43,872	85.2%	0.756	0.022
1	1,693	10.9%	6,094	11.8%	-0.903	-0.028
2-3	448	2.9%	1,443	2.8%	0.090	0.005
4	37	0.2%	94	0.2%	0.056	0.012

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ³	Number	Percent ³		
Weighted patients	15,490	N/A	14,641	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	47.7	14.2	47.8	14.6	-0.060	-0.004
Age						
18-24 years	1,562	10.1%	1,584	10.8%	-0.737	-0.025
25-34 years	2,886	18.6%	2,807	19.2%	-0.538	-0.014
35-44 years	2,954	19.1%	2,599	17.8%	1.318	0.034
45-54 years	2,534	16.4%	2,238	15.3%	1.073	0.030
55-64 years	2,054	13.3%	1,918	13.1%	0.162	0.005
65-74 years	2,596	16.8%	2,593	17.7%	-0.948	-0.029
≥ 75 years	904	5.8%	903	6.2%	-0.330	-0.015
Sex						
Female	8,898	57.4%	8,419	57.5%	-0.056	-0.001
Male	6,592	42.6%	6,223	42.5%	0.056	0.001
Race ⁴						
American Indian or Alaska Native	29	0.2%	*****	*****	-0.063	-0.014
Asian	106	0.7%	89	0.6%	0.080	0.010
Black or African American	843	5.4%	890	6.1%	-0.634	-0.028
Multi-racial	105	0.7%	117	0.8%	-0.123	-0.015
Native Hawaiian or Other Pacific Islander	11	0.1%	*****	*****	0.011	0.004
Unknown	7,336	47.4%	6,917	47.2%	0.113	0.004
White	7,060	45.6%	6,583	45.0%	0.617	0.018

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ³	Number	Percent ³		
Hispanic origin						
Yes	282	1.8%	270	1.8%	-0.021	-0.002
No	6,939	44.8%	6,572	44.9%	-0.092	-0.004
Unknown	8,269	53.4%	7,799	53.3%	0.113	0.005
Year						
2016	282	1.8%	260	1.8%	0.044	0.003
2017	2,341	15.1%	2,134	14.6%	0.537	0.015
2018	2,428	15.7%	2,296	15.7%	-0.010	-0.000
2019	2,757	17.8%	2,599	17.8%	0.046	0.001
2020	2,675	17.3%	2,498	17.1%	0.209	0.006
2021	2,178	14.1%	2,107	14.4%	-0.333	-0.010
2022	2,335	15.1%	2,261	15.4%	-0.369	-0.010
2023	494	3.2%	485	3.3%	-0.123	-0.007
Time						
Before April 1, 2020 (pre-pandemic)	8,510	54.9%	7,966	54.4%	0.533	0.011
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	1,732	11.2%	1,603	10.9%	0.232	0.007
December 1, 2020 through most recent data (pandemic after vaccine)	5,248	33.9%	5,072	34.6%	-0.765	-0.017

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ³	Number	Percent ³		
Acquired hypothyroidism	1,469	9.5%	1,381	9.4%	0.052	0.002
Acute myocardial infarction	88	0.6%	81	0.6%	0.014	0.002
Alcohol or drug abuse	1,074	6.9%	1,010	6.9%	0.038	0.002
Alzheimers disease	26	0.2%	22	0.2%	0.016	0.004
Anemia	5,098	32.9%	4,741	32.4%	0.531	0.011
Asthma	1,281	8.3%	1,178	8.0%	0.225	0.008
Atrial fibrillation	563	3.6%	544	3.7%	-0.084	-0.005
Benign prostatic hyperplasia	636	4.1%	599	4.1%	0.018	0.001
Cancer, history of	1,014	6.5%	961	6.6%	-0.016	-0.001
Cancer, breast	193	1.2%	191	1.3%	-0.055	-0.005
Cancer, colorectal	154	1.0%	146	1.0%	-0.005	-0.000
Cancer, endometrial	28	0.2%	24	0.2%	0.019	0.005
Cancer, lung	49	0.3%	45	0.3%	0.008	0.002
Cancer, prostate	155	1.0%	145	1.0%	0.010	0.001
Cataract	991	6.4%	964	6.6%	-0.184	-0.008
Chronic kidney disease	1,084	7.0%	1,025	7.0%	-0.002	-0.000
COPD/bronchiectasis	1,049	6.8%	986	6.7%	0.037	0.002
Depression	3,359	21.7%	3,096	21.1%	0.542	0.013
Diabetes	1,438	9.3%	1,374	9.4%	-0.103	-0.004
Glaucoma	481	3.1%	462	3.2%	-0.049	-0.003
Heart failure	514	3.3%	493	3.4%	-0.046	-0.003
Hip/pelvic fracture	28	0.2%	23	0.2%	0.021	0.005
Hyperlipidemia	3,171	20.5%	3,042	20.8%	-0.308	-0.008
Hypertension (CCW)	4,387	28.3%	4,158	28.4%	-0.079	-0.002

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ³	Number	Percent ³		
Serious infection	1,179	7.6%	1,112	7.6%	0.014	0.001
Intestinal perforation	171	1.1%	159	1.1%	0.021	0.002
Intestine, fistula	3,138	20.3%	2,901	19.8%	0.445	0.011
Intestine, obstruction	4,066	26.2%	3,714	25.4%	0.881	0.020
Intra-abdominal abscess	1,284	8.3%	1,203	8.2%	0.072	0.003
Ischemic heart disease	846	5.5%	808	5.5%	-0.054	-0.002
Obesity	1,998	12.9%	1,903	13.0%	-0.101	-0.003
Osteoporosis	1,126	7.3%	1,033	7.1%	0.217	0.009
CD Colitis	11,342	73.2%	10,697	73.1%	0.157	0.004
Perianal disease/abscess	4,800	31.0%	4,506	30.8%	0.214	0.005
Rheumatoid arthritis/osteoarthritis	2,384	15.4%	2,242	15.3%	0.077	0.002
Stroke/TIA	207	1.3%	195	1.3%	0.003	0.000

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ³	Number	Percent ³		
Metastatic cancer	95	0.6%	95	0.7%	-0.038	-0.005
Congestive heart failure	704	4.5%	672	4.6%	-0.042	-0.002
Dementia	84	0.5%	80	0.5%	-0.003	-0.000
Renal failure	978	6.3%	931	6.4%	-0.044	-0.002
Weight loss	1,877	12.1%	1,765	12.1%	0.059	0.002
Hemiplegia	51	0.3%	48	0.3%	0.001	0.000
Alcohol abuse	240	1.5%	260	1.8%	-0.229	-0.018
Any tumor	1,294	8.4%	1,093	7.5%	0.885	0.033
Cardiac arrhythmias	2,121	13.7%	1,939	13.2%	0.446	0.013
Chronic pulmonary disease	2,187	14.1%	2,045	14.0%	0.151	0.004
Coagulopathy	485	3.1%	439	3.0%	0.129	0.008
Complicated diabetes	797	5.1%	786	5.4%	-0.221	-0.010
Deficiency anemias	4,555	29.4%	4,261	29.1%	0.302	0.007
Fluid and electrolyte disorders	2,531	16.3%	2,396	16.4%	-0.023	-0.001
Liver disease	1,628	10.5%	1,533	10.5%	0.041	0.001
Peripheral vascular disorder	731	4.7%	700	4.8%	-0.061	-0.003
Psychosis	3,216	20.8%	2,958	20.2%	0.561	0.014
Pulmonary circulation disorders	299	1.9%	266	1.8%	0.116	0.009
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ³	Number	Percent ³		
Malnutrition	982	6.3%	910	6.2%	0.125	0.005
C. diff testing	2,681	17.3%	2,513	17.2%	0.145	0.004
C. diff diagnosis	337	2.2%	313	2.1%	0.040	0.003
Cancer, urologic (kidney, renal pevis, and ureter)	75	0.5%	71	0.5%	-0.004	-0.001
Non-Alzheimers dementia	88	0.6%	80	0.5%	0.020	0.003
Parkinsons disease and secondary parkinsonism	48	0.3%	40	0.3%	0.038	0.007
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	4,514	30.8%	NaN	NaN
Infliximab on index date	0	0.0%	5,001	34.2%	NaN	NaN
Vedolizumab on index date	0	0.0%	5,126	35.0%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent ³	Number	Percent ³		
Adalimumab	2,671	17.2%	2,499	17.1%	0.173	0.005
Certolizumab pegol	721	4.7%	682	4.7%	-0.001	-0.000
Golimumab	38	0.2%	29	0.2%	0.051	0.011
Infliximab	1,531	9.9%	1,526	10.4%	-0.539	-0.018
Natalizumab	*****	*****	11	0.1%	-0.032	-0.013
Ozanimod	*****	*****	*****	*****	-0.000	-0.001
Tofacitinib	14	0.1%	19	0.1%	-0.042	-0.013
Upadacitinib	*****	*****	*****	*****	-0.020	-0.016
Vedolizumab	1,517	9.8%	898	6.1%	3.663	0.136
Risankizumab	*****	*****	13	0.1%	-0.064	-0.027
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	783	5.1%	757	5.2%	-0.114	-0.005
Treatment-experienced - any biologic or small molecule drug	6,417	41.4%	5,614	38.3%	3.081	0.063
Days with a biologic dispensing						
1	496	3.2%	412	2.8%	0.386	0.023
2	877	5.7%	772	5.3%	0.391	0.017
3-4	2,322	15.0%	2,036	13.9%	1.086	0.031
5-6	2,127	13.7%	1,875	12.8%	0.926	0.027
7+	595	3.8%	520	3.5%	0.291	0.016

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Numer	Percent ³	Number	Percent ³		
Aminosalicylates (5-ASA)	2,162	14.0%	2,096	14.3%	-0.361	-0.010
Immunomodulators	3,056	19.7%	2,877	19.7%	0.076	0.002
Corticosteroids, intravenous	16	0.1%	13	0.1%	0.012	0.004
Corticosteroids, oral	6,371	41.1%	6,015	41.1%	0.047	0.001
Corticosteroids, rectal	261	1.7%	232	1.6%	0.099	0.008
Antibiotics	7,797	50.3%	7,347	50.2%	0.156	0.003
Antivirals	1,052	6.8%	1,000	6.8%	-0.037	-0.001
Anticoagulants	1,493	9.6%	1,391	9.5%	0.138	0.005
Antidiabetics	1,005	6.5%	970	6.6%	-0.140	-0.006
Antihypertensives	2,941	19.0%	2,784	19.0%	-0.029	-0.001
Antiplatelets	331	2.1%	301	2.1%	0.081	0.006
Lipid-lowering drugs	3,231	20.9%	3,036	20.7%	0.119	0.003
Non-steroidal anti-inflammatory drugs	2,349	15.2%	2,226	15.2%	-0.037	-0.001
Opioids	5,338	34.5%	5,029	34.3%	0.114	0.002
Immunization From [-365, 0]						
Flu (Influenza) vaccination	6,244	40.3%	5,879	40.2%	0.156	0.003
Immunization From [ever, 0]						
Covid-19 vaccination	2,845	18.4%	2,736	18.7%	-0.319	-0.008
Diphtheria, tetanus, and pertussis (DTaP)	3,570	23.0%	3,400	23.2%	-0.176	-0.004
Haemophilus influenza type B vaccination	17	0.1%	17	0.1%	-0.005	-0.001
Measles, mumps, and rubella (MMR) vaccination	119	0.8%	115	0.8%	-0.015	-0.002
Meningococcal vaccination	595	3.8%	563	3.8%	-0.002	-0.000
Pneumococcal vaccination	4,530	29.2%	4,261	29.1%	0.143	0.003
Varicella (VAR) vaccination	1,073	6.9%	1,006	6.9%	0.058	0.002
Zoster recombinant vaccination	886	5.7%	837	5.7%	0.005	0.000

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Numer	Percent ³	Number	Percent ³		
Mean number of filled prescriptions	18.2	16.8	17.9	17.7	0.211	0.012
Mean number of unique drug classes dispensed	7.2	4.8	7.2	5.0	0.044	0.009
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.4	11.1	13.2	11.4	0.183	0.016
Mean number of emergency room encounters	0.6	1.5	0.6	1.3	0.013	0.009
Mean number of inpatient hospital encounters	0.3	0.8	0.3	0.8	0.004	0.005
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.1	0.001	0.010
Mean number of other ambulatory encounters	5.1	10.8	5.1	11.2	0.061	0.006
Number of emergency department encounters						
0	10,974	70.8%	10,322	70.5%	0.345	0.008
1	2,643	17.1%	2,533	17.3%	-0.240	-0.006
2-3	1,341	8.7%	1,290	8.8%	-0.156	-0.006
4	532	3.4%	495	3.4%	0.051	0.003
Number of ambulatory encounters						
0	49	0.3%	119	0.8%	-0.495	-0.066
1	236	1.5%	258	1.8%	-0.237	-0.019
2-3	1,018	6.6%	1,008	6.9%	-0.314	-0.013
4	14,187	91.6%	13,256	90.5%	1.046	0.037

Table 1m. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023; Event: Serious Infection Composite

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ³	Number	Percent ³		
0	12,002	77.5%	11,337	77.4%	0.052	0.001
1	2,335	15.1%	2,230	15.2%	-0.160	-0.004
2-3	977	6.3%	918	6.3%	0.034	0.001
4	176	1.1%	156	1.1%	0.073	0.007
Number of days with GI-related emergency department encounter						
0	12,907	83.3%	12,241	83.6%	-0.279	-0.008
1	1,767	11.4%	1,639	11.2%	0.211	0.007
2-3	624	4.0%	586	4.0%	0.025	0.001
4	192	1.2%	175	1.2%	0.044	0.004
Number of days with GI-related inpatient encounter						
0	13,312	85.9%	12,616	86.2%	-0.229	-0.007
1	1,693	10.9%	1,579	10.8%	0.144	0.005
2-3	448	2.9%	412	2.8%	0.078	0.005
4	37	0.2%	34	0.2%	0.007	0.001

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted

³Value represents standard deviation where no % follows the value.

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

⁵The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. J Clin Epidemiol. 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. Med Care. 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Unique patients	8,503	99.5%	33,978	98.6%	N/A	N/A
Demographic Characteristics						
Age (years)	46.1	14.1	44.2	14.0	1.894	0.135
Age						
18-24 years	903	10.6%	5,146	15.1%	-4.525	-0.135
25-34 years	1,768	20.8%	7,558	22.2%	-1.451	-0.035
35-44 years	1,730	20.3%	6,417	18.9%	1.460	0.037
45-54 years	1,421	16.7%	4,992	14.7%	2.020	0.056
55-64 years	1,089	12.8%	3,991	11.7%	1.061	0.032
65-74 years	1,216	14.3%	4,311	12.7%	1.613	0.047
≥ 75 years	376	4.4%	1,563	4.6%	-0.178	-0.009
Sex						
Female	4,931	58.0%	18,707	55.1%	2.935	0.059
Male	3,572	42.0%	15,271	44.9%	-2.935	-0.059
Race ³						
American Indian or Alaska Native	*****	*****	120	0.4%	-0.177	-0.034
Asian	60	0.7%	264	0.8%	-0.071	-0.008
Black or African American	513	6.0%	2,859	8.4%	-2.381	-0.092
Multi-racial	40	0.5%	162	0.5%	-0.006	-0.001
Native Hawaiian or Other Pacific Islander	*****	*****	32	0.1%	-0.012	-0.004
Unknown	3,918	46.1%	14,496	42.7%	3.415	0.069
White	3,950	46.5%	16,045	47.2%	-0.768	-0.015

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Yes	178	2.1%	1,002	2.9%	-0.856	-0.055
No	4,075	47.9%	18,072	53.2%	-5.263	-0.105
Unknown	4,250	50.0%	14,904	43.9%	6.119	0.123
Year						
2016	280	3.3%	2,415	7.1%	-3.815	-0.172
2017	2,339	27.5%	10,137	29.8%	-2.326	-0.051
2018	2,428	28.6%	9,540	28.1%	0.478	0.011
2019	2,754	32.4%	9,273	27.3%	5.097	0.112
2020	702	8.3%	2,613	7.7%	0.566	0.021
Time						
Before April 1, 2020 (pre-pandemic)	8,503	100.0%	33,978	100.0%	0.000	NaN
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	0	0.0%	0	0.0%	NaN	NaN
December 1, 2020 through most recent data (pandemic after vaccine)	0	0.0%	0	0.0%	NaN	NaN

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Acquired hypothyroidism	753	8.9%	2,592	7.6%	1.227	0.045
Acute myocardial infarction	46	0.5%	173	0.5%	0.032	0.004
Alcohol or drug abuse	634	7.5%	2,506	7.4%	0.081	0.003
Alzheimers disease	11	0.1%	41	0.1%	0.009	0.002
Anemia	2,863	33.7%	9,560	28.1%	5.535	0.120
Asthma	722	8.5%	2,699	7.9%	0.548	0.020
Atrial fibrillation	272	3.2%	988	2.9%	0.291	0.017
Benign prostatic hyperplasia	299	3.5%	1,089	3.2%	0.311	0.017
Cancer, history of	497	5.8%	1,887	5.6%	0.291	0.013
Cancer, breast	90	1.1%	389	1.1%	-0.086	-0.008
Cancer, colorectal	76	0.9%	262	0.8%	0.123	0.014
Cancer, endometrial	18	0.2%	42	0.1%	0.088	0.022
Cancer, lung	25	0.3%	118	0.3%	-0.053	-0.009
Cancer, prostate	64	0.8%	272	0.8%	-0.048	-0.005
Cataract	488	5.7%	1,765	5.2%	0.545	0.024
Chronic kidney disease	541	6.4%	1,809	5.3%	1.038	0.044
COPD/bronchiectasis	592	7.0%	2,470	7.3%	-0.307	-0.012
Depression	1,895	22.3%	6,781	20.0%	2.329	0.057
Diabetes	712	8.4%	3,079	9.1%	-0.688	-0.024
Glaucoma	239	2.8%	894	2.6%	0.180	0.011
Heart failure	263	3.1%	850	2.5%	0.591	0.036
Hip/pelvic fracture	19	0.2%	56	0.2%	0.059	0.013
Hyperlipidemia	1,460	17.2%	5,897	17.4%	-0.185	-0.005
Hypertension (CCW)	2,200	25.9%	8,585	25.3%	0.607	0.014

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Serious infection	736	8.7%	2,866	8.4%	0.221	0.008
Intestinal perforation	94	1.1%	454	1.3%	-0.231	-0.021
Intestine, fistula	1,884	22.2%	5,680	16.7%	5.440	0.138
Intestine, obstruction	2,343	27.6%	7,115	20.9%	6.615	0.155
Intra-abdominal abscess	771	9.1%	2,848	8.4%	0.685	0.024
Ischemic heart disease	411	4.8%	1,661	4.9%	-0.055	-0.003
Obesity	981	11.5%	3,943	11.6%	-0.067	-0.002
Osteoporosis	629	7.4%	1,488	4.4%	3.018	0.128
CD Colitis	6,417	75.5%	22,736	66.9%	8.554	0.190
Perianal disease/abscess	2,581	30.4%	9,501	28.0%	2.392	0.053
Rheumatoid arthritis/osteoarthritis	1,243	14.6%	4,396	12.9%	1.681	0.049
Stroke/TIA	112	1.3%	453	1.3%	-0.016	-0.001

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Charlson/Elixhauser combined comorbidity score ⁴	1.5	2.0	1.4	1.9	0.166	0.086
Metastatic cancer	41	0.5%	192	0.6%	-0.083	-0.011
Congestive heart failure	363	4.3%	1,287	3.8%	0.481	0.024
Dementia	38	0.4%	193	0.6%	-0.121	-0.017
Renal failure	486	5.7%	1,602	4.7%	1.001	0.045
Weight loss	1,056	12.4%	3,918	11.5%	0.888	0.027
Hemiplegia	27	0.3%	119	0.4%	-0.033	-0.006
Alcohol abuse	129	1.5%	638	1.9%	-0.361	-0.028
Any tumor	730	8.6%	2,116	6.2%	2.358	0.090
Cardiac arrhythmias	1,127	13.3%	3,963	11.7%	1.591	0.048
Chronic pulmonary disease	1,221	14.4%	4,776	14.1%	0.303	0.009
Coagulopathy	279	3.3%	823	2.4%	0.859	0.052
Complicated diabetes	362	4.3%	1,702	5.0%	-0.752	-0.036
Deficiency anemias	2,548	30.0%	8,623	25.4%	4.588	0.103
Fluid and electrolyte disorders	1,466	17.2%	5,393	15.9%	1.369	0.037
Liver disease	828	9.7%	2,995	8.8%	0.923	0.032
Peripheral vascular disorder	343	4.0%	1,456	4.3%	-0.251	-0.013
Psychosis	1,808	21.3%	6,557	19.3%	1.965	0.049
Pulmonary circulation disorders	158	1.9%	447	1.3%	0.543	0.043
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ²	Number	Percent ³		
Malnutrition	579	6.8%	1,851	5.4%	1.362	0.057
C. diff testing	1,515	17.8%	5,335	15.7%	2.116	0.057
C. diff diagnosis	209	2.5%	776	2.3%	0.174	0.011
Cancer, urologic (kidney, renal pevis, and ureter)	38	0.4%	137	0.4%	0.044	0.007
Non-Alzheimers dementia	40	0.5%	206	0.6%	-0.136	-0.019
Parkinsons disease and secondary parkinsonism	22	0.3%	76	0.2%	0.035	0.007
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	14,138	41.6%	NaN	NaN
Infliximab on index date	0	0.0%	11,800	34.7%	NaN	NaN
Vedolizumab on index date	0	0.0%	8,040	23.7%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent ²	Number	Percent ³		
Adalimumab	1,646	19.4%	1,756	5.2%	14.190	0.443
Certolizumab pegol	509	6.0%	629	1.9%	4.135	0.214
Golimumab	30	0.4%	21	0.1%	0.291	0.064
Infliximab	847	10.0%	1,822	5.4%	4.599	0.174
Natalizumab	*****	*****	*****	*****	0.050	0.023
Ozanimod	0	0.0%	0	0.0%	NaN	NaN
Tofacitinib	*****	*****	*****	*****	0.044	0.020
Upadacitinib	0	0.0%	0	0.0%	NaN	NaN
Vedolizumab	988	11.6%	263	0.8%	10.845	0.462
Risankizumab	0	0.0%	0	0.0%	NaN	NaN
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	549	6.5%	665	2.0%	4.499	0.226
Treatment-experienced - any biologic or small molecule drug	3,970	46.7%	4,450	13.1%	33.593	0.789
Days with a biologic dispensing						
1	331	3.9%	387	1.1%	2.754	0.177
2	569	6.7%	724	2.1%	4.561	0.223
3-4	1,424	16.7%	1,799	5.3%	11.452	0.372
5-6	1,294	15.2%	1,208	3.6%	11.663	0.408
7+	352	4.1%	332	1.0%	3.163	0.201

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Numer	Percent ²	Number	Percent ³		
Aminosalicylates (5-ASA)	1,253	14.7%	7,359	21.7%	-6.922	-0.180
Immunomodulators	2,061	24.2%	7,775	22.9%	1.356	0.032
Corticosteroids, intravenous	*****	*****	22	0.1%	0.041	0.014
Corticosteroids, oral	3,780	44.5%	14,494	42.7%	1.798	0.036
Corticosteroids, rectal	161	1.9%	438	1.3%	0.604	0.048
Antibiotics	4,698	55.3%	17,557	51.7%	3.579	0.072
Antivirals	614	7.2%	1,972	5.8%	1.417	0.057
Anticoagulants	807	9.5%	2,474	7.3%	2.210	0.080
Antidiabetics	469	5.5%	2,227	6.6%	-1.039	-0.044
Antihypertensives	1,454	17.1%	5,825	17.1%	-0.044	-0.001
Antiplatelets	179	2.1%	722	2.1%	-0.020	-0.001
Lipid-lowering drugs	1,624	19.1%	5,961	17.5%	1.555	0.040
Non-steroidal anti-inflammatory drugs	1,376	16.2%	6,031	17.7%	-1.567	-0.042
Opioids	3,457	40.7%	12,533	36.9%	3.771	0.077
Immunization From [-365, 0]						
Flu (Influenza) vaccination	3,153	37.1%	10,789	31.8%	5.328	0.112
Immunization From [ever, 0]						
Covid-19 vaccination	0	0.0%	0	0.0%	NaN	NaN
Diphtheria, tetanus, and pertussis (DTaP)	1,833	21.6%	6,829	20.1%	1.459	0.036
Haemophilus influenza type B vaccination	*****	*****	25	0.1%	0.044	0.014
Measles, mumps, and rubella (MMR) vaccination	50	0.6%	207	0.6%	-0.021	-0.003
Meningococcal vaccination	301	3.5%	1,440	4.2%	-0.698	-0.036
Pneumococcal vaccination	2,503	29.4%	8,199	24.1%	5.306	0.120
Varicella (VAR) vaccination	572	6.7%	1,960	5.8%	0.959	0.040
Zoster recombinant vaccination	235	2.8%	635	1.9%	0.895	0.060

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Numer	Percent ²	Number	Percent ³		
Mean number of filled prescriptions	19.9	18.0	17.6	17.9	2.368	0.132
Mean number of unique drug classes dispensed	7.7	5.0	7.0	5.0	0.606	0.121
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.5	11.4	12.1	10.7	1.434	0.130
Mean number of emergency room encounters	0.7	1.7	0.7	1.6	-0.025	-0.015
Mean number of inpatient hospital encounters	0.4	0.8	0.4	0.8	0.011	0.014
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.2	-0.001	-0.006
Mean number of other ambulatory encounters	5.5	12.3	5.4	12.7	0.112	0.009
Number of emergency department encounters						
0	5,761	67.8%	22,520	66.3%	1.474	0.031
1	1,562	18.4%	6,445	19.0%	-0.598	-0.015
2-3	835	9.8%	3,580	10.5%	-0.716	-0.024
4	345	4.1%	1,433	4.2%	-0.160	-0.008
Number of ambulatory encounters						
0	18	0.2%	556	1.6%	-1.425	-0.149
1	121	1.4%	888	2.6%	-1.190	-0.085
2-3	530	6.2%	2,807	8.3%	-2.028	-0.078
4	7,834	92.1%	29,727	87.5%	4.643	0.154

Table 1o. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Number of inpatient encounters						
0	6,358	74.8%	25,484	75.0%	-0.228	-0.005
1	1,429	16.8%	5,786	17.0%	-0.223	-0.006
2-3	601	7.1%	2,326	6.8%	0.222	0.009
4	115	1.4%	382	1.1%	0.228	0.021
Number of days with GI-related emergency department encounter						
0	6,920	81.4%	27,904	82.1%	-0.741	-0.019
1	1,055	12.4%	4,208	12.4%	0.023	0.001
2-3	404	4.8%	1,465	4.3%	0.440	0.021
4	124	1.5%	401	1.2%	0.278	0.024
Number of days with GI-related inpatient encounter						
0	7,126	83.8%	28,634	84.3%	-0.466	-0.013
1	1,060	12.5%	4,218	12.4%	0.052	0.002
2-3	292	3.4%	1,043	3.1%	0.364	0.021
4	25	0.3%	83	0.2%	0.050	0.010

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Unique patients	8,545	100.0%	34,445	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	46.1	14.2	44.2	14.0	1.869	0.133
Age						
18-24 years	908	10.6%	5,222	15.2%	-4.534	-0.136
25-34 years	1,771	20.7%	7,633	22.2%	-1.434	-0.035
35-44 years	1,741	20.4%	6,488	18.8%	1.539	0.039
45-54 years	1,426	16.7%	5,065	14.7%	1.984	0.055
55-64 years	1,099	12.9%	4,059	11.8%	1.077	0.033
65-74 years	1,221	14.3%	4,376	12.7%	1.585	0.046
≥ 75 years	379	4.4%	1,602	4.7%	-0.216	-0.010
Sex						
Female	4,962	58.1%	18,923	54.9%	3.132	0.063
Male	3,583	41.9%	15,522	45.1%	-3.132	-0.063
Race ³						
American Indian or Alaska Native	*****	*****	122	0.4%	-0.179	-0.035
Asian	60	0.7%	264	0.8%	-0.064	-0.008
Black or African American	517	6.1%	2,881	8.4%	-2.314	-0.090
Multi-racial	40	0.5%	165	0.5%	-0.011	-0.002
Native Hawaiian or Other Pacific Islander	*****	*****	33	0.1%	-0.014	-0.005
Unknown	3,939	46.1%	14,777	42.9%	3.197	0.064
White	3,967	46.4%	16,203	47.0%	-0.615	-0.012

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Hispanic origin						
Yes	178	2.1%	1,007	2.9%	-0.840	-0.054
No	4,092	47.9%	18,241	53.0%	-5.069	-0.102
Unknown	4,275	50.0%	15,197	44.1%	5.910	0.119
Year						
2016	282	3.3%	2,743	8.0%	-4.663	-0.203
2017	2,349	27.5%	10,200	29.6%	-2.123	-0.047
2018	2,436	28.5%	9,580	27.8%	0.695	0.015
2019	2,775	32.5%	9,304	27.0%	5.464	0.120
2020	703	8.2%	2,618	7.6%	0.627	0.023
Time						
Before April 1, 2020 (pre-pandemic)	8,545	100.0%	34,445	100.0%	0.000	NaN
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	0	0.0%	0	0.0%	NaN	NaN
December 1, 2020 through most recent data (pandemic after vaccine)	0	0.0%	0	0.0%	NaN	NaN

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Acquired hypothyroidism	759	8.9%	2,627	7.6%	1.256	0.046
Acute myocardial infarction	47	0.6%	177	0.5%	0.036	0.005
Alcohol or drug abuse	638	7.5%	2,566	7.4%	0.017	0.001
Alzheimers disease	11	0.1%	47	0.1%	-0.008	-0.002
Anemia	2,887	33.8%	9,700	28.2%	5.625	0.122
Asthma	728	8.5%	2,748	8.0%	0.542	0.020
Atrial fibrillation	275	3.2%	1,009	2.9%	0.289	0.017
Benign prostatic hyperplasia	302	3.5%	1,111	3.2%	0.309	0.017
Cancer, history of	501	5.9%	1,955	5.7%	0.187	0.008
Cancer, breast	91	1.1%	408	1.2%	-0.120	-0.011
Cancer, colorectal	78	0.9%	272	0.8%	0.123	0.013
Cancer, endometrial	18	0.2%	45	0.1%	0.080	0.019
Cancer, lung	25	0.3%	124	0.4%	-0.067	-0.012
Cancer, prostate	64	0.7%	289	0.8%	-0.090	-0.010
Cataract	494	5.8%	1,788	5.2%	0.590	0.026
Chronic kidney disease	548	6.4%	1,840	5.3%	1.071	0.046
COPD/bronchiectasis	593	6.9%	2,538	7.4%	-0.429	-0.017
Depression	1,913	22.4%	6,883	20.0%	2.405	0.059
Diabetes	715	8.4%	3,166	9.2%	-0.824	-0.029
Glaucoma	244	2.9%	912	2.6%	0.208	0.013
Heart failure	268	3.1%	866	2.5%	0.622	0.038
Hip/pelvic fracture	19	0.2%	57	0.2%	0.057	0.013
Hyperlipidemia	1,466	17.2%	6,051	17.6%	-0.411	-0.011
Hypertension (CCW)	2,215	25.9%	8,801	25.6%	0.371	0.008

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Serious infection	742	8.7%	2,950	8.6%	0.119	0.004
Intestinal perforation	96	1.1%	486	1.4%	-0.287	-0.026
Intestine, fistula	1,901	22.2%	5,727	16.6%	5.620	0.142
Intestine, obstruction	2,356	27.6%	7,188	20.9%	6.704	0.157
Intra-abdominal abscess	778	9.1%	2,914	8.5%	0.645	0.023
Ischemic heart disease	415	4.9%	1,700	4.9%	-0.079	-0.004
Obesity	985	11.5%	4,016	11.7%	-0.132	-0.004
Osteoporosis	648	7.6%	1,501	4.4%	3.226	0.136
CD Colitis	6,457	75.6%	23,001	66.8%	8.789	0.195
Perianal disease/abscess	2,602	30.5%	9,663	28.1%	2.397	0.053
Rheumatoid arthritis/osteoarthritis	1,251	14.6%	4,496	13.1%	1.587	0.046
Stroke/TIA	113	1.3%	472	1.4%	-0.048	-0.004

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Charlson/Elixhauser combined comorbidity score ⁴	1.5	2.0	1.4	1.9	0.163	0.085
Metastatic cancer	41	0.5%	200	0.6%	-0.101	-0.014
Congestive heart failure	368	4.3%	1,313	3.8%	0.495	0.025
Dementia	38	0.4%	213	0.6%	-0.174	-0.024
Renal failure	492	5.8%	1,632	4.7%	1.020	0.046
Weight loss	1,066	12.5%	4,005	11.6%	0.848	0.026
Hemiplegia	27	0.3%	122	0.4%	-0.038	-0.007
Alcohol abuse	129	1.5%	657	1.9%	-0.398	-0.031
Any tumor	733	8.6%	2,178	6.3%	2.255	0.086
Cardiac arrhythmias	1,140	13.3%	4,036	11.7%	1.624	0.049
Chronic pulmonary disease	1,229	14.4%	4,876	14.2%	0.227	0.006
Coagulopathy	283	3.3%	842	2.4%	0.867	0.052
Complicated diabetes	364	4.3%	1,749	5.1%	-0.818	-0.039
Deficiency anemias	2,569	30.1%	8,751	25.4%	4.659	0.104
Fluid and electrolyte disorders	1,479	17.3%	5,529	16.1%	1.257	0.034
Liver disease	834	9.8%	3,061	8.9%	0.873	0.030
Peripheral vascular disorder	346	4.0%	1,500	4.4%	-0.306	-0.015
Psychosis	1,826	21.4%	6,656	19.3%	2.046	0.051
Pulmonary circulation disorders	161	1.9%	456	1.3%	0.560	0.045
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ²	Number	Percent ³		
Hypertension	2,209	25.9%	8,790	25.5%	0.332	0.008
Malnutrition	586	6.9%	1,889	5.5%	1.374	0.057
C. diff testing	1,525	17.8%	5,426	15.8%	2.094	0.056
C. diff diagnosis	212	2.5%	796	2.3%	0.170	0.011
Cancer, urologic (kidney, renal pevis, and ureter)	38	0.4%	154	0.4%	-0.002	-0.000
Non-Alzheimers dementia	40	0.5%	225	0.7%	-0.185	-0.025
Parkinsons disease and secondary parkinsonism	23	0.3%	82	0.2%	0.031	0.006
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	14,373	41.7%	NaN	NaN
Infliximab on index date	0	0.0%	11,962	34.7%	NaN	NaN
Vedolizumab on index date	0	0.0%	8,110	23.5%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent ²	Number	Percent ³		
Adalimumab	1,647	19.3%	1,758	5.1%	14.171	0.444
Certolizumab pegol	511	6.0%	631	1.8%	4.148	0.215
Golimumab	30	0.4%	21	0.1%	0.290	0.064
Infliximab	847	9.9%	1,826	5.3%	4.611	0.175
Natalizumab	*****	*****	*****	*****	0.050	0.023
Ozanimod	0	0.0%	0	0.0%	NaN	NaN
Tofacitinib	*****	*****	*****	*****	0.044	0.020
Upadacitinib	0	0.0%	0	0.0%	NaN	NaN
Vedolizumab	1,024	12.0%	266	0.8%	11.211	0.471
Risankizumab	0	0.0%	0	0.0%	NaN	NaN
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	551	6.4%	667	1.9%	4.512	0.227
Treatment-experienced - any biologic or small molecule drug	4,008	46.9%	4,461	13.0%	33.954	0.798
Treatment-experienced - any biologic or small cell drug						
1	333	3.9%	388	1.1%	2.771	0.178
2	574	6.7%	728	2.1%	4.604	0.226
3-4	1,435	16.8%	1,803	5.2%	11.559	0.376
5-6	1,311	15.3%	1,210	3.5%	11.829	0.413
7+	355	4.2%	332	1.0%	3.191	0.203

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Numer	Percent ²	Number	Percent ³		
Aminosalicilates (5-ASA)	1,257	14.7%	7,587	22.0%	-7.316	-0.190
Immunomodulators	2,071	24.2%	7,894	22.9%	1.319	0.031
Corticosteroids, intravenous	*****	*****	26	0.1%	0.030	0.010
Corticosteroids, oral	3,804	44.5%	14,734	42.8%	1.742	0.035
Corticosteroids, rectal	166	1.9%	443	1.3%	0.657	0.052
Antibiotics	4,734	55.4%	17,843	51.8%	3.599	0.072
Antivirals	620	7.3%	1,990	5.8%	1.478	0.060
Anticoagulants	820	9.6%	2,513	7.3%	2.301	0.083
Antidiabetics	470	5.5%	2,287	6.6%	-1.139	-0.048
Antihypertensives	1,467	17.2%	5,960	17.3%	-0.135	-0.004
Antiplatelets	180	2.1%	733	2.1%	-0.022	-0.001
Lipid-lowering drugs	1,632	19.1%	6,074	17.6%	1.465	0.038
Non-steroidal anti-inflammatory drugs	1,377	16.1%	6,146	17.8%	-1.728	-0.046
Opioids	3,479	40.7%	12,727	36.9%	3.765	0.077
Immunization From [-365, 0]						
Flu (Influenza) vaccination	3,172	37.1%	10,916	31.7%	5.430	0.114
Immunization From [ever, 0]						
Covid-19 vaccination	0	0.0%	0	0.0%	NaN	NaN
Diphtheria, tetanus, and pertussis (DTaP)	1,845	21.6%	6,927	20.1%	1.481	0.036
Haemophilus influenza type B vaccination	*****	*****	37	0.1%	0.010	0.003
Measles, mumps, and rubella (MMR) vaccination	50	0.6%	214	0.6%	-0.036	-0.005
Meningococcal vaccination	302	3.5%	1,486	4.3%	-0.780	-0.040
Pneumococcal vaccination	2,516	29.4%	8,293	24.1%	5.368	0.121
Varicella (VAR) vaccination	576	6.7%	1,986	5.8%	0.975	0.040
Zoster recombinant vaccination	237	2.8%	641	1.9%	0.913	0.061

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Numer	Percent ²	Number	Percent ³		
Mean number of filled prescriptions	20.0	18.0	17.6	17.9	2.382	0.133
Mean number of unique drug classes dispensed	7.7	5.0	7.1	5.0	0.606	0.121
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.6	11.5	12.1	10.7	1.474	0.133
Mean number of emergency room encounters	0.7	1.7	0.7	1.7	-0.035	-0.021
Mean number of inpatient hospital encounters	0.4	0.8	0.4	0.8	0.007	0.009
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.2	-0.002	-0.012
Mean number of other ambulatory encounters	5.5	12.4	5.4	12.7	0.144	0.011
Number of emergency department encounters						
0	5,784	67.7%	22,767	66.1%	1.592	0.034
1	1,570	18.4%	6,541	19.0%	-0.616	-0.016
2-3	843	9.9%	3,654	10.6%	-0.743	-0.025
4	348	4.1%	1,483	4.3%	-0.233	-0.012
Number of ambulatory encounters						
0	18	0.2%	558	1.6%	-1.409	-0.148
1	121	1.4%	900	2.6%	-1.197	-0.085
2-3	530	6.2%	2,833	8.2%	-2.022	-0.078
4	7,876	92.2%	30,154	87.5%	4.628	0.154

Table 1n. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Number of inpatient encounters						
0	6,389	74.8%	25,755	74.8%	-0.003	-0.000
1	1,432	16.8%	5,900	17.1%	-0.370	-0.010
2-3	607	7.1%	2,384	6.9%	0.182	0.007
4	117	1.4%	406	1.2%	0.191	0.017
Number of days with GI-related emergency department encounter						
0	6,950	81.3%	28,236	82.0%	-0.640	-0.017
1	1,062	12.4%	4,298	12.5%	-0.050	-0.002
2-3	408	4.8%	1,498	4.3%	0.426	0.020
4	125	1.5%	413	1.2%	0.264	0.023
Number of days with GI-related inpatient encounter						
0	7,160	83.8%	28,978	84.1%	-0.337	-0.009
1	1,063	12.4%	4,312	12.5%	-0.078	-0.002
2-3	296	3.5%	1,062	3.1%	0.381	0.021
4	26	0.3%	93	0.3%	0.034	0.006

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Patient Characteristics ^{1,2}	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Weighted patients	8,503	N/A	7,899	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	46.1	14.1	46.0	14.4	0.071	0.005
Age						
18-24 years	903	10.6%	923	11.7%	-1.064	-0.035
25-34 years	1,768	20.8%	1,619	20.5%	0.296	0.008
35-44 years	1,730	20.3%	1,543	19.5%	0.808	0.020
45-54 years	1,421	16.7%	1,265	16.0%	0.691	0.019
55-64 years	1,089	12.8%	1,043	13.2%	-0.403	-0.012
65-74 years	1,216	14.3%	1,136	14.4%	-0.079	-0.003
≥ 75 years	376	4.4%	369	4.7%	-0.250	-0.012
Sex						
Female	4,931	58.0%	4,591	58.1%	-0.130	-0.003
Male	3,572	42.0%	3,308	41.9%	0.130	0.003
Race ⁴						
American Indian or Alaska Native	*****	*****	*****	*****	-0.132	-0.027
Asian	60	0.7%	47	0.6%	0.112	0.014
Black or African American	513	6.0%	572	7.2%	-1.214	-0.050
Multi-racial	40	0.5%	45	0.6%	-0.098	-0.014
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****	0.006	0.002
Unknown	3,918	46.1%	3,648	46.2%	-0.106	-0.004
White	3,950	46.5%	3,556	45.0%	1.432	0.041

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Hispanic origin						
Yes	178	2.1%	178	2.3%	-0.157	-0.011
No	4,075	47.9%	3,764	47.6%	0.277	0.011
Unknown	4,250	50.0%	3,958	50.1%	-0.120	-0.005
Year						
2016	280	3.3%	253	3.2%	0.085	0.005
2017	2,339	27.5%	2,116	26.8%	0.716	0.016
2018	2,428	28.6%	2,281	28.9%	-0.322	-0.007
2019	2,754	32.4%	2,578	32.6%	-0.250	-0.005
2020	702	8.3%	670	8.5%	-0.230	-0.008
Time						
Before April 1, 2020 (pre-pandemic)	8,503	100.0%	7,899	100.0%	0.000	NaN
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	0	0.0%	0	0.0%	NaN	NaN
December 1, 2020 through most recent data (pandemic after vaccine)	0	0.0%	0	0.0%	NaN	NaN

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Acquired hypothyroidism	753	8.9%	694	8.8%	0.075	0.003
Acute myocardial infarction	46	0.5%	41	0.5%	0.025	0.003
Alcohol or drug abuse	634	7.5%	587	7.4%	0.030	0.001
Alzheimers disease	11	0.1%	*****	*****	0.010	0.003
Anemia	2,863	33.7%	2,613	33.1%	0.590	0.013
Asthma	722	8.5%	643	8.1%	0.347	0.013
Atrial fibrillation	272	3.2%	254	3.2%	-0.019	-0.001
Benign prostatic hyperplasia	299	3.5%	275	3.5%	0.041	0.002
Cancer, history of	497	5.8%	469	5.9%	-0.099	-0.004
Cancer, breast	90	1.1%	91	1.2%	-0.094	-0.009
Cancer, colorectal	76	0.9%	68	0.9%	0.033	0.004
Cancer, endometrial	18	0.2%	14	0.2%	0.030	0.007
Cancer, lung	25	0.3%	22	0.3%	0.016	0.003
Cancer, prostate	64	0.8%	61	0.8%	-0.018	-0.002
Cataract	488	5.7%	459	5.8%	-0.074	-0.003
Chronic kidney disease	541	6.4%	499	6.3%	0.040	0.002
COPD/bronchiectasis	592	7.0%	543	6.9%	0.084	0.003
Depression	1,895	22.3%	1,709	21.6%	0.654	0.016
Diabetes	712	8.4%	675	8.5%	-0.176	-0.006
Glaucoma	239	2.8%	215	2.7%	0.095	0.006
Heart failure	263	3.1%	243	3.1%	0.019	0.001
Hip/pelvic fracture	19	0.2%	15	0.2%	0.031	0.007
Hyperlipidemia	1,460	17.2%	1,375	17.4%	-0.231	-0.006
Hypertension (CCW)	2,200	25.9%	2,035	25.8%	0.115	0.003

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Serious infection	736	8.7%	677	8.6%	0.082	0.003
Intestinal perforation	94	1.1%	84	1.1%	0.043	0.004
Intestine, fistula	1,884	22.2%	1,728	21.9%	0.286	0.007
Intestine, obstruction	2,343	27.6%	2,112	26.7%	0.813	0.018
Intra-abdominal abscess	771	9.1%	709	9.0%	0.088	0.003
Ischemic heart disease	411	4.8%	383	4.8%	-0.010	-0.000
Obesity	981	11.5%	919	11.6%	-0.091	-0.003
Osteoporosis	629	7.4%	565	7.1%	0.249	0.010
CD Colitis	6,417	75.5%	5,946	75.3%	0.187	0.004
Perianal disease/abscess	2,581	30.4%	2,359	29.9%	0.484	0.011
Rheumatoid arthritis/osteoarthritis	1,243	14.6%	1,137	14.4%	0.224	0.007
Stroke/TIA	112	1.3%	106	1.3%	-0.025	-0.002

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ³		
Charlson/Elixhauser combined comorbidity score ⁵	1.5	2.0	1.5	1.9	0.034	0.018
Metastatic cancer	41	0.5%	41	0.5%	-0.038	-0.005
Congestive heart failure	363	4.3%	330	4.2%	0.093	0.005
Dementia	38	0.4%	35	0.4%	-0.002	-0.000
Renal failure	486	5.7%	443	5.6%	0.104	0.005
Weight loss	1,056	12.4%	962	12.2%	0.235	0.007
Hemiplegia	27	0.3%	30	0.4%	-0.060	-0.010
Alcohol abuse	129	1.5%	142	1.8%	-0.287	-0.022
Any tumor	730	8.6%	590	7.5%	1.115	0.041
Cardiac arrhythmias	1,127	13.3%	985	12.5%	0.782	0.024
Chronic pulmonary disease	1,221	14.4%	1,115	14.1%	0.243	0.007
Coagulopathy	279	3.3%	244	3.1%	0.195	0.011
Complicated diabetes	362	4.3%	353	4.5%	-0.209	-0.010
Deficiency anemias	2,548	30.0%	2,360	29.9%	0.085	0.002
Fluid and electrolyte disorders	1,466	17.2%	1,369	17.3%	-0.089	-0.002
Liver disease	828	9.7%	770	9.7%	-0.010	-0.000
Peripheral vascular disorder	343	4.0%	300	3.8%	0.238	0.012
Psychosis	1,808	21.3%	1,630	20.6%	0.625	0.016
Pulmonary circulation disorders	158	1.9%	131	1.7%	0.206	0.016
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ²	Number	Percent ³		
Hypertension	2,194	25.8%	2,032	25.7%	0.080	0.002
Malnutrition	579	6.8%	516	6.5%	0.274	0.011
C. diff testing	1,515	17.8%	1,396	17.7%	0.146	0.004
C. diff diagnosis	209	2.5%	195	2.5%	-0.007	-0.000
Cancer, urologic (kidney, renal pevis, and ureter)	38	0.4%	36	0.5%	-0.012	-0.002
Non-Alzheimers dementia	40	0.5%	38	0.5%	-0.009	-0.001
Parkinsons disease and secondary parkinsonism	22	0.3%	19	0.2%	0.014	0.003
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	2,475	31.3%	NaN	NaN
Infliximab on index date	0	0.0%	2,748	34.8%	NaN	NaN
Vedolizumab on index date	0	0.0%	2,676	33.9%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent ²	Number	Percent ³		
Adalimumab	1,646	19.4%	1,593	20.2%	-0.809	-0.020
Certolizumab pegol	509	6.0%	502	6.4%	-0.371	-0.015
Golimumab	30	0.4%	19	0.2%	0.114	0.021
Infliximab	847	10.0%	853	10.8%	-0.834	-0.027
Natalizumab	*****	*****	*****	*****	-0.032	-0.011
Ozanimod	0	0.0%	0	0.0%	NaN	NaN
Tofacitinib	*****	*****	11	0.1%	-0.072	-0.022
Upadacitinib	0	0.0%	0	0.0%	NaN	NaN
Vedolizumab	988	11.6%	460	5.8%	5.798	0.208
Risankizumab	0	0.0%	0	0.0%	NaN	NaN
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	549	6.5%	540	6.8%	-0.375	-0.015
Treatment-experienced - any biologic or small molecule drug	3,970	46.7%	3,395	43.0%	3.712	0.075
Days with a biologic dispensing						
1	331	3.9%	265	3.4%	0.535	0.029
2	569	6.7%	472	6.0%	0.720	0.030
3-4	1,424	16.7%	1,192	15.1%	1.659	0.045
5-6	1,294	15.2%	1,141	14.4%	0.775	0.022
7+	352	4.1%	325	4.1%	0.023	0.001

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Numer	Percent ²	Number	Percent ³		
Aminosalicylates (5-ASA)	1,253	14.7%	1,203	15.2%	-0.492	-0.014
Immunomodulators	2,061	24.2%	1,888	23.9%	0.340	0.008
Corticosteroids, intravenous	*****	*****	*****	*****	0.002	0.001
Corticosteroids, oral	3,780	44.5%	3,525	44.6%	-0.165	-0.003
Corticosteroids, rectal	161	1.9%	137	1.7%	0.157	0.012
Antibiotics	4,698	55.3%	4,353	55.1%	0.149	0.003
Antivirals	614	7.2%	576	7.3%	-0.072	-0.003
Anticoagulants	807	9.5%	731	9.3%	0.238	0.008
Antidiabetics	469	5.5%	458	5.8%	-0.285	-0.012
Antihypertensives	1,454	17.1%	1,362	17.2%	-0.143	-0.004
Antiplatelets	179	2.1%	159	2.0%	0.091	0.006
Lipid-lowering drugs	1,624	19.1%	1,481	18.7%	0.349	0.009
Non-steroidal anti-inflammatory drugs	1,376	16.2%	1,288	16.3%	-0.128	-0.003
Opioids	3,457	40.7%	3,196	40.5%	0.193	0.004
Immunization From [-365, 0]						
Flu (Influenza) vaccination	3,153	37.1%	2,900	36.7%	0.372	0.008
Immunization From [ever, 0]						
Covid-19 vaccination	0	0.0%	0	0.0%	NaN	NaN
Diphtheria, tetanus, and pertussis (DTaP)	1,833	21.6%	1,718	21.8%	-0.196	-0.005
Haemophilus influenza type B vaccination	*****	*****	*****	*****	0.013	0.004
Measles, mumps, and rubella (MMR) vaccination	50	0.6%	47	0.6%	-0.008	-0.001
Meningococcal vaccination	301	3.5%	281	3.6%	-0.015	-0.001
Pneumococcal vaccination	2,503	29.4%	2,298	29.1%	0.351	0.008
Varicella (VAR) vaccination	572	6.7%	534	6.8%	-0.028	-0.001
Zoster recombinant vaccination	235	2.8%	215	2.7%	0.037	0.002

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Numer	Percent ²	Number	Percent ³		
Mean number of filled prescriptions	19.9	18.0	19.8	19.5	0.123	0.007
Mean number of unique drug classes dispensed	7.7	5.0	7.6	5.1	0.029	0.006
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.5	11.4	13.2	11.5	0.310	0.027
Mean number of emergency room encounters	0.7	1.7	0.7	1.5	0.013	0.008
Mean number of inpatient hospital encounters	0.4	0.8	0.4	0.8	0.006	0.007
Mean number of non-acute institutional encounters	0.0	0.2	0.0	0.1	0.001	0.009
Mean number of other ambulatory encounters	5.5	12.3	5.4	12.4	0.084	0.007
Number of emergency department encounters						
0	5,761	67.8%	5,309	67.2%	0.538	0.012
1	1,562	18.4%	1,476	18.7%	-0.314	-0.008
2-3	835	9.8%	803	10.2%	-0.344	-0.012
4	345	4.1%	311	3.9%	0.120	0.006
Number of ambulatory encounters						
0	18	0.2%	66	0.8%	-0.629	-0.087
1	121	1.4%	128	1.6%	-0.199	-0.016
2-3	530	6.2%	496	6.3%	-0.045	-0.002
4	7,834	92.1%	7,209	91.3%	0.873	0.032

Table 1p. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020 (pre-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users			
Health Service Utilization Intensity Metrics From [-183, -1]						
Number of inpatient encounters						
0	6,358	74.8%	5,903	74.7%	0.042	0.001
1	1,429	16.8%	1,341	17.0%	-0.174	-0.005
2-3	601	7.1%	563	7.1%	-0.058	-0.002
4	115	1.4%	92	1.2%	0.191	0.017
Number of days with GI-related emergency department encounter						
0	6,920	81.4%	6,456	81.7%	-0.344	-0.009
1	1,055	12.4%	959	12.1%	0.262	0.008
2-3	404	4.8%	375	4.7%	0.002	0.000
4	124	1.5%	109	1.4%	0.081	0.007
Number of days with GI-related inpatient encounter						
0	7,126	83.8%	6,635	84.0%	-0.198	-0.005
1	1,060	12.5%	978	12.4%	0.088	0.003
2-3	292	3.4%	265	3.4%	0.083	0.005
4	25	0.3%	21	0.3%	0.027	0.005

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. J Clin Epidemiol. 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. Med Care. 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Unique patients	9,057	100.0%	20,498	100.0%	N/A	N/A
Demographic Characteristics						
Age (years)	50.1	14.3	48.8	14.4	1.272	0.089
Age						
18-24 years	835	9.2%	2,495	12.2%	-2.953	-0.096
25-34 years	1,462	16.1%	3,688	18.0%	-1.850	-0.049
35-44 years	1,610	17.8%	3,283	16.0%	1.760	0.047
45-54 years	1,395	15.4%	2,858	13.9%	1.460	0.041
55-64 years	1,225	13.5%	2,430	11.9%	1.671	0.050
65-74 years	1,751	19.3%	4,039	19.7%	-0.371	-0.009
≥ 75 years	779	8.6%	1,705	8.3%	0.283	0.010
Sex						
Female	5,187	57.3%	11,229	54.8%	2.490	0.050
Male	3,870	42.7%	9,269	45.2%	-2.490	-0.050
Race ³						
American Indian or Alaska Native	*****	*****	52	0.3%	-0.088	-0.019
Asian	59	0.7%	150	0.7%	-0.080	-0.010
Black or African American	465	5.1%	1,301	6.3%	-1.213	-0.052
Multi-racial	75	0.8%	187	0.9%	-0.084	-0.009
Native Hawaiian or Other Pacific Islander	*****	*****	11	0.1%	0.002	0.001
Unknown	4,244	46.9%	9,284	45.3%	1.567	0.031
White	4,194	46.3%	9,513	46.4%	-0.103	-0.002

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	144	1.6%	397	1.9%	-0.347	-0.026
No	3,996	44.1%	9,624	47.0%	-2.830	-0.057
Unknown	4,917	54.3%	10,477	51.1%	3.177	0.064
Year						
2020	2,922	32.3%	8,141	39.7%	-7.454	-0.156
2021	2,813	31.1%	6,102	29.8%	1.290	0.028
2022	2,746	30.3%	5,247	25.6%	4.721	0.105
2023	576	6.4%	1,008	4.9%	1.442	0.063
Time						
Before April 1, 2020 (pre-pandemic)	0	0.0%	0	0.0%	NaN	NaN
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	2,552	28.2%	7,185	35.1%	-6.875	-0.148
December 1, 2020 through most recent data (pandemic after vaccine)	6,505	71.8%	13,313	64.9%	6.875	0.148

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Acquired hypothyroidism	941	10.4%	2,004	9.8%	0.613	0.020
Acute myocardial infarction	61	0.7%	170	0.8%	-0.156	-0.018
Alcohol or drug abuse	599	6.6%	1,428	7.0%	-0.353	-0.014
Alzheimers disease	18	0.2%	41	0.2%	-0.001	-0.000
Anemia	2,957	32.6%	6,041	29.5%	3.178	0.069
Asthma	739	8.2%	1,698	8.3%	-0.124	-0.005
Atrial fibrillation	385	4.3%	1,001	4.9%	-0.633	-0.030
Benign prostatic hyperplasia	433	4.8%	946	4.6%	0.166	0.008
Cancer, history of	685	7.6%	1,637	8.0%	-0.423	-0.016
Cancer, breast	141	1.6%	367	1.8%	-0.234	-0.018
Cancer, colorectal	109	1.2%	243	1.2%	0.018	0.002
Cancer, endometrial	14	0.2%	53	0.3%	-0.104	-0.023
Cancer, lung	34	0.4%	138	0.7%	-0.298	-0.041
Cancer, prostate	122	1.3%	258	1.3%	0.088	0.008
Cataract	665	7.3%	1,441	7.0%	0.312	0.012
Chronic kidney disease	741	8.2%	1,550	7.6%	0.620	0.023
COPD/bronchiectasis	634	7.0%	1,609	7.8%	-0.849	-0.032
Depression	1,952	21.6%	4,180	20.4%	1.160	0.029
Diabetes	951	10.5%	2,251	11.0%	-0.481	-0.016
Glaucoma	340	3.8%	782	3.8%	-0.061	-0.003
Heart failure	342	3.8%	821	4.0%	-0.229	-0.012
Hip/pelvic fracture	16	0.2%	34	0.2%	0.011	0.003
Hyperlipidemia	2,211	24.4%	5,093	24.8%	-0.434	-0.010
Hypertension (CCW)	2,874	31.7%	6,525	31.8%	-0.100	-0.002

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Serious infection	603	6.7%	1,631	8.0%	-1.299	-0.050
Intestinal perforation	100	1.1%	363	1.8%	-0.667	-0.056
Intestine, fistula	1,668	18.4%	3,246	15.8%	2.581	0.069
Intestine, obstruction	2,275	25.1%	4,421	21.6%	3.551	0.084
Intra-abdominal abscess	712	7.9%	1,586	7.7%	0.124	0.005
Ischemic heart disease	587	6.5%	1,505	7.3%	-0.861	-0.034
Obesity	1,318	14.6%	3,005	14.7%	-0.108	-0.003
Osteoporosis	696	7.7%	1,195	5.8%	1.855	0.074
CD Colitis	6,398	70.6%	13,458	65.7%	4.986	0.107
Perianal disease/abscess	2,779	30.7%	6,345	31.0%	-0.271	-0.006
Rheumatoid arthritis/osteoarthritis	1,508	16.7%	3,189	15.6%	1.092	0.030
Stroke/TIA	137	1.5%	327	1.6%	-0.083	-0.007

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.6	2.1	1.6	2.1	-0.011	-0.005
Metastatic cancer	74	0.8%	218	1.1%	-0.246	-0.026
Congestive heart failure	466	5.1%	1,157	5.6%	-0.499	-0.022
Dementia	65	0.7%	173	0.8%	-0.126	-0.014
Renal failure	672	7.4%	1,423	6.9%	0.478	0.018
Weight loss	1,068	11.8%	2,530	12.3%	-0.551	-0.017
Hemiplegia	37	0.4%	77	0.4%	0.033	0.005
Alcohol abuse	140	1.5%	400	2.0%	-0.406	-0.031
Any tumor	753	8.3%	1,631	8.0%	0.357	0.013
Cardiac arrhythmias	1,336	14.8%	3,131	15.3%	-0.524	-0.015
Chronic pulmonary disease	1,300	14.4%	3,135	15.3%	-0.941	-0.026
Coagulopathy	284	3.1%	640	3.1%	0.013	0.001
Complicated diabetes	563	6.2%	1,364	6.7%	-0.438	-0.018
Deficiency anemias	2,651	29.3%	5,453	26.6%	2.668	0.059
Fluid and electrolyte disorders	1,429	15.8%	3,384	16.5%	-0.731	-0.020
Liver disease	1,028	11.4%	2,097	10.2%	1.120	0.036
Peripheral vascular disorder	525	5.8%	1,339	6.5%	-0.736	-0.031
Psychosis	1,889	20.9%	4,044	19.7%	1.128	0.028
Pulmonary circulation disorders	179	2.0%	421	2.1%	-0.077	-0.006
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Hypertension	2,871	31.7%	6,512	31.8%	-0.070	-0.001
Malnutrition	551	6.1%	1,127	5.5%	0.586	0.025
C. diff testing	1,530	16.9%	3,316	16.2%	0.716	0.019
C. diff diagnosis	182	2.0%	396	1.9%	0.078	0.006
Cancer, urologic (kidney, renal pevis, and ureter)	50	0.6%	142	0.7%	-0.141	-0.018
Non-Alzheimers dementia	68	0.8%	165	0.8%	-0.054	-0.006
Parkinsons disease and secondary parkinsonism	41	0.5%	81	0.4%	0.058	0.009
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	7,050	34.4%	NaN	NaN
Infliximab on index date	0	0.0%	6,692	32.6%	NaN	NaN
Vedolizumab on index date	0	0.0%	6,756	33.0%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Use From [-183, -1]:	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Adalimumab	1,453	16.0%	973	4.7%	11.296	0.377
Certolizumab pegol	248	2.7%	199	1.0%	1.767	0.131
Golimumab	*****	*****	*****	*****	0.062	0.022
Infliximab	945	10.4%	1,291	6.3%	4.136	0.150
Natalizumab	*****	*****	*****	*****	-0.004	-0.003
Ozanimod	*****	*****	*****	*****	0.001	0.001
Tofacitinib	*****	*****	14	0.1%	0.042	0.014
Upadacitinib	*****	*****	*****	*****	0.007	0.005
Vedolizumab	975	10.8%	484	2.4%	8.404	0.344
Risankizumab	*****	*****	*****	*****	-0.005	-0.002
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	274	3.0%	240	1.2%	1.854	0.130
Treatment-experienced - any biologic or small molecule drug	3,591	39.6%	2,964	14.5%	25.189	0.591
Days with a biologic dispensing						
1	254	2.8%	214	1.0%	1.760	0.128
2	474	5.2%	430	2.1%	3.136	0.167
3-4	1,328	14.7%	1,365	6.7%	8.004	0.262
5-6	1,222	13.5%	753	3.7%	9.819	0.356
7+	313	3.5%	202	1.0%	2.470	0.168

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Aminosalicilates (5-ASA)	1,074	11.9%	3,676	17.9%	-6.075	-0.171
Immunomodulators	1,324	14.6%	3,288	16.0%	-1.422	-0.039
Corticosteroids, intravenous	*****	*****	18	0.1%	0.012	0.004
Corticosteroids, oral	3,433	37.9%	8,055	39.3%	-1.392	-0.029
Corticosteroids, rectal	130	1.4%	211	1.0%	0.406	0.037
Antibiotics	4,114	45.4%	9,543	46.6%	-1.132	-0.023
Antivirals	545	6.0%	1,072	5.2%	0.788	0.034
Anticoagulants	950	10.5%	1,991	9.7%	0.776	0.026
Antidiabetics	689	7.6%	1,631	8.0%	-0.349	-0.013
Antihypertensives	1,933	21.3%	4,479	21.9%	-0.508	-0.012
Antiplatelets	201	2.2%	488	2.4%	-0.161	-0.011
Lipid-lowering drugs	2,087	23.0%	4,689	22.9%	0.168	0.004
Non-steroidal anti-inflammatory drugs	1,305	14.4%	3,393	16.6%	-2.144	-0.059
Opioids	2,563	28.3%	5,605	27.3%	0.954	0.021
Immunization From [-365, 0]						
Flu (Influenza) vaccination	4,058	44.8%	8,608	42.0%	2.811	0.057

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Immunization From [ever, 0]	Numer	Percent ²	Number	Percent ²		
Covid-19 vaccination	3,460	38.2%	6,500	31.7%	6.492	0.136
Diphtheria, tetanus, and pertussis (DTaP)	2,436	26.9%	5,470	26.7%	0.211	0.005
Haemophilus influenza type B vaccination	11	0.1%	29	0.1%	-0.020	-0.006
Measles, mumps, and rubella (MMR) vaccination	90	1.0%	217	1.1%	-0.065	-0.006
Meningococcal vaccination	380	4.2%	1,109	5.4%	-1.215	-0.057
Pneumococcal vaccination	2,960	32.7%	5,970	29.1%	3.557	0.077
Varicella (VAR) vaccination	684	7.6%	1,451	7.1%	0.473	0.018
Zoster recombinant vaccination	906	10.0%	1,880	9.2%	0.832	0.028
Drug Utilization Intensity Metrics From [-183, -1]						
Mean number of filled prescriptions	16.5	15.2	15.9	15.9	0.593	0.038
Mean number of unique drug classes dispensed	6.9	4.6	6.8	4.9	0.071	0.015
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.5	11.1	12.5	11.1	0.949	0.085
Mean number of emergency room encounters	0.5	1.5	0.6	1.4	-0.051	-0.035
Mean number of inpatient hospital encounters	0.3	0.8	0.3	0.8	-0.017	-0.022
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.2	-0.010	-0.056
Mean number of other ambulatory encounters	5.1	10.2	5.3	11.5	-0.180	-0.017
Number of emergency department encounters						
0	6,696	73.9%	14,614	71.3%	2.637	0.059
1	1,435	15.8%	3,484	17.0%	-1.153	-0.031
2-3	665	7.3%	1,748	8.5%	-1.185	-0.044
4	261	2.9%	652	3.2%	-0.299	-0.017

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Number of ambulatory encounters						
0	36	0.4%	263	1.3%	-0.886	-0.097
1	153	1.7%	565	2.8%	-1.067	-0.072
2-3	606	6.7%	1,757	8.6%	-1.881	-0.071
4	8,262	91.2%	17,913	87.4%	3.833	0.124
Number of inpatient encounters						
0	7,240	79.9%	16,009	78.1%	1.838	0.045
1	1,218	13.4%	3,123	15.2%	-1.787	-0.051
2-3	517	5.7%	1,170	5.7%	0.000	0.000
4	82	0.9%	196	1.0%	-0.051	-0.005

Table 1q. Aggregated Unadjusted Characteristics of Ustekinumab Users and Comparator Users in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users			
Health Service Utilization Intensity Metrics From [-183, -1]						
Number of days with GI-related emergency department encounter						
0	7,703	85.1%	17,406	84.9%	0.135	0.004
1	952	10.5%	2,206	10.8%	-0.251	-0.008
2-3	303	3.3%	692	3.4%	-0.030	-0.002
4	99	1.1%	194	0.9%	0.147	0.015
Number of days with GI-related inpatient encounter						
0	7,963	87.9%	17,864	87.1%	0.771	0.023
1	858	9.5%	2,145	10.5%	-0.991	-0.033
2-3	218	2.4%	467	2.3%	0.129	0.009
4	18	0.2%	22	0.1%	0.091	0.023

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. J Clin Epidemiol. 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. Med Care. 2017;55(12):1046-1051)

****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Patient Characteristics ¹	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Unique patients	9,026	99.7%	20,378	99.4%	N/A	N/A
Demographic Characteristics						
Age (years)	50.1	14.3	48.7	14.4	1.311	0.092
Age						
18-24 years	834	9.2%	2,484	12.2%	-2.950	-0.095
25-34 years	1,457	16.1%	3,676	18.0%	-1.897	-0.050
35-44 years	1,606	17.8%	3,276	16.1%	1.717	0.046
45-54 years	1,385	15.3%	2,835	13.9%	1.432	0.041
55-64 years	1,220	13.5%	2,405	11.8%	1.715	0.052
65-74 years	1,747	19.4%	4,019	19.7%	-0.367	-0.009
≥ 75 years	777	8.6%	1,683	8.3%	0.350	0.013
Sex						
Female	5,166	57.2%	11,172	54.8%	2.411	0.049
Male	3,860	42.8%	9,206	45.2%	-2.411	-0.049
Race ³						
American Indian or Alaska Native	*****	*****	51	0.3%	-0.084	-0.018
Asian	57	0.6%	149	0.7%	-0.100	-0.012
Black or African American	465	5.2%	1,290	6.3%	-1.179	-0.051
Multi-racial	75	0.8%	185	0.9%	-0.077	-0.008
Native Hawaiian or Other Pacific Islander	*****	*****	11	0.1%	0.001	0.001
Unknown	4,229	46.9%	9,254	45.4%	1.442	0.029
White	4,180	46.3%	9,438	46.3%	-0.004	-0.000

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Hispanic origin						
Yes	144	1.6%	392	1.9%	-0.328	-0.025
No	3,986	44.2%	9,557	46.9%	-2.737	-0.055
Unknown	4,896	54.2%	10,429	51.2%	3.066	0.061
Year						
2020	2,915	32.3%	8,079	39.6%	-7.350	-0.154
2021	2,802	31.0%	6,077	29.8%	1.222	0.027
2022	2,735	30.3%	5,222	25.6%	4.676	0.104
2023	574	6.4%	1,000	4.9%	1.452	0.063
Time						
Before April 1, 2020 (pre-pandemic)	0	0.0%	0	0.0%	NaN	NaN
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	2,548	28.2%	7,130	35.0%	-6.759	-0.146
December 1, 2020 through most recent data (pandemic after vaccine)	6,478	71.8%	13,248	65.0%	6.759	0.146

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Acquired hypothyroidism	931	10.3%	1,979	9.7%	0.603	0.020
Acute myocardial infarction	61	0.7%	147	0.7%	-0.046	-0.005
Alcohol or drug abuse	591	6.5%	1,407	6.9%	-0.357	-0.014
Alzheimers disease	18	0.2%	40	0.2%	0.003	0.001
Anemia	2,940	32.6%	5,976	29.3%	3.247	0.070
Asthma	737	8.2%	1,683	8.3%	-0.094	-0.003
Atrial fibrillation	384	4.3%	972	4.8%	-0.515	-0.025
Benign prostatic hyperplasia	432	4.8%	925	4.5%	0.247	0.012
Cancer, history of	677	7.5%	1,601	7.9%	-0.356	-0.013
Cancer, breast	141	1.6%	362	1.8%	-0.214	-0.017
Cancer, colorectal	109	1.2%	241	1.2%	0.025	0.002
Cancer, endometrial	14	0.2%	46	0.2%	-0.071	-0.016
Cancer, lung	34	0.4%	130	0.6%	-0.261	-0.037
Cancer, prostate	122	1.4%	256	1.3%	0.095	0.008
Cataract	665	7.4%	1,429	7.0%	0.355	0.014
Chronic kidney disease	735	8.1%	1,523	7.5%	0.669	0.025
COPD/bronchiectasis	632	7.0%	1,572	7.7%	-0.712	-0.027
Depression	1,937	21.5%	4,137	20.3%	1.159	0.029
Diabetes	945	10.5%	2,224	10.9%	-0.444	-0.014
Glaucoma	338	3.7%	774	3.8%	-0.053	-0.003
Heart failure	340	3.8%	798	3.9%	-0.149	-0.008
Hip/pelvic fracture	16	0.2%	31	0.2%	0.025	0.006
Hyperlipidemia	2,200	24.4%	5,036	24.7%	-0.339	-0.008
Hypertension (CCW)	2,859	31.7%	6,454	31.7%	0.004	0.000

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Serious infection	599	6.6%	1,591	7.8%	-1.171	-0.045
Intestinal perforation	99	1.1%	346	1.7%	-0.601	-0.051
Intestine, fistula	1,656	18.3%	3,230	15.9%	2.497	0.066
Intestine, obstruction	2,262	25.1%	4,386	21.5%	3.538	0.084
Intra-abdominal abscess	707	7.8%	1,561	7.7%	0.173	0.006
Ischemic heart disease	585	6.5%	1,469	7.2%	-0.727	-0.029
Obesity	1,310	14.5%	2,967	14.6%	-0.046	-0.001
Osteoporosis	691	7.7%	1,189	5.8%	1.821	0.073
CD Colitis	6,370	70.6%	13,379	65.7%	4.920	0.106
Perianal disease/abscess	2,764	30.6%	6,299	30.9%	-0.288	-0.006
Rheumatoid arthritis/osteoarthritis	1,503	16.7%	3,157	15.5%	1.160	0.032
Stroke/TIA	136	1.5%	317	1.6%	-0.049	-0.004

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Charlson/Elixhauser combined comorbidity score ⁴	1.6	2.1	1.6	2.1	0.005	0.002
Metastatic cancer	74	0.8%	211	1.0%	-0.216	-0.022
Congestive heart failure	464	5.1%	1,129	5.5%	-0.400	-0.018
Dementia	65	0.7%	154	0.8%	-0.036	-0.004
Renal failure	667	7.4%	1,397	6.9%	0.534	0.021
Weight loss	1,061	11.8%	2,494	12.2%	-0.484	-0.015
Hemiplegia	37	0.4%	74	0.4%	0.047	0.008
Alcohol abuse	136	1.5%	395	1.9%	-0.432	-0.033
Any tumor	748	8.3%	1,597	7.8%	0.450	0.017
Cardiac arrhythmias	1,330	14.7%	3,072	15.1%	-0.340	-0.010
Chronic pulmonary disease	1,296	14.4%	3,085	15.1%	-0.780	-0.022
Coagulopathy	279	3.1%	621	3.0%	0.044	0.003
Complicated diabetes	558	6.2%	1,342	6.6%	-0.403	-0.017
Deficiency anemias	2,636	29.2%	5,393	26.5%	2.740	0.061
Fluid and electrolyte disorders	1,414	15.7%	3,325	16.3%	-0.651	-0.018
Liver disease	1,022	11.3%	2,071	10.2%	1.160	0.037
Peripheral vascular disorder	524	5.8%	1,301	6.4%	-0.579	-0.024
Psychosis	1,875	20.8%	4,003	19.6%	1.130	0.028
Pulmonary circulation disorders	178	2.0%	406	2.0%	-0.020	-0.001
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Hypertension	2,856	31.6%	6,441	31.6%	0.034	0.001
Malnutrition	546	6.0%	1,104	5.4%	0.632	0.027
C. diff testing	1,519	16.8%	3,293	16.2%	0.670	0.018
C. diff diagnosis	178	2.0%	390	1.9%	0.058	0.004
Cancer, urologic (kidney, renal pevis, and ureter)	49	0.5%	130	0.6%	-0.095	-0.012
Non-Alzheimers dementia	68	0.8%	146	0.7%	0.037	0.004
Parkinsons disease and secondary parkinsonism	40	0.4%	75	0.4%	0.075	0.012
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	7,010	34.4%	NaN	NaN
Infliximab on index date	0	0.0%	6,649	32.6%	NaN	NaN
Vedolizumab on index date	0	0.0%	6,719	33.0%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Numer	Percent ²	Number	Percent ²		
Adalimumab	1,438	15.9%	972	4.8%	11.162	0.373
Certolizumab pegol	248	2.7%	199	1.0%	1.771	0.131
Golimumab	*****	*****	*****	*****	0.062	0.022
Infliximab	942	10.4%	1,288	6.3%	4.116	0.149
Natalizumab	*****	*****	*****	*****	-0.004	-0.003
Ozanimod	*****	*****	*****	*****	0.001	0.001
Tofacitinib	*****	*****	14	0.1%	0.042	0.014
Upadacitinib	*****	*****	*****	*****	0.007	0.005
Vedolizumab	962	10.7%	483	2.4%	8.288	0.341
Risankizumab	*****	*****	*****	*****	-0.005	-0.002
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	274	3.0%	240	1.2%	1.858	0.130
Treatment-experienced - any biologic or small molecule drug	3,562	39.5%	2,959	14.5%	24.943	0.585
Days with a biologic dispensing						
1	251	2.8%	213	1.0%	1.736	0.127
2	473	5.2%	427	2.1%	3.145	0.168
3-4	1,323	14.7%	1,364	6.7%	7.964	0.260
5-6	1,205	13.4%	753	3.7%	9.655	0.351
7+	310	3.4%	202	1.0%	2.443	0.167

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Numer	Percent ²	Number	Percent ²		
Aminosalicylates (5-ASA)	1,072	11.9%	3,639	17.9%	-5.981	-0.169
Immunomodulators	1,320	14.6%	3,267	16.0%	-1.408	-0.039
Corticosteroids, intravenous	*****	*****	17	0.1%	0.005	0.002
Corticosteroids, oral	3,416	37.8%	7,997	39.2%	-1.397	-0.029
Corticosteroids, rectal	128	1.4%	211	1.0%	0.383	0.035
Antibiotics	4,096	45.4%	9,469	46.5%	-1.087	-0.022
Antivirals	544	6.0%	1,066	5.2%	0.796	0.035
Anticoagulants	944	10.5%	1,954	9.6%	0.870	0.029
Antidiabetics	682	7.6%	1,618	7.9%	-0.384	-0.014
Antihypertensives	1,926	21.3%	4,437	21.8%	-0.435	-0.011
Antiplatelets	200	2.2%	476	2.3%	-0.120	-0.008
Lipid-lowering drugs	2,076	23.0%	4,637	22.8%	0.245	0.006
Non-steroidal anti-inflammatory drugs	1,302	14.4%	3,367	16.5%	-2.098	-0.058
Opioids	2,545	28.2%	5,547	27.2%	0.976	0.022
Immunization From [-365, 0]						
Flu (Influenza) vaccination	4,040	44.8%	8,537	41.9%	2.866	0.058
Immunization From [ever, 0]						
Covid-19 vaccination	3,447	38.2%	6,467	31.7%	6.454	0.136
Diphtheria, tetanus, and pertussis (DTaP)	2,430	26.9%	5,437	26.7%	0.241	0.005
Haemophilus influenza type B vaccination	*****	*****	28	0.1%	-0.027	-0.008
Measles, mumps, and rubella (MMR) vaccination	90	1.0%	212	1.0%	-0.043	-0.004
Meningococcal vaccination	380	4.2%	1,104	5.4%	-1.208	-0.056
Pneumococcal vaccination	2,954	32.7%	5,927	29.1%	3.642	0.079
Varicella (VAR) vaccination	682	7.6%	1,441	7.1%	0.485	0.019
Zoster recombinant vaccination	902	10.0%	1,868	9.2%	0.827	0.028

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Numer	Percent ²	Number	Percent ²		
Mean number of filled prescriptions	16.4	15.1	15.8	15.7	0.623	0.040
Mean number of unique drug classes dispensed	6.9	4.6	6.8	4.9	0.081	0.017
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.5	11.1	12.5	11.0	0.976	0.088
Mean number of emergency room encounters	0.5	1.5	0.6	1.3	-0.039	-0.028
Mean number of inpatient hospital encounters	0.3	0.8	0.3	0.7	-0.014	-0.018
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.2	-0.007	-0.044
Mean number of other ambulatory encounters	5.1	10.2	5.3	11.3	-0.135	-0.013
Number of emergency department encounters						
0	6,681	74.0%	14,561	71.5%	2.565	0.058
1	1,425	15.8%	3,466	17.0%	-1.221	-0.033
2-3	660	7.3%	1,720	8.4%	-1.128	-0.042
4	260	2.9%	631	3.1%	-0.216	-0.013
Number of ambulatory encounters						
0	36	0.4%	263	1.3%	-0.892	-0.098
1	153	1.7%	564	2.8%	-1.073	-0.073
2-3	606	6.7%	1,753	8.6%	-1.888	-0.071
4	8,231	91.2%	17,798	87.3%	3.853	0.125

Table 1r. Aggregated Unweighted Characteristics of Ustekinumab Users and Comparator Users (Unweighted, Trimmed) in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Numer	Percent ²	Number	Percent ²		
Number of inpatient encounters						
0	7,220	80.0%	15,958	78.3%	1.681	0.041
1	1,212	13.4%	3,083	15.1%	-1.701	-0.049
2-3	513	5.7%	1,152	5.7%	0.030	0.001
4	81	0.9%	185	0.9%	-0.010	-0.001
Number of days with GI-related emergency department encounter						
0	7,682	85.1%	17,323	85.0%	0.101	0.003
1	945	10.5%	2,186	10.7%	-0.258	-0.008
2-3	301	3.3%	685	3.4%	-0.027	-0.001
4	98	1.1%	184	0.9%	0.183	0.018
Number of days with GI-related inpatient encounter						
0	7,942	88.0%	17,784	87.3%	0.720	0.022
1	853	9.5%	2,114	10.4%	-0.923	-0.031
2-3	213	2.4%	459	2.3%	0.107	0.007
4	18	0.2%	21	0.1%	0.096	0.025

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

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.

⁴The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Patient Characteristics ^{1,2}	Number	Percent ³	Number	Percent ³		
Weighted patients	9,026	N/A	8,853	N/A	N/A	N/A
Demographic Characteristics						
Age (years)	50.1	14.3	50.2	14.7	-0.095	-0.007
Age						
18-24 years	834	9.2%	841	9.5%	-0.263	-0.009
25-34 years	1,457	16.1%	1,509	17.0%	-0.900	-0.025
35-44 years	1,606	17.8%	1,420	16.0%	1.757	0.048
45-54 years	1,385	15.3%	1,314	14.8%	0.498	0.014
55-64 years	1,220	13.5%	1,163	13.1%	0.377	0.011
65-74 years	1,747	19.4%	1,880	21.2%	-1.881	-0.054
≥ 75 years	777	8.6%	726	8.2%	0.411	0.016
Sex						
Female	5,166	57.2%	5,087	57.5%	-0.230	-0.005
Male	3,860	42.8%	3,766	42.5%	0.230	0.005
Race ⁴						
American Indian or Alaska Native	*****	*****	*****	*****	-0.018	-0.004
Asian	57	0.6%	55	0.6%	0.015	0.002
Black or African American	465	5.2%	465	5.3%	-0.104	-0.005
Multi-racial	75	0.8%	87	1.0%	-0.150	-0.016
Native Hawaiian or Other Pacific Islander	*****	*****	*****	*****	0.017	0.008
Unknown	4,229	46.9%	4,145	46.8%	0.039	0.002
White	4,180	46.3%	4,082	46.1%	0.202	0.006

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Demographic Characteristics	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Hispanic origin						
Yes	144	1.6%	123	1.4%	0.205	0.017
No	3,986	44.2%	3,927	44.4%	-0.191	-0.009
Unknown	4,896	54.2%	4,803	54.3%	-0.014	-0.001
Year						
2020	2,915	32.3%	2,864	32.3%	-0.054	-0.001
2021	2,802	31.0%	2,743	31.0%	0.059	0.001
2022	2,735	30.3%	2,669	30.1%	0.154	0.003
2023	574	6.4%	577	6.5%	-0.159	-0.007
Time						
Before April 1, 2020 (pre-pandemic)	0	0.0%	0	0.0%	NaN	NaN
April 1, 2020 through November 30, 2020 (pandemic before vaccine)	2,548	28.2%	2,538	28.7%	-0.439	-0.011
December 1, 2020 through most recent data (pandemic after vaccine)	6,478	71.8%	6,315	71.3%	0.439	0.011

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Acquired hypothyroidism	931	10.3%	919	10.4%	-0.062	-0.002
Acute myocardial infarction	61	0.7%	57	0.6%	0.035	0.004
Alcohol or drug abuse	591	6.5%	584	6.6%	-0.045	-0.002
Alzheimers disease	18	0.2%	16	0.2%	0.019	0.004
Anemia	2,940	32.6%	2,860	32.3%	0.273	0.006
Asthma	737	8.2%	724	8.2%	-0.017	-0.001
Atrial fibrillation	384	4.3%	390	4.4%	-0.155	-0.008
Benign prostatic hyperplasia	432	4.8%	427	4.8%	-0.038	-0.002
Cancer, history of	677	7.5%	657	7.4%	0.075	0.003
Cancer, breast	141	1.6%	140	1.6%	-0.014	-0.001
Cancer, colorectal	109	1.2%	104	1.2%	0.037	0.003
Cancer, endometrial	14	0.2%	15	0.2%	-0.012	-0.003
Cancer, lung	34	0.4%	32	0.4%	0.010	0.002
Cancer, prostate	122	1.4%	114	1.3%	0.062	0.005
Cataract	665	7.4%	669	7.6%	-0.189	-0.007
Chronic kidney disease	735	8.1%	714	8.1%	0.075	0.003
COPD/bronchiectasis	632	7.0%	617	7.0%	0.032	0.001
Depression	1,937	21.5%	1,893	21.4%	0.076	0.002
Diabetes	945	10.5%	924	10.4%	0.028	0.001
Glaucoma	338	3.7%	342	3.9%	-0.119	-0.006
Heart failure	340	3.8%	344	3.9%	-0.115	-0.006
Hip/pelvic fracture	16	0.2%	14	0.2%	0.017	0.004
Hyperlipidemia	2,200	24.4%	2,179	24.6%	-0.242	-0.006
Hypertension (CCW)	2,859	31.7%	2,805	31.7%	-0.005	-0.000

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Serious infection	599	6.6%	601	6.8%	-0.154	-0.006
Intestinal perforation	99	1.1%	98	1.1%	-0.006	-0.001
Intestine, fistula	1,656	18.3%	1,596	18.0%	0.317	0.008
Intestine, obstruction	2,262	25.1%	2,169	24.5%	0.558	0.013
Intra-abdominal abscess	707	7.8%	687	7.8%	0.077	0.003
Ischemic heart disease	585	6.5%	575	6.5%	-0.015	-0.001
Obesity	1,310	14.5%	1,294	14.6%	-0.105	-0.003
Osteoporosis	691	7.7%	661	7.5%	0.186	0.007
CD Colitis	6,370	70.6%	6,265	70.8%	-0.194	-0.004
Perianal disease/abscess	2,764	30.6%	2,712	30.6%	-0.014	-0.000
Rheumatoid arthritis/osteoarthritis	1,503	16.7%	1,472	16.6%	0.024	0.001
Stroke/TIA	136	1.5%	136	1.5%	-0.026	-0.002

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Recorded History of Conditions From [-183, 0]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Charlson/Elixhauser combined comorbidity score ⁵	1.6	2.1	1.6	2.1	-0.005	-0.002
Metastatic cancer	74	0.8%	72	0.8%	0.002	0.000
Congestive heart failure	464	5.1%	469	5.3%	-0.162	-0.007
Dementia	65	0.7%	64	0.7%	0.003	0.000
Renal failure	667	7.4%	657	7.4%	-0.036	-0.001
Weight loss	1,061	11.8%	1,044	11.8%	-0.038	-0.001
Hemiplegia	37	0.4%	28	0.3%	0.097	0.016
Alcohol abuse	136	1.5%	153	1.7%	-0.221	-0.017
Any tumor	748	8.3%	684	7.7%	0.560	0.021
Cardiac arrhythmias	1,330	14.7%	1,313	14.8%	-0.097	-0.003
Chronic pulmonary disease	1,296	14.4%	1,276	14.4%	-0.057	-0.002
Coagulopathy	279	3.1%	273	3.1%	0.007	0.000
Complicated diabetes	558	6.2%	561	6.3%	-0.158	-0.007
Deficiency anemias	2,636	29.2%	2,551	28.8%	0.387	0.009
Fluid and electrolyte disorders	1,414	15.7%	1,412	15.9%	-0.278	-0.008
Liver disease	1,022	11.3%	998	11.3%	0.054	0.002
Peripheral vascular disorder	524	5.8%	548	6.2%	-0.386	-0.017
Psychosis	1,875	20.8%	1,826	20.6%	0.150	0.004
Pulmonary circulation disorders	178	2.0%	181	2.0%	-0.068	-0.005
HIV/AIDS	0	0.0%	0	0.0%	NaN	NaN

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Conditions From [-183, 0]	Number	Percent ³	Number	Percent ³		
Hypertension	2,856	31.6%	2,797	31.6%	0.044	0.001
Malnutrition	546	6.0%	545	6.2%	-0.109	-0.005
C. diff testing	1,519	16.8%	1,497	16.9%	-0.083	-0.002
C. diff diagnosis	178	2.0%	170	1.9%	0.049	0.004
Cancer, urologic (kidney, renal pevis, and ureter)	49	0.5%	49	0.5%	-0.005	-0.001
Non-Alzheimers dementia	68	0.8%	60	0.7%	0.072	0.009
Parkinsons disease and secondary parkinsonism	40	0.4%	34	0.4%	0.062	0.010
Use on Index Date [0]						
Adalimumab on index date	0	0.0%	2,518	28.4%	NaN	NaN
Infliximab on index date	0	0.0%	3,048	34.4%	NaN	NaN
Vedolizumab on index date	0	0.0%	3,287	37.1%	NaN	NaN
Any biologic, except the comparators on index date: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	0	0.0%	0	0.0%	NaN	NaN

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, -1]:	Number	Percent ³	Number	Percent ³		
Adalimumab	1,438	15.9%	1,396	15.8%	0.166	0.005
Certolizumab pegol	248	2.7%	216	2.4%	0.304	0.019
Golimumab	*****	*****	12	0.1%	-0.024	-0.007
Infliximab	942	10.4%	938	10.6%	-0.161	-0.005
Natalizumab	*****	*****	*****	*****	-0.018	-0.013
Ozanimod	*****	*****	*****	*****	-0.022	-0.015
Tofacitinib	*****	*****	14	0.2%	-0.050	-0.014
Upadacitinib	*****	*****	*****	*****	-0.049	-0.023
Vedolizumab	962	10.7%	841	9.5%	1.158	0.039
Risankizumab	*****	*****	14	0.2%	-0.119	-0.037
Any biologic or small molecule drug, except the comparators: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	274	3.0%	267	3.0%	0.017	0.001
Treatment-experienced - any biologic or small molecule drug	3,562	39.5%	3,407	38.5%	0.977	0.020
Days with a biologic dispensing						
1	251	2.8%	243	2.7%	0.042	0.003
2	473	5.2%	452	5.1%	0.132	0.006
3-4	1,323	14.7%	1,289	14.6%	0.094	0.003
5-6	1,205	13.4%	1,136	12.8%	0.513	0.015
7+	310	3.4%	287	3.2%	0.196	0.011

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Recorded History of Use From [-183, 0]	Number	Percent ³	Number	Percent ³		
Aminosalicylates (5-ASA)	1,072	11.9%	1,051	11.9%	0.007	0.000
Immunomodulators	1,320	14.6%	1,344	15.2%	-0.559	-0.016
Corticosteroids, intravenous	*****	*****	*****	*****	0.003	0.001
Corticosteroids, oral	3,416	37.8%	3,343	37.8%	0.090	0.002
Corticosteroids, rectal	128	1.4%	132	1.5%	-0.076	-0.006
Antibiotics	4,096	45.4%	4,017	45.4%	0.005	0.000
Antivirals	544	6.0%	532	6.0%	0.014	0.001
Anticoagulants	944	10.5%	931	10.5%	-0.057	-0.002
Antidiabetics	682	7.6%	672	7.6%	-0.034	-0.001
Antihypertensives	1,926	21.3%	1,886	21.3%	0.032	0.001
Antiplatelets	200	2.2%	187	2.1%	0.099	0.007
Lipid-lowering drugs	2,076	23.0%	2,064	23.3%	-0.311	-0.008
Non-steroidal anti-inflammatory drugs	1,302	14.4%	1,274	14.4%	0.031	0.001
Opioids	2,545	28.2%	2,525	28.5%	-0.324	-0.007
Immunization From [-365, 0]						
Flu (Influenza) vaccination	4,040	44.8%	3,960	44.7%	0.032	0.001
Immunization From [ever, 0]						
Covid-19 vaccination	3,447	38.2%	3,340	37.7%	0.465	0.010
Diphtheria, tetanus, and pertussis (DTaP) vaccination	2,430	26.9%	2,383	26.9%	0.007	0.000
Haemophilus influenza type B vaccination	*****	*****	12	0.1%	-0.019	-0.006
Measles, mumps, and rubella (MMR) vaccination	90	1.0%	86	1.0%	0.027	0.003
Meningococcal vaccination	380	4.2%	363	4.1%	0.114	0.006
Pneumococcal vaccination	2,954	32.7%	2,872	32.4%	0.287	0.007
Varicella (VAR) vaccination	682	7.6%	660	7.5%	0.096	0.004
Zoster recombinant vaccination	902	10.0%	879	9.9%	0.067	0.002

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
Drug Utilization Intensity Metrics From [-183, -1]	Number	Percent ³	Number	Percent ³		
Mean number of filled prescriptions	16.4	15.1	16.5	15.8	-0.023	-0.002
Mean number of unique drug classes dispensed	6.9	4.6	6.9	4.8	-0.011	-0.002
Health Service Utilization Intensity Metrics From [-183, -1]						
Mean number of ambulatory encounters	13.5	11.1	13.4	11.5	0.023	0.002
Mean number of emergency room encounters	0.5	1.5	0.5	1.3	0.003	0.002
Mean number of inpatient hospital encounters	0.3	0.8	0.3	0.7	-0.002	-0.002
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.1	0.000	0.001
Mean number of other ambulatory encounters	5.1	10.2	5.2	11.3	-0.028	-0.003
Number of emergency department encounters						
0	6,681	74.0%	6,510	73.5%	0.485	0.011
1	1,425	15.8%	1,435	16.2%	-0.427	-0.012
2-3	660	7.3%	653	7.4%	-0.069	-0.003
4	260	2.9%	254	2.9%	0.011	0.001
Number of ambulatory encounters						
0	36	0.4%	74	0.8%	-0.437	-0.056
1	153	1.7%	172	1.9%	-0.253	-0.019
2-3	606	6.7%	657	7.4%	-0.702	-0.028
4	8,231	91.2%	7,950	89.8%	1.392	0.048

Table 1s. Aggregated Weighted Characteristics of Ustekinumab Users and Comparator Users (Inverse Probability of Treatment Weighted, Trimmed, Weight: Average Treatment Effect in the Treated (ATT), Truncation: 1%), in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023 (post-April 1 2020); Event: Serious Infection Composite

Health Service Utilization Intensity Metrics From [-183, -1]	Medical Product				Covariate Balance	
	Ustekinumab Users		Comparator Users		Absolute Difference	Standardized Difference
	Number	Percent ³	Number	Percent ³		
Number of inpatient encounters						
0	7,220	80.0%	7,046	79.6%	0.403	0.010
1	1,212	13.4%	1,230	13.9%	-0.468	-0.014
2-3	513	5.7%	498	5.6%	0.063	0.003
4	81	0.9%	79	0.9%	0.002	0.000
Number of days with GI-related emergency department encounter						
0	7,682	85.1%	7,540	85.2%	-0.054	-0.002
1	945	10.5%	923	10.4%	0.039	0.001
2-3	301	3.3%	293	3.3%	0.020	0.001
4	98	1.1%	97	1.1%	-0.005	-0.000
Number of days with GI-related inpatient encounter						
0	7,942	88.0%	7,804	88.1%	-0.158	-0.005
1	853	9.5%	824	9.3%	0.148	0.005
2-3	213	2.4%	211	2.4%	-0.027	-0.002
4	18	0.2%	14	0.2%	0.037	0.009

Data represented by NaN (Not a Number) is due to their inability to be calculated.

¹Covariates in blue show a standardized difference greater than 0.1.

²Weighted patient characteristics tables facilitate the assessment of covariate balance after inverse probability weighting and should not be interpreted as a description of the unweighted

³Value represents standard deviation where no % follows the value.

⁴Race data may not be completely populated at all Data Partners; therefore, data about race may be incomplete.

⁵The Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A Combined Comorbidity Score Predicted Mortality in Elderly Patients Better Than Existing Scores. *J Clin Epidemiol.* 2011;64(7):749-759; Sun JW, Rogers JR, Her Q, Welch EC, Panozzo CA, Toh S, Gagne JJ. Adaptation and Validation of the Combined Comorbidity Score for ICD-10-CM. *Med Care.* 2017;55(12):1046-1051)

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

Table 2a. Effect Estimates for Serious Infection Composite or COVID-19, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,013.09	399.23	1.09	751	44.14	48.25	-5.12	-4.56	0.91 (0.83, 0.98)	0.016
Comparator Users	52,109	55,862.74	391.56	1.07	2,752	49.26	52.81				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	16,947.71	399.62	1.09	747	44.08	48.22	-4.87	-4.32	N/A	N/A
Comparator Users	51,503	55,287.35	392.09	1.07	2,706	48.94	52.54				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	16,947.71	399.62	1.09	747	44.08	48.22	-7.58	-5.05	0.88 (0.80, 0.96)	N/A
Comparator Users	14,641	15,100.73	376.72	1.03	780	51.65	53.27				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 2b. Effect Estimates for Serious Infection Composite or COVID-19, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Analysis Type and Treatment-experienced

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
Serious Infection Composite or COVID-19, with 1% Weight Truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
Ustekinumab Users	15,565	17,013.09	399.23	1.09	751	44.14	48.25	-5.12	-4.56	0.91 (0.83, 0.98)	0.016
Comparator Users	52,109	55,862.74	391.56	1.07	2,752	49.26	52.81				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Ustekinumab Users	15,490	16,947.71	399.62	1.09	747	44.08	48.22	-4.87	-4.32	N/A	N/A
Comparator Users	51,503	55,287.35	392.09	1.07	2,706	48.94	52.54				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²</i>											
Ustekinumab Users	15,490	16,947.71	399.62	1.09	747	44.08	48.22	-7.58	-5.05	0.88 (0.80, 0.96)	N/A
Comparator Users	14,641	15,100.73	376.72	1.03	780	51.65	53.27				
Serious Infection Composite or COVID-19, with 1% Weight Truncation, No Treatment-experienced											
<i>Site-Adjusted Analysis, Unweighted</i>											
Ustekinumab Users	9,073	9,355.55	376.62	1.03	409	43.72	45.08	-4.59	-6.21	0.89 (0.80, 0.98)	0.024
Comparator Users	45,078	47,860.51	387.80	1.06	2,312	48.31	51.29				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Ustekinumab Users	9,036	9,326.56	376.99	1.03	408	43.75	45.15	-4.42	-6.04	N/A	N/A
Comparator Users	44,847	47,667.82	388.22	1.06	2,296	48.17	51.20				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²</i>											
Ustekinumab Users	9,036	9,326.56	376.99	1.03	408	43.75	45.15	-8.73	-7.28	0.86 (0.77, 0.96)	N/A
Comparator Users	8,959	8,951.67	364.95	1.00	470	52.47	52.43				

Table 2b. Effect Estimates for Serious Infection Composite or COVID-19, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Analysis Type and Treatment-experienced

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
Serious Infection Composite or COVID-19, with 1% Weight Truncation, Treatment-experienced											
<i>Site-Adjusted Analysis, Unweighted</i>											
Ustekinumab Users	6,417	7,592.16	432.14	1.18	338	44.52	52.67	-8.53	-8.65	0.89 (0.77, 1.03)	0.11
Comparator Users	6,425	7,426.84	422.20	1.16	394	53.05	61.32				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Ustekinumab Users	6,019	7,236.09	439.11	1.20	314	43.39	52.17	-9.80	-9.99	N/A	N/A
Comparator Users	5,985	6,993.71	426.81	1.17	372	53.19	62.16				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²</i>											
Ustekinumab Users	6,019	7,236.09	439.11	1.20	314	43.39	52.17	-6.54	-2.99	0.89 (0.74, 1.07)	N/A
Comparator Users	5,686	6,281.79	403.51	1.10	314	49.93	55.16				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 3. Effect Estimates for Acute Meningitis, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	*****	415.75	1.14	*****	*****	*****	*****	*****	0.82 (0.27, 2.47)	0.718
Comparator Users	52,109	57,833.41	405.37	1.11	15	0.26	0.29				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	*****	416.14	1.14	*****	*****	*****	*****	*****	N/A	N/A
Comparator Users	51,503	57,221.36	405.80	1.11	15	0.26	0.29				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	*****	416.14	1.14	*****	*****	*****	-0.01	0.01	1.02 (0.29, 3.64)	N/A
Comparator Users	14,641	*****	390.82	1.07	*****	*****	*****				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A: Not applicable

Table 4. Effect Estimates for Gastrointestinal Infection, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,492.97	410.49	1.12	263	15.03	16.90	1.26	1.74	1.12 (0.97, 1.29)	0.119
Comparator Users	52,109	57,344.34	401.95	1.10	790	13.78	15.16				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,426.32	410.91	1.13	261	14.98	16.85	1.27	1.74	N/A	N/A
Comparator Users	51,503	56,741.97	402.40	1.10	778	13.71	15.11				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,426.32	410.91	1.13	261	14.98	16.85	-0.94	-0.02	0.97 (0.82, 1.14)	N/A
Comparator Users	14,641	15,517.64	387.12	1.06	247	15.91	16.87				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 5. Effect Estimates for Pyelonephritis, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,692.77	415.18	1.14	26	1.47	1.67	0.02	0.06	1.00 (0.65, 1.56)	0.983
Comparator Users	52,109	57,763.49	404.88	1.11	84	1.45	1.61				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,624.01	415.57	1.14	26	1.48	1.68	0.01	0.05	N/A	N/A
Comparator Users	51,503	57,151.44	405.31	1.11	84	1.47	1.63				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,624.01	415.57	1.14	26	1.48	1.68	-0.11	-0.01	0.95 (0.57, 1.60)	N/A
Comparator Users	14,641	15,645.14	390.30	1.07	25	1.58	1.69				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 6. Effect Estimates for Pneumonia, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,583.24	412.61	1.13	188	10.69	12.08	-5.26	-5.42	0.65 (0.56, 0.76)	<0.001
Comparator Users	52,109	57,181.79	400.81	1.10	912	15.95	17.50				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,514.86	413.00	1.13	187	10.68	12.07	-5.14	-5.31	N/A	N/A
Comparator Users	51,503	56,584.58	401.29	1.10	895	15.82	17.38				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,514.86	413.00	1.13	187	10.68	12.07	-4.37	-3.87	0.73 (0.61, 0.87)	N/A
Comparator Users	14,641	15,510.19	386.93	1.06	233	15.05	15.94				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 7. Effect Estimates for Acute Osteomyelitis, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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	Risk	Hazard Ratio	Wald P-Value
								Difference per 1,000 Person Years	Difference per 1,000 New Users	(95% Confidence Interval)	
Site-Adjusted Analysis, Unweighted											
Ustekinumab Users	15,565	17,707.92	415.54	1.14	22	1.24	1.41	0.20	0.26	1.18 (0.72, 1.92)	0.51
Comparator Users	52,109	57,811.55	405.22	1.11	60	1.04	1.15				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,639.15	415.93	1.14	22	1.25	1.42	0.22	0.27	N/A	N/A
Comparator Users	51,503	57,199.61	405.65	1.11	59	1.03	1.15				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,639.15	415.93	1.14	22	1.25	1.42	0.34	0.45	1.39 (0.83, 2.30)	N/A
Comparator Users	14,641	15,659.31	390.65	1.07	14	0.91	0.97				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 8. Effect Estimates for Bacteremia, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,415.02	408.66	1.12	341	19.58	21.91	-1.96	-1.68	0.91 (0.81, 1.03)	0.138
Comparator Users	52,109	57,044.34	399.84	1.09	1,229	21.54	23.59				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,347.52	409.05	1.12	339	19.54	21.89	-1.97	-1.69	N/A	N/A
Comparator Users	51,503	56,439.94	400.26	1.10	1,214	21.51	23.57				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,347.52	409.05	1.12	339	19.54	21.89	-4.22	-3.14	0.84 (0.73, 0.97)	N/A
Comparator Users	14,641	15,417.42	384.62	1.05	366	23.76	25.02				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 9. Effect Estimates for Skin/soft Tissue Infection, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,473.00	410.02	1.12	281	16.08	18.05	0.69	1.15	1.08 (0.94, 1.24)	0.255
Comparator Users	52,109	57,236.01	401.19	1.10	881	15.39	16.91				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,405.51	410.42	1.12	279	16.03	18.01	0.72	1.18	N/A	N/A
Comparator Users	51,503	56,635.32	401.65	1.10	867	15.31	16.83				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,405.51	410.42	1.12	279	16.03	18.01	-0.41	0.62	0.99 (0.85, 1.16)	N/A
Comparator Users	14,641	15,489.06	386.40	1.06	255	16.44	17.39				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 10. Effect Estimates for COVID-19 infection, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,688.74	415.09	1.14	49	2.77	3.15	-0.16	-0.10	0.91 (0.66, 1.25)	0.557
Comparator Users	52,109	57,719.44	404.58	1.11	169	2.93	3.24				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,619.98	415.47	1.14	49	2.78	3.16	-0.09	-0.02	N/A	N/A
Comparator Users	51,503	57,110.42	405.02	1.11	164	2.87	3.18				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,619.98	415.47	1.14	49	2.78	3.16	0.15	0.35	1.06 (0.76, 1.49)	N/A
Comparator Users	14,641	15,638.63	390.13	1.07	41	2.63	2.81				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 11. Effect Estimates for Serious Infection Composite or COVID-19 in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Analysis Type (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05)

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											
Ustekinumab Users	15,565	17,013.09	399.23	1.09	751	44.14	48.25	-5.12	-4.56	0.91 (0.83, 0.98)	0.016
Comparator Users	52,109	55,862.74	391.56	1.07	2,752	49.26	52.81				
Fixed Ratio 1:1 Propensity Score Matched Conditional Analysis; Caliper= 0.05											
Ustekinumab Users	13,449	6,915.47	187.81	0.51	345	49.89	25.65	-10.12	-5.20	0.83 (0.72, 0.96)	0.011
Comparator Users	13,449	6,915.47	187.81	0.51	415	60.01	30.86				
Fixed Ratio 1:1 Propensity Score Matched Unconditional Analysis; Caliper= 0.05											
Ustekinumab Users	13,449	14,618.25	397.00	1.09	613	41.93	45.58	-10.37	-7.88	0.83 (0.74, 0.92)	<0.001
Comparator Users	13,449	13,745.51	373.30	1.02	719	52.31	53.46				

Table 12. Effect Estimates for Serious Infection Composite, with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,027.29	399.56	1.09	733	43.05	47.09	-4.86	-4.32	0.91 (0.84, 0.99)	0.023
Comparator Users	52,109	55,922.37	391.98	1.07	2,679	47.91	51.41				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	16,961.91	399.96	1.10	729	42.98	47.06	-4.63	-4.10	N/A	N/A
Comparator Users	51,503	55,346.26	392.51	1.07	2,635	47.61	51.16				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	16,961.91	399.96	1.10	729	42.98	47.06	-7.45	-5.00	0.87 (0.80, 0.96)	N/A
Comparator Users	14,641	15,115.75	377.09	1.03	762	50.42	52.06				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 13. Effect Estimates for Serious Infection Composite (pre-April 1, 2020), with 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020, 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											
Ustekinumab Users	8,545	7,021.17	300.12	0.82	380	54.12	44.47	-1.21	0.14	0.97 (0.87, 1.09)	0.598
Comparator Users	34,445	27,597.16	292.64	0.80	1,527	55.33	44.33				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	8,503	6,986.69	300.12	0.82	379	54.25	44.57	-0.88	0.60	N/A	N/A
Comparator Users	33,978	27,100.10	291.32	0.80	1,494	55.13	43.97				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	8,503	6,986.69	300.12	0.82	379	54.25	44.57	-8.50	-2.99	0.88 (0.77, 1.00)	N/A
Comparator Users	7,899	5,987.29	276.85	0.76	376	62.75	47.56				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 14. Effect Estimates for Serious Infection Composite (post-April 1, 2020), with 1% Weight Truncation in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023, 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											
Ustekinumab Users	9,057	6,692.14	269.88	0.74	303	45.28	33.45	-6.82	-5.96	0.88 (0.77, 1.00)	0.056
Comparator Users	20,498	15,508.48	276.34	0.76	808	52.10	39.42				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	9,026	6,681.07	270.36	0.74	301	45.05	33.35	-6.78	-5.91	N/A	N/A
Comparator Users	20,378	15,435.75	276.67	0.76	800	51.83	39.26				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	9,026	6,681.07	270.36	0.74	301	45.05	33.35	-8.02	-7.00	0.87 (0.75, 1.01)	N/A
Comparator Users	8,853	6,731.54	277.72	0.76	357	53.07	40.35				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 15a. Effect Estimates for Serious Infection Composite or COVID-19, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,013.09	399.23	1.09	751	44.14	48.25	-5.12	-4.56	0.91 (0.83, 0.98)	0.016
Comparator Users	52,109	55,862.74	391.56	1.07	2,752	49.26	52.81				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	16,947.71	399.62	1.09	747	44.08	48.22	-4.87	-4.32	N/A	N/A
Comparator Users	51,503	55,287.35	392.09	1.07	2,706	48.94	52.54				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	16,947.71	399.62	1.09	747	44.08	48.22	-8.37	-6.45	0.86 (0.77, 0.96)	N/A
Comparator Users	15,603	16,265.46	380.76	1.04	853	52.44	54.67				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 15b. Effect Estimates for Serious Infection Composite or COVID-19, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Analysis Type and Treatment-Experienced

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
Serious Infection Composite or COVID-19, with 0% Weight Truncation											
<i>Site-Adjusted Analysis, Unweighted</i>											
Ustekinumab Users	15,565	17,013.09	399.23	1.09	751	44.14	48.25	-5.12	-4.56	0.91 (0.83, 0.98)	0.016
Comparator Users	52,109	55,862.74	391.56	1.07	2,752	49.26	52.81				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Ustekinumab Users	15,490	16,947.71	399.62	1.09	747	44.08	48.22	-4.87	-4.32	N/A	N/A
Comparator Users	51,503	55,287.35	392.09	1.07	2,706	48.94	52.54				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²</i>											
Ustekinumab Users	15,490	16,947.71	399.62	1.09	747	44.08	48.22	-8.37	-6.45	0.86 (0.77, 0.96)	N/A
Comparator Users	15,603	16,265.46	380.76	1.04	853	52.44	54.67				
Serious Infection Composite or COVID-19, with 0% Weight Truncation, No Treatment-experienced											
<i>Site-Adjusted Analysis, Unweighted</i>											
Ustekinumab Users	9,073	9,355.55	376.62	1.03	409	43.72	45.08	-4.59	-6.21	0.89 (0.80, 0.98)	0.024
Comparator Users	45,078	47,860.51	387.80	1.06	2,312	48.31	51.29				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Ustekinumab Users	9,036	9,326.56	376.99	1.03	408	43.75	45.15	-4.42	-6.04	N/A	N/A
Comparator Users	44,847	47,667.82	388.22	1.06	2,296	48.17	51.20				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²</i>											
Ustekinumab Users	9,036	9,326.56	376.99	1.03	408	43.75	45.15	-9.03	-7.40	0.85 (0.76, 0.96)	N/A
Comparator Users	9,033	8,995.80	363.76	1.00	475	52.77	52.56				

Table 15b. Effect Estimates for Serious Infection Composite or COVID-19, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Analysis Type and Treatment-Experienced

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
Serious Infection Composite or COVID-19, with 0% Weight Truncation, Treatment-experienced											
<i>Site-Adjusted Analysis, Unweighted</i>											
Ustekinumab Users	6,417	7,592.16	432.14	1.18	338	44.52	52.67	-8.53	-8.65	0.89 (0.77, 1.03)	0.11
Comparator Users	6,425	7,426.84	422.20	1.16	394	53.05	61.32				
<i>Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed</i>											
Ustekinumab Users	6,019	7,236.09	439.11	1.20	314	43.39	52.17	-9.80	-9.99	N/A	N/A
Comparator Users	5,985	6,993.71	426.81	1.17	372	53.19	62.16				
<i>Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²</i>											
Ustekinumab Users	6,019	7,236.09	439.11	1.20	314	43.39	52.17	-5.97	-1.04	0.90 (0.74, 1.10)	N/A
Comparator Users	6,116	6,593.58	393.76	1.08	325	49.36	53.21				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 16. Effect Estimates for Acute Meningitis, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	*****	415.75	1.14	*****	*****	*****	*****	*****	0.82 (0.27, 2.47)	0.718
Comparator Users	52,109	57,833.41	405.37	1.11	15	0.26	0.29				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	*****	416.14	1.14	*****	*****	*****	*****	*****	N/A	N/A
Comparator Users	51,503	57,221.36	405.80	1.11	15	0.26	0.29				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	*****	416.14	1.14	*****	*****	*****	-0.09	-0.08	0.75 (0.17, 3.35)	N/A
Comparator Users	15,603	*****	394.86	1.08	*****	*****	*****				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A: Not applicable

Table 17. Effect Estimates for Gastrointestinal Infection, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,492.97	410.49	1.12	263	15.03	16.90	1.26	1.74	1.12 (0.97, 1.29)	0.119
Comparator Users	52,109	57,344.34	401.95	1.10	790	13.78	15.16				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,426.32	410.91	1.13	261	14.98	16.85	1.27	1.74	N/A	N/A
Comparator Users	51,503	56,741.97	402.40	1.10	778	13.71	15.11				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,426.32	410.91	1.13	261	14.98	16.85	-0.71	0.05	0.98 (0.82, 1.17)	N/A
Comparator Users	15,603	16,714.56	391.27	1.07	262	15.68	16.80				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 18. Effect Estimates for Pyelonephritis, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,692.77	415.18	1.14	26	1.47	1.67	0.02	0.06	1.00 (0.65, 1.56)	0.983
Comparator Users	52,109	57,763.49	404.88	1.11	84	1.45	1.61				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,624.01	415.57	1.14	26	1.48	1.68	0.01	0.05	N/A	N/A
Comparator Users	51,503	57,151.44	405.31	1.11	84	1.47	1.63				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,624.01	415.57	1.14	26	1.48	1.68	-1.05	-1.05	0.59 (0.22, 1.61)	N/A
Comparator Users	15,603	16,840.47	394.22	1.08	43	2.52	2.72				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 19. Effect Estimates for Pneumonia, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,583.24	412.61	1.13	188	10.69	12.08	-5.26	-5.42	0.65 (0.56, 0.76)	<0.001
Comparator Users	52,109	57,181.79	400.81	1.10	912	15.95	17.50				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,514.86	413.00	1.13	187	10.68	12.07	-5.14	-5.31	N/A	N/A
Comparator Users	51,503	56,584.58	401.29	1.10	895	15.82	17.38				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,514.86	413.00	1.13	187	10.68	12.07	-3.79	-3.42	0.76 (0.63, 0.92)	N/A
Comparator Users	15,603	16,710.50	391.18	1.07	242	14.46	15.49				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 20. Effect Estimates for Acute Osteomyelitis, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,707.92	415.54	1.14	22	1.24	1.41	0.20	0.26	1.18 (0.72, 1.92)	0.51
Comparator Users	52,109	57,811.55	405.22	1.11	60	1.04	1.15				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,639.15	415.93	1.14	22	1.25	1.42	0.22	0.27	N/A	N/A
Comparator Users	51,503	57,199.61	405.65	1.11	59	1.03	1.15				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,639.15	415.93	1.14	22	1.25	1.42	0.40	0.51	1.51 (0.90, 2.51)	N/A
Comparator Users	15,603	16,861.53	394.71	1.08	14	0.85	0.91				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 21. Effect Estimates for Bacteremia, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,415.02	408.66	1.12	341	19.58	21.91	-1.96	-1.68	0.91 (0.81, 1.03)	0.138
Comparator Users	52,109	57,044.34	399.84	1.09	1,229	21.54	23.59				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,347.52	409.05	1.12	339	19.54	21.89	-1.97	-1.69	N/A	N/A
Comparator Users	51,503	56,439.94	400.26	1.10	1,214	21.51	23.57				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,347.52	409.05	1.12	339	19.54	21.89	-5.27	-4.50	0.81 (0.68, 0.96)	N/A
Comparator Users	15,603	16,591.24	388.38	1.06	412	24.81	26.38				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 22. Effect Estimates for Skin/soft Tissue Infection, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,473.00	410.02	1.12	281	16.08	18.05	0.69	1.15	1.08 (0.94, 1.24)	0.255
Comparator Users	52,109	57,236.01	401.19	1.10	881	15.39	16.91				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,405.51	410.42	1.12	279	16.03	18.01	0.72	1.18	N/A	N/A
Comparator Users	51,503	56,635.32	401.65	1.10	867	15.31	16.83				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,405.51	410.42	1.12	279	16.03	18.01	-0.38	0.47	0.99 (0.83, 1.18)	N/A
Comparator Users	15,603	16,678.16	390.42	1.07	274	16.41	17.54				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 23. Effect Estimates for COVID-19 infection, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,688.74	415.09	1.14	49	2.77	3.15	-0.16	-0.10	0.91 (0.66, 1.25)	0.557
Comparator Users	52,109	57,719.44	404.58	1.11	169	2.93	3.24				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	17,619.98	415.47	1.14	49	2.78	3.16	-0.09	-0.02	N/A	N/A
Comparator Users	51,503	57,110.42	405.02	1.11	164	2.87	3.18				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	17,619.98	415.47	1.14	49	2.78	3.16	0.34	0.52	1.16 (0.82, 1.63)	N/A
Comparator Users	15,603	16,840.85	394.23	1.08	41	2.44	2.64				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 24. Effect Estimates for Serious Infection Composite, with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, 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											
Ustekinumab Users	15,565	17,027.29	399.56	1.09	733	43.05	47.09	-4.86	-4.32	0.91 (0.84, 0.99)	0.023
Comparator Users	52,109	55,922.37	391.98	1.07	2,679	47.91	51.41				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	15,490	16,961.91	399.96	1.10	729	42.98	47.06	-4.63	-4.10	N/A	N/A
Comparator Users	51,503	55,346.26	392.51	1.07	2,635	47.61	51.16				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	15,490	16,961.91	399.96	1.10	729	42.98	47.06	-8.32	-6.47	0.86 (0.77, 0.96)	N/A
Comparator Users	15,603	16,280.48	381.11	1.04	835	51.30	53.53				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 25. Effect Estimates for Serious Infection Composite (pre-April 1, 2020), with 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020, 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											
Ustekinumab Users	8,545	7,021.17	300.12	0.82	380	54.12	44.47	-1.21	0.14	0.97 (0.87, 1.09)	0.598
Comparator Users	34,445	27,597.16	292.64	0.80	1,527	55.33	44.33				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	8,503	6,986.69	300.12	0.82	379	54.25	44.57	-0.88	0.60	N/A	N/A
Comparator Users	33,978	27,100.10	291.32	0.80	1,494	55.13	43.97				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	8,503	6,986.69	300.12	0.82	379	54.25	44.57	-8.68	-2.92	0.88 (0.76, 1.01)	N/A
Comparator Users	8,654	6,530.68	275.64	0.75	411	62.93	47.49				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 26. Effect Estimates for Serious Infection Composite (post-April 1, 2020), with 0% Weight Truncation in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023, 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											
Ustekinumab Users	9,057	6,692.14	269.88	0.74	303	45.28	33.45	-6.82	-5.96	0.88 (0.77, 1.00)	0.056
Comparator Users	20,498	15,508.48	276.34	0.76	808	52.10	39.42				
Inverse Probability of Treatment Weighted Analysis; Unweighted, Trimmed											
Ustekinumab Users	9,026	6,681.07	270.36	0.74	301	45.05	33.35	-6.78	-5.91	N/A	N/A
Comparator Users	20,378	15,435.75	276.67	0.76	800	51.83	39.26				
Inverse Probability of Treatment Weighted Analysis¹; Weight = ATT, Trimmed²											
Ustekinumab Users	9,026	6,681.07	270.36	0.74	301	45.05	33.35	-8.23	-7.02	0.87 (0.74, 1.01)	N/A
Comparator Users	9,088	6,885.63	276.74	0.76	367	53.28	40.37				

¹All values in this section are weighted.

²ATT = Average Treatment Effect in the Treated.

N/A: Not applicable

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

	Serious Infection Composite or COVID-19, with 1% Weight Truncation				Serious Infection Composite, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A
Had required coverage type (medical and/or drug coverage)	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013
Enrolled during specified age range	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891
Had requestable medical charts	191,172,615	0	191,172,615	0	191,172,615	0	191,172,615	0
Met demographic requirements (sex, race, and Hispanic origin)	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105
Members with a valid index event								
Had any cohort-defining claim during the query period	113,059	191,001,451	719,425	190,395,085	113,059	191,001,451	719,425	190,395,085
Claim recorded during specified age range	112,400	659	712,834	6,591	112,400	659	712,834	6,591
Evidence of non-indexing comparator drug	112,400	0	712,802	32	112,400	0	712,802	32
Episode defining index claim recorded during the query period	101,433	10,967	580,286	132,516	101,433	10,967	580,286	132,516
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	71,601	29,832	367,751	212,535	71,601	29,832	367,751	212,535
Met inclusion and exclusion criteria ¹	20,589	51,012	52,697	315,054	20,589	51,012	52,697	315,054
<i>Evidence of HIV or organ transplant</i>	N/A	893	N/A	4,011	N/A	893	N/A	4,011
<i>Evidence of post-index serious infection in (0,7)</i>	N/A	106	N/A	540	N/A	105	N/A	531
<i>Evidence of pre-existing condition</i>	N/A	48,555	N/A	292,237	N/A	48,555	N/A	292,237
<i>Evidence of same day exposure or study drug</i>	N/A	262	N/A	244	N/A	262	N/A	244
<i>Evidence of ustekinumab</i>	N/A	N/A	N/A	5,164	N/A	N/A	N/A	5,164
<i>No evidence of Crohn's disease</i>	N/A	41,859	N/A	292,311	N/A	41,859	N/A	292,311
Met event incidence criteria	20,589	0	52,645*	0	20,589	0	52,645*	0

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

	Serious Infection Composite or COVID-19, with 1% Weight Truncation				Serious Infection Composite, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members with required post-index follow-up								
Had sufficient post-index continuous enrollment	20,589	0	52,645	0	20,589	0	52,645	0
Had minimum days' supply on index date	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode of at least required length	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode longer than blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Did not have an event during blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Final cohort								
Number of members	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Number of episodes	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	20,589	0	52,645	0	20,589	0	52,645	0
Excluded due to prior initiation of other exposure group	15,565	5,024	52,109	536	15,565	5,024	52,109	536
Excluded due to propensity score trimming	15,490	75	51,503	606	15,490	75	51,503	606
Included in comparative analysis	15,490	0	51,503	0	15,490	0	51,503	0
Additional information								
Number of events in comparative analysis	747	N/A	2,706	N/A	729	N/A	2,635	N/A
Number of patients with a truncated inverse probability of treatment weight	0	N/A	1,340	N/A	0	N/A	1,340	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.

*Any difference between row 25 and row 18 (comparator users only) reflect the patients who were additionally excluded at one of the criteria between rows 14 to 24. The exact details for exclusion of these patients are not known.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A: Not applicable

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Serious Infection Composite (pre-April 1, 2020), with 1% Weight Truncation				Serious Infection Composite (post-April 1, 2020), with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	276,537,474	N/A	276,537,474	N/A	227,197,484	N/A	227,197,484	N/A
Had required coverage type (medical and/or drug coverage)	205,978,806	70,558,668	205,978,806	70,558,668	165,925,655	61,271,829	165,925,655	61,271,829
Enrolled during specified age range	152,180,519	53,798,287	152,180,519	53,798,287	124,166,790	41,758,865	124,166,790	41,758,865
Had requestable medical charts	152,180,519	0	152,180,519	0	124,166,790	0	124,166,790	0
Met demographic requirements (sex, race, and Hispanic origin)	152,150,326	30,193	152,150,326	30,193	124,128,760	38,030	124,128,760	38,030
Members with a valid index event								
Had any cohort-defining claim during the query period	70,668	152,079,658	504,684	151,645,642	71,640	124,057,120	427,556	123,701,204
Claim recorded during specified age range	70,434	234	501,488	3,196	71,384	256	426,134	1,422
Evidence of non-indexing comparator drug	70,434	0	501,468	20	71,384	0	426,110	24
Episode defining index claim recorded during the query period	59,317	11,117	363,404	138,064	47,217	24,167	248,691	177,419
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	43,041	16,276	232,374	131,030	31,812	15,405	153,888	94,803
Met inclusion and exclusion criteria ¹	10,937	32,104	34,656	197,718	10,211	21,601	20,659	133,229
<i>Evidence of HIV or organ transplant</i>	N/A	494	N/A	2,379	N/A	434	N/A	1,839
<i>Evidence of post-index serious infection in (0,7)</i>	N/A	62	N/A	334	N/A	45	N/A	208
<i>Evidence of pre-existing condition</i>	N/A	30,615	N/A	184,327	N/A	20,332	N/A	121,995
<i>Evidence of same day exposure or study drug</i>	N/A	167	N/A	136	N/A	97	N/A	113
<i>Evidence of ustekinumab</i>	N/A	N/A	N/A	2,405	N/A	N/A	N/A	3,120
<i>No evidence of Crohn's disease</i>	N/A	27,300	N/A	183,375	N/A	16,885	N/A	122,267
Met event incidence criteria	10,937	0	34,625*	0	10,211	0	20,624*	0

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Serious Infection Composite (pre-April 1, 2020), with 1% Weight Truncation				Serious Infection Composite (post-April 1, 2020), with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members with required post-index follow-up								
Had sufficient post-index continuous enrollment	10,937	0	34,625	0	10,211	0	20,624	0
Had minimum days' supply on index date	10,937	0	34,625	0	10,211	0	20,624	0
Had index episode of at least required length	10,937	0	34,625	0	10,211	0	20,624	0
Had index episode longer than blackout period	10,937	0	34,625	0	10,211	0	20,624	0
Did not have an event during blackout period	10,937	0	34,625	0	10,211	0	20,624	0
Final cohort								
Number of members	10,937	N/A	34,625	N/A	10,211	N/A	20,624	N/A
Number of episodes	10,937	N/A	34,625	N/A	10,211	N/A	20,624	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	10,937	0	34,625	0	10,211	0	20,624	0
Excluded due to prior initiation of other exposure group	8,545	2,392	34,445	180	9,057	1,154	20,498	126
Excluded due to propensity score trimming	8,503	42	33,978	467	9,026	31	20,378	120
Included in comparative analysis	8,503	0	33,978	0	9,026	0	20,378	0
Additional information								
Number of events in comparative analysis	379	N/A	1,494	N/A	301	N/A	800	N/A
Number of patients with a truncated inverse probability of treatment weight	0	N/A	848	N/A	0	N/A	587	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.

*Any difference between row 25 and row 18 (comparator users only) reflect the patients who were additionally excluded at one of the criteria between rows 14 to 24. The exact details for exclusion of these patients are not known.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A: Not applicable

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Acute Meningitis, with 1% Weight Truncation				Acute Osteomyelitis, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A
Had required coverage type (medical and/or drug coverage)	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013
Enrolled during specified age range	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891
Had requestable medical charts	191,172,615	0	191,172,615	0	191,172,615	0	191,172,615	0
Met demographic requirements (sex, race, and Hispanic origin)	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105
Members with a valid index event								
Had any cohort-defining claim during the query period	113,059	191,001,451	719,425	190,395,085	113,059	191,001,451	719,425	190,395,085
Claim recorded during specified age range	112,400	659	712,834	6,591	112,400	659	712,834	6,591
Evidence of non-indexing comparator drug	112,400	0	712,802	32	112,400	0	712,802	32
Episode defining index claim recorded during the query period	101,433	10,967	580,286	132,516	101,433	10,967	580,286	132,516
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	71,601	29,832	367,751	212,535	71,601	29,832	367,751	212,535
Met inclusion and exclusion criteria ¹	20,589	51,012	52,697	315,054	20,589	51,012	52,697	315,054
<i>Evidence of HIV or organ transplant</i>	N/A	893	N/A	4,011	N/A	893	N/A	4,011
<i>Evidence of post-index serious infection in (0,7)</i>	N/A	106	N/A	540	N/A	106	N/A	540
<i>Evidence of pre-existing condition</i>	N/A	48,555	N/A	292,237	N/A	48,555	N/A	292,237
<i>Evidence of same day exposure or study drug</i>	N/A	262	N/A	244	N/A	262	N/A	244
<i>Evidence of ustekinumab</i>	N/A	N/A	N/A	5,164	N/A	N/A	N/A	5,164
<i>No evidence of Crohn's disease</i>	N/A	41,859	N/A	292,311	N/A	41,859	N/A	292,311
Met event incidence criteria	20,589	0	52,645*	0	20,589	0	52,645*	0

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Acute Meningitis, with 1% Weight Truncation				Acute Osteomyelitis, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members with required post-index follow-up								
Had sufficient post-index continuous enrollment	20,589	0	52,645	0	20,589	0	52,645	0
Had minimum days' supply on index date	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode of at least required length	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode longer than blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Did not have an event during blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Final cohort								
Number of members	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Number of episodes	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	20,589	0	52,645	0	20,589	0	52,645	0
Excluded due to prior initiation of other exposure group	15,565	5,024	52,109	536	15,565	5,024	52,109	536
Excluded due to propensity score trimming	15,490	75	51,503	606	15,490	75	51,503	606
Included in comparative analysis	15,490	0	51,503	0	15,490	0	51,503	0
Additional information								
Number of events in comparative analysis	*****	N/A	15	N/A	22	N/A	59	N/A
Number of patients with a truncated inverse probability of treatment weight	0	N/A	1,340	N/A	0	N/A	1,340	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.

*Any difference between row 25 and row 18 (comparator users only) reflect the patients

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A: Not applicable

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Bacteremia, with 1% Weight Truncation				Gastrointestinal Infection, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A
Had required coverage type (medical and/or drug coverage)	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013
Enrolled during specified age range	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891
Had requestable medical charts	191,172,615	0	191,172,615	0	191,172,615	0	191,172,615	0
Met demographic requirements (sex, race, and Hispanic origin)	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105
Members with a valid index event								
Had any cohort-defining claim during the query period	113,059	191,001,451	719,425	190,395,085	113,059	191,001,451	719,425	190,395,085
Claim recorded during specified age range	112,400	659	712,834	6,591	112,400	659	712,834	6,591
Evidence of non-indexing comparator drug	112,400	0	712,802	32	112,400	0	712,802	32
Episode defining index claim recorded during the query period	101,433	10,967	580,286	132,516	101,433	10,967	580,286	132,516
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	71,601	29,832	367,751	212,535	71,601	29,832	367,751	212,535
Met inclusion and exclusion criteria ¹	20,589	51,012	52,697	315,054	20,589	51,012	52,697	315,054
<i>Evidence of HIV or organ transplant</i>	N/A	893	N/A	4,011	N/A	893	N/A	4,011
<i>Evidence of post-index serious infection in (0,7)</i>	N/A	106	N/A	540	N/A	106	N/A	540
<i>Evidence of pre-existing condition</i>	N/A	48,555	N/A	292,237	N/A	48,555	N/A	292,237
<i>Evidence of same day exposure or study drug</i>	N/A	262	N/A	244	N/A	262	N/A	244
<i>Evidence of ustekinumab</i>	N/A	N/A	N/A	5,164	N/A	N/A	N/A	5,164
<i>No evidence of Crohn's disease</i>	N/A	41,859	N/A	292,311	N/A	41,859	N/A	292,311
Met event incidence criteria	20,589	0	52,645*	0	20,589	0	52,645*	0

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Bacteremia, with 1% Weight Truncation				Gastrointestinal Infection, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members with required post-index follow-up								
Had sufficient post-index continuous enrollment	20,589	0	52,645	0	20,589	0	52,645	0
Had minimum days' supply on index date	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode of at least required length	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode longer than blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Did not have an event during blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Final cohort								
Number of members	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Number of episodes	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	20,589	0	52,645	0	20,589	0	52,645	0
Excluded due to prior initiation of other exposure group	15,565	5,024	52,109	536	15,565	5,024	52,109	536
Excluded due to propensity score trimming	15,490	75	51,503	606	15,490	75	51,503	606
Included in comparative analysis	15,490	0	51,503	0	15,490	0	51,503	0
Additional information								
Number of events in comparative analysis	339	N/A	1,214	N/A	261	N/A	778	N/A
Number of patients with a truncated inverse probability of treatment weight	0	N/A	1,340	N/A	0	N/A	1,340	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.

*Any difference between row 25 and row 18 (comparator users only) reflect the patients who were additionally excluded at one of the criteria between rows 14 to 24. The exact details for exclusion of these patients are not known.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A: Not applicable

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Pneumonia, with 1% Weight Truncation				Pyelonephritis, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A
Had required coverage type (medical and/or drug coverage)	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013
Enrolled during specified age range	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891
Had requestable medical charts	191,172,615	0	191,172,615	0	191,172,615	0	191,172,615	0
Met demographic requirements (sex, race, and Hispanic origin)	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105
Members with a valid index event								
Had any cohort-defining claim during the query period	113,059	191,001,451	719,425	190,395,085	113,059	191,001,451	719,425	190,395,085
Claim recorded during specified age range	112,400	659	712,834	6,591	112,400	659	712,834	6,591
Evidence of non-indexing comparator drug	112,400	0	712,802	32	112,400	0	712,802	32
Episode defining index claim recorded during the query period	101,433	10,967	580,286	132,516	101,433	10,967	580,286	132,516
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	71,601	29,832	367,751	212,535	71,601	29,832	367,751	212,535
Met inclusion and exclusion criteria ¹	20,589	51,012	52,697	315,054	20,589	51,012	52,697	315,054
<i>Evidence of HIV or organ transplant</i>	N/A	893	N/A	4,011	N/A	893	N/A	4,011
<i>Evidence of post-index serious infection in (0,7)</i>	N/A	106	N/A	540	N/A	106	N/A	540
<i>Evidence of pre-existing condition</i>	N/A	48,555	N/A	292,237	N/A	48,555	N/A	292,237
<i>Evidence of same day exposure or study drug</i>	N/A	262	N/A	244	N/A	262	N/A	244
<i>Evidence of ustekinumab</i>	N/A	N/A	N/A	5,164	N/A	N/A	N/A	5,164
<i>No evidence of Crohn's disease</i>	N/A	41,859	N/A	292,311	N/A	41,859	N/A	292,311
Met event incidence criteria	20,589	0	52,645*	0	20,589	0	52,645*	0

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Pneumonia, with 1% Weight Truncation				Pyelonephritis, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members with required post-index follow-up								
Had sufficient post-index continuous enrollment	20,589	0	52,645	0	20,589	0	52,645	0
Had minimum days' supply on index date	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode of at least required length	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode longer than blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Did not have an event during blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Final cohort								
Number of members	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Number of episodes	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	20,589	0	52,645	0	20,589	0	52,645	0
Excluded due to prior initiation of other exposure group	15,565	5,024	52,109	536	15,565	5,024	52,109	536
Excluded due to propensity score trimming	15,490	75	51,503	606	15,490	75	51,503	606
Included in comparative analysis	15,490	0	51,503	0	15,490	0	51,503	0
Additional information								
Number of events in comparative analysis	187	N/A	895	N/A	26	N/A	84	N/A
Number of patients with a truncated inverse probability of treatment weight	0	N/A	1,340	N/A	0	N/A	1,340	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.

*Any difference between row 25 and row 18 (comparator users only) reflect the patients who were additionally excluded at one of the criteria between rows 14 to 24. The exact details for exclusion of these patients are not known.

****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A: Not applicable

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Skin/Soft Tissue Infection, with 1% Weight Truncation				COVID-19 infection, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements								
Enrolled at any point during the query period	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A	334,994,519	N/A
Had required coverage type (medical and/or drug coverage)	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013	248,116,506	86,878,013
Enrolled during specified age range	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891	191,172,615	56,943,891
Had requestable medical charts	191,172,615	0	191,172,615	0	191,172,615	0	191,172,615	0
Met demographic requirements (sex, race, and Hispanic origin)	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105	191,114,510	58,105
Members with a valid index event								
Had any cohort-defining claim during the query period	113,059	191,001,451	719,425	190,395,085	113,059	191,001,451	719,425	190,395,085
Claim recorded during specified age range	112,400	659	712,834	6,591	112,400	659	712,834	6,591
Evidence of non-indexing comparator drug	112,400	0	712,802	32	112,400	0	712,802	32
Episode defining index claim recorded during the query period	101,433	10,967	580,286	132,516	101,433	10,967	580,286	132,516
Members with required pre-index history								
Had sufficient pre-index continuous enrollment	71,601	29,832	367,751	212,535	71,601	29,832	367,751	212,535
Met inclusion and exclusion criteria ¹	20,589	51,012	52,697	315,054	20,589	51,012	52,697	315,054
<i>Evidence of HIV or organ transplant</i>	N/A	893	N/A	4,011	N/A	893	N/A	4,011
<i>Evidence of post-index serious infection in (0,7)</i>	N/A	106	N/A	540	N/A	106	N/A	540
<i>Evidence of pre-existing condition</i>	N/A	48,555	N/A	292,237	N/A	48,555	N/A	292,237
<i>Evidence of same day exposure or study drug</i>	N/A	262	N/A	244	N/A	262	N/A	244
<i>Evidence of ustekinumab</i>	N/A	N/A	N/A	5,164	N/A	N/A	N/A	5,164
<i>No evidence of Crohn's disease</i>	N/A	41,859	N/A	292,311	N/A	41,859	N/A	292,311
Met event incidence criteria	20,589	0	52,645*	0	20,589	0	52,645*	0

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Skin/Soft Tissue Infection, with 1% Weight Truncation				COVID-19 infection, with 1% Weight Truncation			
	Ustekinumab Users		Comparator Users		Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members with required post-index follow-up								
Had sufficient post-index continuous enrollment	20,589	0	52,645	0	20,589	0	52,645	0
Had minimum days' supply on index date	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode of at least required length	20,589	0	52,645	0	20,589	0	52,645	0
Had index episode longer than blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Did not have an event during blackout period	20,589	0	52,645	0	20,589	0	52,645	0
Final cohort								
Number of members	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Number of episodes	20,589	N/A	52,645	N/A	20,589	N/A	52,645	N/A
Members meeting comparative cohort eligibility requirements								
Excluded due to same-day initiation of both exposure groups	20,589	0	52,645	0	20,589	0	52,645	0
Excluded due to prior initiation of other exposure group	15,565	5,024	52,109	536	15,565	5,024	52,109	536
Excluded due to propensity score trimming	15,490	75	51,503	606	15,490	75	51,503	606
Included in comparative analysis	15,490	0	51,503	0	15,490	0	51,503	0
Additional information								
Number of events in comparative analysis	279	N/A	867	N/A	49	N/A	164	N/A
Number of patients with a truncated inverse probability of treatment weight	0	N/A	1,340	N/A	0	N/A	1,340	N/A

N/A: Not applicable

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Serious Infection Composite or COVID-19, with PS Matching			
	Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements				
Enrolled at any point during the query period	334,994,519	N/A	334,994,519	N/A
Had required coverage type (medical and/or drug coverage)	248,116,506	86,878,013	248,116,506	86,878,013
Enrolled during specified age range	191,172,615	56,943,891	191,172,615	56,943,891
Had requestable medical charts	191,172,615	0	191,172,615	0
Met demographic requirements (sex, race, and Hispanic origin)	191,114,510	58,105	191,114,510	58,105
Members with a valid index event				
Had any cohort-defining claim during the query period	113,059	191,001,451	719,425	190,395,085
Claim recorded during specified age range	112,400	659	712,834	6,591
Evidence of non-indexing comparator drug	112,400	0	712,802	32
Episode defining index claim recorded during the query period	101,433	10,967	580,286	132,516
Members with required pre-index history				
Had sufficient pre-index continuous enrollment	71,601	29,832	367,751	212,535
Met inclusion and exclusion criteria ¹	20,589	51,012	52,697	315,054
<i>Evidence of HIV or organ transplant</i>	N/A	893	N/A	4,011
<i>Evidence of post-index serious infection in (0,7)</i>	N/A	106	N/A	540
<i>Evidence of pre-existing condition</i>	N/A	48,555	N/A	292,237
<i>Evidence of same day exposure or study drug</i>	N/A	262	N/A	244
<i>Evidence of ustekinumab</i>	N/A	N/A	N/A	5,164
<i>No evidence of Crohn's disease</i>	N/A	41,859	N/A	292,311
Met event incidence criteria	20,589	0	52,645*	0

Table 27. Summary of Patient-Level Cohort Attrition in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Continued)

	Serious Infection Composite or COVID-19, with PS Matching			
	Ustekinumab Users		Comparator Users	
	Remaining	Excluded	Remaining	Excluded
Members with required post-index follow-up				
Had sufficient post-index continuous enrollment	20,589	0	52,645	0
Had minimum days' supply on index date	20,589	0	52,645	0
Had index episode of at least required length	20,589	0	52,645	0
Had index episode longer than blackout period	20,589	0	52,645	0
Did not have an event during blackout period	20,589	0	52,645	0
Final cohort				
Number of members	20,589	N/A	52,645	N/A
Number of episodes	20,589	N/A	52,645	N/A
Members meeting comparative cohort eligibility requirements				
Excluded due to same-day initiation of both exposure groups	20,589	0	52,645	0
Excluded due to prior initiation of other exposure group	15,565	5,024	52,109	536
Excluded due to propensity score trimming	N/A	N/A	N/A	N/A
Included in comparative analysis	13,449	2,116	13,449	38,660
Additional information				
Number of events in comparative analysis	613	N/A	719	N/A
Number of patients with a truncated inverse probability of treatment weight	N/A	N/A	N/A	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.

*Any difference between row 25 and row 18 (comparator users only) reflect the patients who were additionally excluded at one of the criteria between rows 14 to 24. The exact details for exclusion of these patients are not known.

*****Data are not presented in these cells due to a small sample size or to assure a small cell cannot be recalculated through the cells presented.

N/A: Not applicable

Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

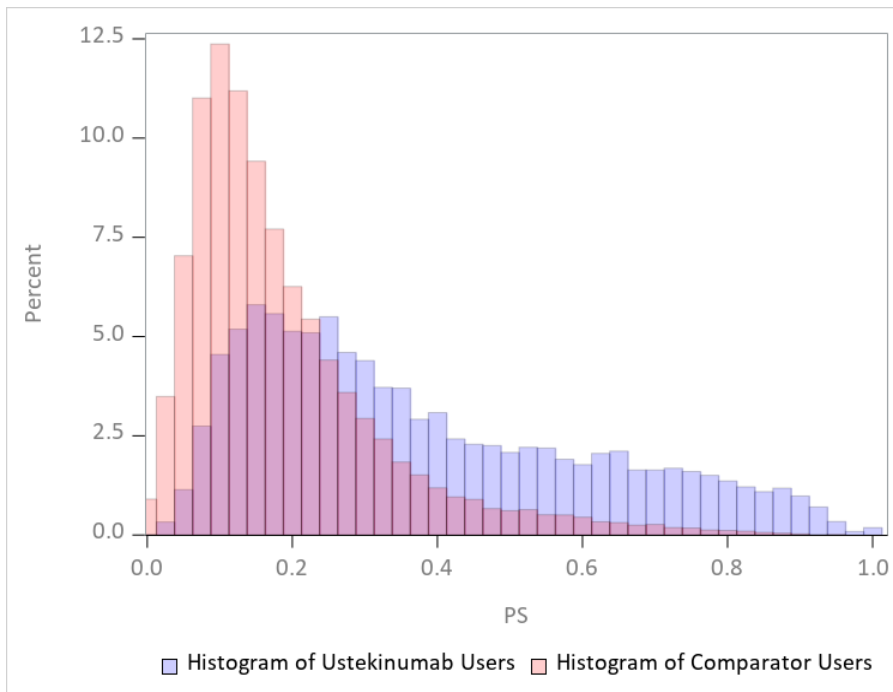


Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

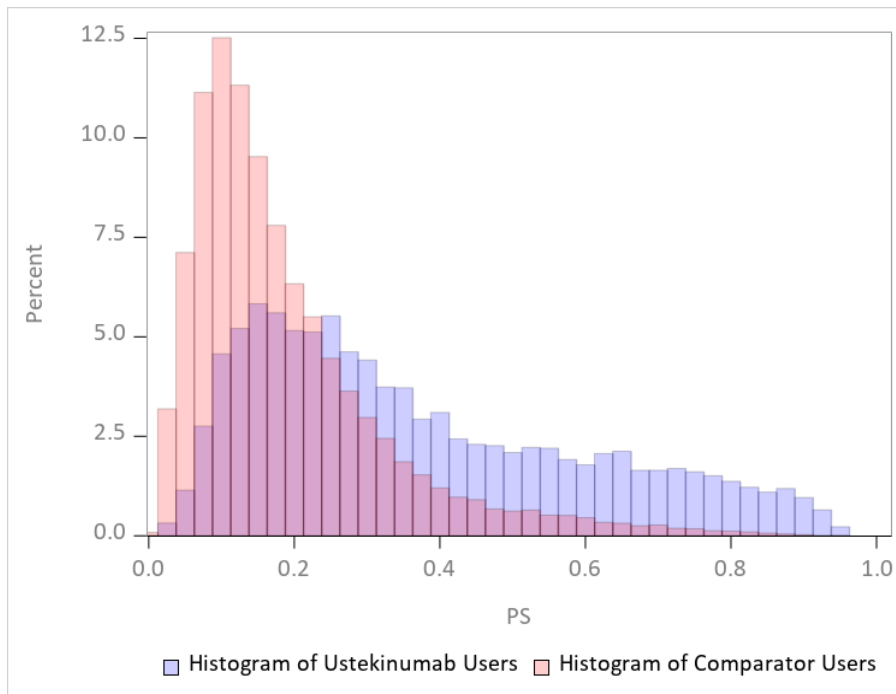


Figure 1a. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

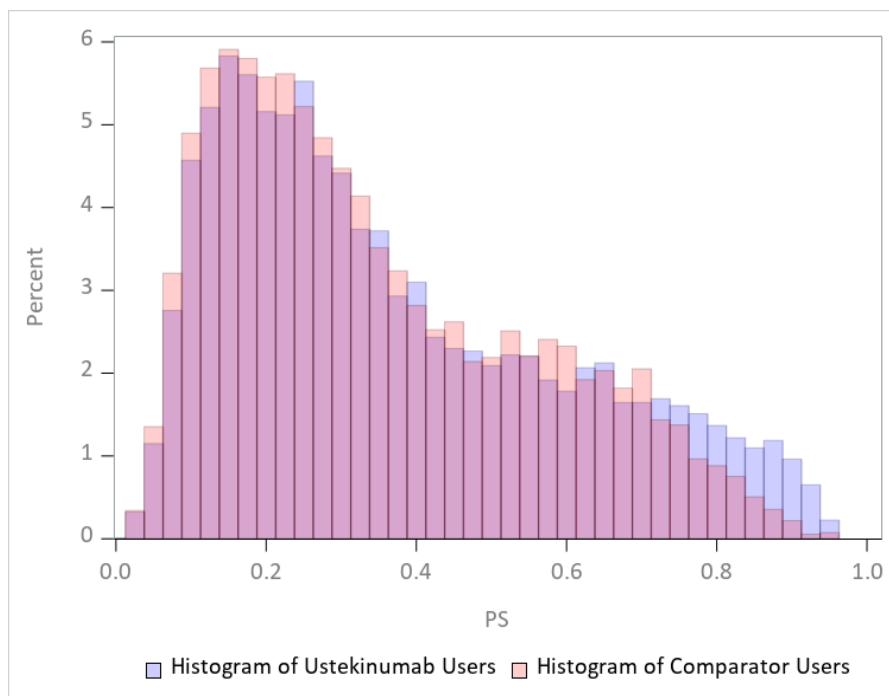


Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced

Unweighted Propensity Score Distribution Before Trimming

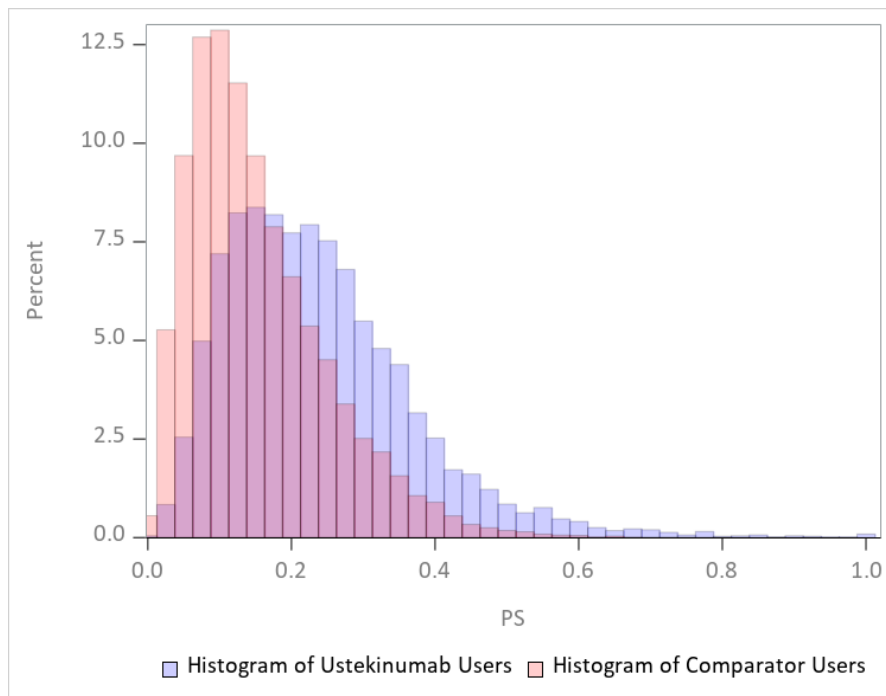


Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced

Unweighted Propensity Score Distribution After Trimming

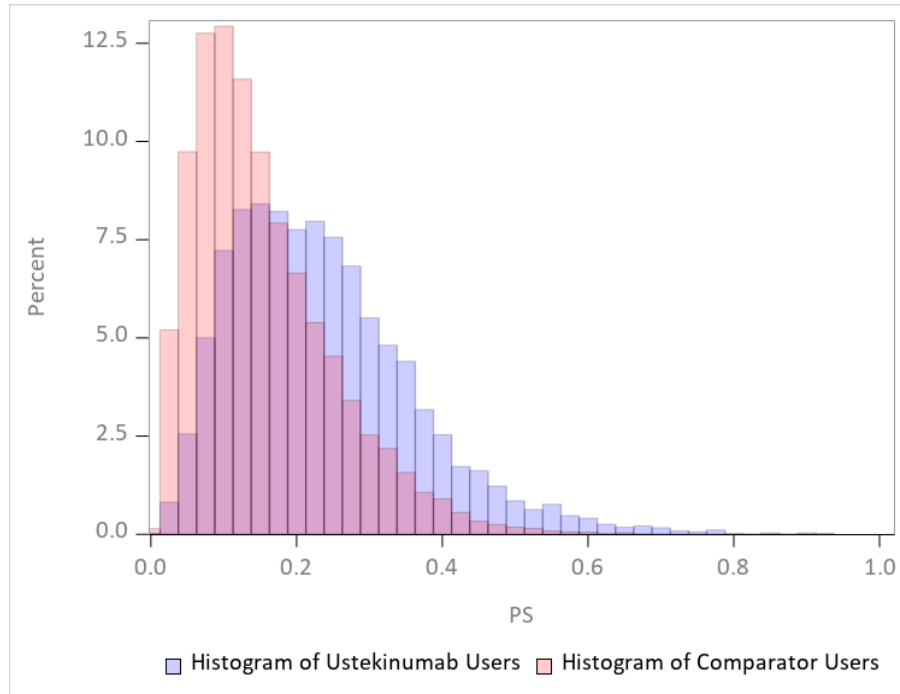


Figure 1b. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

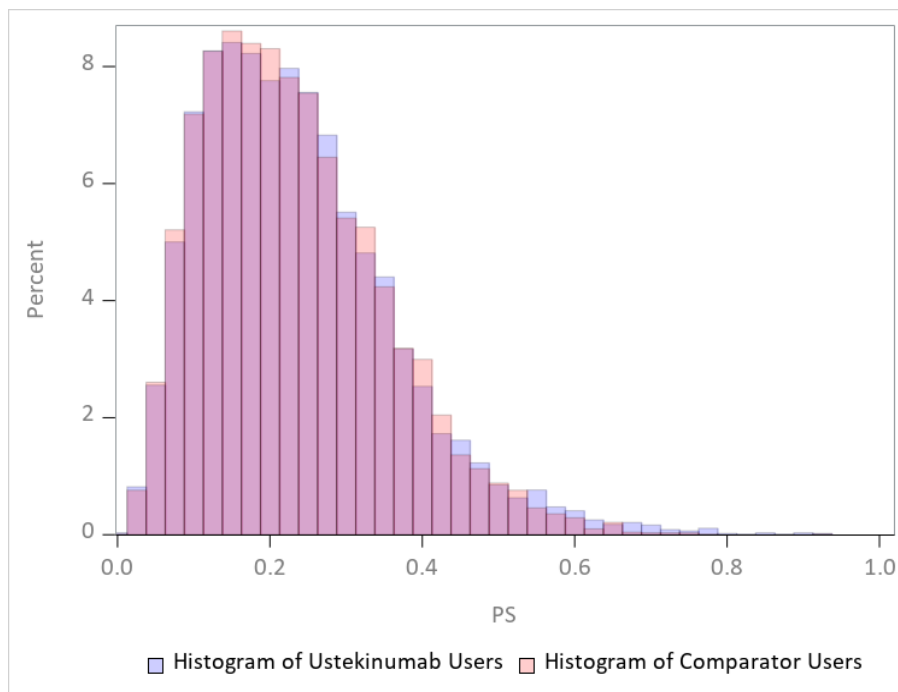


Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced

Unweighted Propensity Score Distribution Before Trimming

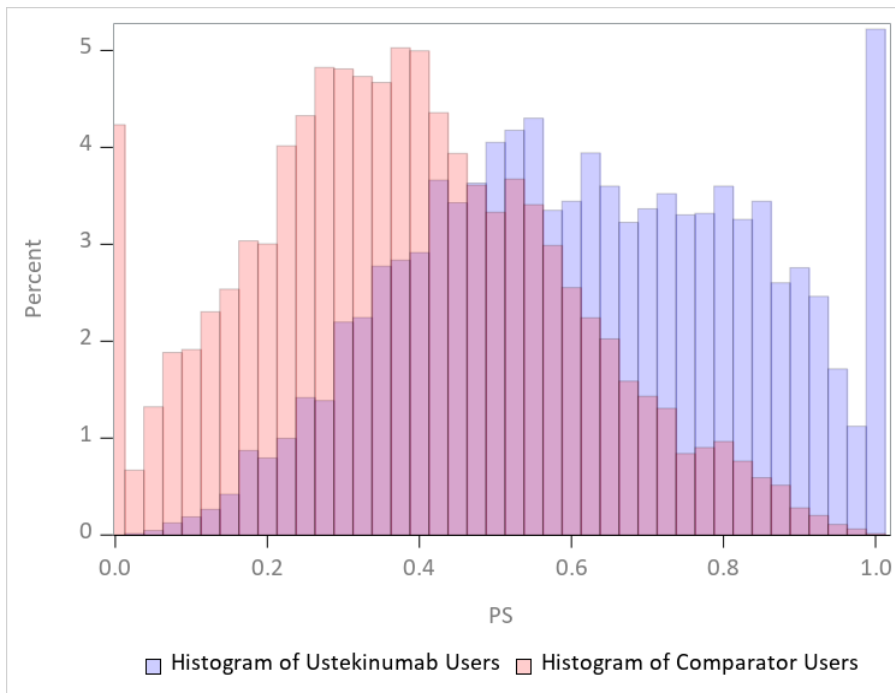


Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced

Unweighted Propensity Score Distribution After Trimming

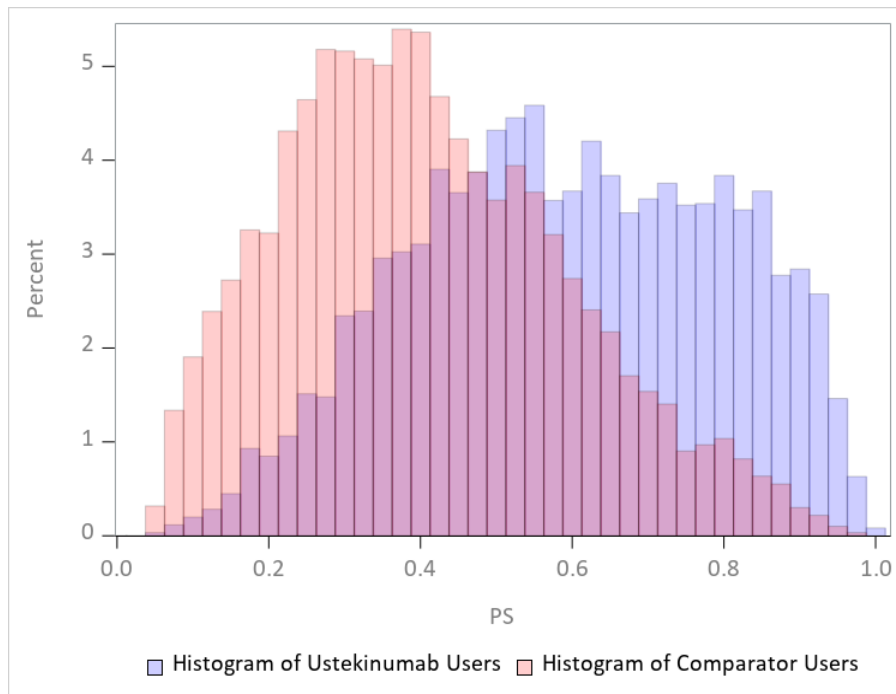


Figure 1c. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

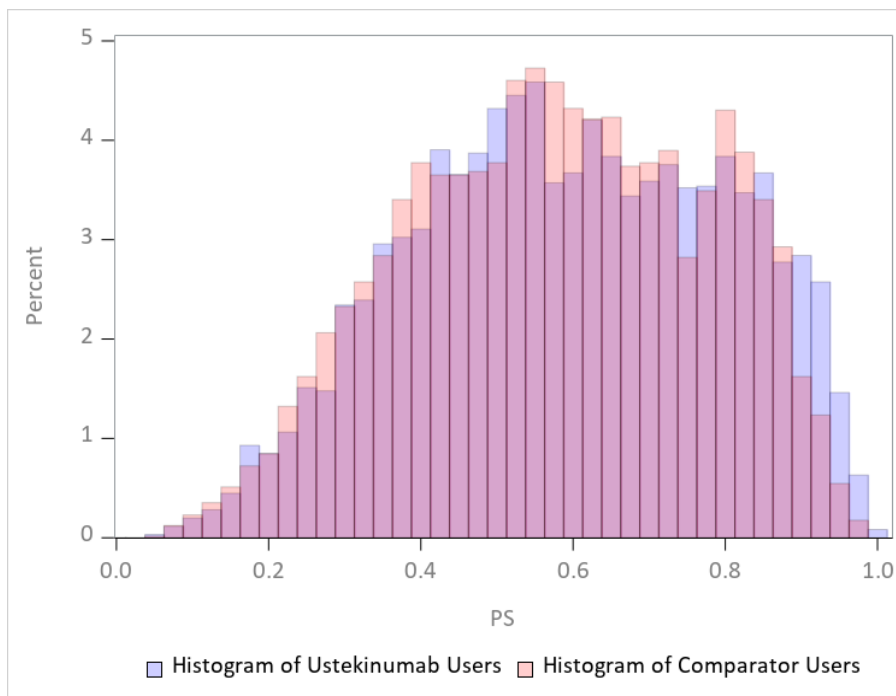


Figure 2. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Acute Meningitis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

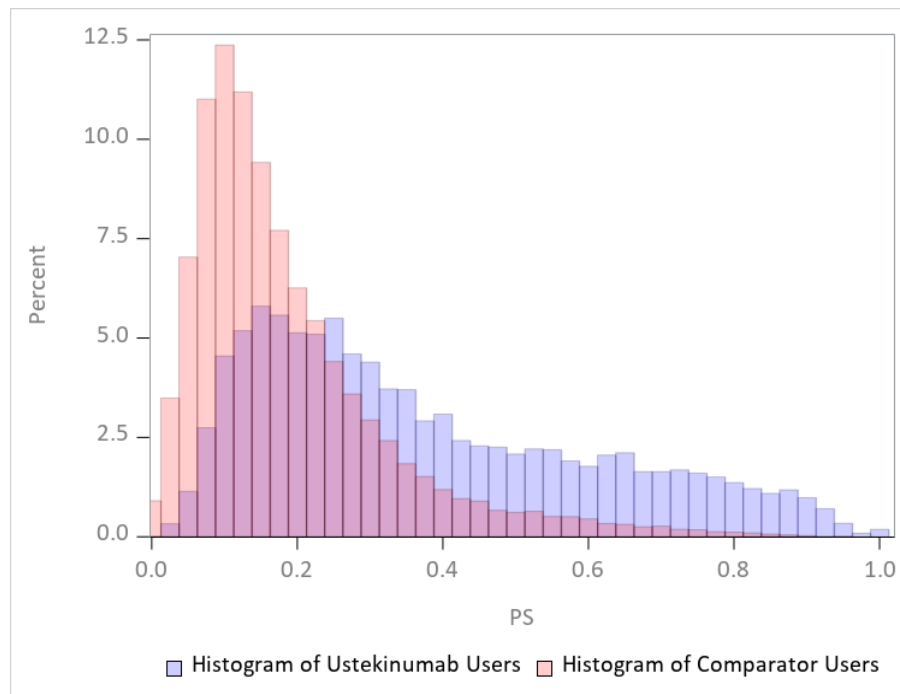


Figure 2. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Acute Meningitis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

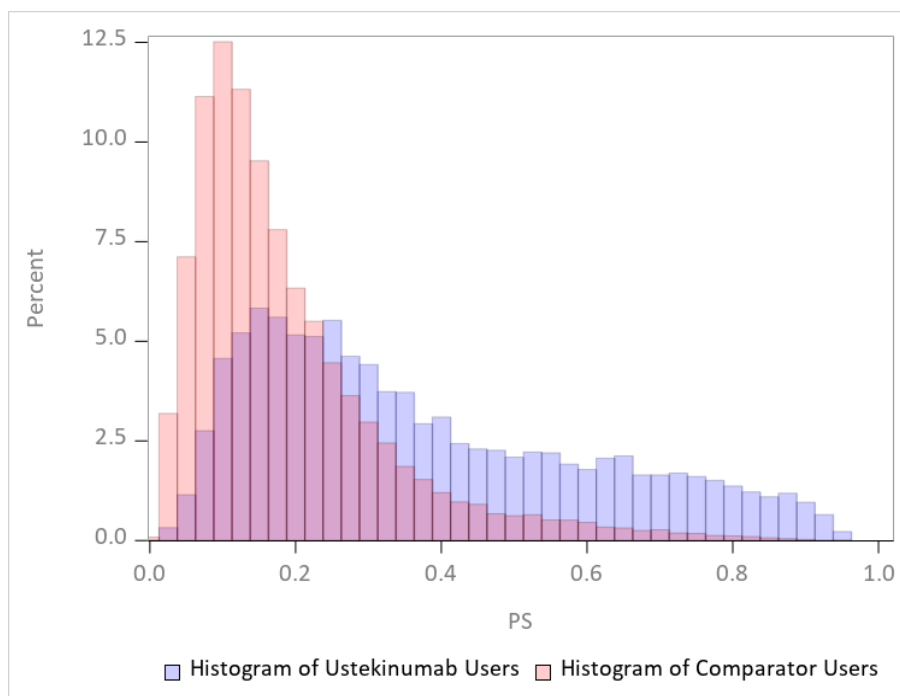


Figure 2. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Acute Meningitis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated(ATT)

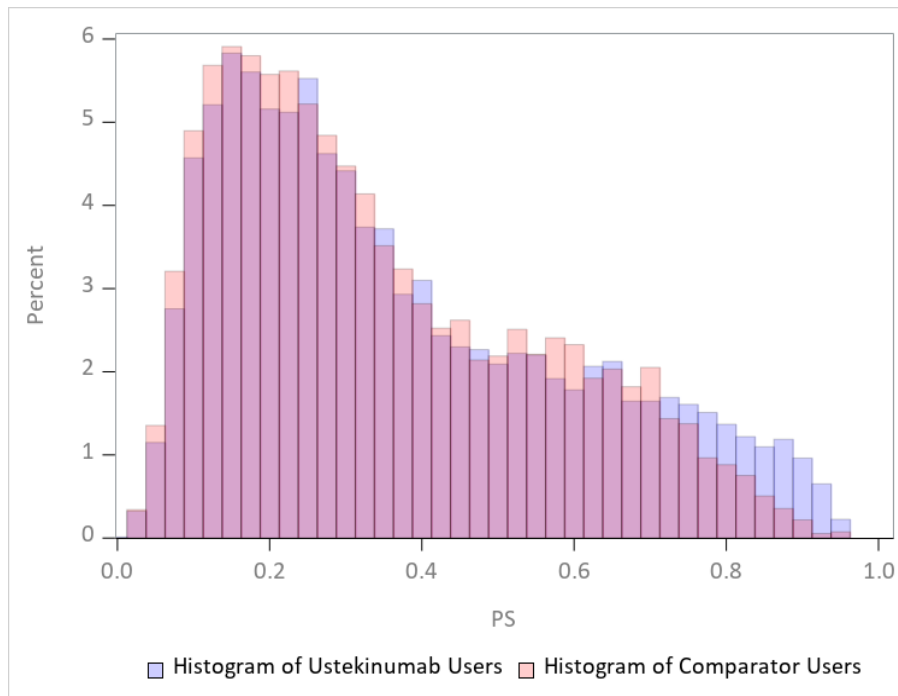


Figure 3. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Gastrointestinal Infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

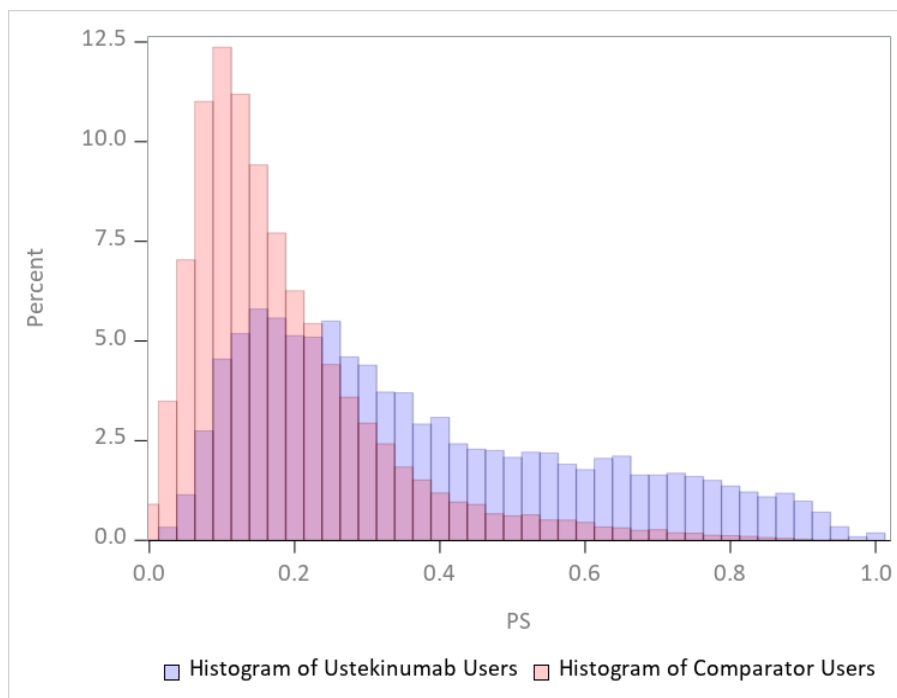


Figure 3. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Gastrointestinal Infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

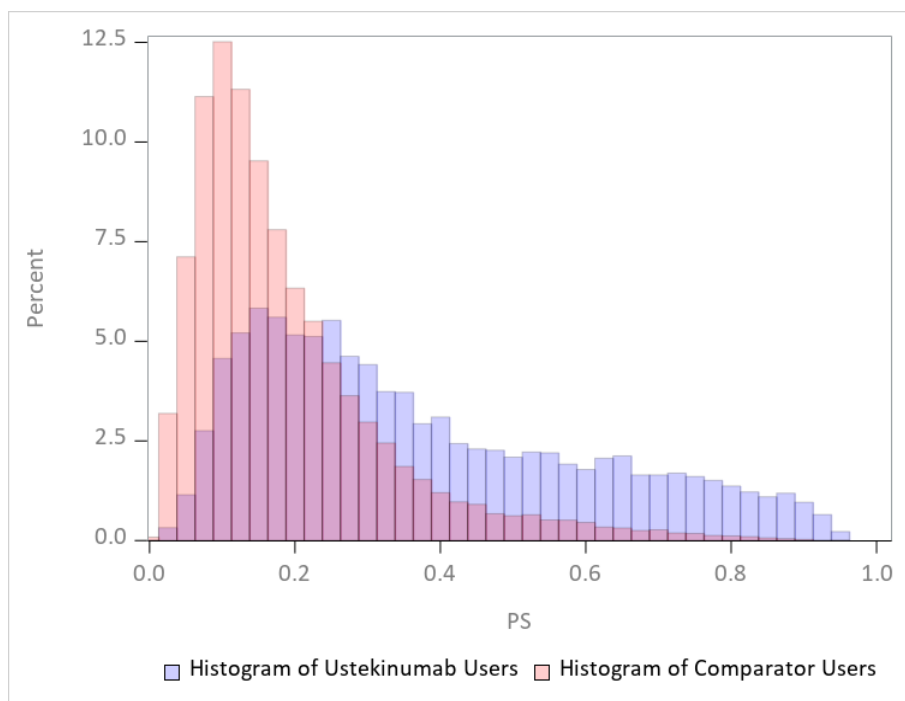


Figure 3. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Gastrointestinal Infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

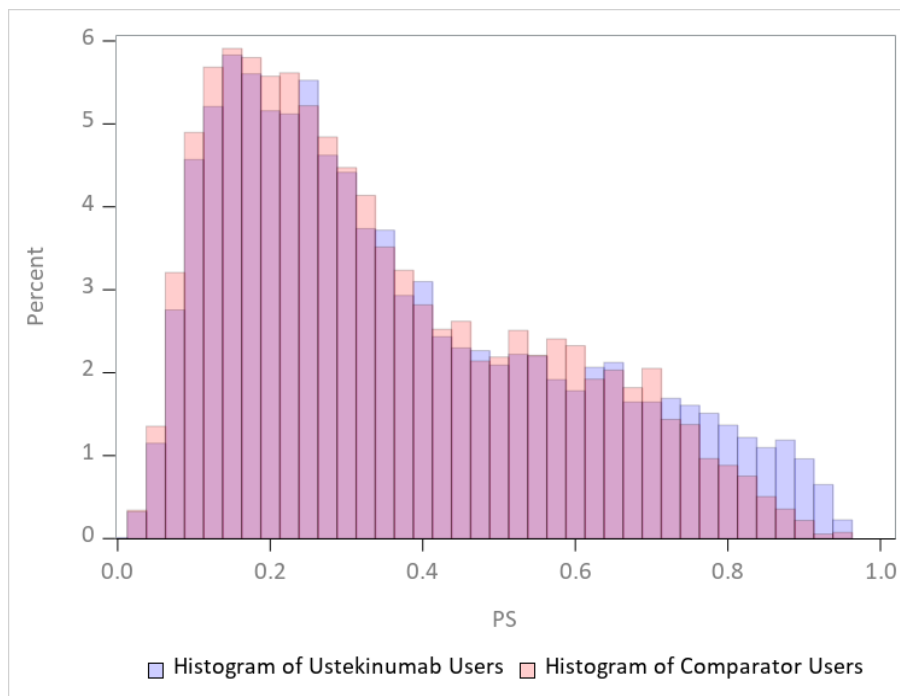


Figure 4. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Pylonephritis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

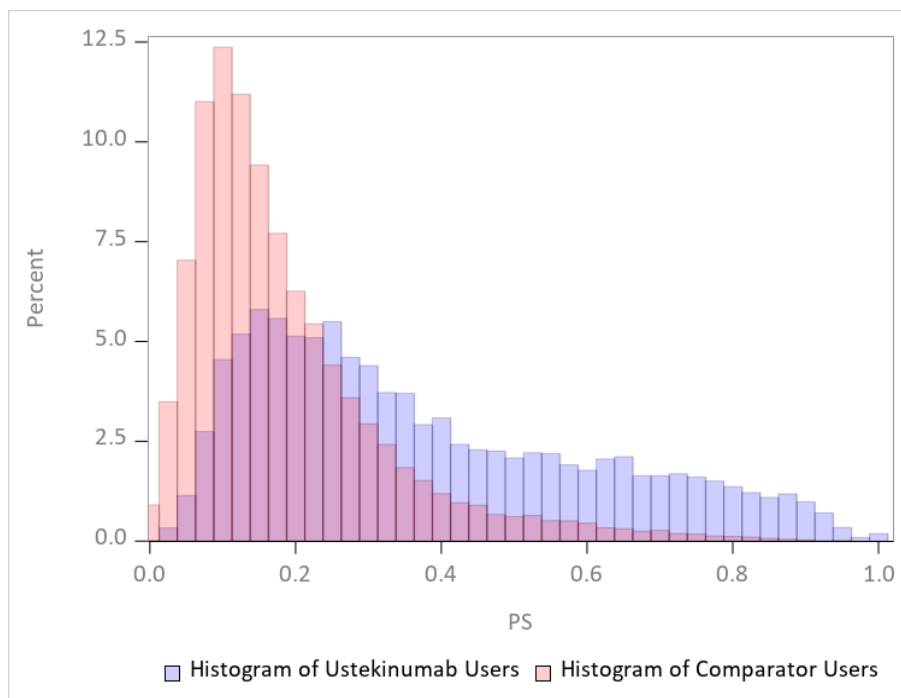


Figure 4. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Pylonephritis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

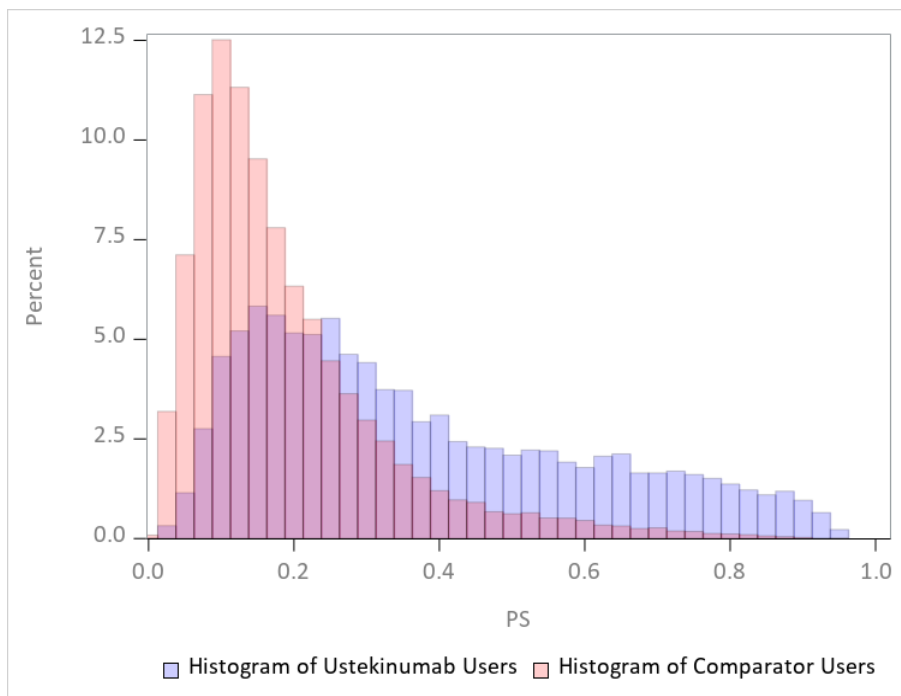


Figure 4. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Pylonephritis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

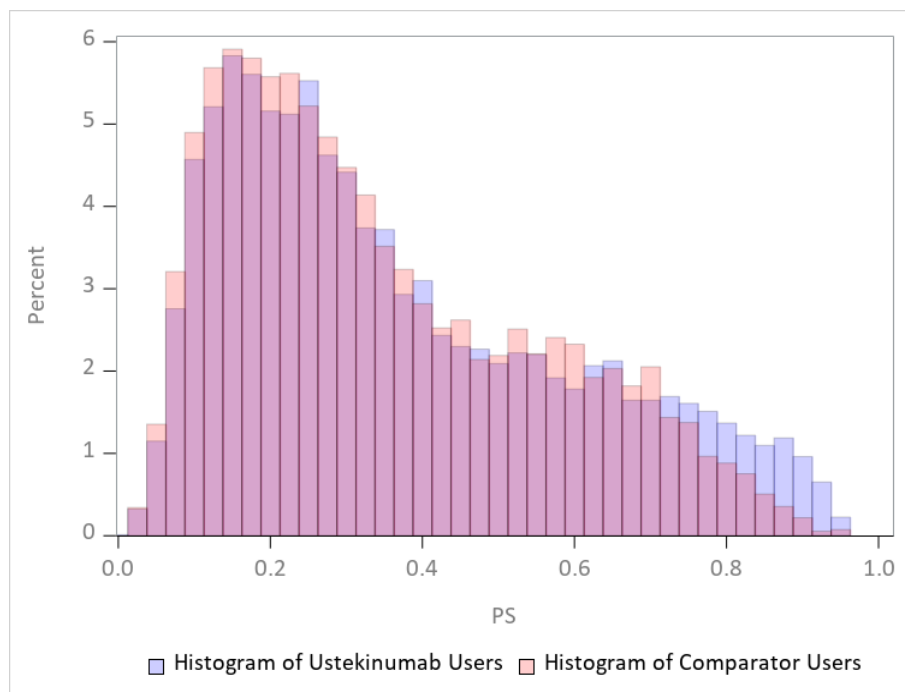


Figure 5. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Pneumonia, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

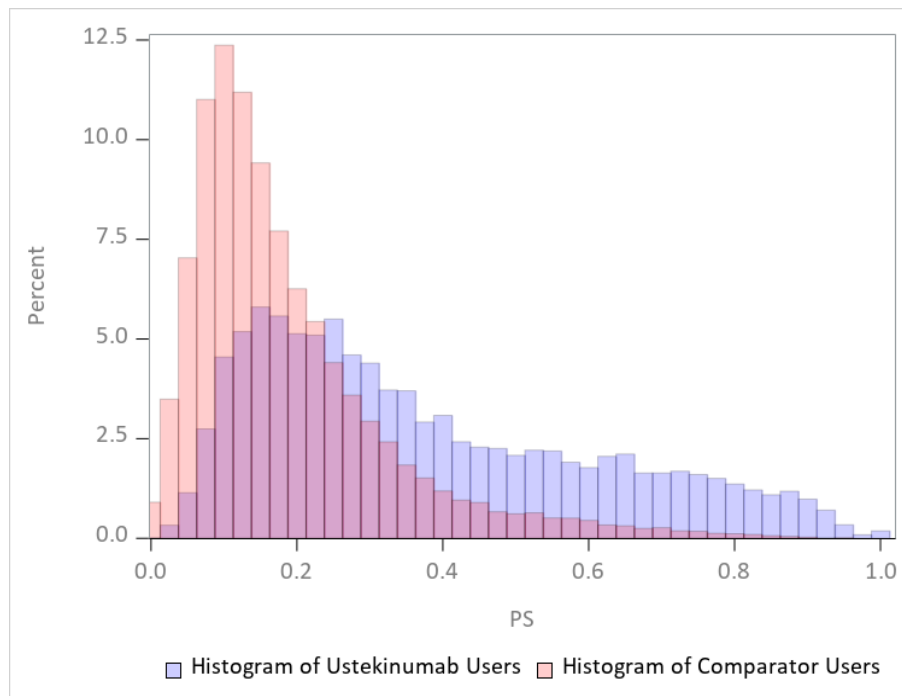


Figure 5. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Pneumonia, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

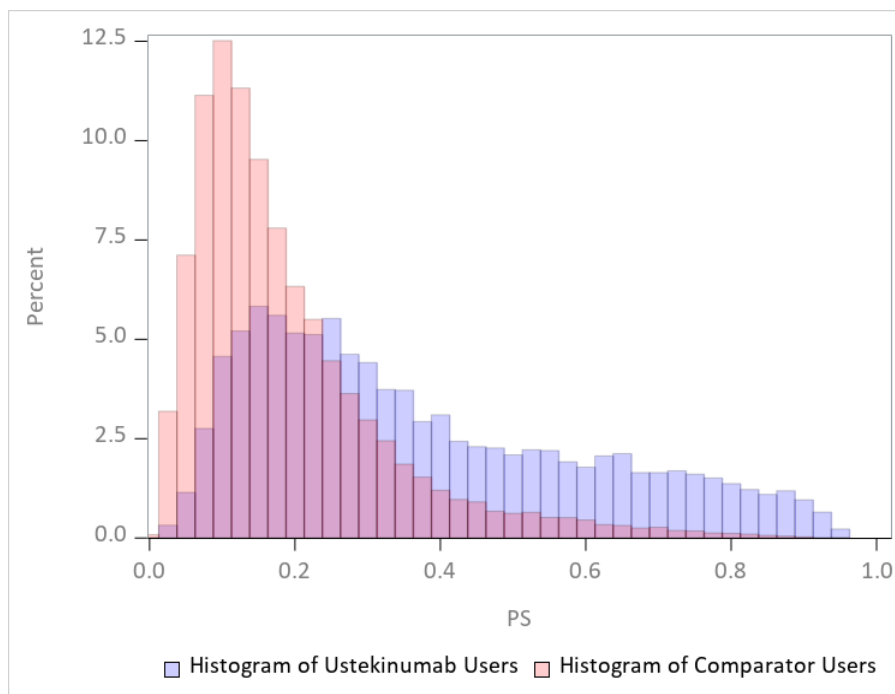


Figure 5. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Pneumonia, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

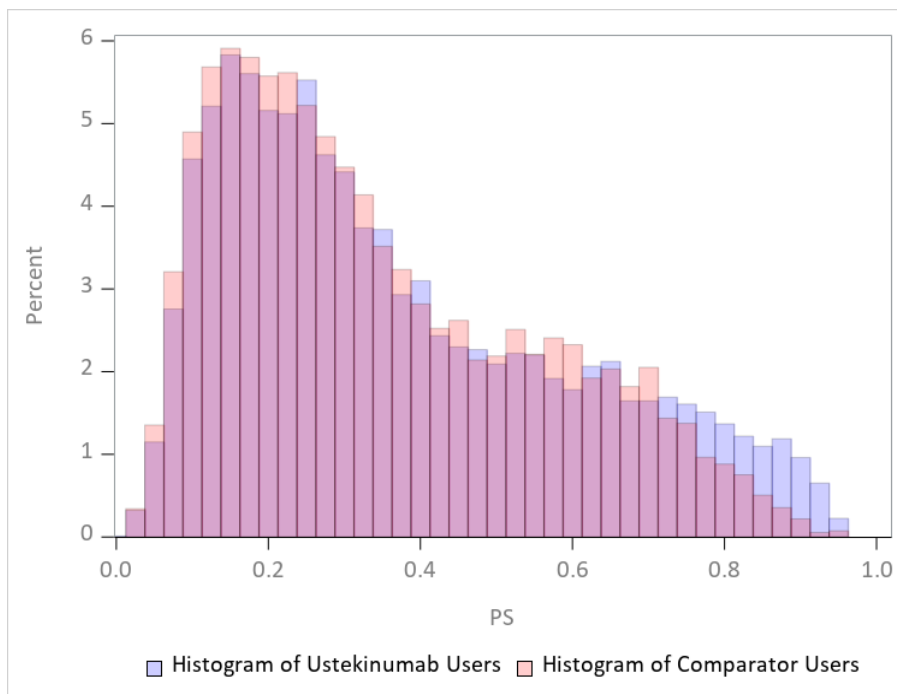


Figure 6. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Acute Osteomyelitis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

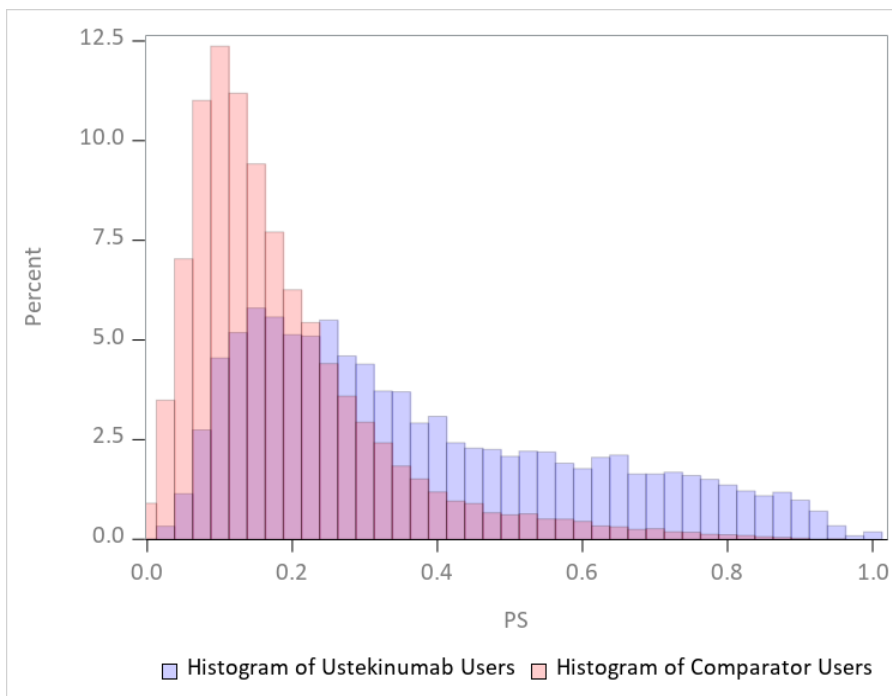


Figure 6. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Acute Osteomyelitis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

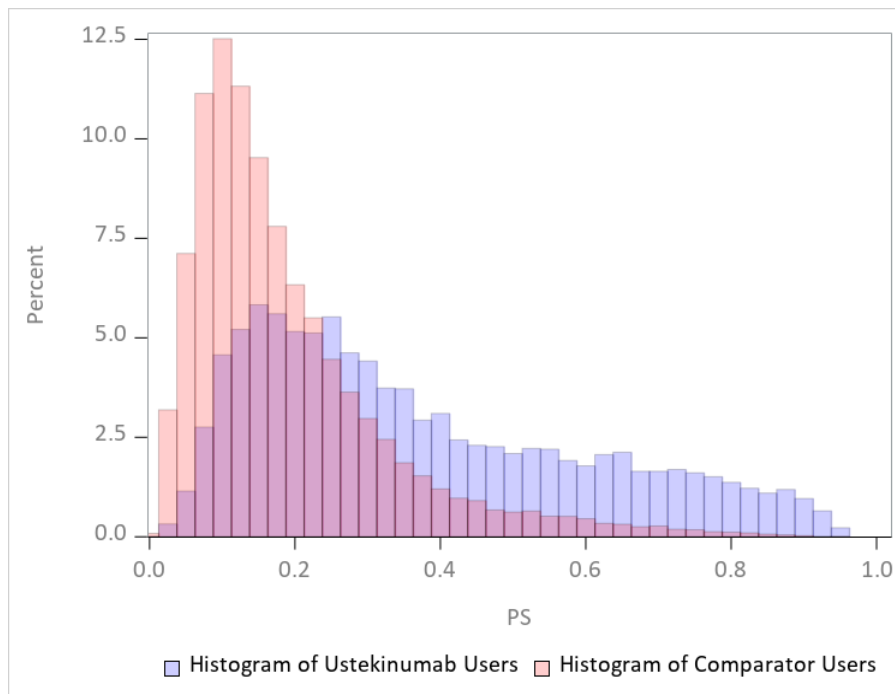


Figure 6. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Acute Osteomyelitis, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

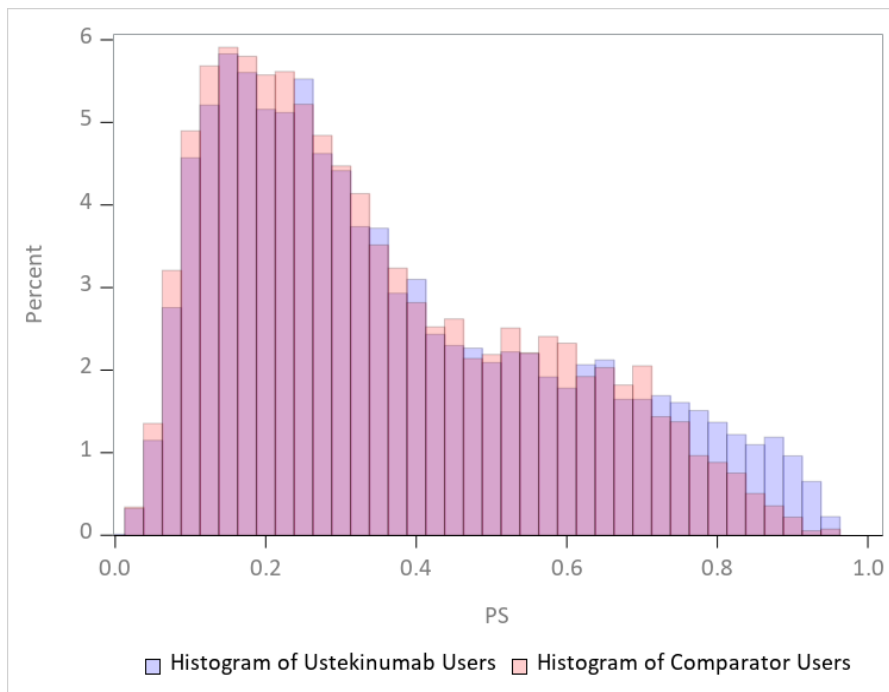


Figure 7. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Bacteremia, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

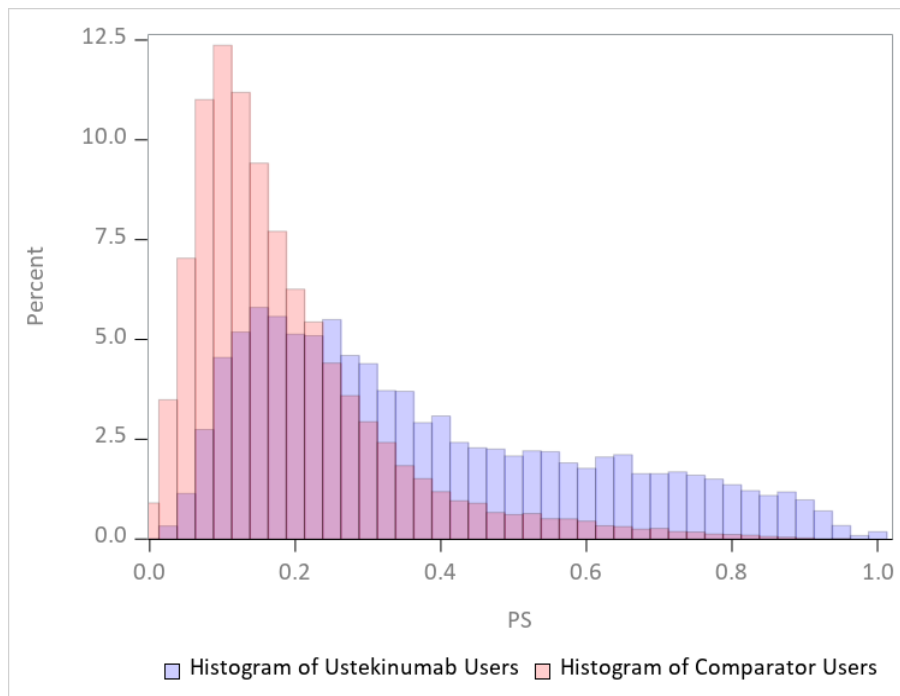


Figure 7. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Bacteremia, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

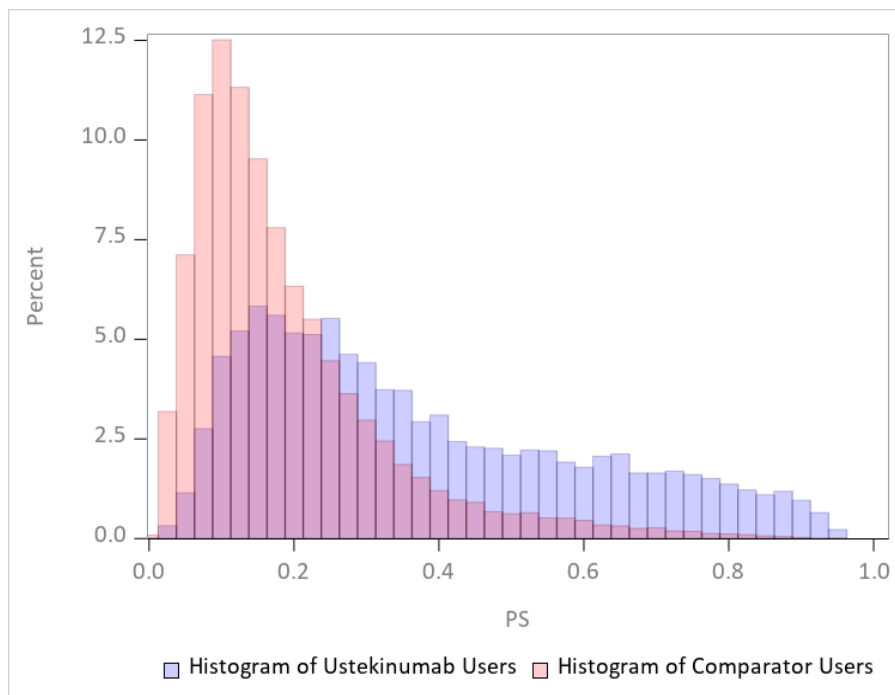


Figure 7. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Bacteremia, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

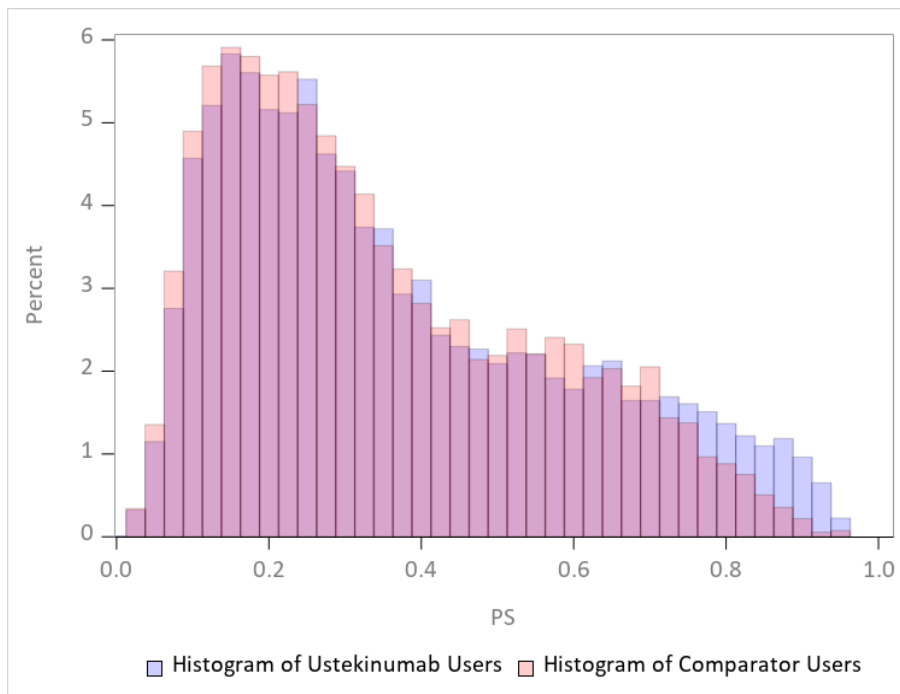


Figure 8. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Skin/soft Tissue Infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

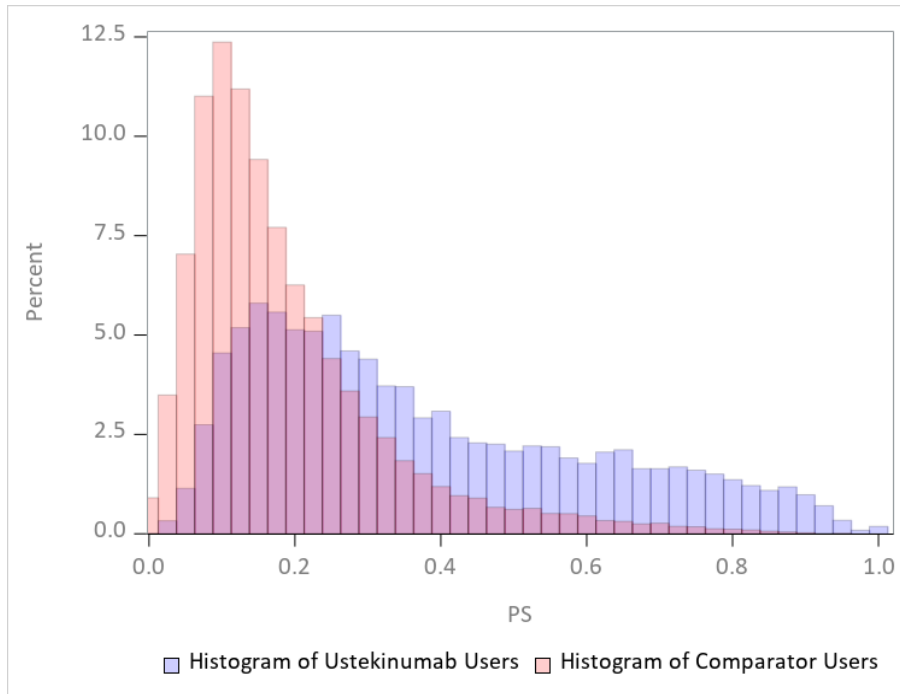


Figure 8. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Skin/soft Tissue Infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

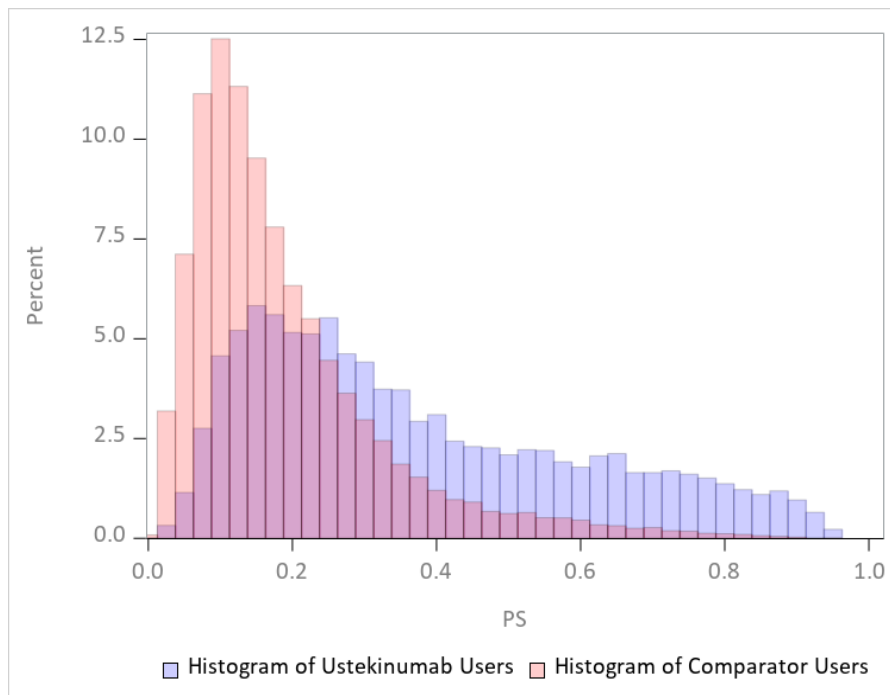


Figure 8. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Skin/soft Tissue Infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

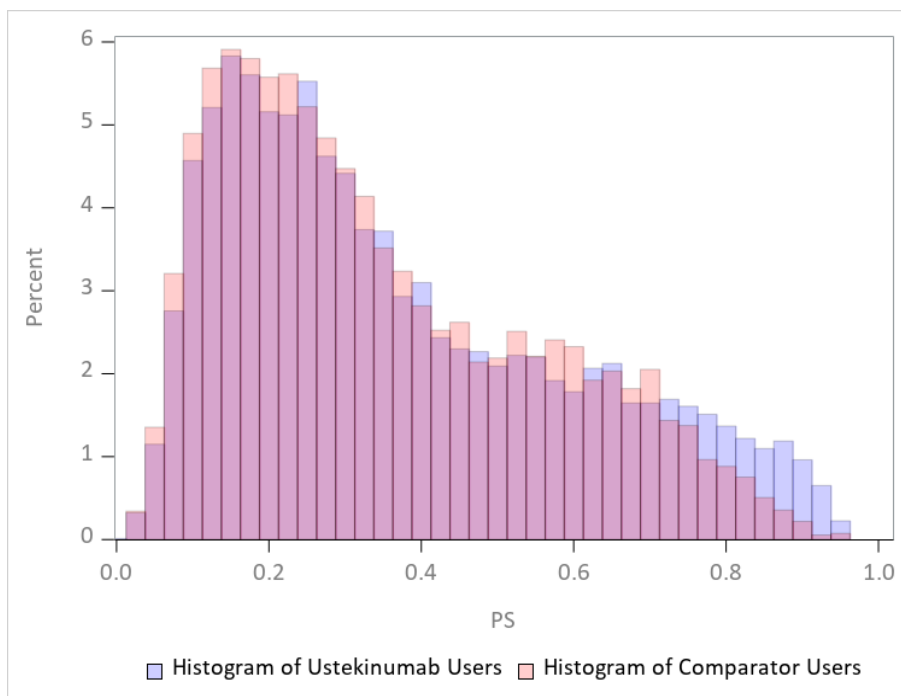


Figure 9. Histograms Depicting Propensity Score Distributions Before and After Adjustment for COVID-19 infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

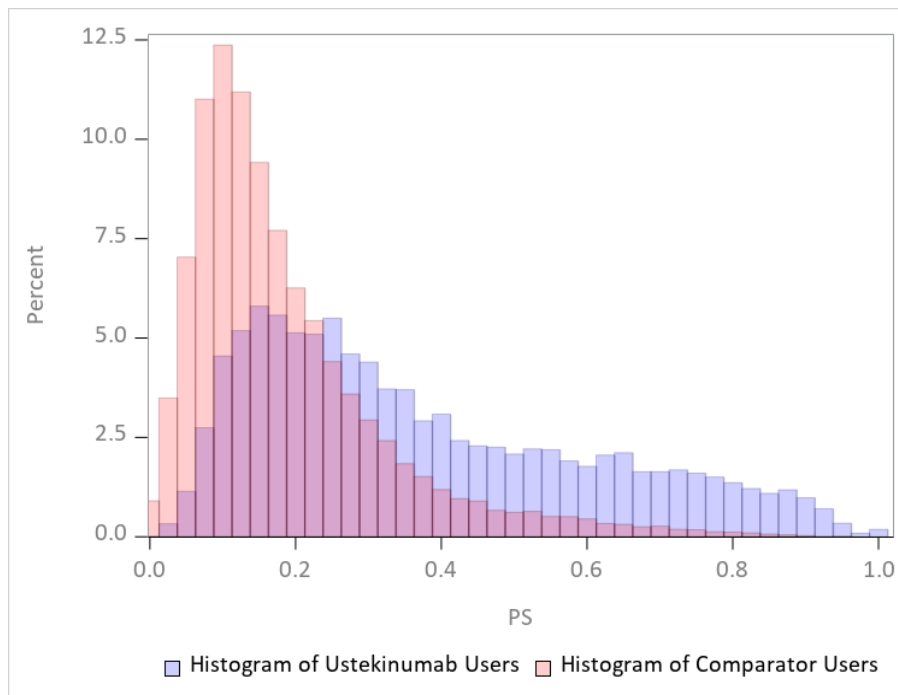


Figure 9. Histograms Depicting Propensity Score Distributions Before and After Adjustment for COVID-19 infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

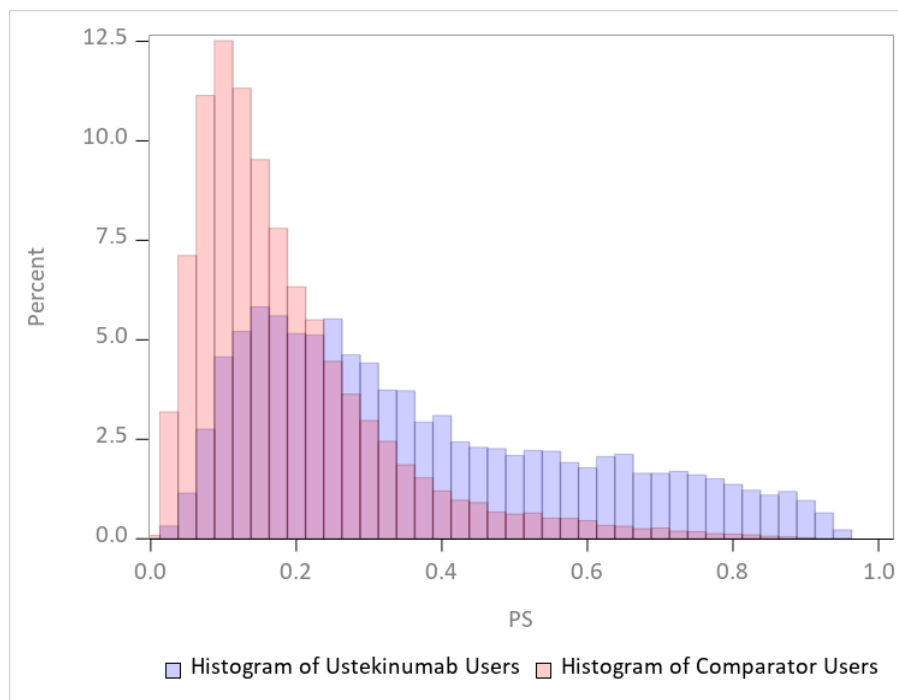


Figure 9. Histograms Depicting Propensity Score Distributions Before and After Adjustment for COVID-19 infection, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

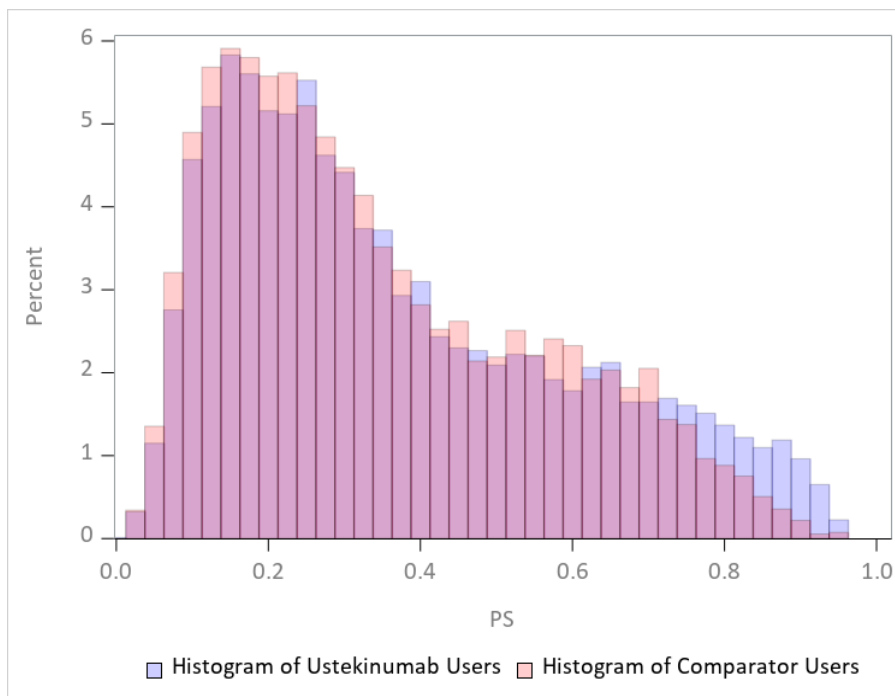


Figure 10. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19 in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05)

Unadjusted Propensity Score Distribution

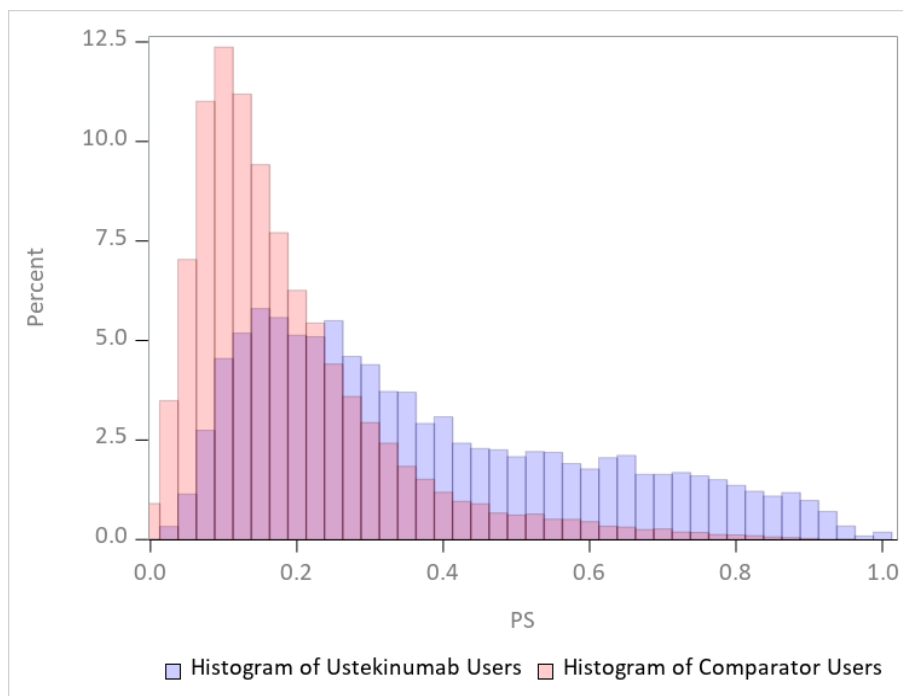


Figure 10. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite or COVID-19 in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05)

Propensity Score Fixed Ratio 1:1 Adjusted Cohort, Matched Caliper = 0.05

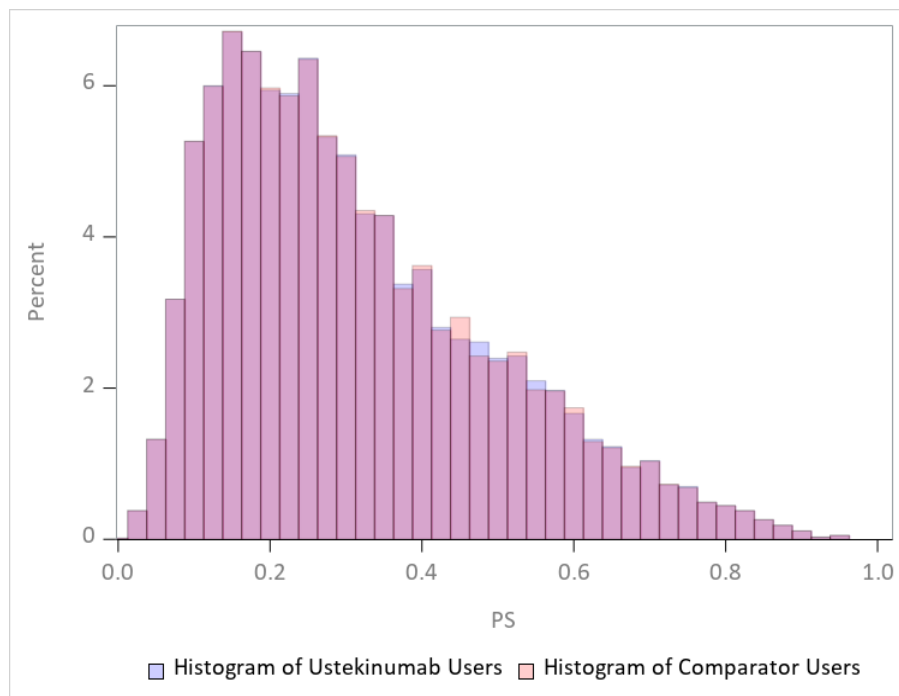


Figure 11. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

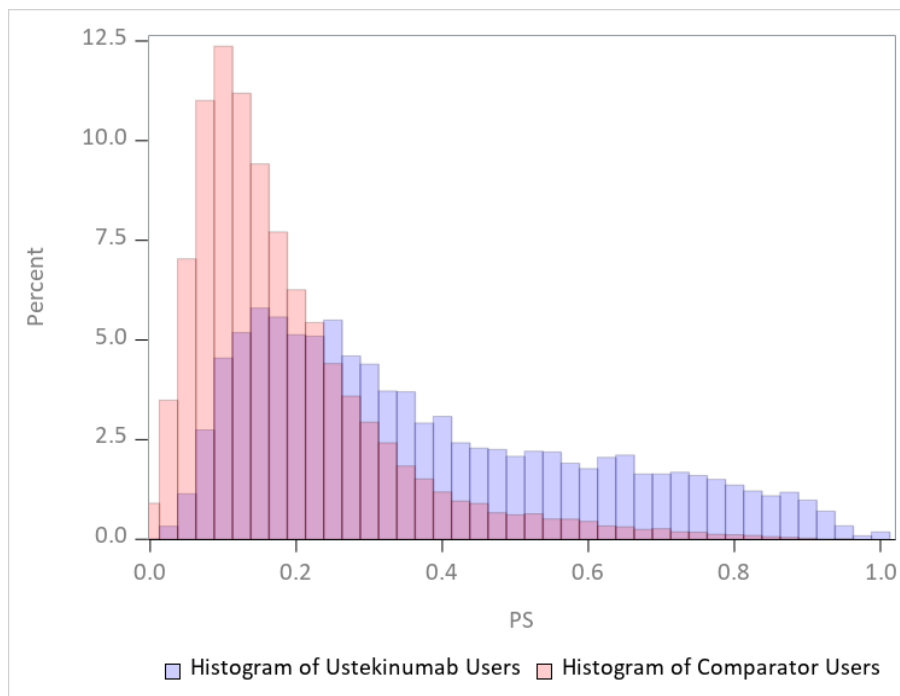


Figure 11. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

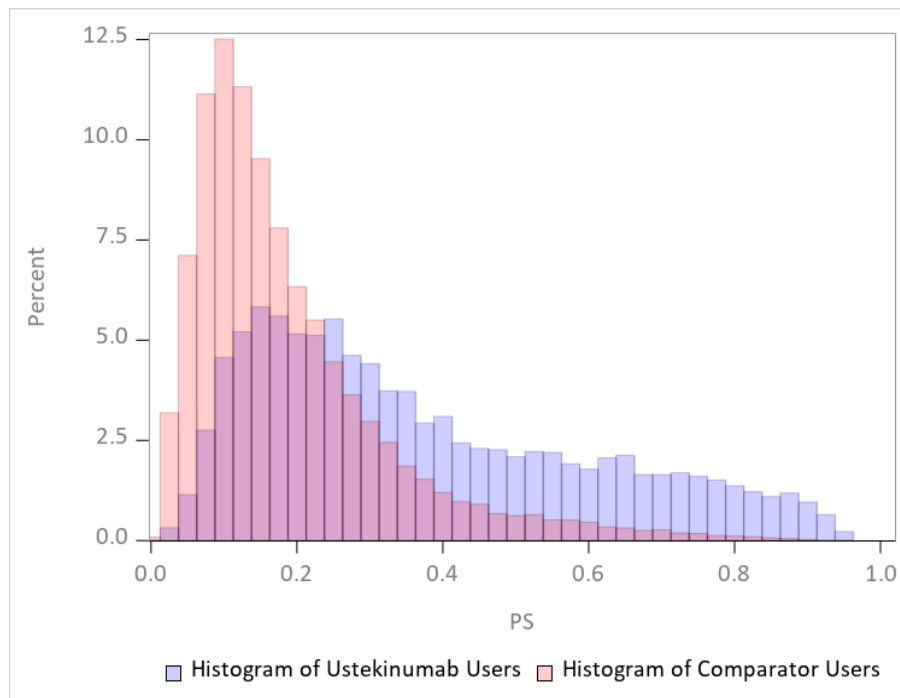


Figure 11. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite, with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

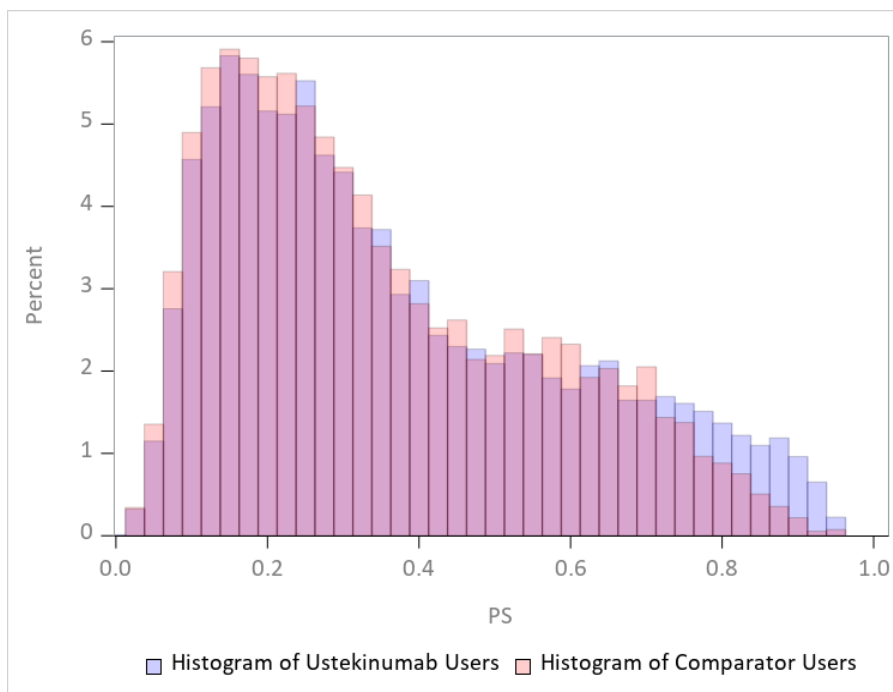


Figure 12. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite (pre-April 1, 2020), with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020

Unweighted Propensity Score Distribution Before Trimming

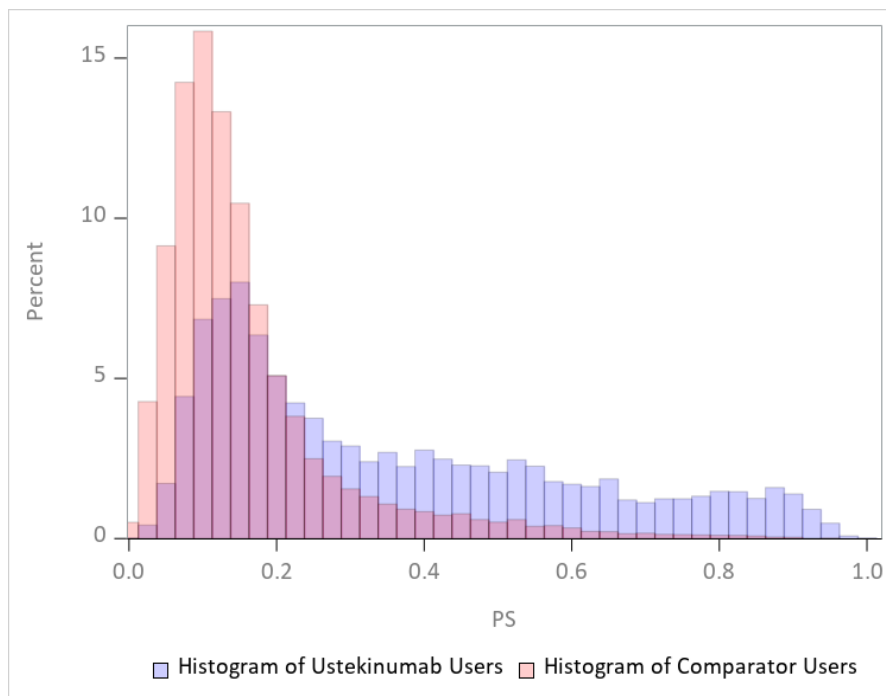


Figure 12. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite (pre-April 1, 2020), with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020

Unweighted Propensity Score Distribution After Trimming

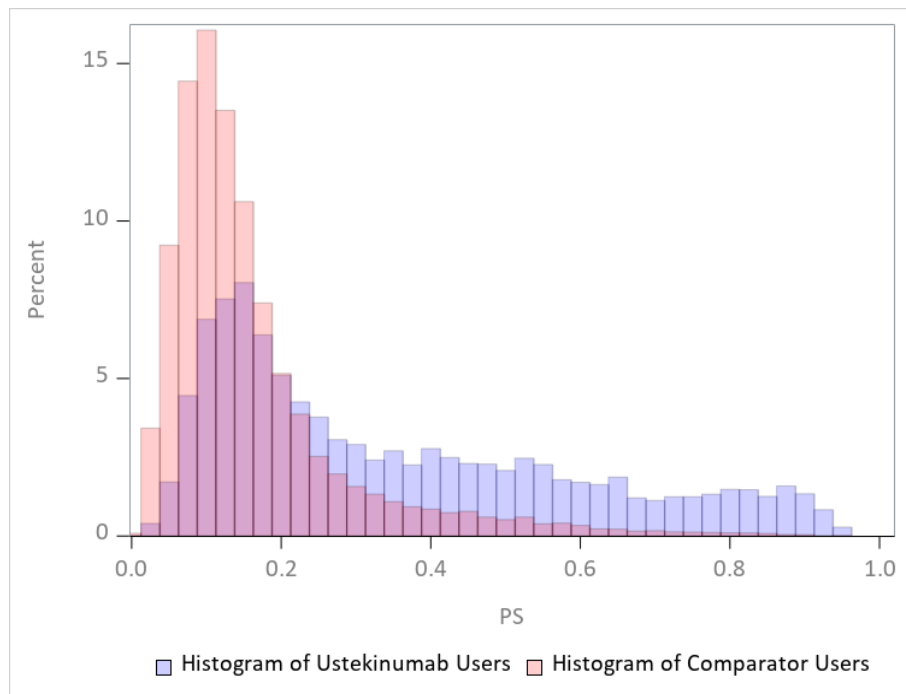


Figure 12. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite (pre-April 1, 2020), with 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

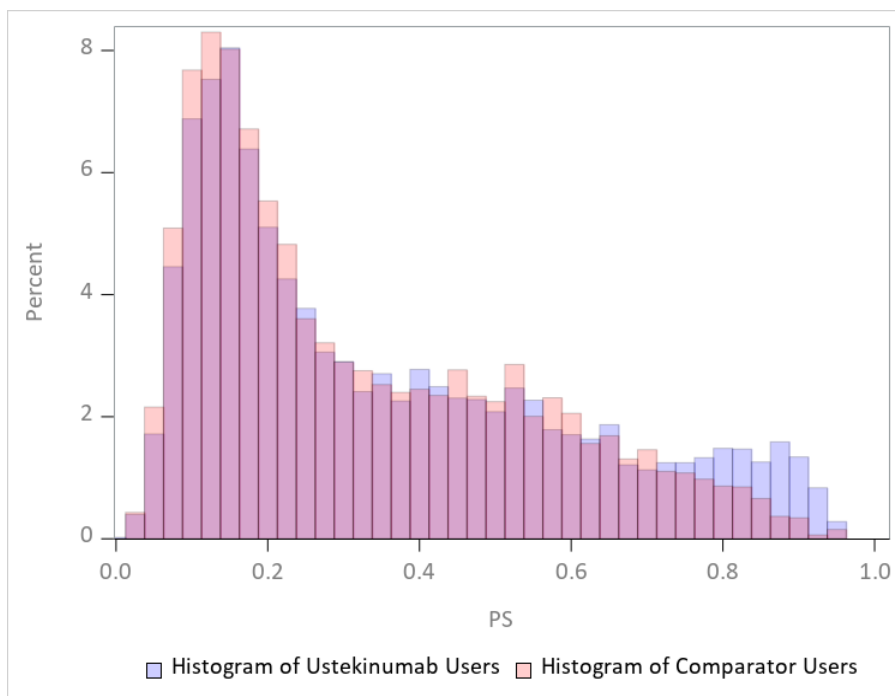


Figure 13. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite (post-April 1, 2020), with 1% Weight Truncation, in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023

Unweighted Propensity Score Distribution Before Trimming

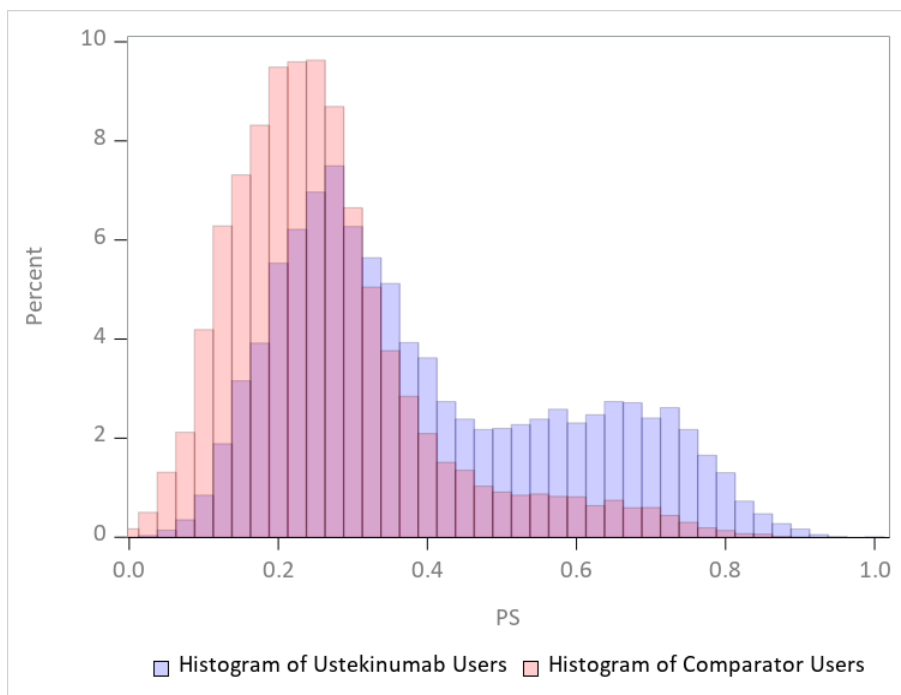


Figure 13. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite (post-April 1, 2020), with 1% Weight Truncation, in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023

Unweighted Propensity Score Distribution After Trimming

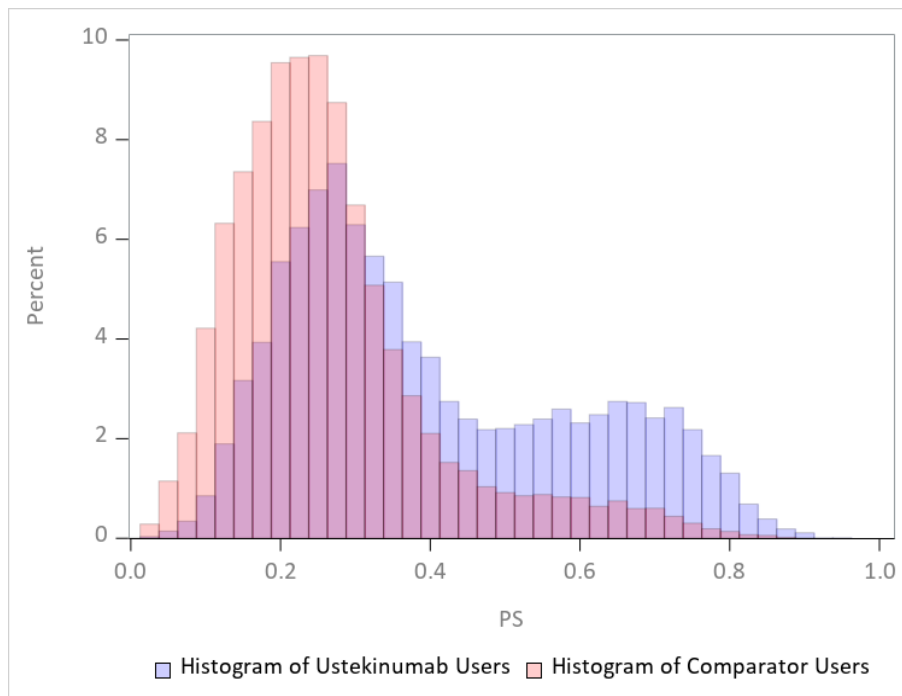


Figure 13. Histograms Depicting Propensity Score Distributions Before and After Adjustment for Serious Infection Composite (post-April 1, 2020), with 1% Weight Truncation, in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023

Weighted Propensity Score Distribution After Trimming, Inverse Probability of Treatment Weighted, Average Treatment Effect in the Treated (ATT)

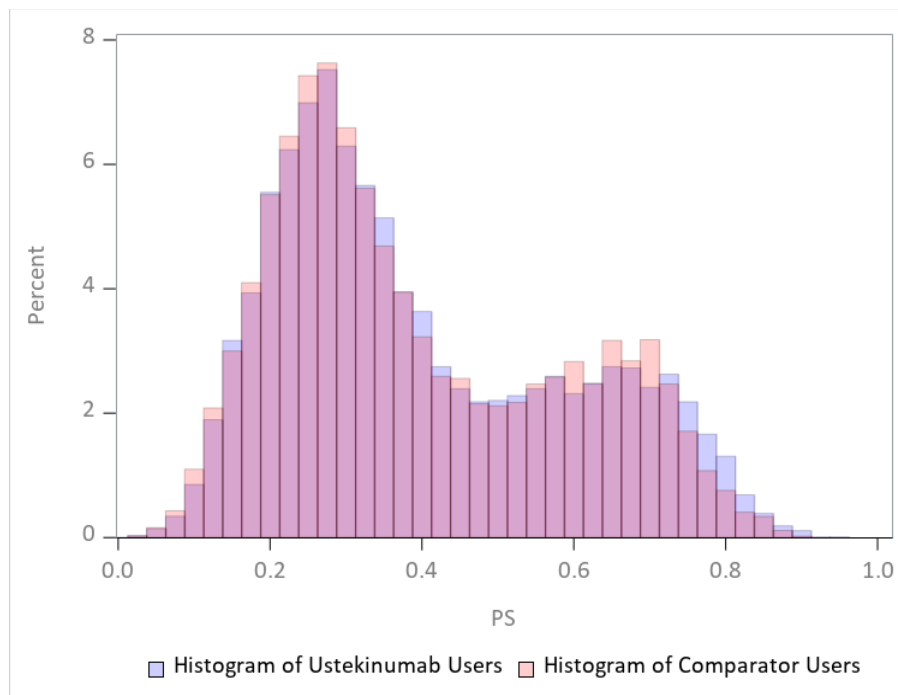


Figure 14a. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Site-Adjusted Analyses in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023

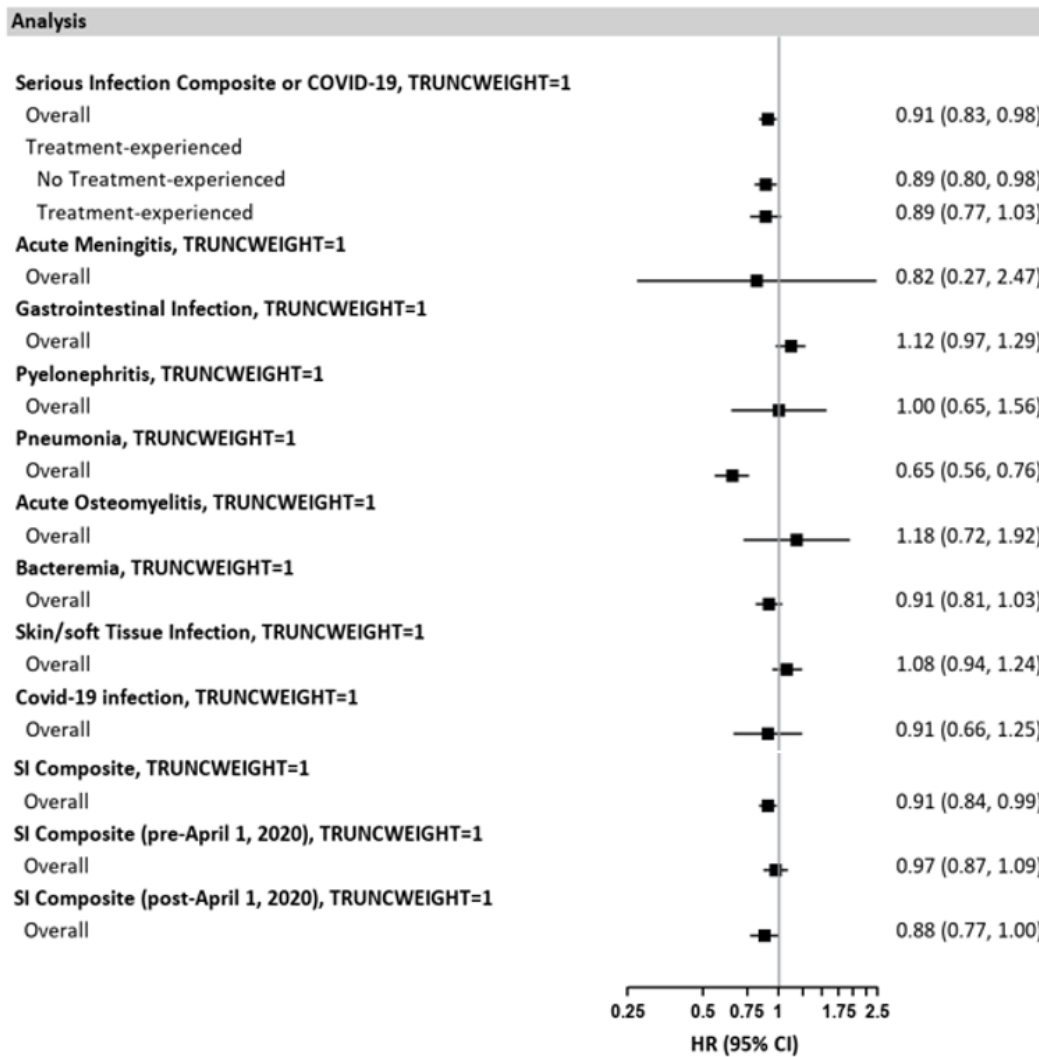
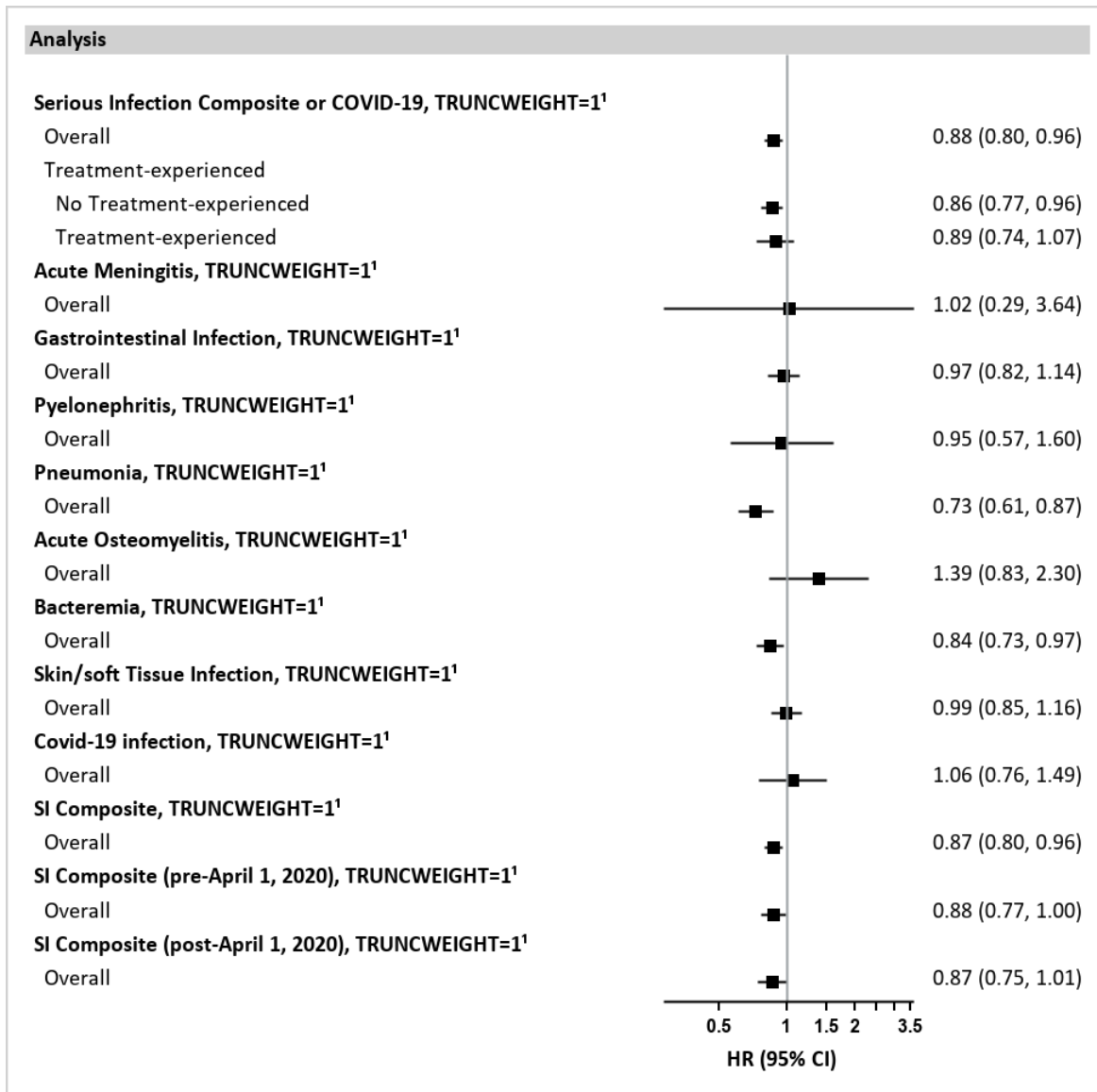
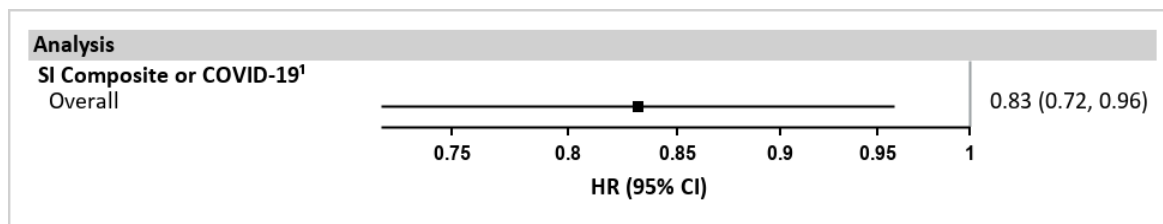


Figure 14b. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Inverse Probability of Treatment Weighted Analyses in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



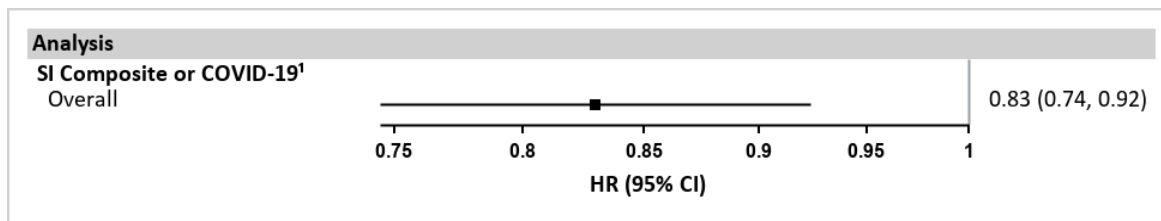
¹Weighted using Average Treatment Effect in the Treated, (ATT)

Figure 14c. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Propensity Score Matched Conditional Analyses in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



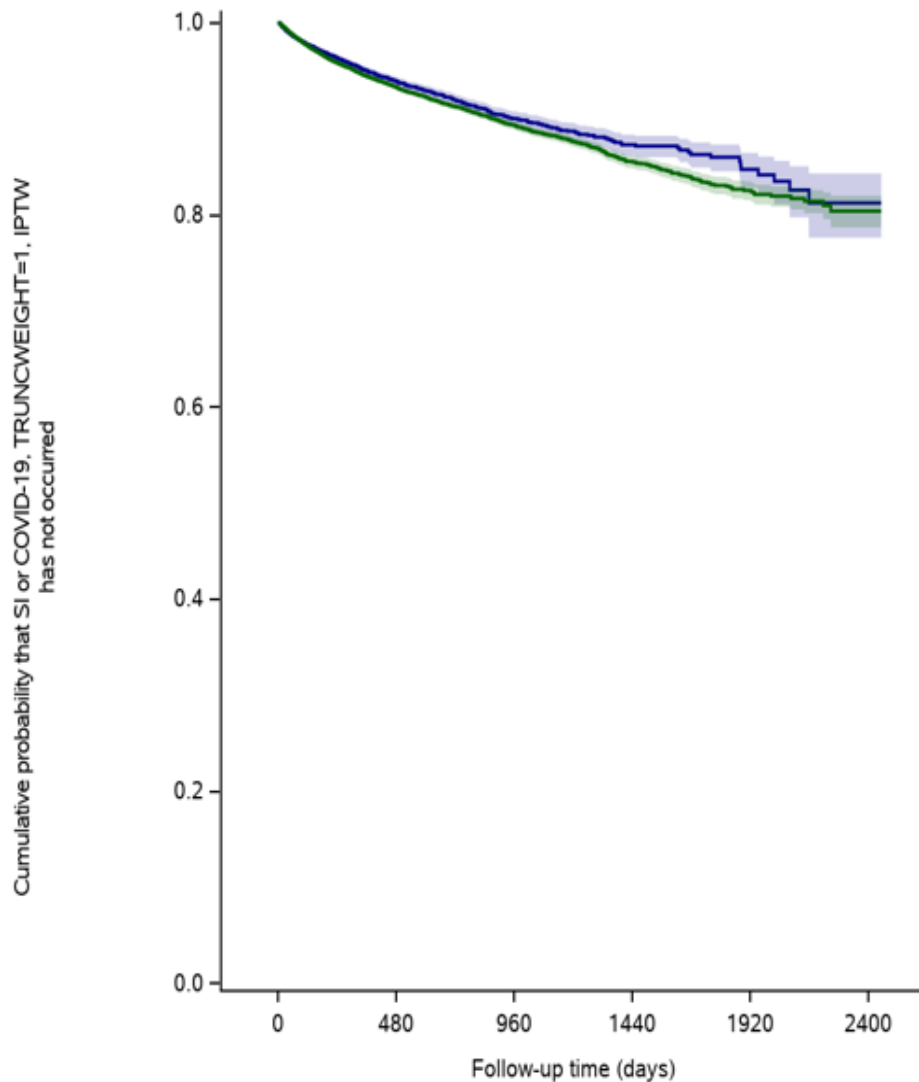
¹Fixed Ratio 1:1 Propensity Score Matched Conditional Analysis; Caliper=0.05

Figure 14d. Forest Plot of Hazard Ratios (HR) and 95% Confidence Intervals (CI) for Propensity Score Matched Unconditional Analyses in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



¹Fixed Ratio 1:1 Propensity Score Matched Unconditional Analysis; Caliper=0.05

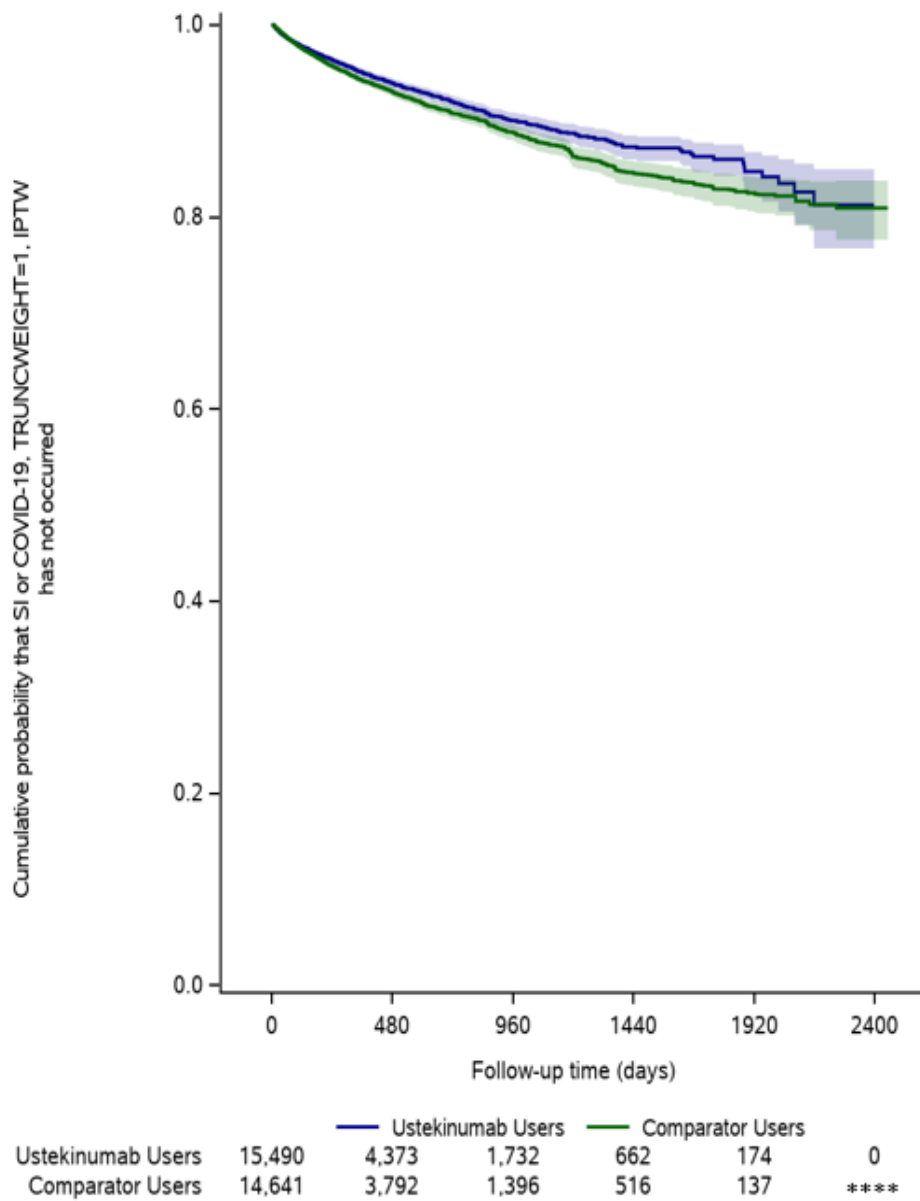
Figure 15a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection Composite or COVID-19, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



	Ustekinumab Users	Comparator Users
Ustekinumab Users	15,565	52,109
Comparator Users	4,389	13,925
	1,737	5,378
	664	2,135
	172	613
	0	****

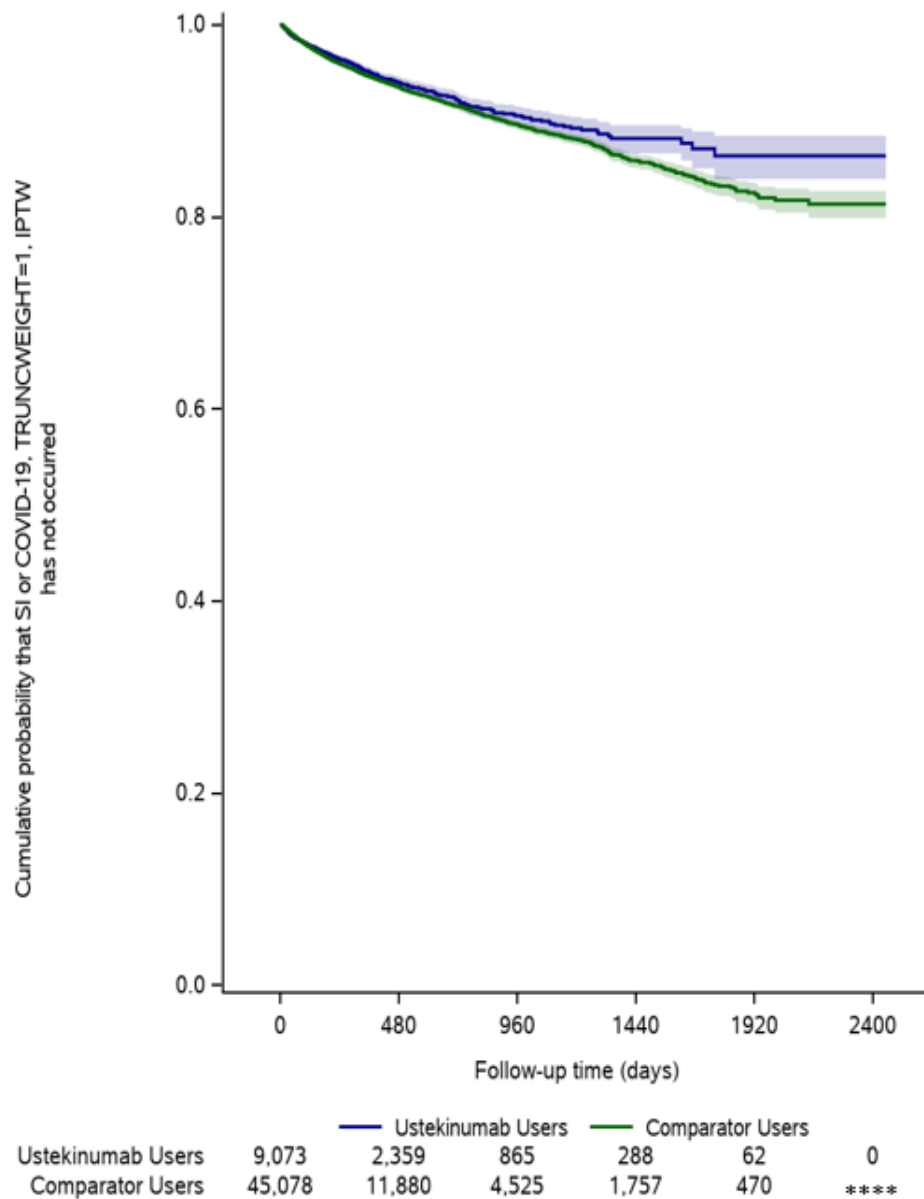
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 15b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection Composite or COVID-19, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population after in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 15c. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection Composite or COVID-19, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 15d. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection Composite or COVID-19, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population after in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, No Treatment-experienced

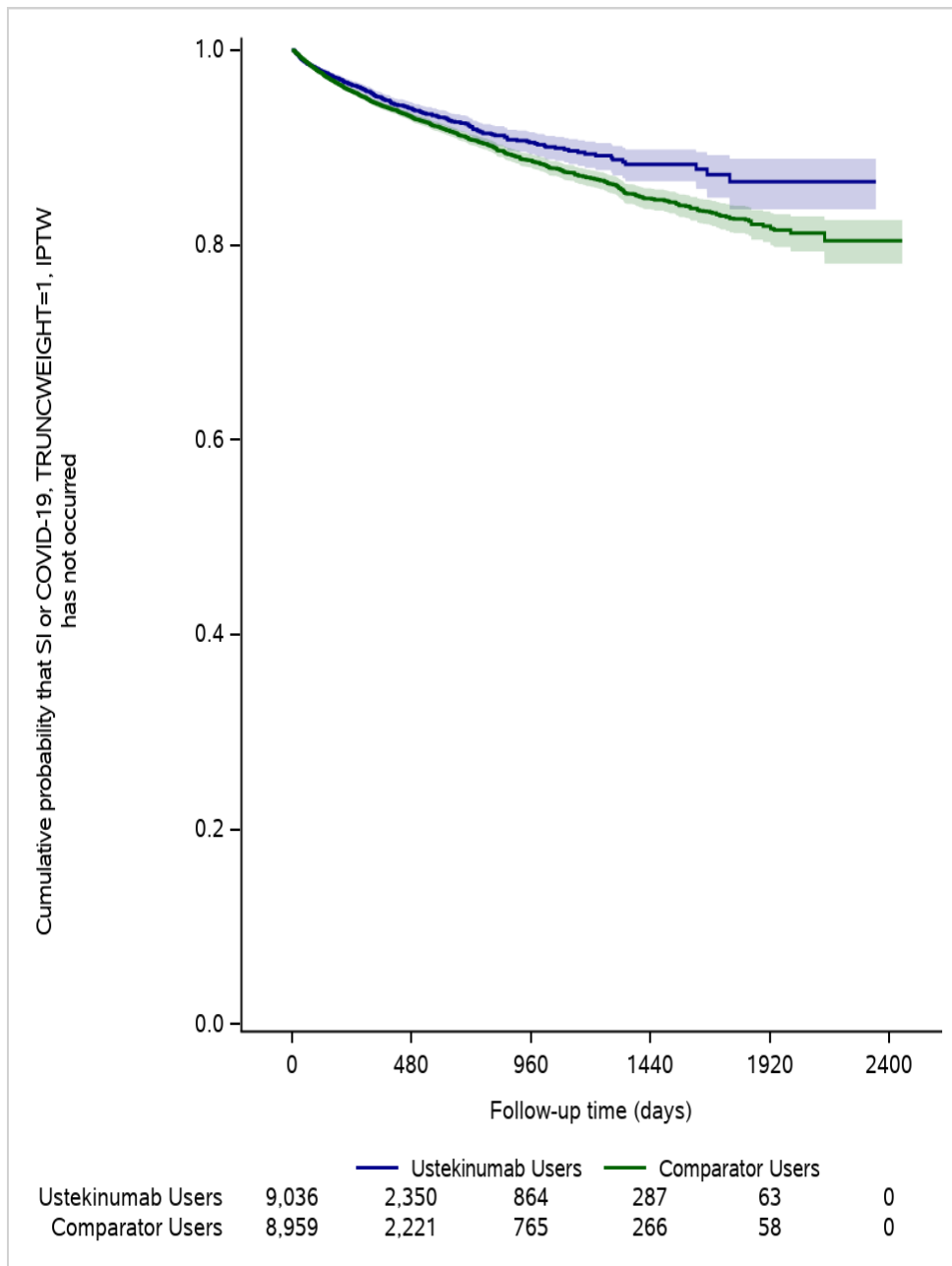
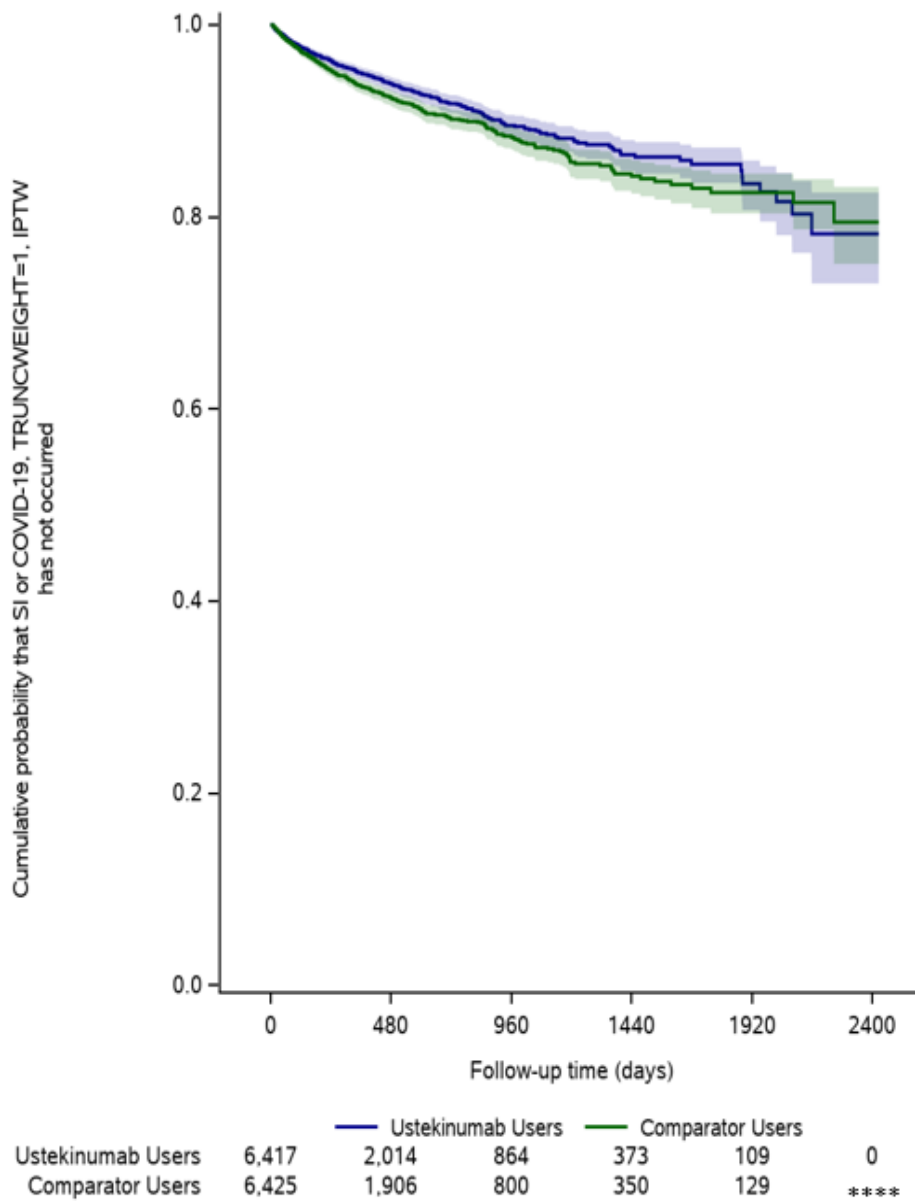
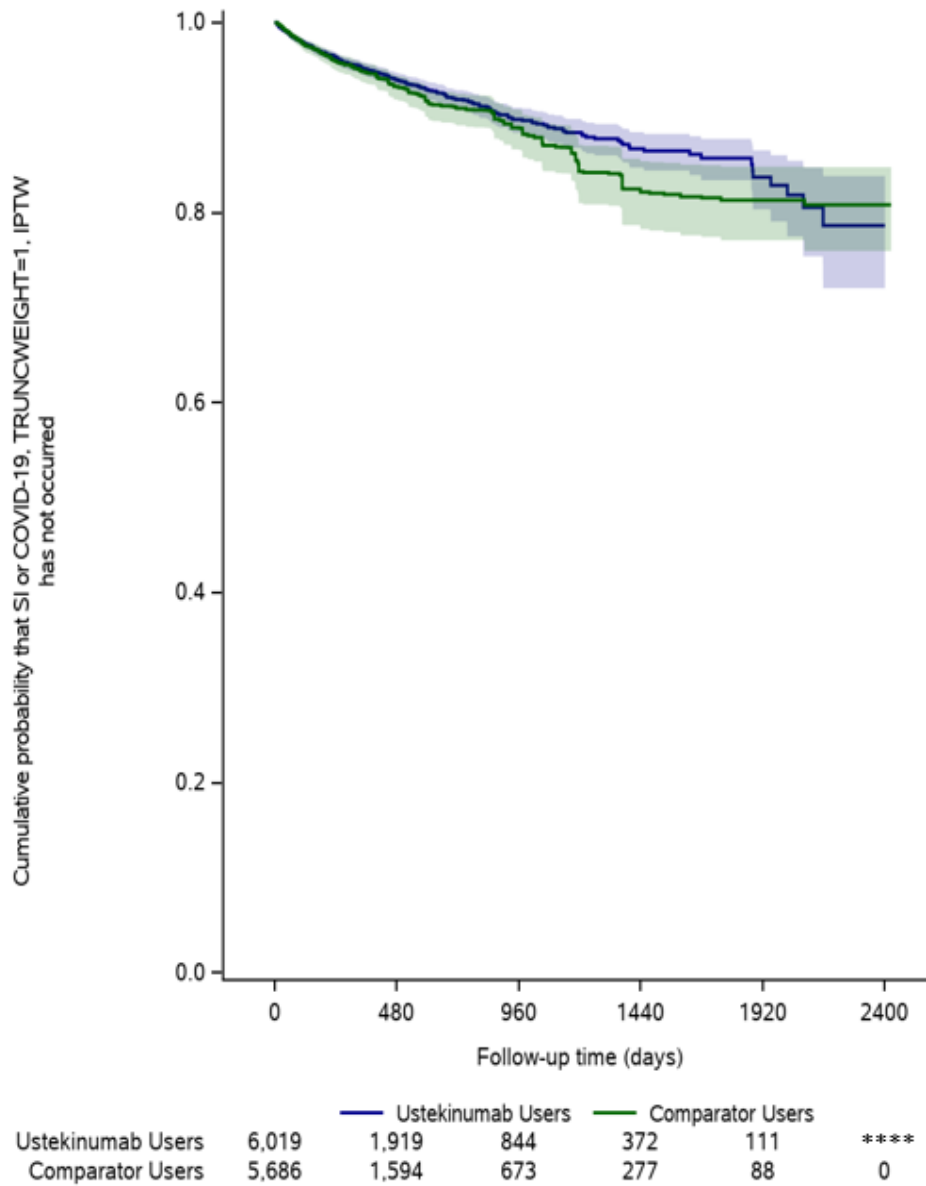


Figure 15e. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection Composite or COVID-19, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced



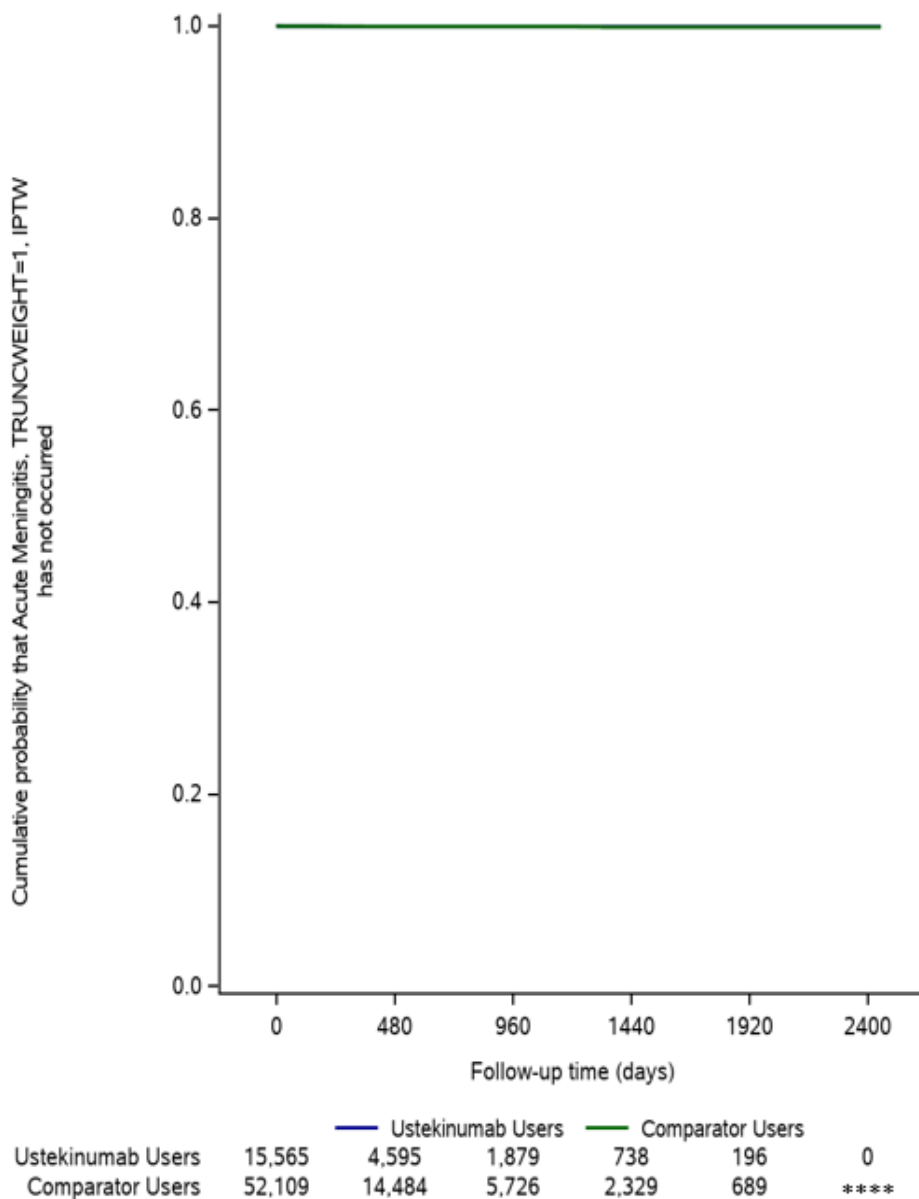
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 15f. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection Composite or COVID-19, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, Treatment-experienced



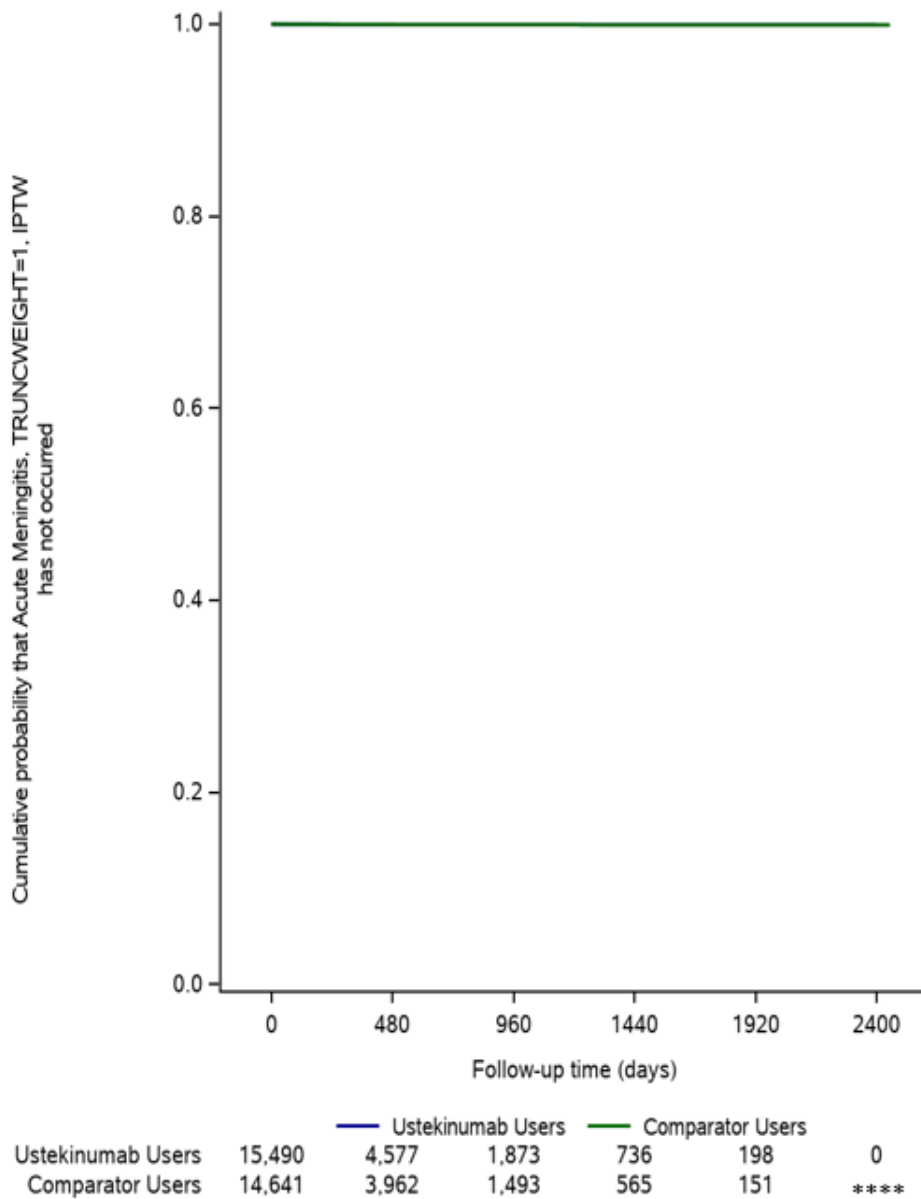
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 16a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Acute Meningitis, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



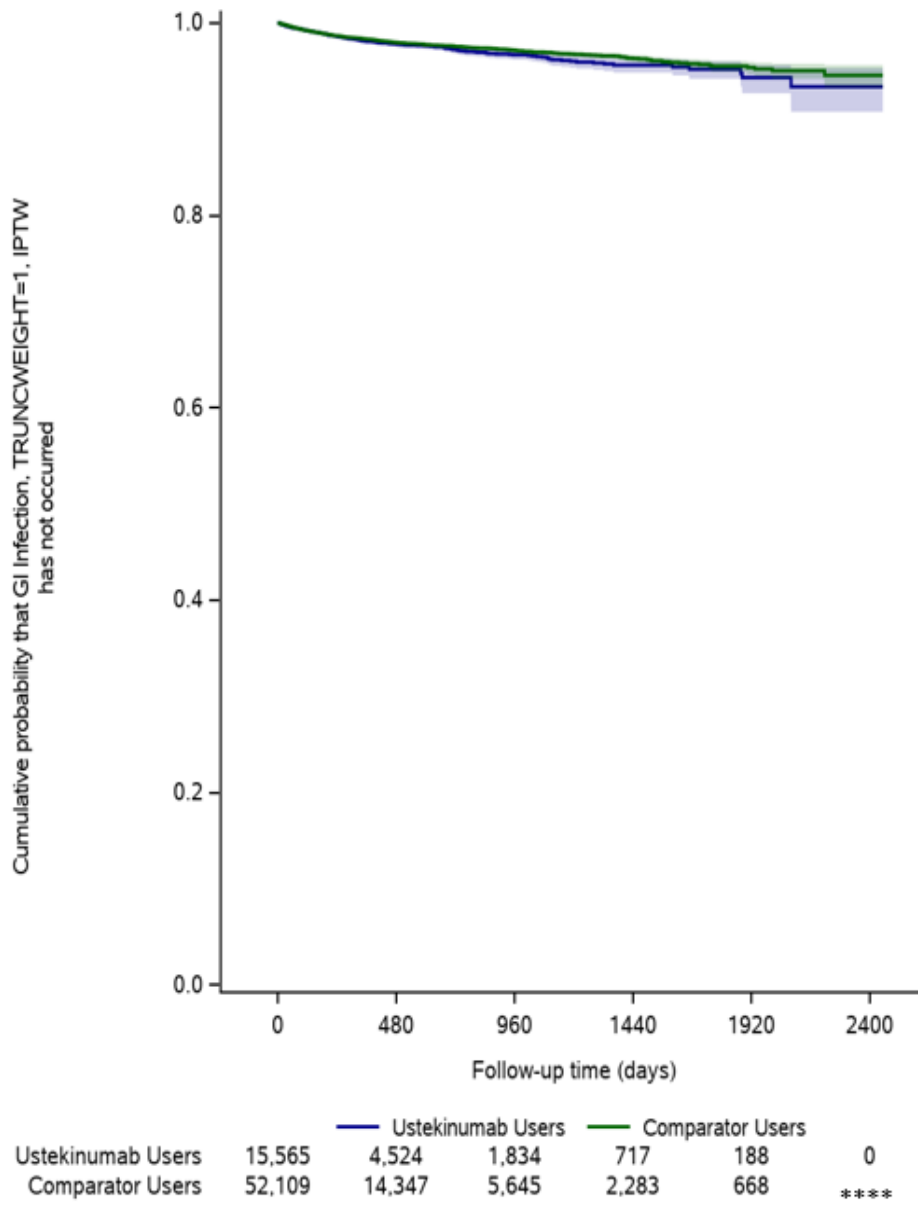
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 16b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Acute Meningitis, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



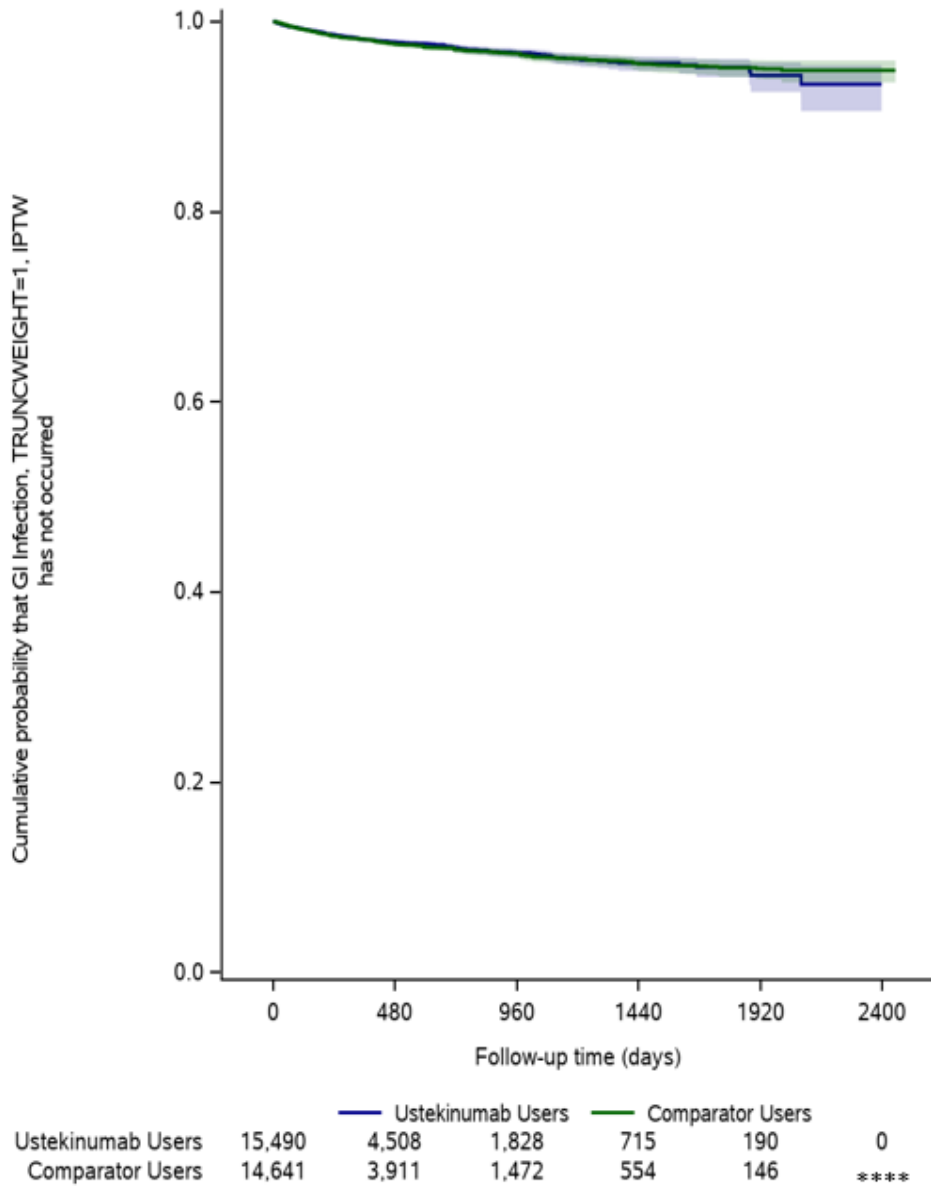
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 17a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Gastrointestinal Infection, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



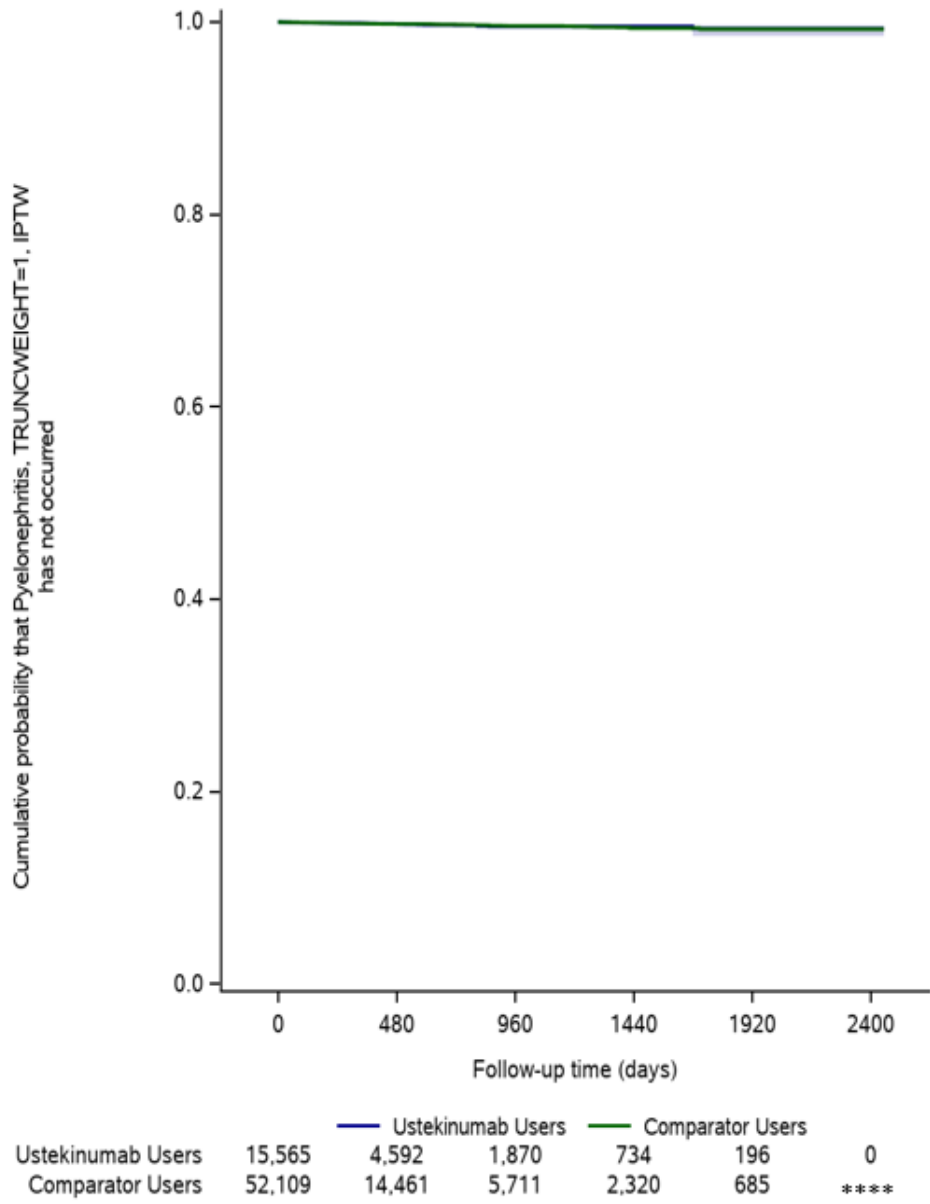
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 17b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Gastrointestinal Infection, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population after in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



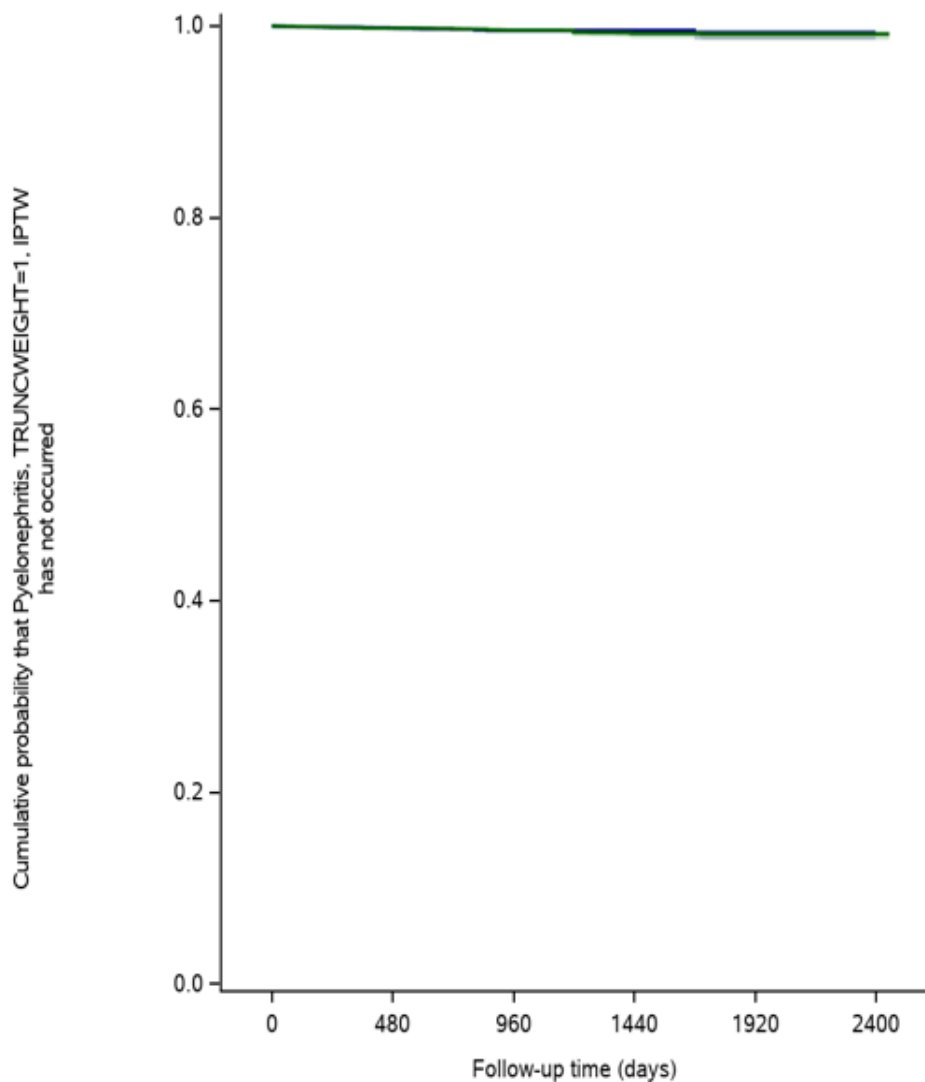
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 18a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Pyelonephritis, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

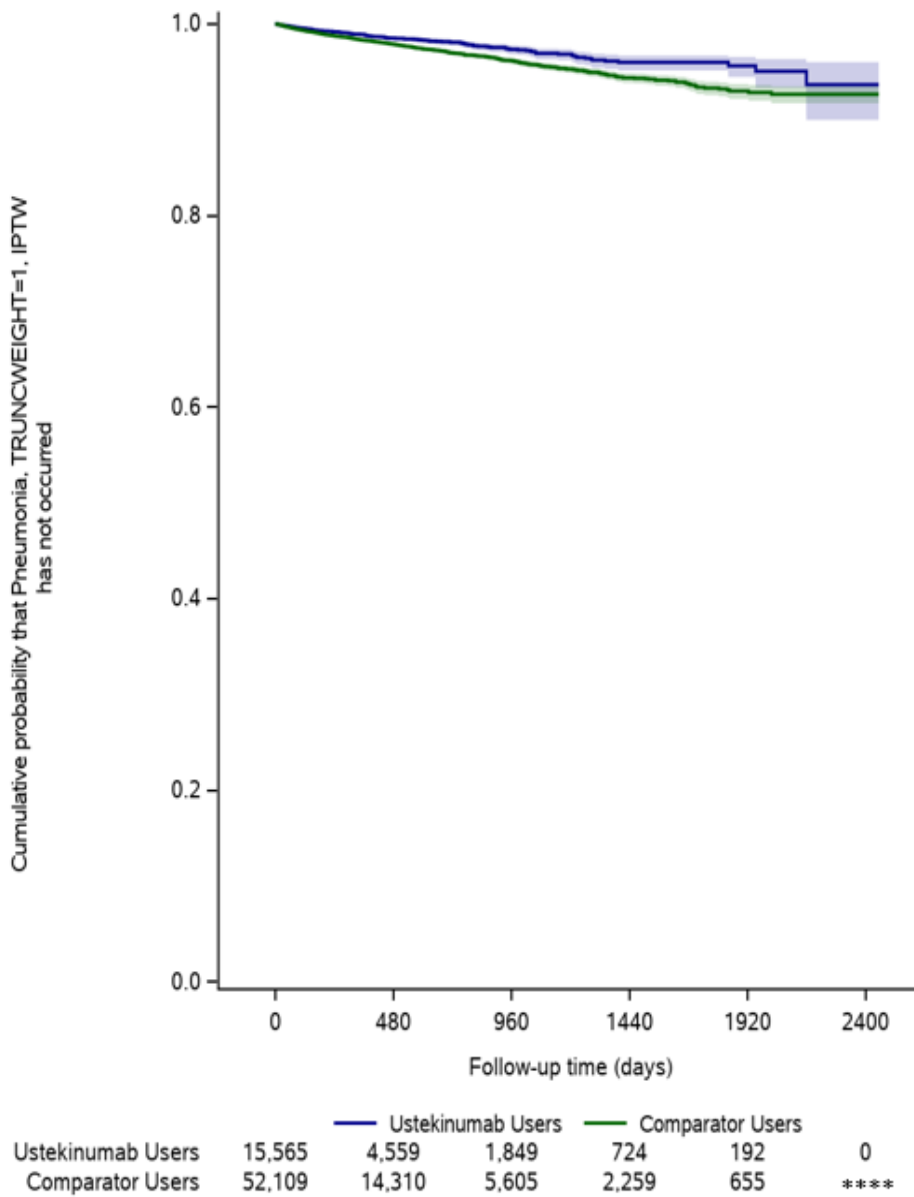
Figure 18b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Pyelonephritis, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population after in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



		Ustekinumab Users		Comparator Users		
Ustekinumab Users	15,490	4,574	1,864	732	198	0
Comparator Users	14,641	3,955	1,488	563	150	****

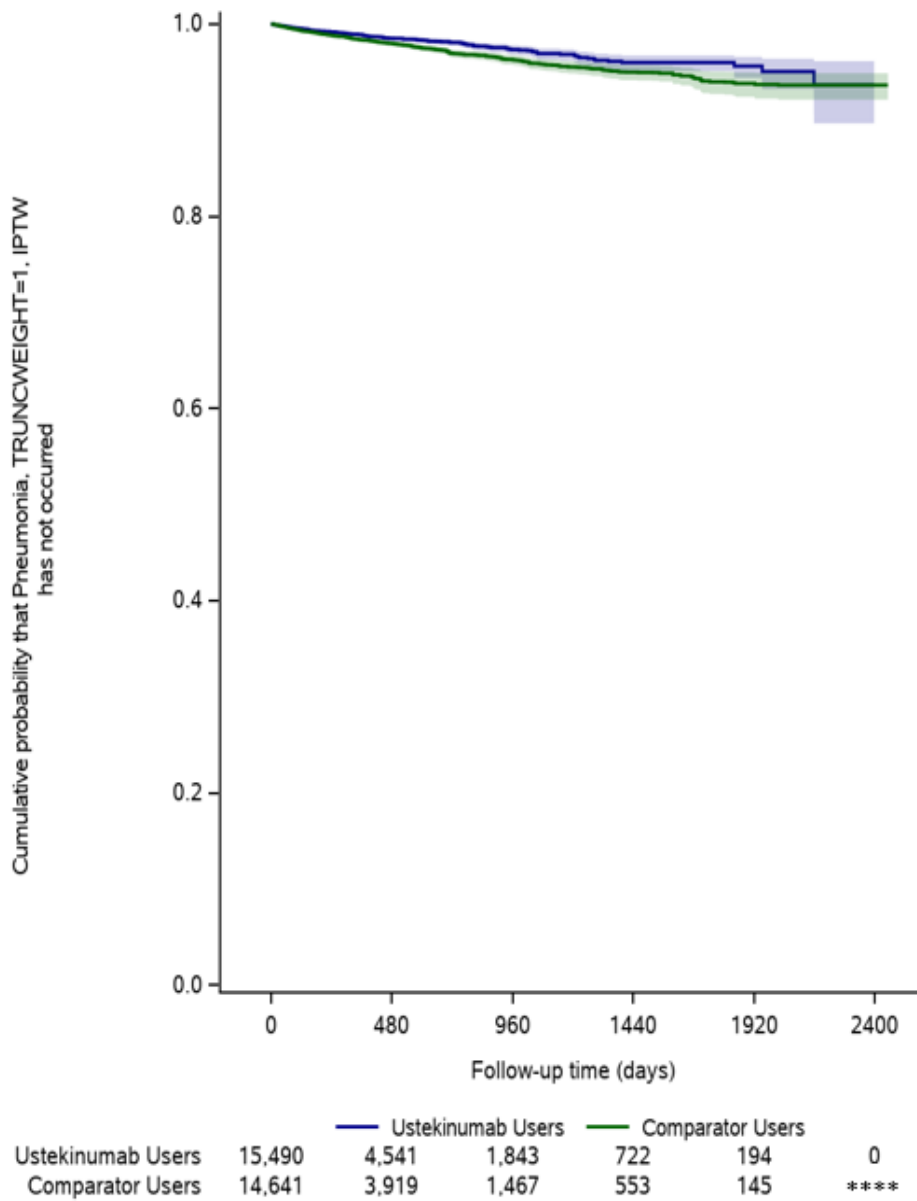
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 19a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Pneumonia, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



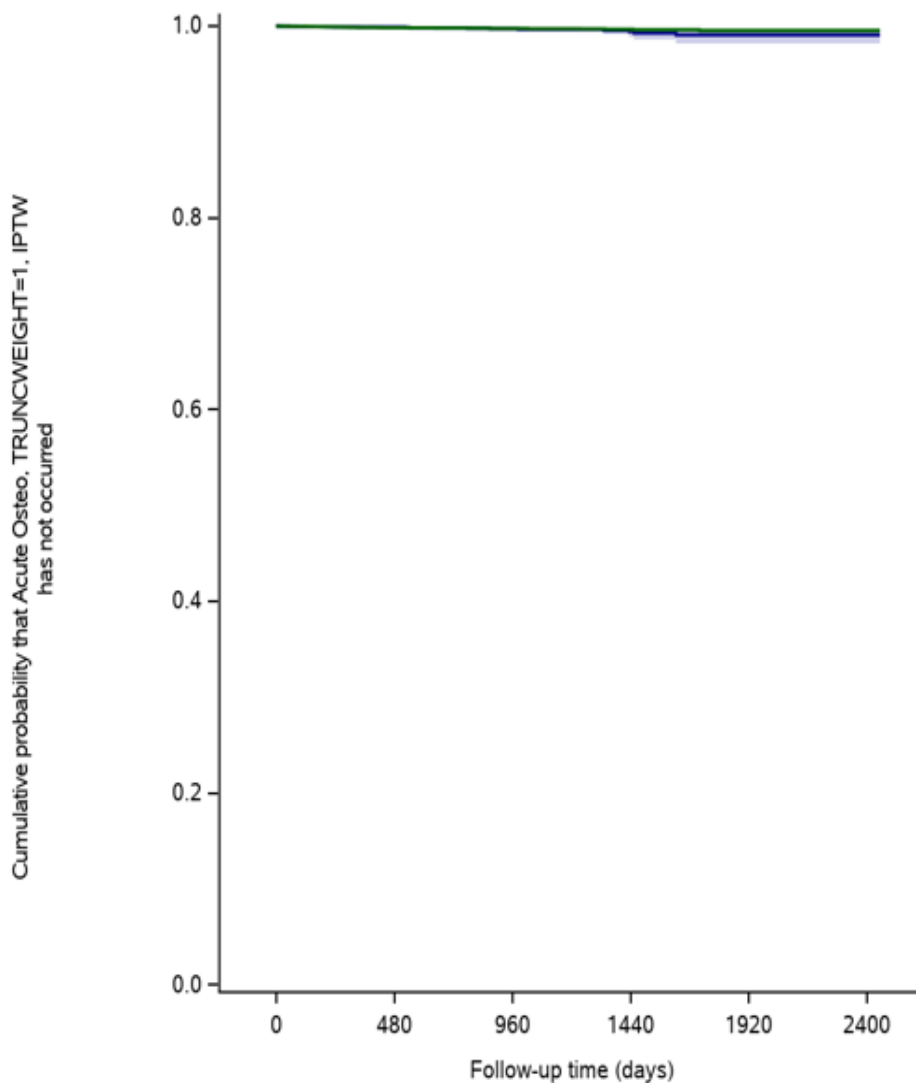
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 19b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Pneumonia, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population after in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

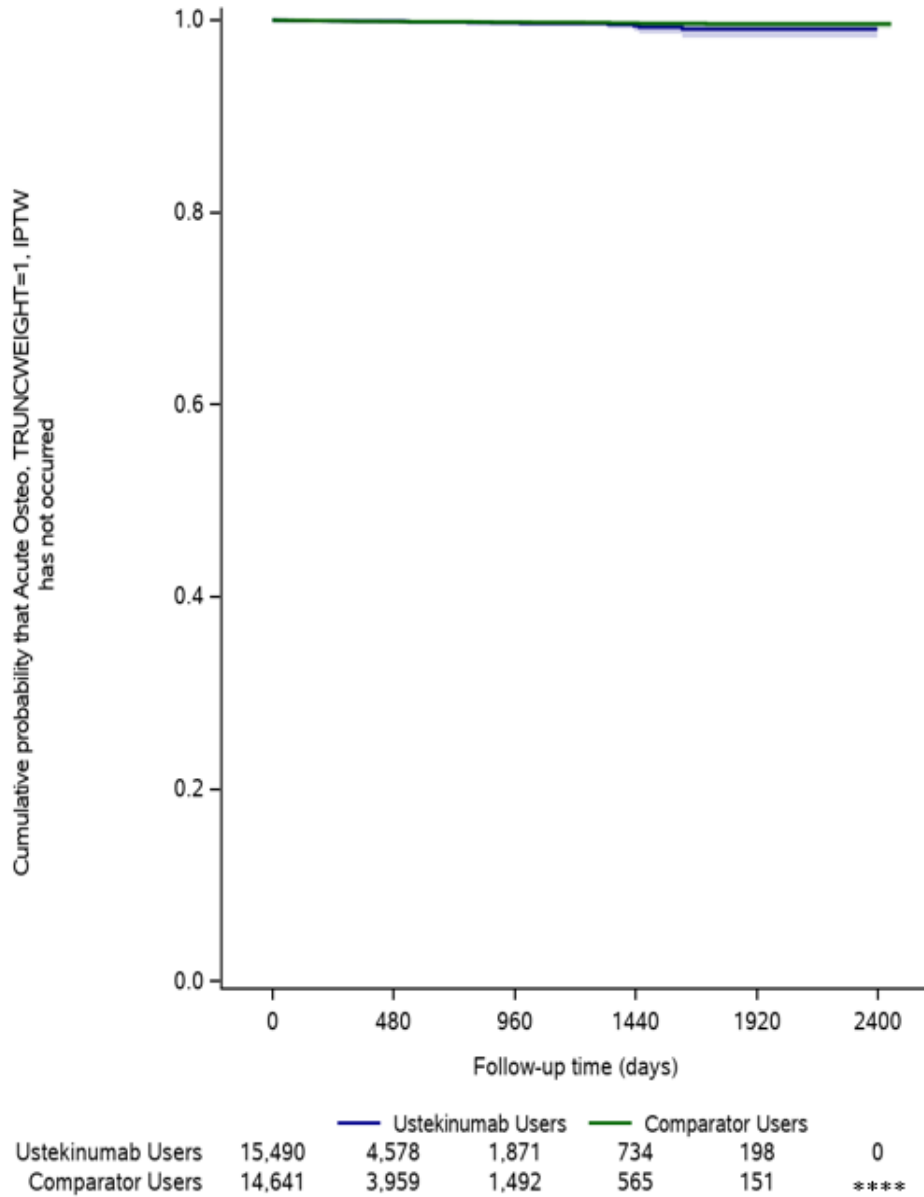
Figure 20a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Acute Osteomyelitis, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



	Ustekinumab Users		Comparator Users			
Ustekinumab Users	15,565	4,596	1,877	736	196	0
Comparator Users	52,109	14,477	5,723	2,327	689	****

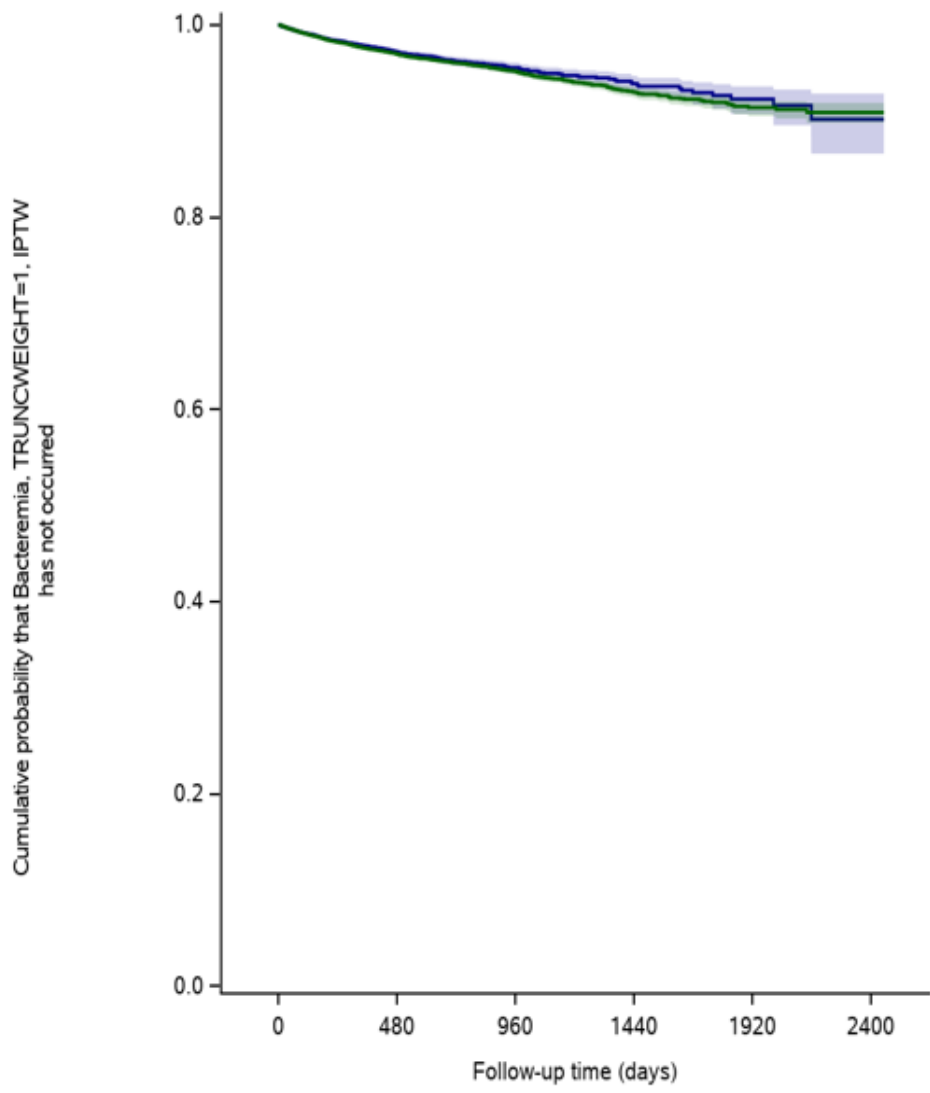
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 20b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Acute Osteomyelitis, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population after in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

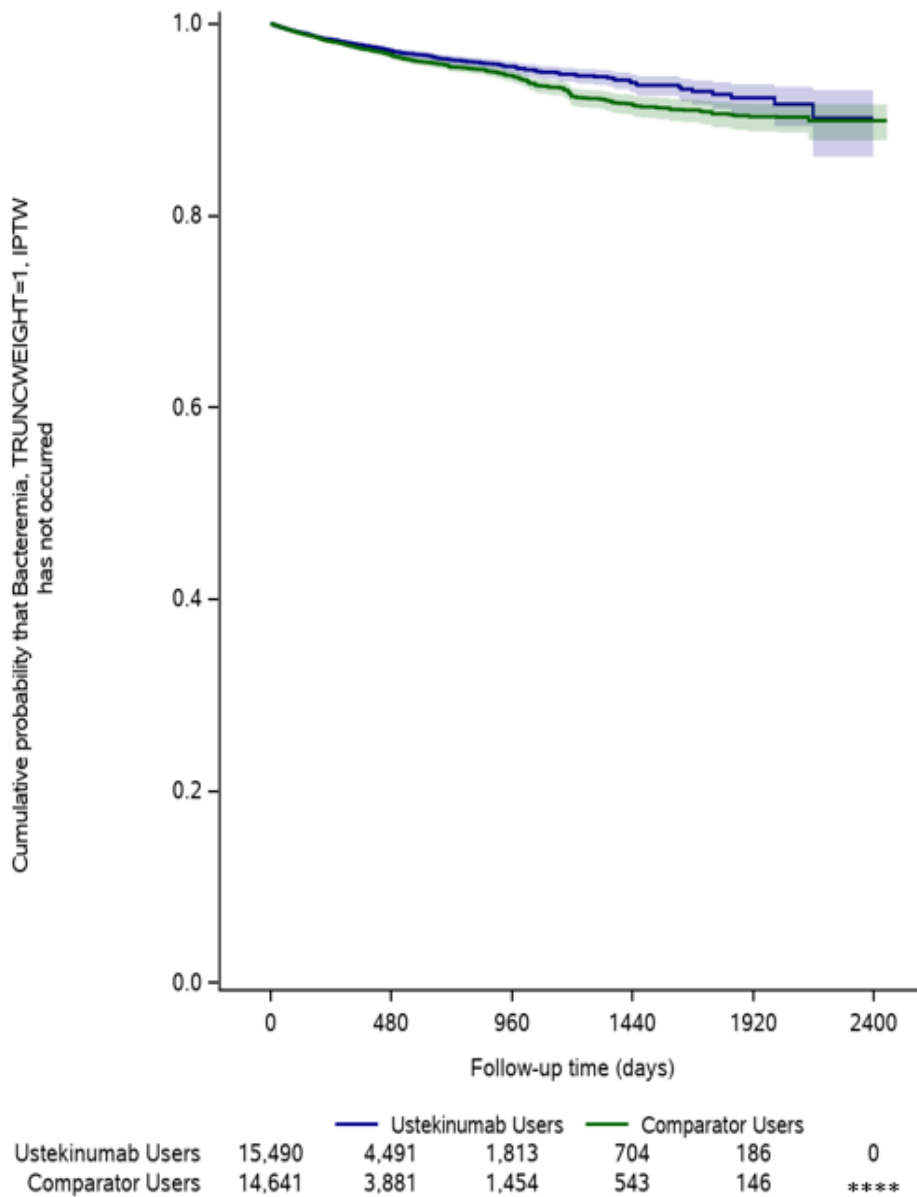
Figure 21a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Bacteremia, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



	Ustekinumab Users	Comparator Users
Ustekinumab Users	15,565	52,109
Comparator Users	4,509	14,240
	1,818	5,600
	706	2,251
	184	661
	0	****

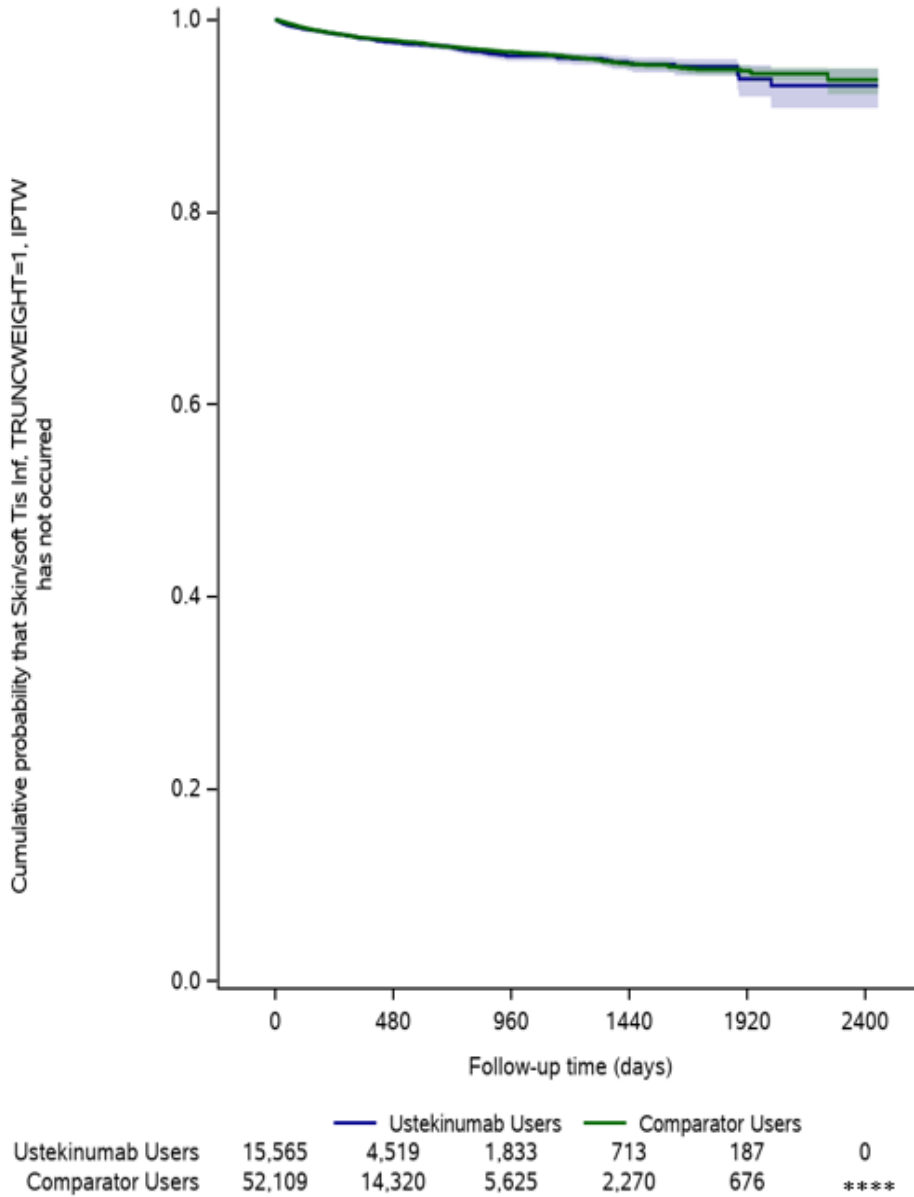
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 21b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Bacteremia, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



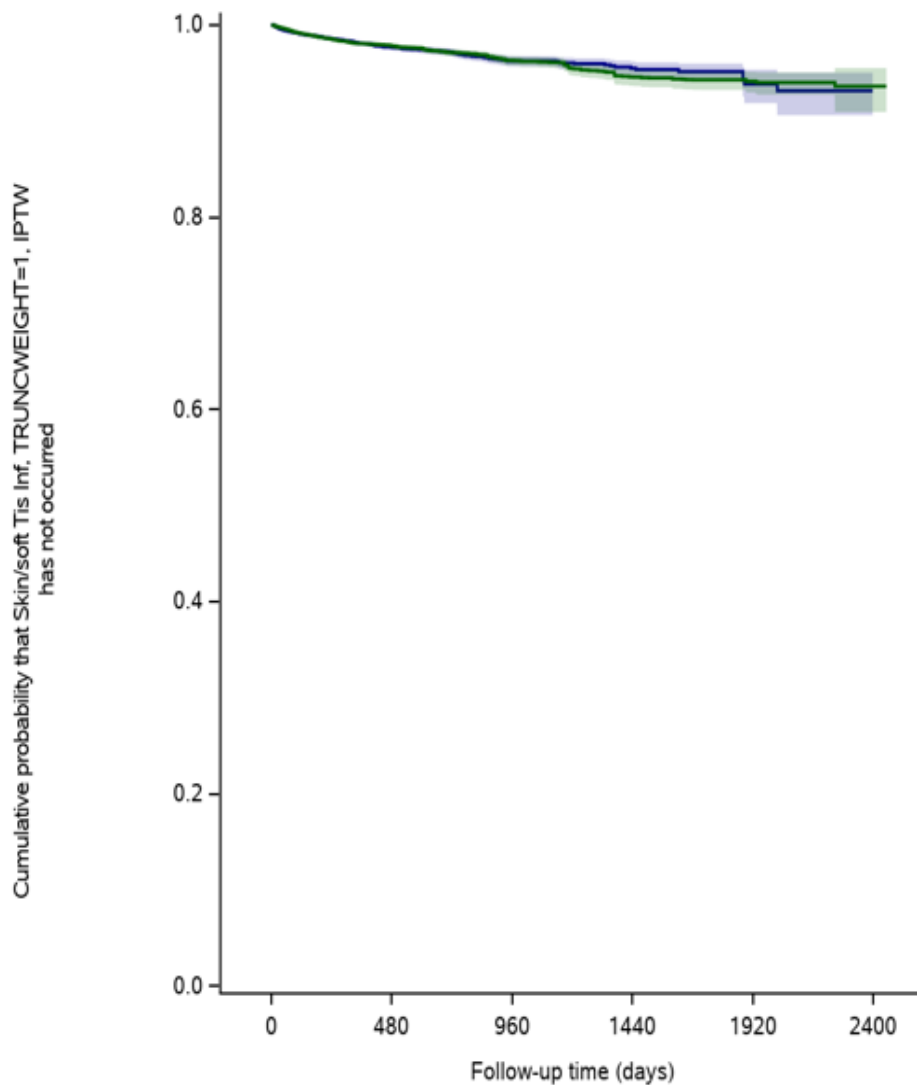
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 22a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Skin/Soft Tissue Infection, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

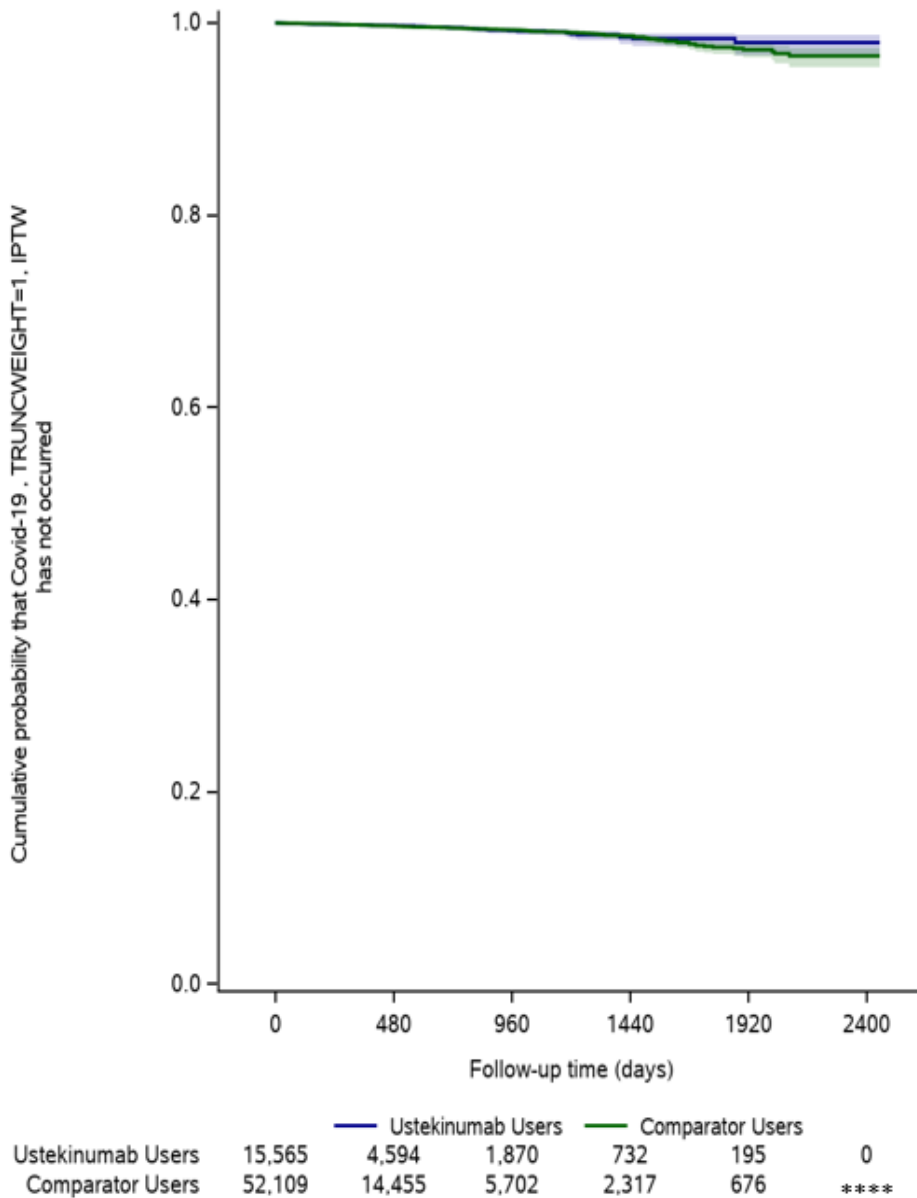
Figure 22b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Skin/Soft Tissue Infection, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



		Ustekinumab Users		Comparator Users		
Ustekinumab Users	15,490	4,501	1,828	711	189	0
Comparator Users	14,641	3,915	1,462	545	149	****

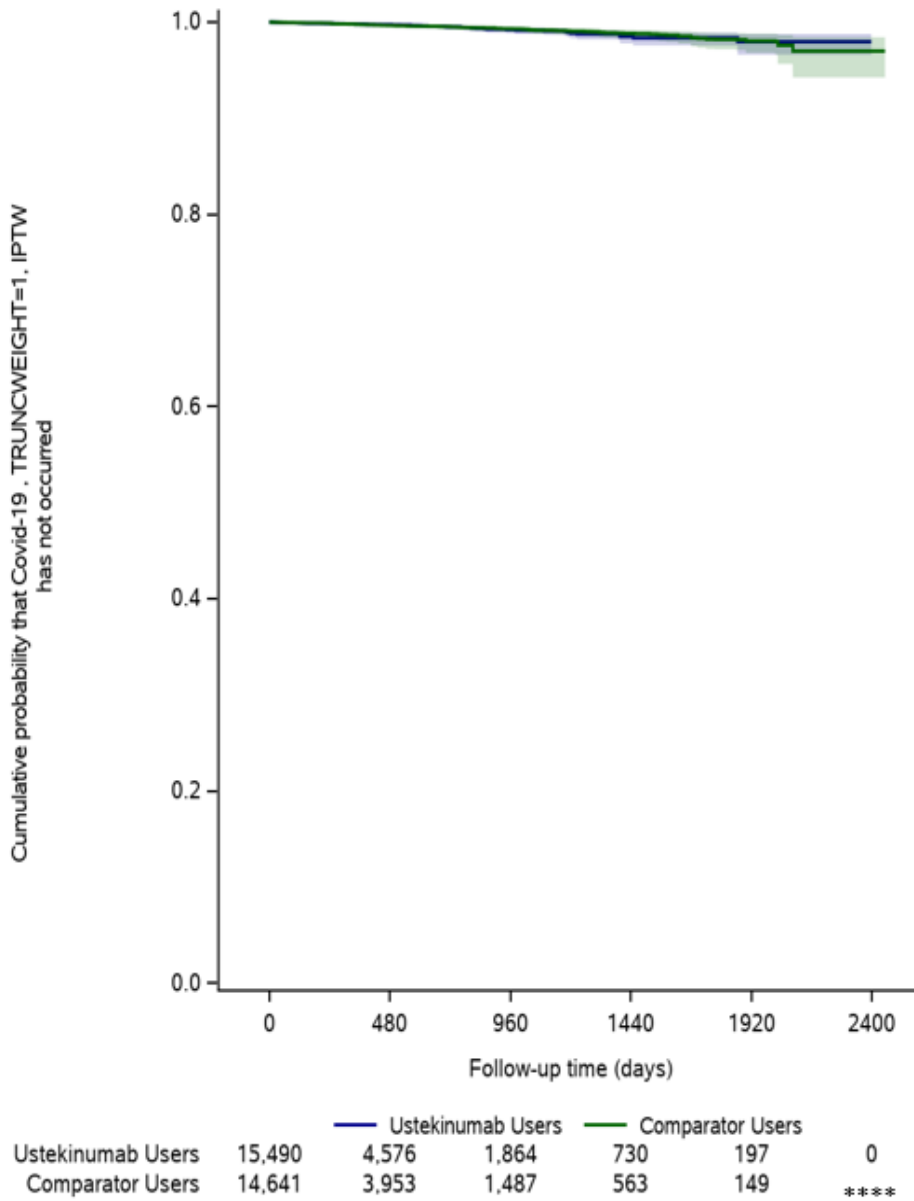
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 23a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of COVID-19 infection, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



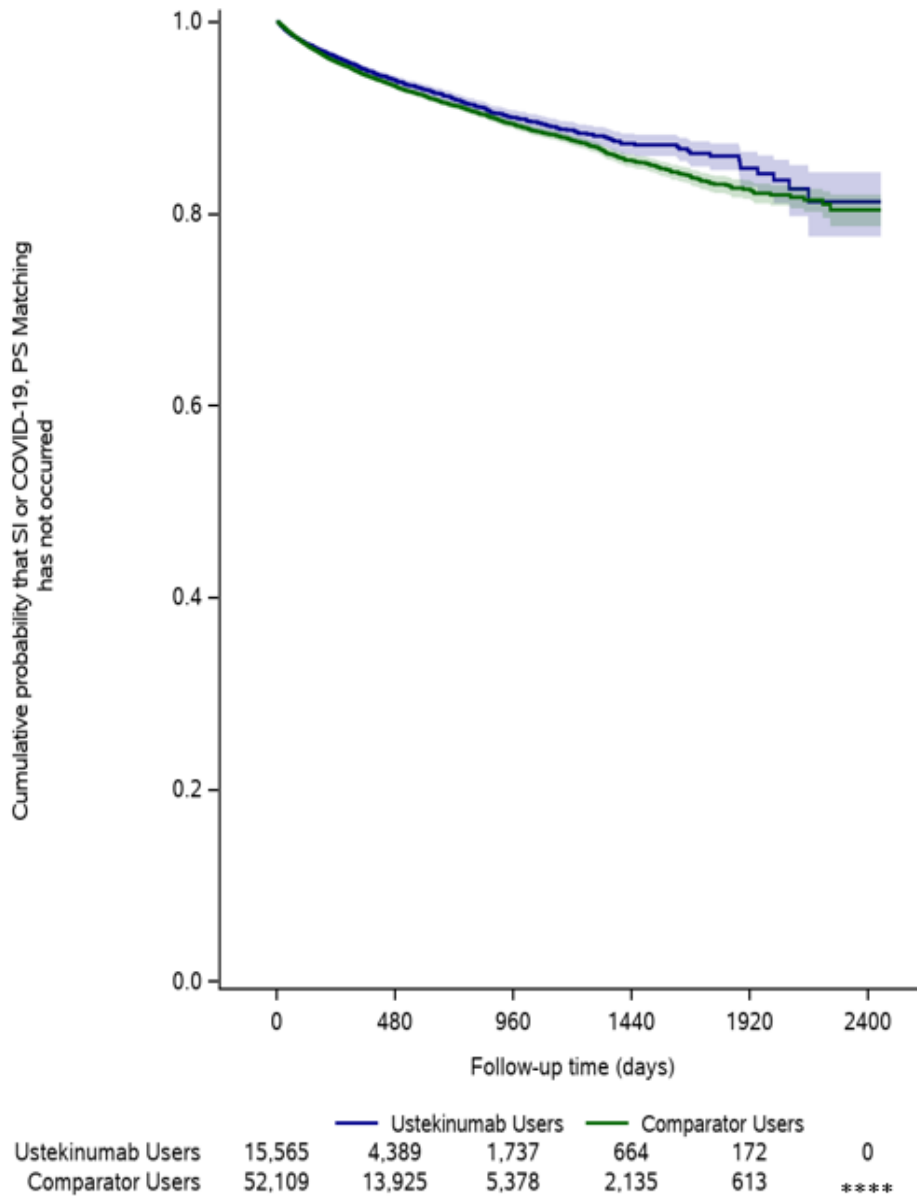
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 23b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of COVID-19 infection, with 1% Weight Truncation, Not Occurring Among Ustekinumab Users or Comparator Users from the Weighted Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



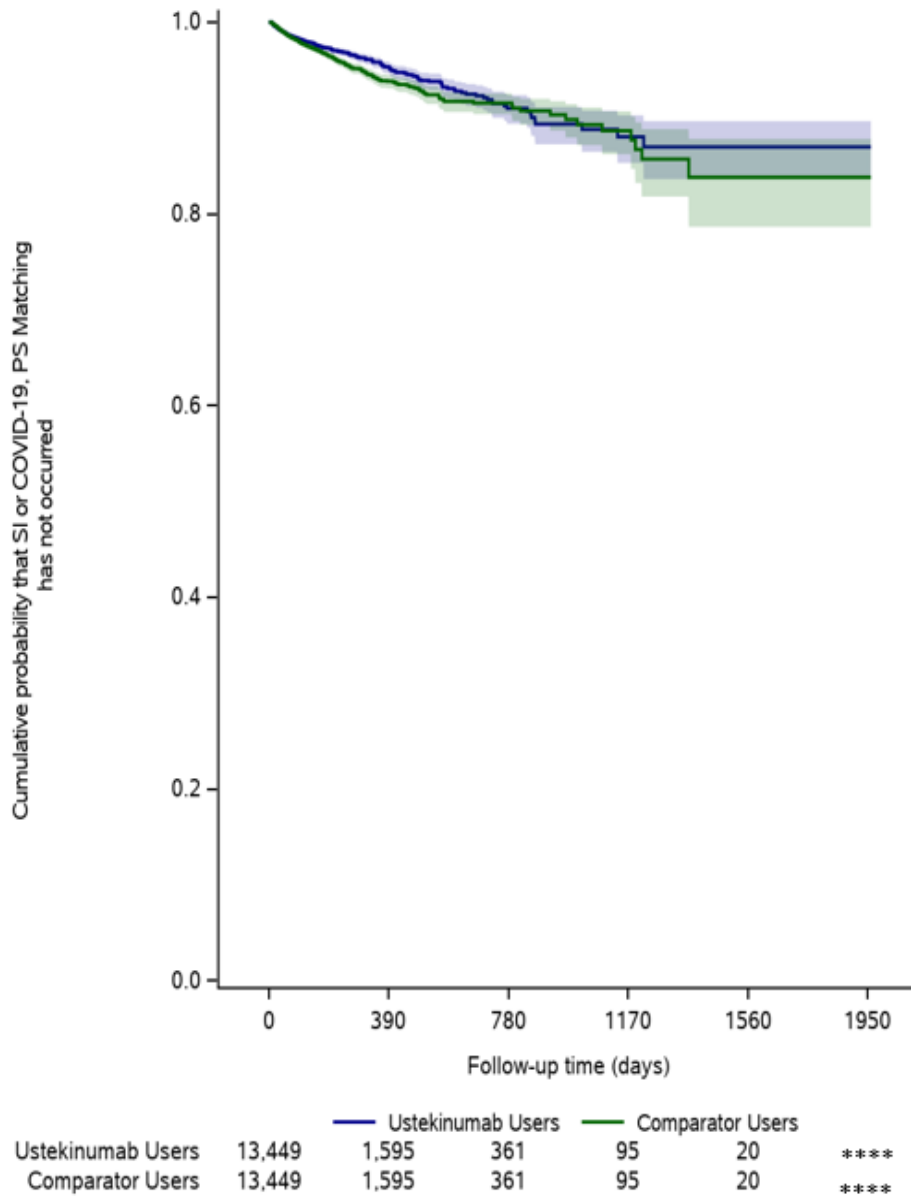
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 24a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection or COVID-19, Not Occurring Among Ustekinumab Users or Comparator Users from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023 (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05)



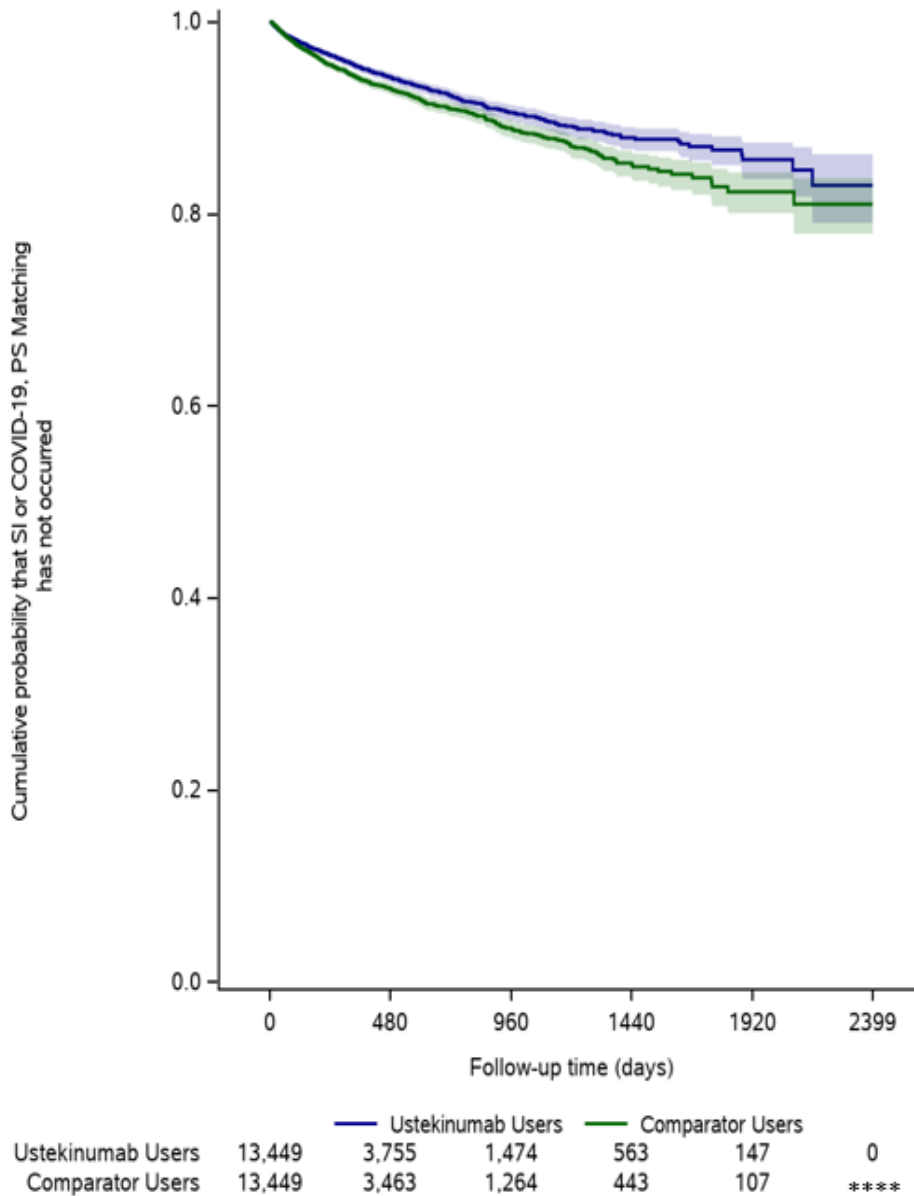
***Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 24b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection or COVID-19, Not Occurring Among Ustekinumab Users or Comparator Users from the Conditional Matched Population (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



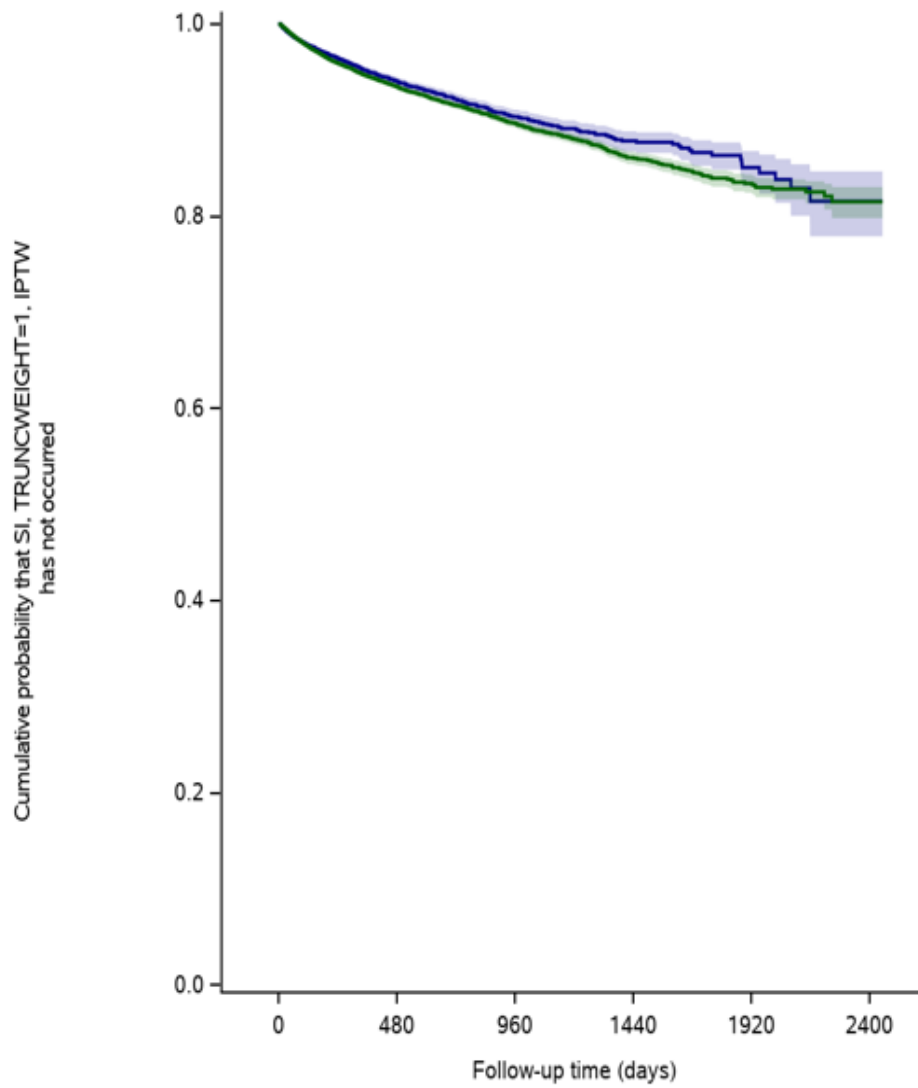
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 24c. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection or COVID-19, Not Occurring Among Ustekinumab Users or Comparator Users from the Unconditional Matched Population (Propensity Score Matched, Fixed Ratio 1:1, Caliper: 0.05) in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

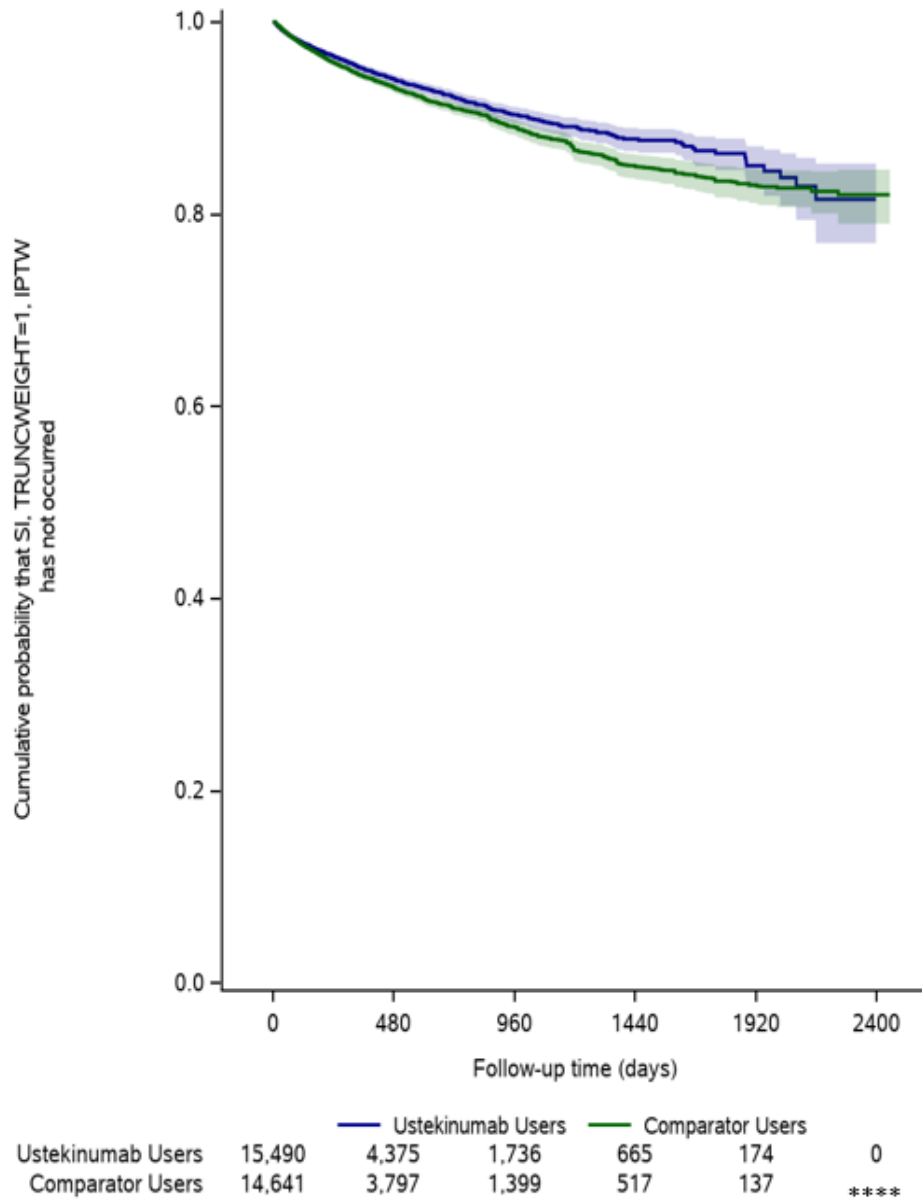
Figure 25a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection, Not Occurring Among Ustekinumab Users or Comparator Users, from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



		Ustekinumab Users	Comparator Users			
Ustekinumab Users	15,565	4,391	1,741	667	172	0
Comparator Users	52,109	13,943	5,391	2,142	618	****

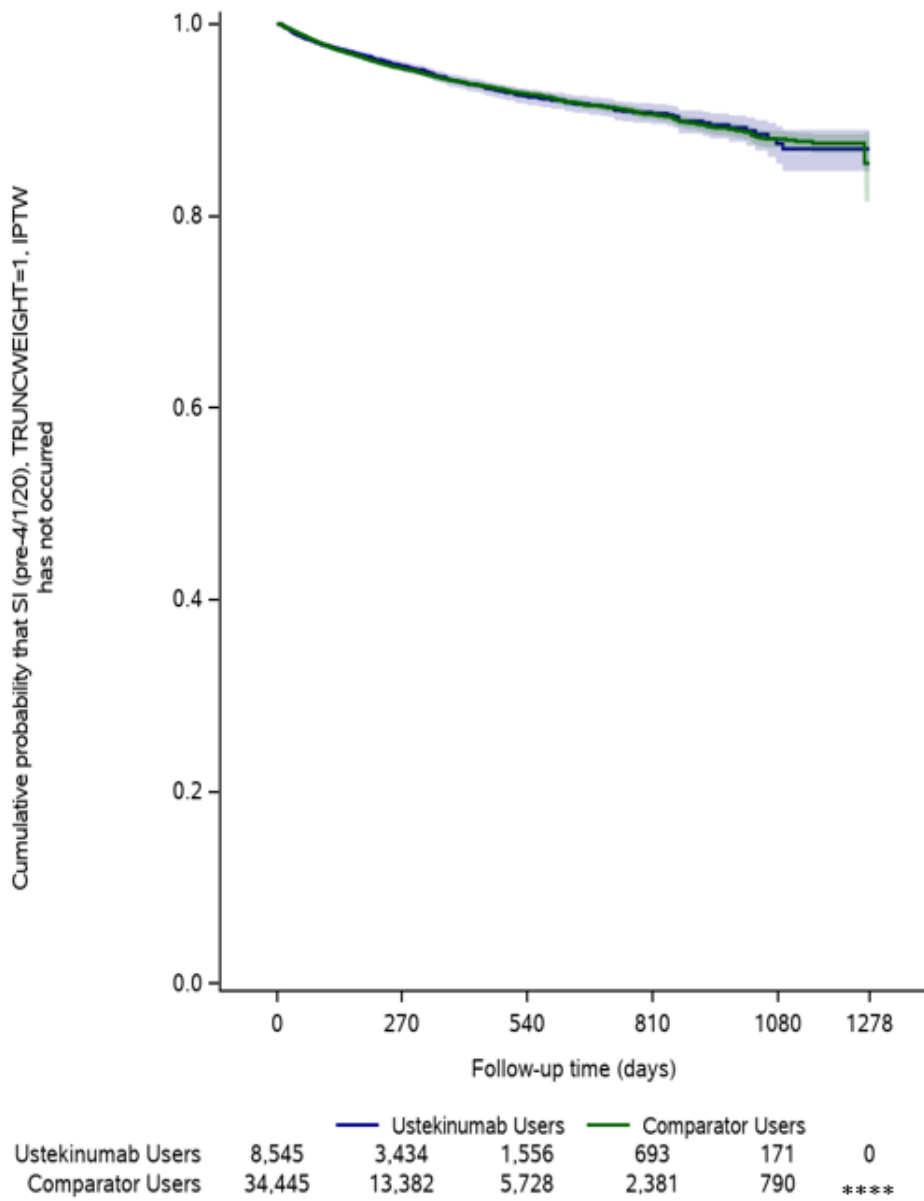
****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 25b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection, Not Occurring Among Ustekinumab Users or Comparator Users, from the Weighted Population in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 26a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection (pre-April 1, 2020), Not Occurring Among Ustekinumab Users or Comparator Users, from the Whole Population in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 26b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection (pre-April 1, 2020), Not Occurring Among Ustekinumab Users or Comparator Users, from the Weighted Population in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020

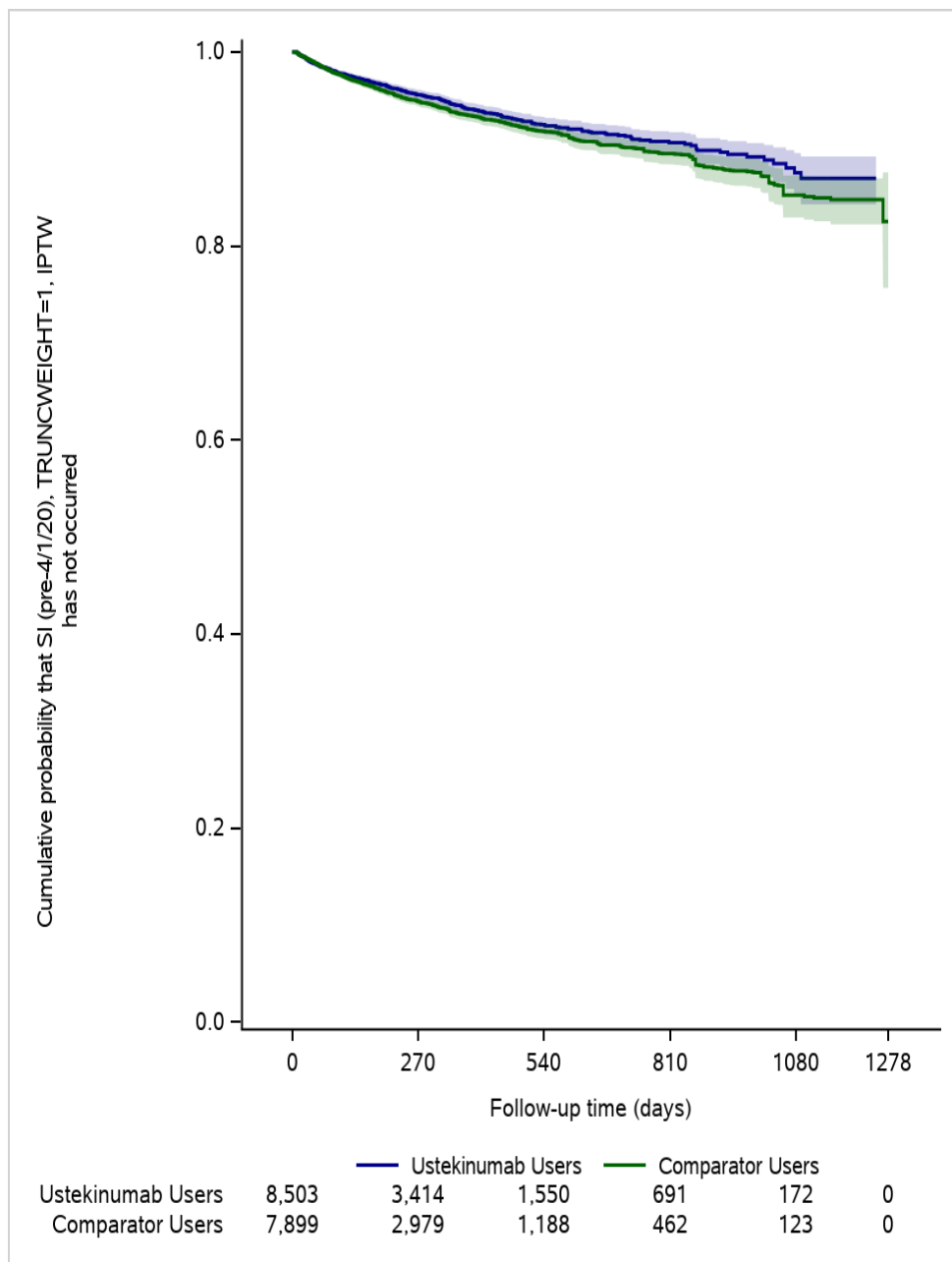
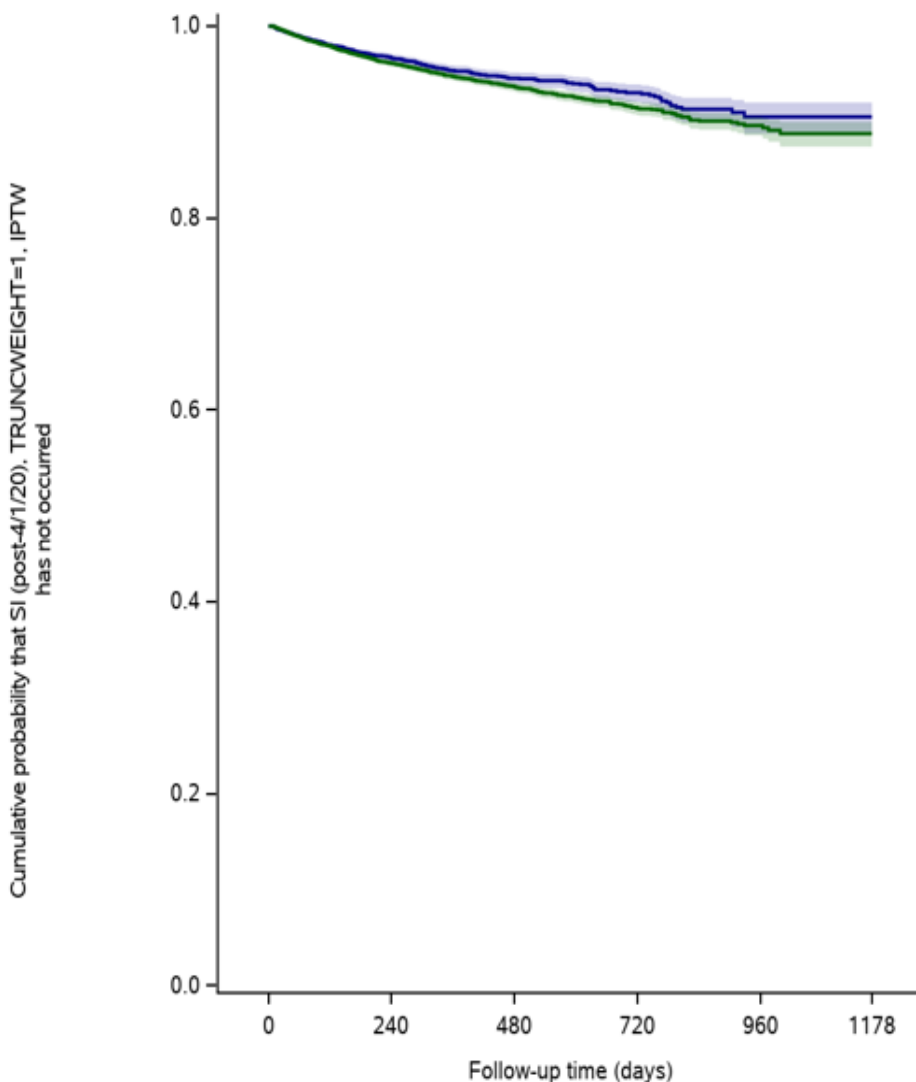


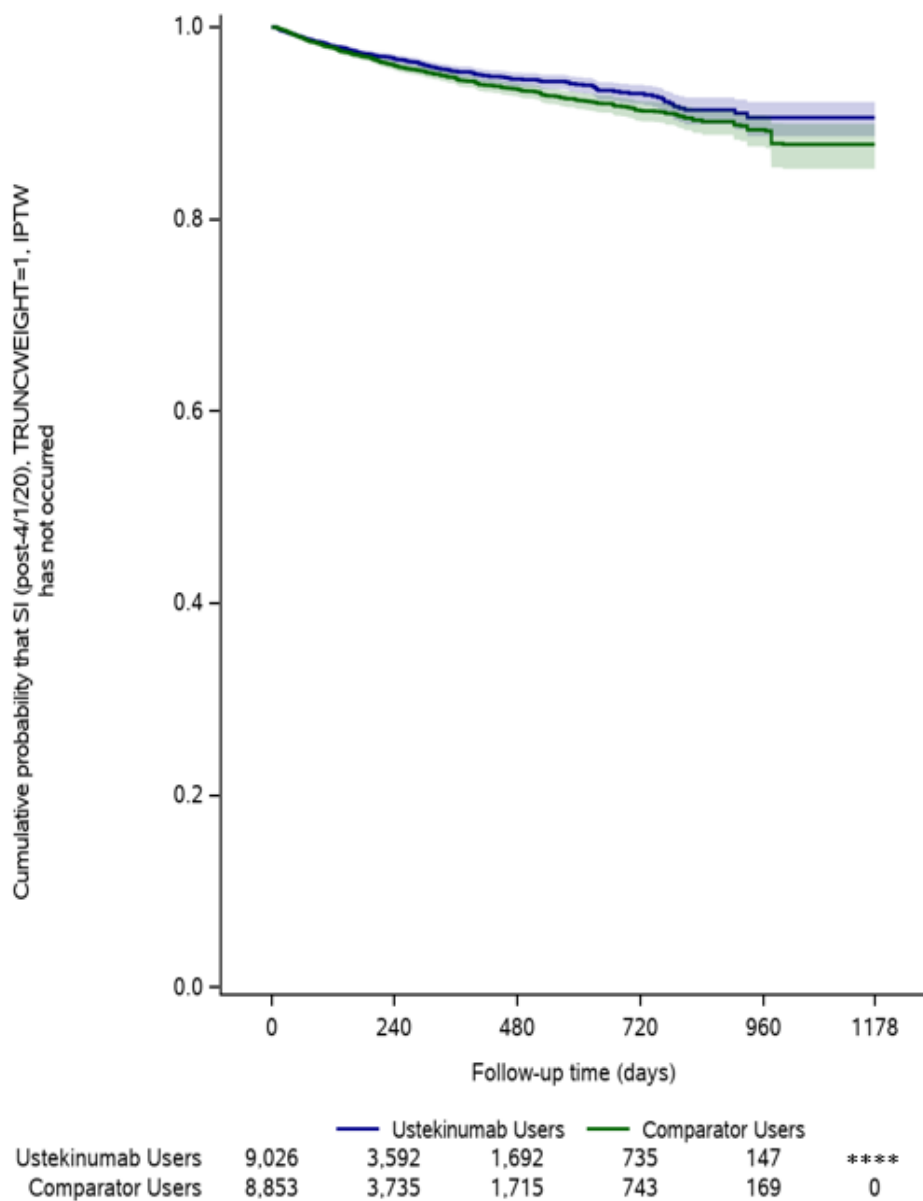
Figure 27a. Aggregated Unadjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection (post-April 1, 2020), Not Occurring Among Ustekinumab Users or Comparator Users, from the Whole Population in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023



	Ustekinumab Users		Comparator Users			
Ustekinumab Users	9,057	3,597	1,692	736	145	****
Comparator Users	20,498	8,327	3,921	1,730	402	0

****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Figure 27b. Aggregated Adjusted Kaplan-Meier Estimate and 95% Confidence Interval of Serious Infection (post-April 1, 2020), Not Occurring Among Ustekinumab Users or Comparator Users, from the Weighted Population in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023



****Data are redacted in the figure due to a small sample size or to assure a value cannot be recalculated through the data presented.

Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date* (December 18, 2023)

Masked DP ID	DP Start Date	DP End Date ¹
DP01	01/01/2006	02/28/2023
DP02	01/01/2007	01/31/2023
DP03	01/01/2008	12/31/2022
DP04	01/01/2010	03/31/2023
DP05	01/01/2014	12/31/2020
DP06	01/01/2008	06/30/2023

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.

*The Request Distribution Date listed is the distribution date for the v01 analysis. The current v02 analysis was conducted using frozen data retained from the v01 analysis at the respective Data Partners.

Appendix B. Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite or COVID-19, 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	66,993	0.017	2.662	0.450	0.415
DP01	14,100	0.040	2.345	0.506	0.452
DP02	2,558	0.027	2.662	0.599	0.477
DP03	9,015	0.033	2.204	0.470	0.448
DP04	18,793	0.037	2.148	0.493	0.413
DP05	16,621	0.017	1.213	0.280	0.345
DP06	5,906	0.040	2.246	0.561	0.430

Appendix C. Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite or COVID-19, 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Treatment-experienced, Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	66,993	0.017	2.662	0.450	0.415
DP01	14,100	0.040	2.345	0.506	0.452
DP02	2,558	0.027	2.662	0.599	0.477
DP03	9,015	0.033	2.204	0.470	0.448
DP04	18,793	0.037	2.148	0.493	0.413
DP05	16,621	0.017	1.213	0.280	0.345
DP06	5,906	0.040	2.246	0.561	0.430
No Treatment-experienced					
Aggregated	53,883	0.016	1.408	0.334	0.323
DP01	11,025	0.029	1.000	0.361	0.331
DP02	2,096	0.021	1.408	0.502	0.388
DP03	7,038	0.023	1.000	0.325	0.329
DP04	14,814	0.030	1.000	0.385	0.334
DP05	14,315	0.016	1.000	0.206	0.283
DP06	4,595	0.037	1.000	0.440	0.344
Treatment-experienced					
Aggregated	12,004	0.045	6.126	0.975	0.684
DP01	2,971	0.142	4.573	1.054	0.668
DP02	182	0.045	5.713	0.952	0.799
DP03	1,798	0.160	5.267	1.043	0.688
DP04	3,878	0.086	5.343	0.949	0.722
DP05	2,098	0.098	3.793	0.822	0.521
DP06	1,077	0.088	6.126	1.042	0.829

Appendix D. Distribution of Inverse Probability of Treatment Weights After Trimming for COVID-19 infection, 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	66,993	0.017	2.662	0.450	0.415
DP01	14,100	0.040	2.345	0.506	0.452
DP02	2,558	0.027	2.662	0.599	0.477
DP03	9,015	0.033	2.204	0.470	0.448
DP04	18,793	0.037	2.148	0.493	0.413
DP05	16,621	0.017	1.213	0.280	0.345
DP06	5,906	0.040	2.246	0.561	0.430

Appendix E. Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite, 1% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	66,993	0.017	2.662	0.450	0.415
DP01	14,100	0.040	2.345	0.506	0.452
DP02	2,558	0.027	2.662	0.599	0.477
DP03	9,015	0.033	2.204	0.470	0.448
DP04	18,793	0.037	2.148	0.493	0.413
DP05	16,621	0.017	1.213	0.280	0.345
DP06	5,906	0.040	2.246	0.561	0.430

Appendix F. Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite (pre-April 1, 2020), 1% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	42,481	0.017	2.412	0.386	0.399
DP01	7,912	0.038	2.364	0.447	0.457
DP02	1,297	0.034	2.412	0.477	0.453
DP03	5,561	0.046	1.993	0.405	0.428
DP04	11,024	0.035	1.801	0.437	0.396
DP05	13,573	0.017	1.120	0.268	0.336
DP06	3,114	0.037	2.243	0.495	0.431

Appendix G. Distribution of Inverse Probability of Treatment Weights After Trimming for SI Composite (post-April 1, 2020), 1% Weight Truncation, in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	29,404	0.037	2.887	0.608	0.429
DP01	7,226	0.114	2.372	0.631	0.432
DP02	1,425	0.098	2.887	0.743	0.451
DP03	3,791	0.078	2.609	0.635	0.478
DP04	9,621	0.106	2.427	0.632	0.420
DP05	4,263	0.037	1.633	0.406	0.395
DP06	3,078	0.113	2.356	0.665	0.419

Appendix H. Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite or COVID-19, 0% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	66,993	0.011	24.735	0.464	0.530
DP01	14,100	0.028	16.479	0.519	0.551
DP02	2,558	0.020	24.735	0.619	0.725
DP03	9,015	0.018	11.682	0.481	0.522
DP04	18,793	0.024	19.776	0.511	0.567
DP05	16,621	0.011	8.202	0.290	0.405
DP06	5,906	0.026	15.122	0.579	0.577

Appendix I. Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite or COVID-19, 0% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Treatment-experienced, Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Overall					
Aggregated	66,993	0.011	24.735	0.464	0.530
DP01	14,100	0.028	16.479	0.519	0.551
DP02	2,558	0.020	24.735	0.619	0.725
DP03	9,015	0.018	11.682	0.481	0.522
DP04	18,793	0.024	19.776	0.511	0.567
DP05	16,621	0.011	8.202	0.290	0.405
DP06	5,906	0.026	15.122	0.579	0.577
No Treatment-experienced					
Aggregated	53,883	0.009	13.969	0.335	0.332
DP01	11,025	0.016	2.858	0.362	0.334
DP02	2,096	0.014	13.969	0.513	0.499
DP03	7,038	0.009	1.984	0.326	0.332
DP04	14,814	0.020	1.955	0.386	0.336
DP05	14,315	0.010	2.321	0.207	0.285
DP06	4,595	0.021	3.671	0.443	0.354
Treatment-experienced					
Aggregated	12,004	0.039	78.656	1.011	1.202
DP01	2,971	0.074	19.599	1.079	0.886
DP02	182	0.039	15.463	1.006	1.294
DP03	1,798	0.138	78.656	1.134	2.203
DP04	3,878	0.056	21.598	0.981	1.021
DP05	2,098	0.085	8.579	0.837	0.631
DP06	1,077	0.069	10.761	1.066	1.005

Appendix J. Distribution of Inverse Probability of Treatment Weights After Trimming for COVID-19 infection, 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	66,993	0.011	24.735	0.464	0.530
DP01	14,100	0.028	16.479	0.519	0.551
DP02	2,558	0.020	24.735	0.619	0.725
DP03	9,015	0.018	11.682	0.481	0.522
DP04	18,793	0.024	19.776	0.511	0.567
DP05	16,621	0.011	8.202	0.290	0.405
DP06	5,906	0.026	15.122	0.579	0.577

Appendix K. Distribution of Inverse Probability of Treatment Weights After Trimming for Serious Infection Composite, 0% Weight Truncation in the Sentinel Distributed Database from October 1, 2016 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	66,993	0.011	24.735	0.464	0.530
DP01	14,100	0.028	16.479	0.519	0.551
DP02	2,558	0.020	24.735	0.619	0.725
DP03	9,015	0.018	11.682	0.481	0.522
DP04	18,793	0.024	19.776	0.511	0.567
DP05	16,621	0.011	8.202	0.290	0.405
DP06	5,906	0.026	15.122	0.579	0.577

Appendix L. Distribution of Inverse Probability of Treatment Weights After Trimming for SI Composite (pre-April 1, 2020), 0% Weight Truncation, in the Sentinel Distributed Database from October 1, 2016 to March 31, 2020, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	42,481	0.011	23.077	0.404	0.554
DP01	7,912	0.032	20.873	0.465	0.619
DP02	1,297	0.028	5.475	0.488	0.516
DP03	5,561	0.041	12.169	0.419	0.529
DP04	11,024	0.025	20.461	0.463	0.618
DP05	13,573	0.011	6.621	0.278	0.396
DP06	3,114	0.026	23.077	0.524	0.751

Appendix M. Distribution of Inverse Probability of Treatment Weights After Trimming for SI Composite (post-April 1, 2020), 0% Weight Truncation, in the Sentinel Distributed Database from April 1, 2020 to June 30, 2023, by Data Partner (DP), Weight: Average Treatment Effect in the Treated (ATT)

Masked DP ID	Number of Patients	Minimum	Maximum	Mean	Standard Deviation
Aggregated	29,404	0.017	9.524	0.616	0.478
DP01	7,226	0.054	6.838	0.637	0.473
DP02	1,425	0.080	9.524	0.760	0.587
DP03	3,791	0.025	4.808	0.641	0.508
DP04	9,621	0.052	6.661	0.642	0.485
DP05	4,263	0.017	4.872	0.412	0.426
DP06	3,078	0.071	4.075	0.670	0.442

Appendix N. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Exposures in this Request

Non-proprietary Name	Proprietary Name
Ustekinumab	
ustekinumab	Stelara
Infliximab	
infliximab	Remicade
infliximab-qbtx	Ifixi
infliximab	infliximab
infliximab-abda	Renflexis
infliximab-axxq	Avsola
infliximab-dyyb	Inflectra
Adalimumab	
adalimumab	Humira
adalimumab	Humira Pediatric Crohns Start
adalimumab	Humira Pen
adalimumab	Humira Pen Crohns-UC-HS Start
adalimumab	Humira Pen Psor-Uveits-Adol HS
adalimumab	Humira(CF)
adalimumab	Humira(CF) Pedi Crohns Starter
adalimumab	Humira(CF) Pen
adalimumab	Humira(CF) Pen Crohns-UC-HS
adalimumab	Humira(CF) Pen Pediatric UC
adalimumab	Humira(CF) Pen Psor-Uv-Adol HS
adalimumab-atto	AMJEVITA
Vedolizumab	
vedolizumab	Entyvio

Appendix O. List of Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Exposures in this Request

Code	Description	Code Category	Code Type
Ustekinumab			
C9487	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
J3357	Ustekinumab, for subcutaneous injection, 1 mg	Procedure	HCPCS
J3358	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
Q9989	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
Infliximab			
J1745	Injection, infliximab, excludes biosimilar, 10 mg	Procedure	HCPCS
Q5102	Injection, infliximab, biosimilar, 10 mg	Procedure	HCPCS
Q5103	Injection, infliximab-dyyb, biosimilar, (Inflectra), 10 mg	Procedure	HCPCS
Q5104	Injection, infliximab-abda, biosimilar, (Renflexis), 10 mg	Procedure	HCPCS
Q5109	Injection, infliximab-qbtx, biosimilar, (Ixifi), 10 mg	Procedure	HCPCS
Q5121	Injection, infliximab-axxq, biosimilar, (AVSOLA), 10 mg	Procedure	HCPCS
Adalimumab			
J0135	Injection, adalimumab, 20 mg	Procedure	HCPCS
Vedolizumab			
C9026	Injection, vedolizumab, 1 mg	Procedure	HCPCS
J3380	Injection, vedolizumab, 1 mg	Procedure	HCPCS

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
Acute Meningitis			
A01.01	Typhoid meningitis	Diagnosis	ICD-10-CM
A02.21	Salmonella meningitis	Diagnosis	ICD-10-CM
A17.0	Tuberculous meningitis	Diagnosis	ICD-10-CM
A20.3	Plague meningitis	Diagnosis	ICD-10-CM
A27.81	Aseptic meningitis in leptospirosis	Diagnosis	ICD-10-CM
A32.11	Listerial meningitis	Diagnosis	ICD-10-CM
A39.0	Meningococcal meningitis	Diagnosis	ICD-10-CM
A42.81	Actinomycotic meningitis	Diagnosis	ICD-10-CM
A69.21	Meningitis due to Lyme disease	Diagnosis	ICD-10-CM
A87.0	Enteroviral meningitis	Diagnosis	ICD-10-CM
A87.1	Adenoviral meningitis	Diagnosis	ICD-10-CM
A87.2	Lymphocytic choriomeningitis	Diagnosis	ICD-10-CM
A87.8	Other viral meningitis	Diagnosis	ICD-10-CM
A87.9	Viral meningitis, unspecified	Diagnosis	ICD-10-CM
B00.3	Herpesviral meningitis	Diagnosis	ICD-10-CM
B01.0	Varicella meningitis	Diagnosis	ICD-10-CM
B02.1	Zoster meningitis	Diagnosis	ICD-10-CM
B05.1	Measles complicated by meningitis	Diagnosis	ICD-10-CM
B06.02	Rubella meningitis	Diagnosis	ICD-10-CM
B26.1	Mumps meningitis	Diagnosis	ICD-10-CM
B27.02	Gammaherpesviral mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.12	Cytomegaloviral mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.82	Other infectious mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.92	Infectious mononucleosis, unspecified with meningitis	Diagnosis	ICD-10-CM
B37.5	Candidal meningitis	Diagnosis	ICD-10-CM
B38.4	Coccidioidomycosis meningitis	Diagnosis	ICD-10-CM
B45.1	Cerebral cryptococcosis	Diagnosis	ICD-10-CM
B57.41	Meningitis in Chagas' disease	Diagnosis	ICD-10-CM
G00.0	Hemophilus meningitis	Diagnosis	ICD-10-CM
G00.1	Pneumococcal meningitis	Diagnosis	ICD-10-CM
G00.2	Streptococcal meningitis	Diagnosis	ICD-10-CM
G00.3	Staphylococcal meningitis	Diagnosis	ICD-10-CM
G00.8	Other bacterial meningitis	Diagnosis	ICD-10-CM
G00.9	Bacterial meningitis, unspecified	Diagnosis	ICD-10-CM
G01	Meningitis in bacterial diseases classified elsewhere	Diagnosis	ICD-10-CM
G02	Meningitis in other infectious and parasitic diseases classified elsewhere	Diagnosis	ICD-10-CM
G03.8	Meningitis due to other specified causes	Diagnosis	ICD-10-CM
G03.9	Meningitis, unspecified	Diagnosis	ICD-10-CM
Serious Gastrointestinal Infection			
A04.8	Other specified bacterial intestinal infections	Diagnosis	ICD-10-CM
A04.9	Bacterial intestinal infection, unspecified	Diagnosis	ICD-10-CM
A74.81	Chlamydial peritonitis	Diagnosis	ICD-10-CM
D73.3	Abscess of spleen	Diagnosis	ICD-10-CM
K35.2	Acute appendicitis with generalized peritonitis	Diagnosis	ICD-10-CM
K35.3	Acute appendicitis with localized peritonitis	Diagnosis	ICD-10-CM
K35.80	Unspecified acute appendicitis	Diagnosis	ICD-10-CM
K35.89	Other acute appendicitis	Diagnosis	ICD-10-CM
K36	Other appendicitis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
K37	Unspecified appendicitis	Diagnosis	ICD-10-CM
K38.9	Disease of appendix, unspecified	Diagnosis	ICD-10-CM
K55.30	Necrotizing enterocolitis, unspecified	Diagnosis	ICD-10-CM
K55.31	Stage 1 necrotizing enterocolitis	Diagnosis	ICD-10-CM
K55.32	Stage 2 necrotizing enterocolitis	Diagnosis	ICD-10-CM
K55.33	Stage 3 necrotizing enterocolitis	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
K57.12	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
K57.32	Diverticulitis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
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
K57.52	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
K57.92	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
K63.0	Abscess of intestine	Diagnosis	ICD-10-CM
K65.0	Generalized (acute) peritonitis	Diagnosis	ICD-10-CM
K65.1	Peritoneal abscess	Diagnosis	ICD-10-CM
K65.2	Spontaneous bacterial peritonitis	Diagnosis	ICD-10-CM
K65.3	Choleperitonitis	Diagnosis	ICD-10-CM
K65.8	Other peritonitis	Diagnosis	ICD-10-CM
K65.9	Peritonitis, unspecified	Diagnosis	ICD-10-CM
K68.19	Other retroperitoneal abscess	Diagnosis	ICD-10-CM
K75.0	Abscess of liver	Diagnosis	ICD-10-CM
K81.0	Acute cholecystitis	Diagnosis	ICD-10-CM
K81.2	Acute cholecystitis with chronic cholecystitis	Diagnosis	ICD-10-CM
K81.9	Cholecystitis, unspecified	Diagnosis	ICD-10-CM
K85.0	Idiopathic acute pancreatitis	Diagnosis	ICD-10-CM
K85.00	Idiopathic acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.01	Idiopathic acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.02	Idiopathic acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.1	Biliary acute pancreatitis	Diagnosis	ICD-10-CM
K85.10	Biliary acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.11	Biliary acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
K85.12	Biliary acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.3	Drug induced acute pancreatitis	Diagnosis	ICD-10-CM
K85.30	Drug induced acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.31	Drug induced acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.32	Drug induced acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.8	Other acute pancreatitis	Diagnosis	ICD-10-CM
K85.80	Other acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.81	Other acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.82	Other acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.9	Acute pancreatitis, unspecified	Diagnosis	ICD-10-CM
K85.90	Acute pancreatitis without necrosis or infection, unspecified	Diagnosis	ICD-10-CM
K85.91	Acute pancreatitis with uninfected necrosis, unspecified	Diagnosis	ICD-10-CM
K85.92	Acute pancreatitis with infected necrosis, unspecified	Diagnosis	ICD-10-CM
Pyelonephritis			
N10	Acute pyelonephritis	Diagnosis	ICD-10-CM
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
Pneumonia			
A01.03	Typhoid pneumonia	Diagnosis	ICD-10-CM
A02.22	Salmonella pneumonia	Diagnosis	ICD-10-CM
A20.2	Pneumonic plague	Diagnosis	ICD-10-CM
A21.2	Pulmonary tularemia	Diagnosis	ICD-10-CM
A31.0	Pulmonary mycobacterial infection	Diagnosis	ICD-10-CM
A37.01	Whooping cough due to Bordetella pertussis with pneumonia	Diagnosis	ICD-10-CM
A37.11	Whooping cough due to Bordetella parapertussis with pneumonia	Diagnosis	ICD-10-CM
A37.81	Whooping cough due to other Bordetella species with pneumonia	Diagnosis	ICD-10-CM
A37.91	Whooping cough, unspecified species with pneumonia	Diagnosis	ICD-10-CM
A43.0	Pulmonary nocardiosis	Diagnosis	ICD-10-CM
A48.1	Legionnaires' disease	Diagnosis	ICD-10-CM
B01.2	Varicella pneumonia	Diagnosis	ICD-10-CM
B05.2	Measles complicated by pneumonia	Diagnosis	ICD-10-CM
B06.81	Rubella pneumonia	Diagnosis	ICD-10-CM
B25.0	Cytomegaloviral pneumonitis	Diagnosis	ICD-10-CM
B37.1	Pulmonary candidiasis	Diagnosis	ICD-10-CM
B38.0	Acute pulmonary coccidioidomycosis	Diagnosis	ICD-10-CM
B38.2	Pulmonary coccidioidomycosis, unspecified	Diagnosis	ICD-10-CM
B39.0	Acute pulmonary histoplasmosis capsulati	Diagnosis	ICD-10-CM
B39.2	Pulmonary histoplasmosis capsulati, unspecified	Diagnosis	ICD-10-CM
B58.3	Pulmonary toxoplasmosis	Diagnosis	ICD-10-CM
B59	Pneumocystosis	Diagnosis	ICD-10-CM
B77.81	Ascariasis pneumonia	Diagnosis	ICD-10-CM
J10.00	Influenza due to other identified influenza virus with unspecified type of pneumonia	Diagnosis	ICD-10-CM
J10.08	Influenza due to other identified influenza virus with other specified pneumonia	Diagnosis	ICD-10-CM
J11.00	Influenza due to unidentified influenza virus with unspecified type of pneumonia	Diagnosis	ICD-10-CM
J11.08	Influenza due to unidentified influenza virus with specified pneumonia	Diagnosis	ICD-10-CM
J12.0	Adenoviral pneumonia	Diagnosis	ICD-10-CM
J12.1	Respiratory syncytial virus pneumonia	Diagnosis	ICD-10-CM
J12.2	Parainfluenza virus pneumonia	Diagnosis	ICD-10-CM
J12.3	Human metapneumovirus pneumonia	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
J12.81	Pneumonia due to SARS-associated coronavirus	Diagnosis	ICD-10-CM
J12.89	Other viral pneumonia	Diagnosis	ICD-10-CM
J12.9	Viral pneumonia, unspecified	Diagnosis	ICD-10-CM
J13	Pneumonia due to Streptococcus pneumoniae	Diagnosis	ICD-10-CM
J14	Pneumonia due to Hemophilus influenzae	Diagnosis	ICD-10-CM
J15.0	Pneumonia due to Klebsiella pneumoniae	Diagnosis	ICD-10-CM
J15.1	Pneumonia due to Pseudomonas	Diagnosis	ICD-10-CM
J15.20	Pneumonia due to staphylococcus, unspecified	Diagnosis	ICD-10-CM
J15.211	Pneumonia due to Methicillin susceptible Staphylococcus aureus	Diagnosis	ICD-10-CM
J15.212	Pneumonia due to Methicillin resistant Staphylococcus aureus	Diagnosis	ICD-10-CM
J15.29	Pneumonia due to other staphylococcus	Diagnosis	ICD-10-CM
J15.3	Pneumonia due to streptococcus, group B	Diagnosis	ICD-10-CM
J15.4	Pneumonia due to other streptococci	Diagnosis	ICD-10-CM
J15.5	Pneumonia due to Escherichia coli	Diagnosis	ICD-10-CM
J15.6	Pneumonia due to other Gram-negative bacteria	Diagnosis	ICD-10-CM
J15.7	Pneumonia due to Mycoplasma pneumoniae	Diagnosis	ICD-10-CM
J15.8	Pneumonia due to other specified bacteria	Diagnosis	ICD-10-CM
J15.9	Unspecified bacterial pneumonia	Diagnosis	ICD-10-CM
J16.0	Chlamydial pneumonia	Diagnosis	ICD-10-CM
J16.8	Pneumonia due to other specified infectious organisms	Diagnosis	ICD-10-CM
J17	Pneumonia in diseases classified elsewhere	Diagnosis	ICD-10-CM
J18.0	Bronchopneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.1	Lobar pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.8	Other pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.9	Pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J85.1	Abscess of lung with pneumonia	Diagnosis	ICD-10-CM
Acute Osteomyelitis			
A01.05	Typhoid osteomyelitis	Diagnosis	ICD-10-CM
A02.24	Salmonella osteomyelitis	Diagnosis	ICD-10-CM
H05.021	Osteomyelitis of right orbit	Diagnosis	ICD-10-CM
H05.022	Osteomyelitis of left orbit	Diagnosis	ICD-10-CM
H05.023	Osteomyelitis of bilateral orbits	Diagnosis	ICD-10-CM
H05.029	Osteomyelitis of unspecified orbit	Diagnosis	ICD-10-CM
M46.20	Osteomyelitis of vertebra, site unspecified	Diagnosis	ICD-10-CM
M46.21	Osteomyelitis of vertebra, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M46.22	Osteomyelitis of vertebra, cervical region	Diagnosis	ICD-10-CM
M46.23	Osteomyelitis of vertebra, cervicothoracic region	Diagnosis	ICD-10-CM
M46.24	Osteomyelitis of vertebra, thoracic region	Diagnosis	ICD-10-CM
M46.25	Osteomyelitis of vertebra, thoracolumbar region	Diagnosis	ICD-10-CM
M46.26	Osteomyelitis of vertebra, lumbar region	Diagnosis	ICD-10-CM
M46.27	Osteomyelitis of vertebra, lumbosacral region	Diagnosis	ICD-10-CM
M46.28	Osteomyelitis of vertebra, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M86.00	Acute hematogenous osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.011	Acute hematogenous osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.012	Acute hematogenous osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.019	Acute hematogenous osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.021	Acute hematogenous osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.022	Acute hematogenous osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.029	Acute hematogenous osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.031	Acute hematogenous osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
M86.032	Acute hematogenous osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.039	Acute hematogenous osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.041	Acute hematogenous osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.042	Acute hematogenous osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.049	Acute hematogenous osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.051	Acute hematogenous osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.052	Acute hematogenous osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.059	Acute hematogenous osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.061	Acute hematogenous osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.062	Acute hematogenous osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.069	Acute hematogenous osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.071	Acute hematogenous osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.072	Acute hematogenous osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.079	Acute hematogenous osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.08	Acute hematogenous osteomyelitis, other sites	Diagnosis	ICD-10-CM
M86.09	Acute hematogenous osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.10	Other acute osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.111	Other acute osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.112	Other acute osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.119	Other acute osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.121	Other acute osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.122	Other acute osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.129	Other acute osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.131	Other acute osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.132	Other acute osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.139	Other acute osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.141	Other acute osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.142	Other acute osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.149	Other acute osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.151	Other acute osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.152	Other acute osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.159	Other acute osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.161	Other acute osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.162	Other acute osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.169	Other acute osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.171	Other acute osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.172	Other acute osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.179	Other acute osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.18	Other acute osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.19	Other acute osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.20	Subacute osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.211	Subacute osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.212	Subacute osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.219	Subacute osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.221	Subacute osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.222	Subacute osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.229	Subacute osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.231	Subacute osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.232	Subacute osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.239	Subacute osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
M86.241	Subacute osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.242	Subacute osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.249	Subacute osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.251	Subacute osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.252	Subacute osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.259	Subacute osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.261	Subacute osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.262	Subacute osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.269	Subacute osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.271	Subacute osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.272	Subacute osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.279	Subacute osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.28	Subacute osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.29	Subacute osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.8X0	Other osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.8X1	Other osteomyelitis, shoulder	Diagnosis	ICD-10-CM
M86.8X2	Other osteomyelitis, upper arm	Diagnosis	ICD-10-CM
M86.8X3	Other osteomyelitis, forearm	Diagnosis	ICD-10-CM
M86.8X4	Other osteomyelitis, hand	Diagnosis	ICD-10-CM
M86.8X5	Other osteomyelitis, thigh	Diagnosis	ICD-10-CM
M86.8X6	Other osteomyelitis, lower leg	Diagnosis	ICD-10-CM
M86.8X7	Other osteomyelitis, ankle and foot	Diagnosis	ICD-10-CM
M86.8X8	Other osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.8X9	Other osteomyelitis, unspecified sites	Diagnosis	ICD-10-CM
M86.9	Osteomyelitis, unspecified	Diagnosis	ICD-10-CM
Bacteremia			
A02.1	Salmonella sepsis	Diagnosis	ICD-10-CM
A32.7	Listerial sepsis	Diagnosis	ICD-10-CM
A32.82	Listerial endocarditis	Diagnosis	ICD-10-CM
A39.2	Acute meningococcemia	Diagnosis	ICD-10-CM
A39.4	Meningococcemia, unspecified	Diagnosis	ICD-10-CM
A39.51	Meningococcal endocarditis	Diagnosis	ICD-10-CM
A40.0	Sepsis due to streptococcus, group A	Diagnosis	ICD-10-CM
A40.1	Sepsis due to streptococcus, group B	Diagnosis	ICD-10-CM
A40.3	Sepsis due to Streptococcus pneumoniae	Diagnosis	ICD-10-CM
A40.8	Other streptococcal sepsis	Diagnosis	ICD-10-CM
A40.9	Streptococcal sepsis, unspecified	Diagnosis	ICD-10-CM
A41.01	Sepsis due to Methicillin susceptible Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.02	Sepsis due to Methicillin resistant Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.1	Sepsis due to other specified staphylococcus	Diagnosis	ICD-10-CM
A41.2	Sepsis due to unspecified staphylococcus	Diagnosis	ICD-10-CM
A41.3	Sepsis due to Hemophilus influenzae	Diagnosis	ICD-10-CM
A41.4	Sepsis due to anaerobes	Diagnosis	ICD-10-CM
A41.50	Gram-negative sepsis, unspecified	Diagnosis	ICD-10-CM
A41.51	Sepsis due to Escherichia coli [E. coli]	Diagnosis	ICD-10-CM
A41.52	Sepsis due to Pseudomonas	Diagnosis	ICD-10-CM
A41.53	Sepsis due to Serratia	Diagnosis	ICD-10-CM
A41.59	Other Gram-negative sepsis	Diagnosis	ICD-10-CM
A41.81	Sepsis due to Enterococcus	Diagnosis	ICD-10-CM
A41.89	Other specified sepsis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A41.9	Sepsis, unspecified organism	Diagnosis	ICD-10-CM
A42.7	Actinomycotic sepsis	Diagnosis	ICD-10-CM
A54.86	Gonococcal sepsis	Diagnosis	ICD-10-CM
B33.21	Viral endocarditis	Diagnosis	ICD-10-CM
B37.6	Candidal endocarditis	Diagnosis	ICD-10-CM
B37.7	Candidal sepsis	Diagnosis	ICD-10-CM
I33.0	Acute and subacute infective endocarditis	Diagnosis	ICD-10-CM
I76	Septic arterial embolism	Diagnosis	ICD-10-CM
R65.20	Severe sepsis without septic shock	Diagnosis	ICD-10-CM
R65.21	Severe sepsis with septic shock	Diagnosis	ICD-10-CM
R78.81	Bacteremia	Diagnosis	ICD-10-CM
Skin/Soft Tissue Infection			
A31.1	Cutaneous mycobacterial infection	Diagnosis	ICD-10-CM
A36.3	Cutaneous diphtheria	Diagnosis	ICD-10-CM
A43.1	Cutaneous nocardiosis	Diagnosis	ICD-10-CM
A46	Erysipelas	Diagnosis	ICD-10-CM
A48.0	Gas gangrene	Diagnosis	ICD-10-CM
H00.031	Abscess of right upper eyelid	Diagnosis	ICD-10-CM
H00.032	Abscess of right lower eyelid	Diagnosis	ICD-10-CM
H00.033	Abscess of eyelid right eye, unspecified eyelid	Diagnosis	ICD-10-CM
H00.034	Abscess of left upper eyelid	Diagnosis	ICD-10-CM
H00.035	Abscess of left lower eyelid	Diagnosis	ICD-10-CM
H00.036	Abscess of eyelid left eye, unspecified eyelid	Diagnosis	ICD-10-CM
H00.039	Abscess of eyelid unspecified eye, unspecified eyelid	Diagnosis	ICD-10-CM
H05.011	Cellulitis of right orbit	Diagnosis	ICD-10-CM
H05.012	Cellulitis of left orbit	Diagnosis	ICD-10-CM
H05.013	Cellulitis of bilateral orbits	Diagnosis	ICD-10-CM
H05.019	Cellulitis of unspecified orbit	Diagnosis	ICD-10-CM
H60.00	Abscess of external ear, unspecified ear	Diagnosis	ICD-10-CM
H60.01	Abscess of right external ear	Diagnosis	ICD-10-CM
H60.02	Abscess of left external ear	Diagnosis	ICD-10-CM
H60.03	Abscess of external ear, bilateral	Diagnosis	ICD-10-CM
H60.10	Cellulitis of external ear, unspecified ear	Diagnosis	ICD-10-CM
H60.11	Cellulitis of right external ear	Diagnosis	ICD-10-CM
H60.12	Cellulitis of left external ear	Diagnosis	ICD-10-CM
H60.13	Cellulitis of external ear, bilateral	Diagnosis	ICD-10-CM
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.268	Atherosclerosis of native arteries of extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.269	Atherosclerosis of native arteries of extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I73.01	Raynaud's syndrome with gangrene	Diagnosis	ICD-10-CM
I96	Gangrene, not elsewhere classified	Diagnosis	ICD-10-CM
J34.0	Abscess, furuncle and carbuncle of nose	Diagnosis	ICD-10-CM
J85.0	Gangrene and necrosis of lung	Diagnosis	ICD-10-CM
K12.2	Cellulitis and abscess of mouth	Diagnosis	ICD-10-CM
K61.0	Anal abscess	Diagnosis	ICD-10-CM
K61.1	Rectal abscess	Diagnosis	ICD-10-CM
K61.2	Anorectal abscess	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
K61.3	Ischiorectal abscess	Diagnosis	ICD-10-CM
L01.00	Impetigo, unspecified	Diagnosis	ICD-10-CM
L01.01	Non-bullous impetigo	Diagnosis	ICD-10-CM
L01.02	Bockhart's impetigo	Diagnosis	ICD-10-CM
L01.03	Bullous impetigo	Diagnosis	ICD-10-CM
L01.09	Other impetigo	Diagnosis	ICD-10-CM
L01.1	Impetiginization of other dermatoses	Diagnosis	ICD-10-CM
L02.01	Cutaneous abscess of face	Diagnosis	ICD-10-CM
L02.02	Furuncle of face	Diagnosis	ICD-10-CM
L02.03	Carbuncle of face	Diagnosis	ICD-10-CM
L02.11	Cutaneous abscess of neck	Diagnosis	ICD-10-CM
L02.12	Furuncle of neck	Diagnosis	ICD-10-CM
L02.13	Carbuncle of neck	Diagnosis	ICD-10-CM
L02.211	Cutaneous abscess of abdominal wall	Diagnosis	ICD-10-CM
L02.212	Cutaneous abscess of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.213	Cutaneous abscess of chest wall	Diagnosis	ICD-10-CM
L02.214	Cutaneous abscess of groin	Diagnosis	ICD-10-CM
L02.215	Cutaneous abscess of perineum	Diagnosis	ICD-10-CM
L02.216	Cutaneous abscess of umbilicus	Diagnosis	ICD-10-CM
L02.219	Cutaneous abscess of trunk, unspecified	Diagnosis	ICD-10-CM
L02.221	Furuncle of abdominal wall	Diagnosis	ICD-10-CM
L02.222	Furuncle of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.223	Furuncle of chest wall	Diagnosis	ICD-10-CM
L02.224	Furuncle of groin	Diagnosis	ICD-10-CM
L02.225	Furuncle of perineum	Diagnosis	ICD-10-CM
L02.226	Furuncle of umbilicus	Diagnosis	ICD-10-CM
L02.229	Furuncle of trunk, unspecified	Diagnosis	ICD-10-CM
L02.231	Carbuncle of abdominal wall	Diagnosis	ICD-10-CM
L02.232	Carbuncle of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.233	Carbuncle of chest wall	Diagnosis	ICD-10-CM
L02.234	Carbuncle of groin	Diagnosis	ICD-10-CM
L02.235	Carbuncle of perineum	Diagnosis	ICD-10-CM
L02.236	Carbuncle of umbilicus	Diagnosis	ICD-10-CM
L02.239	Carbuncle of trunk, unspecified	Diagnosis	ICD-10-CM
L02.31	Cutaneous abscess of buttock	Diagnosis	ICD-10-CM
L02.32	Furuncle of buttock	Diagnosis	ICD-10-CM
L02.33	Carbuncle of buttock	Diagnosis	ICD-10-CM
L02.411	Cutaneous abscess of right axilla	Diagnosis	ICD-10-CM
L02.412	Cutaneous abscess of left axilla	Diagnosis	ICD-10-CM
L02.413	Cutaneous abscess of right upper limb	Diagnosis	ICD-10-CM
L02.414	Cutaneous abscess of left upper limb	Diagnosis	ICD-10-CM
L02.415	Cutaneous abscess of right lower limb	Diagnosis	ICD-10-CM
L02.416	Cutaneous abscess of left lower limb	Diagnosis	ICD-10-CM
L02.419	Cutaneous abscess of limb, unspecified	Diagnosis	ICD-10-CM
L02.421	Furuncle of right axilla	Diagnosis	ICD-10-CM
L02.422	Furuncle of left axilla	Diagnosis	ICD-10-CM
L02.423	Furuncle of right upper limb	Diagnosis	ICD-10-CM
L02.424	Furuncle of left upper limb	Diagnosis	ICD-10-CM
L02.425	Furuncle of right lower limb	Diagnosis	ICD-10-CM
L02.426	Furuncle of left lower limb	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
L02.429	Furuncle of limb, unspecified	Diagnosis	ICD-10-CM
L02.431	Carbuncle of right axilla	Diagnosis	ICD-10-CM
L02.432	Carbuncle of left axilla	Diagnosis	ICD-10-CM
L02.433	Carbuncle of right upper limb	Diagnosis	ICD-10-CM
L02.434	Carbuncle of left upper limb	Diagnosis	ICD-10-CM
L02.435	Carbuncle of right lower limb	Diagnosis	ICD-10-CM
L02.436	Carbuncle of left lower limb	Diagnosis	ICD-10-CM
L02.439	Carbuncle of limb, unspecified	Diagnosis	ICD-10-CM
L02.511	Cutaneous abscess of right hand	Diagnosis	ICD-10-CM
L02.512	Cutaneous abscess of left hand	Diagnosis	ICD-10-CM
L02.519	Cutaneous abscess of unspecified hand	Diagnosis	ICD-10-CM
L02.521	Furuncle right hand	Diagnosis	ICD-10-CM
L02.522	Furuncle left hand	Diagnosis	ICD-10-CM
L02.529	Furuncle unspecified hand	Diagnosis	ICD-10-CM
L02.531	Carbuncle of right hand	Diagnosis	ICD-10-CM
L02.532	Carbuncle of left hand	Diagnosis	ICD-10-CM
L02.539	Carbuncle of unspecified hand	Diagnosis	ICD-10-CM
L02.611	Cutaneous abscess of right foot	Diagnosis	ICD-10-CM
L02.612	Cutaneous abscess of left foot	Diagnosis	ICD-10-CM
L02.619	Cutaneous abscess of unspecified foot	Diagnosis	ICD-10-CM
L02.621	Furuncle of right foot	Diagnosis	ICD-10-CM
L02.622	Furuncle of left foot	Diagnosis	ICD-10-CM
L02.629	Furuncle of unspecified foot	Diagnosis	ICD-10-CM
L02.631	Carbuncle of right foot	Diagnosis	ICD-10-CM
L02.632	Carbuncle of left foot	Diagnosis	ICD-10-CM
L02.639	Carbuncle of unspecified foot	Diagnosis	ICD-10-CM
L02.811	Cutaneous abscess of head [any part, except face]	Diagnosis	ICD-10-CM
L02.818	Cutaneous abscess of other sites	Diagnosis	ICD-10-CM
L02.821	Furuncle of head [any part, except face]	Diagnosis	ICD-10-CM
L02.828	Furuncle of other sites	Diagnosis	ICD-10-CM
L02.831	Carbuncle of head [any part, except face]	Diagnosis	ICD-10-CM
L02.838	Carbuncle of other sites	Diagnosis	ICD-10-CM
L02.91	Cutaneous abscess, unspecified	Diagnosis	ICD-10-CM
L02.92	Furuncle, unspecified	Diagnosis	ICD-10-CM
L02.93	Carbuncle, unspecified	Diagnosis	ICD-10-CM
L03.011	Cellulitis of right finger	Diagnosis	ICD-10-CM
L03.012	Cellulitis of left finger	Diagnosis	ICD-10-CM
L03.019	Cellulitis of unspecified finger	Diagnosis	ICD-10-CM
L03.031	Cellulitis of right toe	Diagnosis	ICD-10-CM
L03.032	Cellulitis of left toe	Diagnosis	ICD-10-CM
L03.039	Cellulitis of unspecified toe	Diagnosis	ICD-10-CM
L03.111	Cellulitis of right axilla	Diagnosis	ICD-10-CM
L03.112	Cellulitis of left axilla	Diagnosis	ICD-10-CM
L03.113	Cellulitis of right upper limb	Diagnosis	ICD-10-CM
L03.114	Cellulitis of left upper limb	Diagnosis	ICD-10-CM
L03.115	Cellulitis of right lower limb	Diagnosis	ICD-10-CM
L03.116	Cellulitis of left lower limb	Diagnosis	ICD-10-CM
L03.119	Cellulitis of unspecified part of limb	Diagnosis	ICD-10-CM
L03.211	Cellulitis of face	Diagnosis	ICD-10-CM
L03.213	Periorbital cellulitis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
L03.221	Cellulitis of neck	Diagnosis	ICD-10-CM
L03.311	Cellulitis of abdominal wall	Diagnosis	ICD-10-CM
L03.312	Cellulitis of back [any part except buttock]	Diagnosis	ICD-10-CM
L03.313	Cellulitis of chest wall	Diagnosis	ICD-10-CM
L03.314	Cellulitis of groin	Diagnosis	ICD-10-CM
L03.315	Cellulitis of perineum	Diagnosis	ICD-10-CM
L03.316	Cellulitis of umbilicus	Diagnosis	ICD-10-CM
L03.317	Cellulitis of buttock	Diagnosis	ICD-10-CM
L03.319	Cellulitis of trunk, unspecified	Diagnosis	ICD-10-CM
L03.811	Cellulitis of head [any part, except face]	Diagnosis	ICD-10-CM
L03.818	Cellulitis of other sites	Diagnosis	ICD-10-CM
L03.90	Cellulitis, unspecified	Diagnosis	ICD-10-CM
L05.01	Pilonidal cyst with abscess	Diagnosis	ICD-10-CM
L05.02	Pilonidal sinus with abscess	Diagnosis	ICD-10-CM
L05.91	Pilonidal cyst without abscess	Diagnosis	ICD-10-CM
L05.92	Pilonidal sinus without abscess	Diagnosis	ICD-10-CM
L08.89	Other specified local infections of the skin and subcutaneous tissue	Diagnosis	ICD-10-CM
L08.9	Local infection of the skin and subcutaneous tissue, unspecified	Diagnosis	ICD-10-CM
M72.6	Necrotizing fasciitis	Diagnosis	ICD-10-CM
N48.21	Abscess of corpus cavernosum and penis	Diagnosis	ICD-10-CM
N48.22	Cellulitis of corpus cavernosum and penis	Diagnosis	ICD-10-CM
N61.1	Abscess of the breast and nipple	Diagnosis	ICD-10-CM
N73.0	Acute parametritis and pelvic cellulitis	Diagnosis	ICD-10-CM
N73.2	Unspecified parametritis and pelvic cellulitis	Diagnosis	ICD-10-CM
Serious and Non-Serious Infection			
A00.0	Cholera due to <i>Vibrio cholerae</i> 01, biovar cholerae	Diagnosis	ICD-10-CM
A00.1	Cholera due to <i>Vibrio cholerae</i> 01, biovar eltor	Diagnosis	ICD-10-CM
A00.9	Cholera, unspecified	Diagnosis	ICD-10-CM
A01.00	Typhoid fever, unspecified	Diagnosis	ICD-10-CM
A01.01	Typhoid meningitis	Diagnosis	ICD-10-CM
A01.02	Typhoid fever with heart involvement	Diagnosis	ICD-10-CM
A01.03	Typhoid pneumonia	Diagnosis	ICD-10-CM
A01.04	Typhoid arthritis	Diagnosis	ICD-10-CM
A01.05	Typhoid osteomyelitis	Diagnosis	ICD-10-CM
A01.09	Typhoid fever with other complications	Diagnosis	ICD-10-CM
A01.1	Paratyphoid fever A	Diagnosis	ICD-10-CM
A01.2	Paratyphoid fever B	Diagnosis	ICD-10-CM
A01.3	Paratyphoid fever C	Diagnosis	ICD-10-CM
A01.4	Paratyphoid fever, unspecified	Diagnosis	ICD-10-CM
A02.0	Salmonella enteritis	Diagnosis	ICD-10-CM
A02.1	Salmonella sepsis	Diagnosis	ICD-10-CM
A02.20	Localized salmonella infection, unspecified	Diagnosis	ICD-10-CM
A02.21	Salmonella meningitis	Diagnosis	ICD-10-CM
A02.22	Salmonella pneumonia	Diagnosis	ICD-10-CM
A02.23	Salmonella arthritis	Diagnosis	ICD-10-CM
A02.24	Salmonella osteomyelitis	Diagnosis	ICD-10-CM
A02.25	Salmonella pyelonephritis	Diagnosis	ICD-10-CM
A02.29	Salmonella with other localized infection	Diagnosis	ICD-10-CM
A02.8	Other specified salmonella infections	Diagnosis	ICD-10-CM
A02.9	Salmonella infection, unspecified	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A03.0	Shigellosis due to <i>Shigella dysenteriae</i>	Diagnosis	ICD-10-CM
A03.1	Shigellosis due to <i>Shigella flexneri</i>	Diagnosis	ICD-10-CM
A03.2	Shigellosis due to <i>Shigella boydii</i>	Diagnosis	ICD-10-CM
A03.3	Shigellosis due to <i>Shigella sonnei</i>	Diagnosis	ICD-10-CM
A03.8	Other shigellosis	Diagnosis	ICD-10-CM
A03.9	Shigellosis, unspecified	Diagnosis	ICD-10-CM
A04	Other bacterial intestinal infections	Diagnosis	ICD-10-CM
A04.0	Enteropathogenic <i>Escherichia coli</i> infection	Diagnosis	ICD-10-CM
A04.1	Enterotoxigenic <i>Escherichia coli</i> infection	Diagnosis	ICD-10-CM
A04.2	Enteroinvasive <i>Escherichia coli</i> infection	Diagnosis	ICD-10-CM
A04.3	Enterohemorrhagic <i>Escherichia coli</i> infection	Diagnosis	ICD-10-CM
A04.4	Other intestinal <i>Escherichia coli</i> infections	Diagnosis	ICD-10-CM
A04.5	<i>Campylobacter</i> enteritis	Diagnosis	ICD-10-CM
A04.6	Enteritis due to <i>Yersinia enterocolitica</i>	Diagnosis	ICD-10-CM
A04.7	Enterocolitis due to <i>Clostridium difficile</i>	Diagnosis	ICD-10-CM
A04.71	Enterocolitis due to <i>Clostridium difficile</i> , recurrent	Diagnosis	ICD-10-CM
A04.72	Enterocolitis due to <i>Clostridium difficile</i> , not specified as recurrent	Diagnosis	ICD-10-CM
A04.8	Other specified bacterial intestinal infections	Diagnosis	ICD-10-CM
A04.9	Bacterial intestinal infection, unspecified	Diagnosis	ICD-10-CM
A05.0	Foodborne staphylococcal intoxication	Diagnosis	ICD-10-CM
A05.1	Botulism food poisoning	Diagnosis	ICD-10-CM
A05.2	Foodborne <i>Clostridium perfringens</i> [<i>Clostridium welchii</i>] intoxication	Diagnosis	ICD-10-CM
A05.3	Foodborne <i>Vibrio parahaemolyticus</i> intoxication	Diagnosis	ICD-10-CM
A05.4	Foodborne <i>Bacillus cereus</i> intoxication	Diagnosis	ICD-10-CM
A05.5	Foodborne <i>Vibrio vulnificus</i> intoxication	Diagnosis	ICD-10-CM
A05.8	Other specified bacterial foodborne intoxications	Diagnosis	ICD-10-CM
A05.9	Bacterial foodborne intoxication, unspecified	Diagnosis	ICD-10-CM
A06.0	Acute amebic dysentery	Diagnosis	ICD-10-CM
A06.1	Chronic intestinal amebiasis	Diagnosis	ICD-10-CM
A06.2	Amebic nondysenteric colitis	Diagnosis	ICD-10-CM
A06.3	Ameboma of intestine	Diagnosis	ICD-10-CM
A06.4	Amebic liver abscess	Diagnosis	ICD-10-CM
A06.5	Amebic lung abscess	Diagnosis	ICD-10-CM
A06.6	Amebic brain abscess	Diagnosis	ICD-10-CM
A06.7	Cutaneous amebiasis	Diagnosis	ICD-10-CM
A06.81	Amebic cystitis	Diagnosis	ICD-10-CM
A06.82	Other amebic genitourinary infections	Diagnosis	ICD-10-CM
A06.89	Other amebic infections	Diagnosis	ICD-10-CM
A06.9	Amebiasis, unspecified	Diagnosis	ICD-10-CM
A07.0	Balantidiasis	Diagnosis	ICD-10-CM
A07.1	Giardiasis [lamblia]s]	Diagnosis	ICD-10-CM
A07.2	Cryptosporidiosis	Diagnosis	ICD-10-CM
A07.3	Isosporiasis	Diagnosis	ICD-10-CM
A07.4	Cyclosporiasis	Diagnosis	ICD-10-CM
A07.8	Other specified protozoal intestinal diseases	Diagnosis	ICD-10-CM
A07.9	Protozoal intestinal disease, unspecified	Diagnosis	ICD-10-CM
A08.0	Rotaviral enteritis	Diagnosis	ICD-10-CM
A08.11	Acute gastroenteropathy due to Norwalk agent	Diagnosis	ICD-10-CM
A08.19	Acute gastroenteropathy due to other small round viruses	Diagnosis	ICD-10-CM
A08.2	Adenoviral enteritis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A08.31	Calicivirus enteritis	Diagnosis	ICD-10-CM
A08.32	Astrovirus enteritis	Diagnosis	ICD-10-CM
A08.39	Other viral enteritis	Diagnosis	ICD-10-CM
A08.4	Viral intestinal infection, unspecified	Diagnosis	ICD-10-CM
A08.8	Other specified intestinal infections	Diagnosis	ICD-10-CM
A09	Infectious gastroenteritis and colitis, unspecified	Diagnosis	ICD-10-CM
A15.0	Tuberculosis of lung	Diagnosis	ICD-10-CM
A15.4	Tuberculosis of intrathoracic lymph nodes	Diagnosis	ICD-10-CM
A15.5	Tuberculosis of larynx, trachea and bronchus	Diagnosis	ICD-10-CM
A15.6	Tuberculous pleurisy	Diagnosis	ICD-10-CM
A15.7	Primary respiratory tuberculosis	Diagnosis	ICD-10-CM
A15.8	Other respiratory tuberculosis	Diagnosis	ICD-10-CM
A15.9	Respiratory tuberculosis unspecified	Diagnosis	ICD-10-CM
A17.0	Tuberculous meningitis	Diagnosis	ICD-10-CM
A17.1	Meningeal tuberculoma	Diagnosis	ICD-10-CM
A17.81	Tuberculoma of brain and spinal cord	Diagnosis	ICD-10-CM
A17.82	Tuberculous meningoencephalitis	Diagnosis	ICD-10-CM
A17.83	Tuberculous neuritis	Diagnosis	ICD-10-CM
A17.89	Other tuberculosis of nervous system	Diagnosis	ICD-10-CM
A17.9	Tuberculosis of nervous system, unspecified	Diagnosis	ICD-10-CM
A18.01	Tuberculosis of spine	Diagnosis	ICD-10-CM
A18.02	Tuberculous arthritis of other joints	Diagnosis	ICD-10-CM
A18.03	Tuberculosis of other bones	Diagnosis	ICD-10-CM
A18.09	Other musculoskeletal tuberculosis	Diagnosis	ICD-10-CM
A18.10	Tuberculosis of genitourinary system, unspecified	Diagnosis	ICD-10-CM
A18.11	Tuberculosis of kidney and ureter	Diagnosis	ICD-10-CM
A18.12	Tuberculosis of bladder	Diagnosis	ICD-10-CM
A18.13	Tuberculosis of other urinary organs	Diagnosis	ICD-10-CM
A18.14	Tuberculosis of prostate	Diagnosis	ICD-10-CM
A18.15	Tuberculosis of other male genital organs	Diagnosis	ICD-10-CM
A18.16	Tuberculosis of cervix	Diagnosis	ICD-10-CM
A18.17	Tuberculous female pelvic inflammatory disease	Diagnosis	ICD-10-CM
A18.18	Tuberculosis of other female genital organs	Diagnosis	ICD-10-CM
A18.2	Tuberculous peripheral lymphadenopathy	Diagnosis	ICD-10-CM
A18.31	Tuberculous peritonitis	Diagnosis	ICD-10-CM
A18.32	Tuberculous enteritis	Diagnosis	ICD-10-CM
A18.39	Retroperitoneal tuberculosis	Diagnosis	ICD-10-CM
A18.4	Tuberculosis of skin and subcutaneous tissue	Diagnosis	ICD-10-CM
A18.50	Tuberculosis of eye, unspecified	Diagnosis	ICD-10-CM
A18.51	Tuberculous episcleritis	Diagnosis	ICD-10-CM
A18.52	Tuberculous keratitis	Diagnosis	ICD-10-CM
A18.53	Tuberculous chorioretinitis	Diagnosis	ICD-10-CM
A18.54	Tuberculous iridocyclitis	Diagnosis	ICD-10-CM
A18.59	Other tuberculosis of eye	Diagnosis	ICD-10-CM
A18.6	Tuberculosis of (inner) (middle) ear	Diagnosis	ICD-10-CM
A18.7	Tuberculosis of adrenal glands	Diagnosis	ICD-10-CM
A18.81	Tuberculosis of thyroid gland	Diagnosis	ICD-10-CM
A18.82	Tuberculosis of other endocrine glands	Diagnosis	ICD-10-CM
A18.83	Tuberculosis of digestive tract organs, not elsewhere classified	Diagnosis	ICD-10-CM
A18.84	Tuberculosis of heart	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A18.85	Tuberculosis of spleen	Diagnosis	ICD-10-CM
A18.89	Tuberculosis of other sites	Diagnosis	ICD-10-CM
A19.0	Acute miliary tuberculosis of a single specified site	Diagnosis	ICD-10-CM
A19.1	Acute miliary tuberculosis of multiple sites	Diagnosis	ICD-10-CM
A19.2	Acute miliary tuberculosis, unspecified	Diagnosis	ICD-10-CM
A19.8	Other miliary tuberculosis	Diagnosis	ICD-10-CM
A19.9	Miliary tuberculosis, unspecified	Diagnosis	ICD-10-CM
A20.0	Bubonic plague	Diagnosis	ICD-10-CM
A20.1	Cellulocutaneous plague	Diagnosis	ICD-10-CM
A20.2	Pneumonic plague	Diagnosis	ICD-10-CM
A20.3	Plague meningitis	Diagnosis	ICD-10-CM
A20.7	Septicemic plague	Diagnosis	ICD-10-CM
A20.8	Other forms of plague	Diagnosis	ICD-10-CM
A20.9	Plague, unspecified	Diagnosis	ICD-10-CM
A21.0	Ulceroglandular tularemia	Diagnosis	ICD-10-CM
A21.1	Oculoglandular tularemia	Diagnosis	ICD-10-CM
A21.2	Pulmonary tularemia	Diagnosis	ICD-10-CM
A21.3	Gastrointestinal tularemia	Diagnosis	ICD-10-CM
A21.7	Generalized tularemia	Diagnosis	ICD-10-CM
A21.8	Other forms of tularemia	Diagnosis	ICD-10-CM
A21.9	Tularemia, unspecified	Diagnosis	ICD-10-CM
A22.0	Cutaneous anthrax	Diagnosis	ICD-10-CM
A22.1	Pulmonary anthrax	Diagnosis	ICD-10-CM
A22.2	Gastrointestinal anthrax	Diagnosis	ICD-10-CM
A22.7	Anthrax sepsis	Diagnosis	ICD-10-CM
A22.8	Other forms of anthrax	Diagnosis	ICD-10-CM
A22.9	Anthrax, unspecified	Diagnosis	ICD-10-CM
A23.0	Brucellosis due to <i>Brucella melitensis</i>	Diagnosis	ICD-10-CM
A23.1	Brucellosis due to <i>Brucella abortus</i>	Diagnosis	ICD-10-CM
A23.2	Brucellosis due to <i>Brucella suis</i>	Diagnosis	ICD-10-CM
A23.3	Brucellosis due to <i>Brucella canis</i>	Diagnosis	ICD-10-CM
A23.8	Other brucellosis	Diagnosis	ICD-10-CM
A23.9	Brucellosis, unspecified	Diagnosis	ICD-10-CM
A24.0	Glanders	Diagnosis	ICD-10-CM
A24.1	Acute and fulminating melioidosis	Diagnosis	ICD-10-CM
A24.2	Subacute and chronic melioidosis	Diagnosis	ICD-10-CM
A24.3	Other melioidosis	Diagnosis	ICD-10-CM
A24.9	Melioidosis, unspecified	Diagnosis	ICD-10-CM
A25.0	Spirillosis	Diagnosis	ICD-10-CM
A25.1	Streptobacillosis	Diagnosis	ICD-10-CM
A25.9	Rat-bite fever, unspecified	Diagnosis	ICD-10-CM
A26.0	Cutaneous erysipeloid	Diagnosis	ICD-10-CM
A26.7	Erysipelothrix sepsis	Diagnosis	ICD-10-CM
A26.8	Other forms of erysipeloid	Diagnosis	ICD-10-CM
A26.9	Erysipeloid, unspecified	Diagnosis	ICD-10-CM
A27.0	Leptospirosis icterohemorrhagica	Diagnosis	ICD-10-CM
A27.81	Aseptic meningitis in leptospirosis	Diagnosis	ICD-10-CM
A27.89	Other forms of leptospirosis	Diagnosis	ICD-10-CM
A27.9	Leptospirosis, unspecified	Diagnosis	ICD-10-CM
A28.0	Pasteurellosis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A28.1	Cat-scratch disease	Diagnosis	ICD-10-CM
A28.2	Extraintestinal yersiniosis	Diagnosis	ICD-10-CM
A28.8	Other specified zoonotic bacterial diseases, not elsewhere classified	Diagnosis	ICD-10-CM
A28.9	Zoonotic bacterial disease, unspecified	Diagnosis	ICD-10-CM
A30.0	Indeterminate leprosy	Diagnosis	ICD-10-CM
A30.1	Tuberculoid leprosy	Diagnosis	ICD-10-CM
A30.2	Borderline tuberculoid leprosy	Diagnosis	ICD-10-CM
A30.3	Borderline leprosy	Diagnosis	ICD-10-CM
A30.4	Borderline lepromatous leprosy	Diagnosis	ICD-10-CM
A30.5	Lepromatous leprosy	Diagnosis	ICD-10-CM
A30.8	Other forms of leprosy	Diagnosis	ICD-10-CM
A30.9	Leprosy, unspecified	Diagnosis	ICD-10-CM
A31.0	Pulmonary mycobacterial infection	Diagnosis	ICD-10-CM
A31.1	Cutaneous mycobacterial infection	Diagnosis	ICD-10-CM
A31.2	Disseminated mycobacterium avium-intracellulare complex (DMAC)	Diagnosis	ICD-10-CM
A31.8	Other mycobacterial infections	Diagnosis	ICD-10-CM
A31.9	Mycobacterial infection, unspecified	Diagnosis	ICD-10-CM
A32.0	Cutaneous listeriosis	Diagnosis	ICD-10-CM
A32.11	Listerial meningitis	Diagnosis	ICD-10-CM
A32.12	Listerial meningoencephalitis	Diagnosis	ICD-10-CM
A32.7	Listerial sepsis	Diagnosis	ICD-10-CM
A32.81	Oculoglandular listeriosis	Diagnosis	ICD-10-CM
A32.82	Listerial endocarditis	Diagnosis	ICD-10-CM
A32.89	Other forms of listeriosis	Diagnosis	ICD-10-CM
A32.9	Listeriosis, unspecified	Diagnosis	ICD-10-CM
A33	Tetanus neonatorum	Diagnosis	ICD-10-CM
A34	Obstetrical tetanus	Diagnosis	ICD-10-CM
A35	Other tetanus	Diagnosis	ICD-10-CM
A36.0	Pharyngeal diphtheria	Diagnosis	ICD-10-CM
A36.1	Nasopharyngeal diphtheria	Diagnosis	ICD-10-CM
A36.2	Laryngeal diphtheria	Diagnosis	ICD-10-CM
A36.3	Cutaneous diphtheria	Diagnosis	ICD-10-CM
A36.81	Diphtheritic cardiomyopathy	Diagnosis	ICD-10-CM
A36.82	Diphtheritic radiculomyelitis	Diagnosis	ICD-10-CM
A36.83	Diphtheritic polyneuritis	Diagnosis	ICD-10-CM
A36.84	Diphtheritic tubulo-interstitial nephropathy	Diagnosis	ICD-10-CM
A36.85	Diphtheritic cystitis	Diagnosis	ICD-10-CM
A36.86	Diphtheritic conjunctivitis	Diagnosis	ICD-10-CM
A36.89	Other diphtheritic complications	Diagnosis	ICD-10-CM
A36.9	Diphtheria, unspecified	Diagnosis	ICD-10-CM
A37.00	Whooping cough due to Bordetella pertussis without pneumonia	Diagnosis	ICD-10-CM
A37.01	Whooping cough due to Bordetella pertussis with pneumonia	Diagnosis	ICD-10-CM
A37.10	Whooping cough due to Bordetella parapertussis without pneumonia	Diagnosis	ICD-10-CM
A37.11	Whooping cough due to Bordetella parapertussis with pneumonia	Diagnosis	ICD-10-CM
A37.80	Whooping cough due to other Bordetella species without pneumonia	Diagnosis	ICD-10-CM
A37.81	Whooping cough due to other Bordetella species with pneumonia	Diagnosis	ICD-10-CM
A37.90	Whooping cough, unspecified species without pneumonia	Diagnosis	ICD-10-CM
A37.91	Whooping cough, unspecified species with pneumonia	Diagnosis	ICD-10-CM
A38.0	Scarlet fever with otitis media	Diagnosis	ICD-10-CM
A38.1	Scarlet fever with myocarditis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A38.8	Scarlet fever with other complications	Diagnosis	ICD-10-CM
A38.9	Scarlet fever, uncomplicated	Diagnosis	ICD-10-CM
A39.0	Meningococcal meningitis	Diagnosis	ICD-10-CM
A39.1	Waterhouse-Friderichsen syndrome	Diagnosis	ICD-10-CM
A39.2	Acute meningococemia	Diagnosis	ICD-10-CM
A39.3	Chronic meningococemia	Diagnosis	ICD-10-CM
A39.4	Meningococemia, unspecified	Diagnosis	ICD-10-CM
A39.50	Meningococcal carditis, unspecified	Diagnosis	ICD-10-CM
A39.51	Meningococcal endocarditis	Diagnosis	ICD-10-CM
A39.52	Meningococcal myocarditis	Diagnosis	ICD-10-CM
A39.53	Meningococcal pericarditis	Diagnosis	ICD-10-CM
A39.81	Meningococcal encephalitis	Diagnosis	ICD-10-CM
A39.82	Meningococcal retrobulbar neuritis	Diagnosis	ICD-10-CM
A39.83	Meningococcal arthritis	Diagnosis	ICD-10-CM
A39.84	Postmeningococcal arthritis	Diagnosis	ICD-10-CM
A39.89	Other meningococcal infections	Diagnosis	ICD-10-CM
A39.9	Meningococcal infection, unspecified	Diagnosis	ICD-10-CM
A40.0	Sepsis due to streptococcus, group A	Diagnosis	ICD-10-CM
A40.1	Sepsis due to streptococcus, group B	Diagnosis	ICD-10-CM
A40.3	Sepsis due to Streptococcus pneumoniae	Diagnosis	ICD-10-CM
A40.8	Other streptococcal sepsis	Diagnosis	ICD-10-CM
A40.9	Streptococcal sepsis, unspecified	Diagnosis	ICD-10-CM
A41	Other sepsis	Diagnosis	ICD-10-CM
A41.0	Sepsis due to Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.01	Sepsis due to Methicillin susceptible Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.02	Sepsis due to Methicillin resistant Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.1	Sepsis due to other specified staphylococcus	Diagnosis	ICD-10-CM
A41.2	Sepsis due to unspecified staphylococcus	Diagnosis	ICD-10-CM
A41.3	Sepsis due to Hemophilus influenzae	Diagnosis	ICD-10-CM
A41.4	Sepsis due to anaerobes	Diagnosis	ICD-10-CM
A41.5	Sepsis due to other Gram-negative organisms	Diagnosis	ICD-10-CM
A41.50	Gram-negative sepsis, unspecified	Diagnosis	ICD-10-CM
A41.51	Sepsis due to Escherichia coli [E. coli]	Diagnosis	ICD-10-CM
A41.52	Sepsis due to Pseudomonas	Diagnosis	ICD-10-CM
A41.53	Sepsis due to Serratia	Diagnosis	ICD-10-CM
A41.59	Other Gram-negative sepsis	Diagnosis	ICD-10-CM
A41.8	Other specified sepsis	Diagnosis	ICD-10-CM
A41.81	Sepsis due to Enterococcus	Diagnosis	ICD-10-CM
A41.89	Other specified sepsis	Diagnosis	ICD-10-CM
A41.9	Sepsis, unspecified organism	Diagnosis	ICD-10-CM
A42.0	Pulmonary actinomycosis	Diagnosis	ICD-10-CM
A42.1	Abdominal actinomycosis	Diagnosis	ICD-10-CM
A42.2	Cervicofacial actinomycosis	Diagnosis	ICD-10-CM
A42.7	Actinomycotic sepsis	Diagnosis	ICD-10-CM
A42.81	Actinomycotic meningitis	Diagnosis	ICD-10-CM
A42.82	Actinomycotic encephalitis	Diagnosis	ICD-10-CM
A42.89	Other forms of actinomycosis	Diagnosis	ICD-10-CM
A42.9	Actinomycosis, unspecified	Diagnosis	ICD-10-CM
A43.0	Pulmonary nocardiosis	Diagnosis	ICD-10-CM
A43.1	Cutaneous nocardiosis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A43.8	Other forms of nocardiosis	Diagnosis	ICD-10-CM
A43.9	Nocardiosis, unspecified	Diagnosis	ICD-10-CM
A44.0	Systemic bartonellosis	Diagnosis	ICD-10-CM
A44.1	Cutaneous and mucocutaneous bartonellosis	Diagnosis	ICD-10-CM
A44.8	Other forms of bartonellosis	Diagnosis	ICD-10-CM
A44.9	Bartonellosis, unspecified	Diagnosis	ICD-10-CM
A46	Erysipelas	Diagnosis	ICD-10-CM
A48.0	Gas gangrene	Diagnosis	ICD-10-CM
A48.1	Legionnaires' disease	Diagnosis	ICD-10-CM
A48.2	Nonpneumonic Legionnaires' disease [Pontiac fever]	Diagnosis	ICD-10-CM
A48.3	Toxic shock syndrome	Diagnosis	ICD-10-CM
A48.4	Brazilian purpuric fever	Diagnosis	ICD-10-CM
A48.51	Infant botulism	Diagnosis	ICD-10-CM
A48.52	Wound botulism	Diagnosis	ICD-10-CM
A48.8	Other specified bacterial diseases	Diagnosis	ICD-10-CM
A49.01	Methicillin susceptible Staphylococcus aureus infection, unspecified site	Diagnosis	ICD-10-CM
A49.02	Methicillin resistant Staphylococcus aureus infection, unspecified site	Diagnosis	ICD-10-CM
A49.1	Streptococcal infection, unspecified site	Diagnosis	ICD-10-CM
A49.2	Hemophilus influenzae infection, unspecified site	Diagnosis	ICD-10-CM
A49.3	Mycoplasma infection, unspecified site	Diagnosis	ICD-10-CM
A49.8	Other bacterial infections of unspecified site	Diagnosis	ICD-10-CM
A49.9	Bacterial infection, unspecified	Diagnosis	ICD-10-CM
A50.01	Early congenital syphilitic ophthalmopathy	Diagnosis	ICD-10-CM
A50.02	Early congenital syphilitic osteochondropathy	Diagnosis	ICD-10-CM
A50.03	Early congenital syphilitic pharyngitis	Diagnosis	ICD-10-CM
A50.04	Early congenital syphilitic pneumonia	Diagnosis	ICD-10-CM
A50.05	Early congenital syphilitic rhinitis	Diagnosis	ICD-10-CM
A50.06	Early cutaneous congenital syphilis	Diagnosis	ICD-10-CM
A50.07	Early mucocutaneous congenital syphilis	Diagnosis	ICD-10-CM
A50.08	Early visceral congenital syphilis	Diagnosis	ICD-10-CM
A50.09	Other early congenital syphilis, symptomatic	Diagnosis	ICD-10-CM
A50.1	Early congenital syphilis, latent	Diagnosis	ICD-10-CM
A50.2	Early congenital syphilis, unspecified	Diagnosis	ICD-10-CM
A50.30	Late congenital syphilitic ophthalmopathy, unspecified	Diagnosis	ICD-10-CM
A50.31	Late congenital syphilitic interstitial keratitis	Diagnosis	ICD-10-CM
A50.32	Late congenital syphilitic chorioretinitis	Diagnosis	ICD-10-CM
A50.39	Other late congenital syphilitic ophthalmopathy	Diagnosis	ICD-10-CM
A50.40	Late congenital neurosyphilis, unspecified	Diagnosis	ICD-10-CM
A50.41	Late congenital syphilitic meningitis	Diagnosis	ICD-10-CM
A50.42	Late congenital syphilitic encephalitis	Diagnosis	ICD-10-CM
A50.43	Late congenital syphilitic polyneuropathy	Diagnosis	ICD-10-CM
A50.44	Late congenital syphilitic optic nerve atrophy	Diagnosis	ICD-10-CM
A50.45	Juvenile general paresis	Diagnosis	ICD-10-CM
A50.49	Other late congenital neurosyphilis	Diagnosis	ICD-10-CM
A50.51	Clutton's joints	Diagnosis	ICD-10-CM
A50.52	Hutchinson's teeth	Diagnosis	ICD-10-CM
A50.53	Hutchinson's triad	Diagnosis	ICD-10-CM
A50.54	Late congenital cardiovascular syphilis	Diagnosis	ICD-10-CM
A50.55	Late congenital syphilitic arthropathy	Diagnosis	ICD-10-CM
A50.56	Late congenital syphilitic osteochondropathy	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A50.57	Syphilitic saddle nose	Diagnosis	ICD-10-CM
A50.59	Other late congenital syphilis, symptomatic	Diagnosis	ICD-10-CM
A50.6	Late congenital syphilis, latent	Diagnosis	ICD-10-CM
A50.7	Late congenital syphilis, unspecified	Diagnosis	ICD-10-CM
A50.9	Congenital syphilis, unspecified	Diagnosis	ICD-10-CM
A51.0	Primary genital syphilis	Diagnosis	ICD-10-CM
A51.1	Primary anal syphilis	Diagnosis	ICD-10-CM
A51.2	Primary syphilis of other sites	Diagnosis	ICD-10-CM
A51.31	Condyloma latum	Diagnosis	ICD-10-CM
A51.32	Syphilitic alopecia	Diagnosis	ICD-10-CM
A51.39	Other secondary syphilis of skin	Diagnosis	ICD-10-CM
A51.41	Secondary syphilitic meningitis	Diagnosis	ICD-10-CM
A51.42	Secondary syphilitic female pelvic disease	Diagnosis	ICD-10-CM
A51.43	Secondary syphilitic oculopathy	Diagnosis	ICD-10-CM
A51.44	Secondary syphilitic nephritis	Diagnosis	ICD-10-CM
A51.45	Secondary syphilitic hepatitis	Diagnosis	ICD-10-CM
A51.46	Secondary syphilitic osteopathy	Diagnosis	ICD-10-CM
A51.49	Other secondary syphilitic conditions	Diagnosis	ICD-10-CM
A51.5	Early syphilis, latent	Diagnosis	ICD-10-CM
A51.9	Early syphilis, unspecified	Diagnosis	ICD-10-CM
A52.00	Cardiovascular syphilis, unspecified	Diagnosis	ICD-10-CM
A52.01	Syphilitic aneurysm of aorta	Diagnosis	ICD-10-CM
A52.02	Syphilitic aortitis	Diagnosis	ICD-10-CM
A52.03	Syphilitic endocarditis	Diagnosis	ICD-10-CM
A52.04	Syphilitic cerebral arteritis	Diagnosis	ICD-10-CM
A52.05	Other cerebrovascular syphilis	Diagnosis	ICD-10-CM
A52.06	Other syphilitic heart involvement	Diagnosis	ICD-10-CM
A52.09	Other cardiovascular syphilis	Diagnosis	ICD-10-CM
A52.10	Symptomatic neurosyphilis, unspecified	Diagnosis	ICD-10-CM
A52.11	Tabes dorsalis	Diagnosis	ICD-10-CM
A52.12	Other cerebrospinal syphilis	Diagnosis	ICD-10-CM
A52.13	Late syphilitic meningitis	Diagnosis	ICD-10-CM
A52.14	Late syphilitic encephalitis	Diagnosis	ICD-10-CM
A52.15	Late syphilitic neuropathy	Diagnosis	ICD-10-CM
A52.16	Charcot's arthropathy (tabetic)	Diagnosis	ICD-10-CM
A52.17	General paresis	Diagnosis	ICD-10-CM
A52.19	Other symptomatic neurosyphilis	Diagnosis	ICD-10-CM
A52.2	Asymptomatic neurosyphilis	Diagnosis	ICD-10-CM
A52.3	Neurosyphilis, unspecified	Diagnosis	ICD-10-CM
A52.71	Late syphilitic oculopathy	Diagnosis	ICD-10-CM
A52.72	Syphilis of lung and bronchus	Diagnosis	ICD-10-CM
A52.73	Symptomatic late syphilis of other respiratory organs	Diagnosis	ICD-10-CM
A52.74	Syphilis of liver and other viscera	Diagnosis	ICD-10-CM
A52.75	Syphilis of kidney and ureter	Diagnosis	ICD-10-CM
A52.76	Other genitourinary symptomatic late syphilis	Diagnosis	ICD-10-CM
A52.77	Syphilis of bone and joint	Diagnosis	ICD-10-CM
A52.78	Syphilis of other musculoskeletal tissue	Diagnosis	ICD-10-CM
A52.79	Other symptomatic late syphilis	Diagnosis	ICD-10-CM
A52.8	Late syphilis, latent	Diagnosis	ICD-10-CM
A52.9	Late syphilis, unspecified	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A53.0	Latent syphilis, unspecified as early or late	Diagnosis	ICD-10-CM
A53.9	Syphilis, unspecified	Diagnosis	ICD-10-CM
A54.00	Gonococcal infection of lower genitourinary tract, unspecified	Diagnosis	ICD-10-CM
A54.01	Gonococcal cystitis and urethritis, unspecified	Diagnosis	ICD-10-CM
A54.02	Gonococcal vulvovaginitis, unspecified	Diagnosis	ICD-10-CM
A54.03	Gonococcal cervicitis, unspecified	Diagnosis	ICD-10-CM
A54.09	Other gonococcal infection of lower genitourinary tract	Diagnosis	ICD-10-CM
A54.1	Gonococcal infection of lower genitourinary tract with periurethral and accessory gland abscess	Diagnosis	ICD-10-CM
A54.21	Gonococcal infection of kidney and ureter	Diagnosis	ICD-10-CM
A54.22	Gonococcal prostatitis	Diagnosis	ICD-10-CM
A54.23	Gonococcal infection of other male genital organs	Diagnosis	ICD-10-CM
A54.24	Gonococcal female pelvic inflammatory disease	Diagnosis	ICD-10-CM
A54.29	Other gonococcal genitourinary infections	Diagnosis	ICD-10-CM
A54.30	Gonococcal infection of eye, unspecified	Diagnosis	ICD-10-CM
A54.31	Gonococcal conjunctivitis	Diagnosis	ICD-10-CM
A54.32	Gonococcal iridocyclitis	Diagnosis	ICD-10-CM
A54.33	Gonococcal keratitis	Diagnosis	ICD-10-CM
A54.39	Other gonococcal eye infection	Diagnosis	ICD-10-CM
A54.40	Gonococcal infection of musculoskeletal system, unspecified	Diagnosis	ICD-10-CM
A54.41	Gonococcal spondylopathy	Diagnosis	ICD-10-CM
A54.42	Gonococcal arthritis	Diagnosis	ICD-10-CM
A54.43	Gonococcal osteomyelitis	Diagnosis	ICD-10-CM
A54.49	Gonococcal infection of other musculoskeletal tissue	Diagnosis	ICD-10-CM
A54.5	Gonococcal pharyngitis	Diagnosis	ICD-10-CM
A54.6	Gonococcal infection of anus and rectum	Diagnosis	ICD-10-CM
A54.81	Gonococcal meningitis	Diagnosis	ICD-10-CM
A54.82	Gonococcal brain abscess	Diagnosis	ICD-10-CM
A54.83	Gonococcal heart infection	Diagnosis	ICD-10-CM
A54.84	Gonococcal pneumonia	Diagnosis	ICD-10-CM
A54.85	Gonococcal peritonitis	Diagnosis	ICD-10-CM
A54.86	Gonococcal sepsis	Diagnosis	ICD-10-CM
A54.89	Other gonococcal infections	Diagnosis	ICD-10-CM
A54.9	Gonococcal infection, unspecified	Diagnosis	ICD-10-CM
A55	Chlamydial lymphogranuloma (venereum)	Diagnosis	ICD-10-CM
A56.00	Chlamydial infection of lower genitourinary tract, unspecified	Diagnosis	ICD-10-CM
A56.01	Chlamydial cystitis and urethritis	Diagnosis	ICD-10-CM
A56.02	Chlamydial vulvovaginitis	Diagnosis	ICD-10-CM
A56.09	Other chlamydial infection of lower genitourinary tract	Diagnosis	ICD-10-CM
A56.11	Chlamydial female pelvic inflammatory disease	Diagnosis	ICD-10-CM
A56.19	Other chlamydial genitourinary infection	Diagnosis	ICD-10-CM
A56.2	Chlamydial infection of genitourinary tract, unspecified	Diagnosis	ICD-10-CM
A56.3	Chlamydial infection of anus and rectum	Diagnosis	ICD-10-CM
A56.4	Chlamydial infection of pharynx	Diagnosis	ICD-10-CM
A56.8	Sexually transmitted chlamydial infection of other sites	Diagnosis	ICD-10-CM
A57	Chancroid	Diagnosis	ICD-10-CM
A58	Granuloma inguinale	Diagnosis	ICD-10-CM
A59.00	Urogenital trichomoniasis, unspecified	Diagnosis	ICD-10-CM
A59.01	Trichomonal vulvovaginitis	Diagnosis	ICD-10-CM
A59.02	Trichomonal prostatitis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A59.03	Trichomonal cystitis and urethritis	Diagnosis	ICD-10-CM
A59.09	Other urogenital trichomoniasis	Diagnosis	ICD-10-CM
A59.8	Trichomoniasis of other sites	Diagnosis	ICD-10-CM
A59.9	Trichomoniasis, unspecified	Diagnosis	ICD-10-CM
A60.00	Herpesviral infection of urogenital system, unspecified	Diagnosis	ICD-10-CM
A60.01	Herpesviral infection of penis	Diagnosis	ICD-10-CM
A60.02	Herpesviral infection of other male genital organs	Diagnosis	ICD-10-CM
A60.03	Herpesviral cervicitis	Diagnosis	ICD-10-CM
A60.04	Herpesviral vulvovaginitis	Diagnosis	ICD-10-CM
A60.09	Herpesviral infection of other urogenital tract	Diagnosis	ICD-10-CM
A60.1	Herpesviral infection of perianal skin and rectum	Diagnosis	ICD-10-CM
A60.9	Anogenital herpesviral infection, unspecified	Diagnosis	ICD-10-CM
A63.0	Anogenital (venereal) warts	Diagnosis	ICD-10-CM
A63.8	Other specified predominantly sexually transmitted diseases	Diagnosis	ICD-10-CM
A64	Unspecified sexually transmitted disease	Diagnosis	ICD-10-CM
A65	Nonvenereal syphilis	Diagnosis	ICD-10-CM
A66.0	Initial lesions of yaws	Diagnosis	ICD-10-CM
A66.1	Multiple papillomata and wet crab yaws	Diagnosis	ICD-10-CM
A66.2	Other early skin lesions of yaws	Diagnosis	ICD-10-CM
A66.3	Hyperkeratosis of yaws	Diagnosis	ICD-10-CM
A66.4	Gummata and ulcers of yaws	Diagnosis	ICD-10-CM
A66.5	Gangosa	Diagnosis	ICD-10-CM
A66.6	Bone and joint lesions of yaws	Diagnosis	ICD-10-CM
A66.7	Other manifestations of yaws	Diagnosis	ICD-10-CM
A66.8	Latent yaws	Diagnosis	ICD-10-CM
A66.9	Yaws, unspecified	Diagnosis	ICD-10-CM
A67.0	Primary lesions of pinta	Diagnosis	ICD-10-CM
A67.1	Intermediate lesions of pinta	Diagnosis	ICD-10-CM
A67.2	Late lesions of pinta	Diagnosis	ICD-10-CM
A67.3	Mixed lesions of pinta	Diagnosis	ICD-10-CM
A67.9	Pinta, unspecified	Diagnosis	ICD-10-CM
A68.0	Louse-borne relapsing fever	Diagnosis	ICD-10-CM
A68.1	Tick-borne relapsing fever	Diagnosis	ICD-10-CM
A68.9	Relapsing fever, unspecified	Diagnosis	ICD-10-CM
A69.0	Necrotizing ulcerative stomatitis	Diagnosis	ICD-10-CM
A69.1	Other Vincent's infections	Diagnosis	ICD-10-CM
A69.20	Lyme disease, unspecified	Diagnosis	ICD-10-CM
A69.21	Meningitis due to Lyme disease	Diagnosis	ICD-10-CM
A69.22	Other neurologic disorders in Lyme disease	Diagnosis	ICD-10-CM
A69.23	Arthritis due to Lyme disease	Diagnosis	ICD-10-CM
A69.29	Other conditions associated with Lyme disease	Diagnosis	ICD-10-CM
A69.8	Other specified spirochetal infections	Diagnosis	ICD-10-CM
A69.9	Spirochetal infection, unspecified	Diagnosis	ICD-10-CM
A70	Chlamydia psittaci infections	Diagnosis	ICD-10-CM
A71.0	Initial stage of trachoma	Diagnosis	ICD-10-CM
A71.1	Active stage of trachoma	Diagnosis	ICD-10-CM
A71.9	Trachoma, unspecified	Diagnosis	ICD-10-CM
A74.0	Chlamydial conjunctivitis	Diagnosis	ICD-10-CM
A74.81	Chlamydial peritonitis	Diagnosis	ICD-10-CM
A74.89	Other chlamydial diseases	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A74.9	Chlamydial infection, unspecified	Diagnosis	ICD-10-CM
A75.0	Epidemic louse-borne typhus fever due to Rickettsia prowazekii	Diagnosis	ICD-10-CM
A75.1	Recrudescence typhus [Brill's disease]	Diagnosis	ICD-10-CM
A75.2	Typhus fever due to Rickettsia typhi	Diagnosis	ICD-10-CM
A75.3	Typhus fever due to Rickettsia tsutsugamushi	Diagnosis	ICD-10-CM
A75.9	Typhus fever, unspecified	Diagnosis	ICD-10-CM
A77.0	Spotted fever due to Rickettsia rickettsii	Diagnosis	ICD-10-CM
A77.1	Spotted fever due to Rickettsia conorii	Diagnosis	ICD-10-CM
A77.2	Spotted fever due to Rickettsia siberica	Diagnosis	ICD-10-CM
A77.3	Spotted fever due to Rickettsia australis	Diagnosis	ICD-10-CM
A77.40	Ehrlichiosis, unspecified	Diagnosis	ICD-10-CM
A77.41	Ehrlichiosis chafeensis [E. chafeensis]	Diagnosis	ICD-10-CM
A77.49	Other ehrlichiosis	Diagnosis	ICD-10-CM
A77.8	Other spotted fevers	Diagnosis	ICD-10-CM
A77.9	Spotted fever, unspecified	Diagnosis	ICD-10-CM
A78	Q fever	Diagnosis	ICD-10-CM
A79.0	Trench fever	Diagnosis	ICD-10-CM
A79.1	Rickettsialpox due to Rickettsia akari	Diagnosis	ICD-10-CM
A79.81	Rickettsiosis due to Ehrlichia sennetsu	Diagnosis	ICD-10-CM
A79.89	Other specified rickettsioses	Diagnosis	ICD-10-CM
A79.9	Rickettsiosis, unspecified	Diagnosis	ICD-10-CM
A80.0	Acute paralytic poliomyelitis, vaccine-associated	Diagnosis	ICD-10-CM
A80.1	Acute paralytic poliomyelitis, wild virus, imported	Diagnosis	ICD-10-CM
A80.2	Acute paralytic poliomyelitis, wild virus, indigenous	Diagnosis	ICD-10-CM
A80.30	Acute paralytic poliomyelitis, unspecified	Diagnosis	ICD-10-CM
A80.39	Other acute paralytic poliomyelitis	Diagnosis	ICD-10-CM
A80.4	Acute nonparalytic poliomyelitis	Diagnosis	ICD-10-CM
A80.9	Acute poliomyelitis, unspecified	Diagnosis	ICD-10-CM
A81.00	Creutzfeldt-Jakob disease, unspecified	Diagnosis	ICD-10-CM
A81.01	Variant Creutzfeldt-Jakob disease	Diagnosis	ICD-10-CM
A81.09	Other Creutzfeldt-Jakob disease	Diagnosis	ICD-10-CM
A81.1	Subacute sclerosing panencephalitis	Diagnosis	ICD-10-CM
A81.2	Progressive multifocal leukoencephalopathy	Diagnosis	ICD-10-CM
A81.81	Kuru	Diagnosis	ICD-10-CM
A81.82	Gerstmann-Straussler-Scheinker syndrome	Diagnosis	ICD-10-CM
A81.83	Fatal familial insomnia	Diagnosis	ICD-10-CM
A81.89	Other atypical virus infections of central nervous system	Diagnosis	ICD-10-CM
A81.9	Atypical virus infection of central nervous system, unspecified	Diagnosis	ICD-10-CM
A82.0	Sylvatic rabies	Diagnosis	ICD-10-CM
A82.1	Urban rabies	Diagnosis	ICD-10-CM
A82.9	Rabies, unspecified	Diagnosis	ICD-10-CM
A83.0	Japanese encephalitis	Diagnosis	ICD-10-CM
A83.1	Western equine encephalitis	Diagnosis	ICD-10-CM
A83.2	Eastern equine encephalitis	Diagnosis	ICD-10-CM
A83.3	St Louis encephalitis	Diagnosis	ICD-10-CM
A83.4	Australian encephalitis	Diagnosis	ICD-10-CM
A83.5	California encephalitis	Diagnosis	ICD-10-CM
A83.6	Rocio virus disease	Diagnosis	ICD-10-CM
A83.8	Other mosquito-borne viral encephalitis	Diagnosis	ICD-10-CM
A83.9	Mosquito-borne viral encephalitis, unspecified	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A84.0	Far Eastern tick-borne encephalitis [Russian spring-summer encephalitis]	Diagnosis	ICD-10-CM
A84.1	Central European tick-borne encephalitis	Diagnosis	ICD-10-CM
A84.8	Other tick-borne viral encephalitis	Diagnosis	ICD-10-CM
A84.9	Tick-borne viral encephalitis, unspecified	Diagnosis	ICD-10-CM
A85.0	Enteroviral encephalitis	Diagnosis	ICD-10-CM
A85.1	Adenoviral encephalitis	Diagnosis	ICD-10-CM
A85.2	Arthropod-borne viral encephalitis, unspecified	Diagnosis	ICD-10-CM
A85.8	Other specified viral encephalitis	Diagnosis	ICD-10-CM
A86	Unspecified viral encephalitis	Diagnosis	ICD-10-CM
A87.0	Enteroviral meningitis	Diagnosis	ICD-10-CM
A87.1	Adenoviral meningitis	Diagnosis	ICD-10-CM
A87.2	Lymphocytic choriomeningitis	Diagnosis	ICD-10-CM
A87.8	Other viral meningitis	Diagnosis	ICD-10-CM
A87.9	Viral meningitis, unspecified	Diagnosis	ICD-10-CM
A88.0	Enteroviral exanthematous fever [Boston exanthem]	Diagnosis	ICD-10-CM
A88.1	Epidemic vertigo	Diagnosis	ICD-10-CM
A88.8	Other specified viral infections of central nervous system	Diagnosis	ICD-10-CM
A89	Unspecified viral infection of central nervous system	Diagnosis	ICD-10-CM
A90	Dengue fever [classical dengue]	Diagnosis	ICD-10-CM
A91	Dengue hemorrhagic fever	Diagnosis	ICD-10-CM
A92.0	Chikungunya virus disease	Diagnosis	ICD-10-CM
A92.1	O'nyong-nyong fever	Diagnosis	ICD-10-CM
A92.2	Venezuelan equine fever	Diagnosis	ICD-10-CM
A92.30	West Nile virus infection, unspecified	Diagnosis	ICD-10-CM
A92.31	West Nile virus infection with encephalitis	Diagnosis	ICD-10-CM
A92.32	West Nile virus infection with other neurologic manifestation	Diagnosis	ICD-10-CM
A92.39	West Nile virus infection with other complications	Diagnosis	ICD-10-CM
A92.4	Rift Valley fever	Diagnosis	ICD-10-CM
A92.5	Zika virus disease	Diagnosis	ICD-10-CM
A92.8	Other specified mosquito-borne viral fevers	Diagnosis	ICD-10-CM
A92.9	Mosquito-borne viral fever, unspecified	Diagnosis	ICD-10-CM
A93.0	Oropouche virus disease	Diagnosis	ICD-10-CM
A93.1	Sandfly fever	Diagnosis	ICD-10-CM
A93.2	Colorado tick fever	Diagnosis	ICD-10-CM
A93.8	Other specified arthropod-borne viral fevers	Diagnosis	ICD-10-CM
A94	Unspecified arthropod-borne viral fever	Diagnosis	ICD-10-CM
A95.0	Sylvatic yellow fever	Diagnosis	ICD-10-CM
A95.1	Urban yellow fever	Diagnosis	ICD-10-CM
A95.9	Yellow fever, unspecified	Diagnosis	ICD-10-CM
A96.0	Junin hemorrhagic fever	Diagnosis	ICD-10-CM
A96.1	Machupo hemorrhagic fever	Diagnosis	ICD-10-CM
A96.2	Lassa fever	Diagnosis	ICD-10-CM
A96.8	Other arenaviral hemorrhagic fevers	Diagnosis	ICD-10-CM
A96.9	Arenaviral hemorrhagic fever, unspecified	Diagnosis	ICD-10-CM
A98.0	Crimean-Congo hemorrhagic fever	Diagnosis	ICD-10-CM
A98.1	Omsk hemorrhagic fever	Diagnosis	ICD-10-CM
A98.2	Kyasanur Forest disease	Diagnosis	ICD-10-CM
A98.3	Marburg virus disease	Diagnosis	ICD-10-CM
A98.4	Ebola virus disease	Diagnosis	ICD-10-CM
A98.5	Hemorrhagic fever with renal syndrome	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
A98.8	Other specified viral hemorrhagic fevers	Diagnosis	ICD-10-CM
A99	Unspecified viral hemorrhagic fever	Diagnosis	ICD-10-CM
B00.0	Eczema herpeticum	Diagnosis	ICD-10-CM
B00.1	Herpesviral vesicular dermatitis	Diagnosis	ICD-10-CM
B00.2	Herpesviral gingivostomatitis and pharyngotonsillitis	Diagnosis	ICD-10-CM
B00.3	Herpesviral meningitis	Diagnosis	ICD-10-CM
B00.4	Herpesviral encephalitis	Diagnosis	ICD-10-CM
B00.50	Herpesviral ocular disease, unspecified	Diagnosis	ICD-10-CM
B00.51	Herpesviral iridocyclitis	Diagnosis	ICD-10-CM
B00.52	Herpesviral keratitis	Diagnosis	ICD-10-CM
B00.53	Herpesviral conjunctivitis	Diagnosis	ICD-10-CM
B00.59	Other herpesviral disease of eye	Diagnosis	ICD-10-CM
B00.7	Disseminated herpesviral disease	Diagnosis	ICD-10-CM
B00.81	Herpesviral hepatitis	Diagnosis	ICD-10-CM
B00.82	Herpes simplex myelitis	Diagnosis	ICD-10-CM
B00.89	Other herpesviral infection	Diagnosis	ICD-10-CM
B00.9	Herpesviral infection, unspecified	Diagnosis	ICD-10-CM
B01.0	Varicella meningitis	Diagnosis	ICD-10-CM
B01.11	Varicella encephalitis and encephalomyelitis	Diagnosis	ICD-10-CM
B01.12	Varicella myelitis	Diagnosis	ICD-10-CM
B01.2	Varicella pneumonia	Diagnosis	ICD-10-CM
B01.81	Varicella keratitis	Diagnosis	ICD-10-CM
B01.89	Other varicella complications	Diagnosis	ICD-10-CM
B01.9	Varicella without complication	Diagnosis	ICD-10-CM
B02.0	Zoster encephalitis	Diagnosis	ICD-10-CM
B02.1	Zoster meningitis	Diagnosis	ICD-10-CM
B02.21	Postherpetic geniculate ganglionitis	Diagnosis	ICD-10-CM
B02.22	Postherpetic trigeminal neuralgia	Diagnosis	ICD-10-CM
B02.23	Postherpetic polyneuropathy	Diagnosis	ICD-10-CM
B02.24	Postherpetic myelitis	Diagnosis	ICD-10-CM
B02.29	Other postherpetic nervous system involvement	Diagnosis	ICD-10-CM
B02.30	Zoster ocular disease, unspecified	Diagnosis	ICD-10-CM
B02.31	Zoster conjunctivitis	Diagnosis	ICD-10-CM
B02.32	Zoster iridocyclitis	Diagnosis	ICD-10-CM
B02.33	Zoster keratitis	Diagnosis	ICD-10-CM
B02.34	Zoster scleritis	Diagnosis	ICD-10-CM
B02.39	Other herpes zoster eye disease	Diagnosis	ICD-10-CM
B02.7	Disseminated zoster	Diagnosis	ICD-10-CM
B02.8	Zoster with other complications	Diagnosis	ICD-10-CM
B02.9	Zoster without complications	Diagnosis	ICD-10-CM
B03	Smallpox	Diagnosis	ICD-10-CM
B04	Monkeypox	Diagnosis	ICD-10-CM
B05.0	Measles complicated by encephalitis	Diagnosis	ICD-10-CM
B05.1	Measles complicated by meningitis	Diagnosis	ICD-10-CM
B05.2	Measles complicated by pneumonia	Diagnosis	ICD-10-CM
B05.3	Measles complicated by otitis media	Diagnosis	ICD-10-CM
B05.4	Measles with intestinal complications	Diagnosis	ICD-10-CM
B05.81	Measles keratitis and keratoconjunctivitis	Diagnosis	ICD-10-CM
B05.89	Other measles complications	Diagnosis	ICD-10-CM
B05.9	Measles without complication	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B06.00	Rubella with neurological complication, unspecified	Diagnosis	ICD-10-CM
B06.01	Rubella encephalitis	Diagnosis	ICD-10-CM
B06.02	Rubella meningitis	Diagnosis	ICD-10-CM
B06.09	Other neurological complications of rubella	Diagnosis	ICD-10-CM
B06.81	Rubella pneumonia	Diagnosis	ICD-10-CM
B06.82	Rubella arthritis	Diagnosis	ICD-10-CM
B06.89	Other rubella complications	Diagnosis	ICD-10-CM
B06.9	Rubella without complication	Diagnosis	ICD-10-CM
B07.0	Plantar wart	Diagnosis	ICD-10-CM
B07.8	Other viral warts	Diagnosis	ICD-10-CM
B07.9	Viral wart, unspecified	Diagnosis	ICD-10-CM
B08.010	Cowpox	Diagnosis	ICD-10-CM
B08.011	Vaccinia not from vaccine	Diagnosis	ICD-10-CM
B08.02	Orf virus disease	Diagnosis	ICD-10-CM
B08.03	Pseudocowpox [milker's node]	Diagnosis	ICD-10-CM
B08.04	Paravaccinia, unspecified	Diagnosis	ICD-10-CM
B08.09	Other orthopoxvirus infections	Diagnosis	ICD-10-CM
B08.1	Molluscum contagiosum	Diagnosis	ICD-10-CM
B08.20	Exanthema subitum [sixth disease], unspecified	Diagnosis	ICD-10-CM
B08.21	Exanthema subitum [sixth disease] due to human herpesvirus 6	Diagnosis	ICD-10-CM
B08.22	Exanthema subitum [sixth disease] due to human herpesvirus 7	Diagnosis	ICD-10-CM
B08.3	Erythema infectiosum [fifth disease]	Diagnosis	ICD-10-CM
B08.4	Enteroviral vesicular stomatitis with exanthem	Diagnosis	ICD-10-CM
B08.5	Enteroviral vesicular pharyngitis	Diagnosis	ICD-10-CM
B08.60	Parapoxvirus infection, unspecified	Diagnosis	ICD-10-CM
B08.61	Bovine stomatitis	Diagnosis	ICD-10-CM
B08.62	Sealpox	Diagnosis	ICD-10-CM
B08.69	Other parapoxvirus infections	Diagnosis	ICD-10-CM
B08.70	Yatapoxvirus infection, unspecified	Diagnosis	ICD-10-CM
B08.71	Tanapox virus disease	Diagnosis	ICD-10-CM
B08.72	Yaba pox virus disease	Diagnosis	ICD-10-CM
B08.79	Other yatapoxvirus infections	Diagnosis	ICD-10-CM
B08.8	Other specified viral infections characterized by skin and mucous membrane lesions	Diagnosis	ICD-10-CM
B09	Unspecified viral infection characterized by skin and mucous membrane lesions	Diagnosis	ICD-10-CM
B10.01	Human herpesvirus 6 encephalitis	Diagnosis	ICD-10-CM
B10.09	Other human herpesvirus encephalitis	Diagnosis	ICD-10-CM
B10.81	Human herpesvirus 6 infection	Diagnosis	ICD-10-CM
B10.82	Human herpesvirus 7 infection	Diagnosis	ICD-10-CM
B10.89	Other human herpesvirus infection	Diagnosis	ICD-10-CM
B15.0	Hepatitis A with hepatic coma	Diagnosis	ICD-10-CM
B15.9	Hepatitis A without hepatic coma	Diagnosis	ICD-10-CM
B16.0	Acute hepatitis B with delta-agent with hepatic coma	Diagnosis	ICD-10-CM
B16.1	Acute hepatitis B with delta-agent without hepatic coma	Diagnosis	ICD-10-CM
B16.2	Acute hepatitis B without delta-agent with hepatic coma	Diagnosis	ICD-10-CM
B16.9	Acute hepatitis B without delta-agent and without hepatic coma	Diagnosis	ICD-10-CM
B17.0	Acute delta-(super) infection of hepatitis B carrier	Diagnosis	ICD-10-CM
B17.10	Acute hepatitis C without hepatic coma	Diagnosis	ICD-10-CM
B17.11	Acute hepatitis C with hepatic coma	Diagnosis	ICD-10-CM
B17.2	Acute hepatitis E	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B17.8	Other specified acute viral hepatitis	Diagnosis	ICD-10-CM
B17.9	Acute viral hepatitis, unspecified	Diagnosis	ICD-10-CM
B18.0	Chronic viral hepatitis B with delta-agent	Diagnosis	ICD-10-CM
B18.1	Chronic viral hepatitis B without delta-agent	Diagnosis	ICD-10-CM
B18.2	Chronic viral hepatitis C	Diagnosis	ICD-10-CM
B18.8	Other chronic viral hepatitis	Diagnosis	ICD-10-CM
B18.9	Chronic viral hepatitis, unspecified	Diagnosis	ICD-10-CM
B19.0	Unspecified viral hepatitis with hepatic coma	Diagnosis	ICD-10-CM
B19.10	Unspecified viral hepatitis B without hepatic coma	Diagnosis	ICD-10-CM
B19.11	Unspecified viral hepatitis B with hepatic coma	Diagnosis	ICD-10-CM
B19.20	Unspecified viral hepatitis C without hepatic coma	Diagnosis	ICD-10-CM
B19.21	Unspecified viral hepatitis C with hepatic coma	Diagnosis	ICD-10-CM
B19.9	Unspecified viral hepatitis without hepatic coma	Diagnosis	ICD-10-CM
B20	Human immunodeficiency virus [HIV] disease	Diagnosis	ICD-10-CM
B25.0	Cytomegaloviral pneumonitis	Diagnosis	ICD-10-CM
B25.1	Cytomegaloviral hepatitis	Diagnosis	ICD-10-CM
B25.2	Cytomegaloviral pancreatitis	Diagnosis	ICD-10-CM
B25.8	Other cytomegaloviral diseases	Diagnosis	ICD-10-CM
B25.9	Cytomegaloviral disease, unspecified	Diagnosis	ICD-10-CM
B26.0	Mumps orchitis	Diagnosis	ICD-10-CM
B26.1	Mumps meningitis	Diagnosis	ICD-10-CM
B26.2	Mumps encephalitis	Diagnosis	ICD-10-CM
B26.3	Mumps pancreatitis	Diagnosis	ICD-10-CM
B26.81	Mumps hepatitis	Diagnosis	ICD-10-CM
B26.82	Mumps myocarditis	Diagnosis	ICD-10-CM
B26.83	Mumps nephritis	Diagnosis	ICD-10-CM
B26.84	Mumps polyneuropathy	Diagnosis	ICD-10-CM
B26.85	Mumps arthritis	Diagnosis	ICD-10-CM
B26.89	Other mumps complications	Diagnosis	ICD-10-CM
B26.9	Mumps without complication	Diagnosis	ICD-10-CM
B27.00	Gammaherpesviral mononucleosis without complication	Diagnosis	ICD-10-CM
B27.01	Gammaherpesviral mononucleosis with polyneuropathy	Diagnosis	ICD-10-CM
B27.02	Gammaherpesviral mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.09	Gammaherpesviral mononucleosis with other complications	Diagnosis	ICD-10-CM
B27.10	Cytomegaloviral mononucleosis without complications	Diagnosis	ICD-10-CM
B27.11	Cytomegaloviral mononucleosis with polyneuropathy	Diagnosis	ICD-10-CM
B27.12	Cytomegaloviral mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.19	Cytomegaloviral mononucleosis with other complication	Diagnosis	ICD-10-CM
B27.80	Other infectious mononucleosis without complication	Diagnosis	ICD-10-CM
B27.81	Other infectious mononucleosis with polyneuropathy	Diagnosis	ICD-10-CM
B27.82	Other infectious mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.89	Other infectious mononucleosis with other complication	Diagnosis	ICD-10-CM
B27.90	Infectious mononucleosis, unspecified without complication	Diagnosis	ICD-10-CM
B27.91	Infectious mononucleosis, unspecified with polyneuropathy	Diagnosis	ICD-10-CM
B27.92	Infectious mononucleosis, unspecified with meningitis	Diagnosis	ICD-10-CM
B27.99	Infectious mononucleosis, unspecified with other complication	Diagnosis	ICD-10-CM
B30.0	Keratoconjunctivitis due to adenovirus	Diagnosis	ICD-10-CM
B30.1	Conjunctivitis due to adenovirus	Diagnosis	ICD-10-CM
B30.2	Viral pharyngoconjunctivitis	Diagnosis	ICD-10-CM
B30.3	Acute epidemic hemorrhagic conjunctivitis (enteroviral)	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B30.8	Other viral conjunctivitis	Diagnosis	ICD-10-CM
B30.9	Viral conjunctivitis, unspecified	Diagnosis	ICD-10-CM
B33.0	Epidemic myalgia	Diagnosis	ICD-10-CM
B33.1	Ross River disease	Diagnosis	ICD-10-CM
B33.20	Viral carditis, unspecified	Diagnosis	ICD-10-CM
B33.21	Viral endocarditis	Diagnosis	ICD-10-CM
B33.22	Viral myocarditis	Diagnosis	ICD-10-CM
B33.23	Viral pericarditis	Diagnosis	ICD-10-CM
B33.24	Viral cardiomyopathy	Diagnosis	ICD-10-CM
B33.3	Retrovirus infections, not elsewhere classified	Diagnosis	ICD-10-CM
B33.4	Hantavirus (cardio)-pulmonary syndrome [HPS] [HCPS]	Diagnosis	ICD-10-CM
B33.8	Other specified viral diseases	Diagnosis	ICD-10-CM
B34.0	Adenovirus infection, unspecified	Diagnosis	ICD-10-CM
B34.1	Enterovirus infection, unspecified	Diagnosis	ICD-10-CM
B34.2	Coronavirus infection, unspecified	Diagnosis	ICD-10-CM
B34.3	Parvovirus infection, unspecified	Diagnosis	ICD-10-CM
B34.4	Papovavirus infection, unspecified	Diagnosis	ICD-10-CM
B34.8	Other viral infections of unspecified site	Diagnosis	ICD-10-CM
B34.9	Viral infection, unspecified	Diagnosis	ICD-10-CM
B35.0	Tinea barbae and tinea capitis	Diagnosis	ICD-10-CM
B35.1	Tinea unguium	Diagnosis	ICD-10-CM
B35.2	Tinea manuum	Diagnosis	ICD-10-CM
B35.3	Tinea pedis	Diagnosis	ICD-10-CM
B35.4	Tinea corporis	Diagnosis	ICD-10-CM
B35.5	Tinea imbricata	Diagnosis	ICD-10-CM
B35.6	Tinea cruris	Diagnosis	ICD-10-CM
B35.8	Other dermatophytoses	Diagnosis	ICD-10-CM
B35.9	Dermatophytosis, unspecified	Diagnosis	ICD-10-CM
B36.0	Pityriasis versicolor	Diagnosis	ICD-10-CM
B36.1	Tinea nigra	Diagnosis	ICD-10-CM
B36.2	White piedra	Diagnosis	ICD-10-CM
B36.3	Black piedra	Diagnosis	ICD-10-CM
B36.8	Other specified superficial mycoses	Diagnosis	ICD-10-CM
B36.9	Superficial mycosis, unspecified	Diagnosis	ICD-10-CM
B37.0	Candidal stomatitis	Diagnosis	ICD-10-CM
B37.1	Pulmonary candidiasis	Diagnosis	ICD-10-CM
B37.2	Candidiasis of skin and nail	Diagnosis	ICD-10-CM
B37.3	Candidiasis of vulva and vagina	Diagnosis	ICD-10-CM
B37.41	Candidal cystitis and urethritis	Diagnosis	ICD-10-CM
B37.42	Candidal balanitis	Diagnosis	ICD-10-CM
B37.49	Other urogenital candidiasis	Diagnosis	ICD-10-CM
B37.5	Candidal meningitis	Diagnosis	ICD-10-CM
B37.6	Candidal endocarditis	Diagnosis	ICD-10-CM
B37.7	Candidal sepsis	Diagnosis	ICD-10-CM
B37.81	Candidal esophagitis	Diagnosis	ICD-10-CM
B37.82	Candidal enteritis	Diagnosis	ICD-10-CM
B37.83	Candidal cheilitis	Diagnosis	ICD-10-CM
B37.84	Candidal otitis externa	Diagnosis	ICD-10-CM
B37.89	Other sites of candidiasis	Diagnosis	ICD-10-CM
B37.9	Candidiasis, unspecified	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B38.0	Acute pulmonary coccidioidomycosis	Diagnosis	ICD-10-CM
B38.1	Chronic pulmonary coccidioidomycosis	Diagnosis	ICD-10-CM
B38.2	Pulmonary coccidioidomycosis, unspecified	Diagnosis	ICD-10-CM
B38.3	Cutaneous coccidioidomycosis	Diagnosis	ICD-10-CM
B38.4	Coccidioidomycosis meningitis	Diagnosis	ICD-10-CM
B38.7	Disseminated coccidioidomycosis	Diagnosis	ICD-10-CM
B38.81	Prostatic coccidioidomycosis	Diagnosis	ICD-10-CM
B38.89	Other forms of coccidioidomycosis	Diagnosis	ICD-10-CM
B38.9	Coccidioidomycosis, unspecified	Diagnosis	ICD-10-CM
B39.0	Acute pulmonary histoplasmosis capsulati	Diagnosis	ICD-10-CM
B39.1	Chronic pulmonary histoplasmosis capsulati	Diagnosis	ICD-10-CM
B39.2	Pulmonary histoplasmosis capsulati, unspecified	Diagnosis	ICD-10-CM
B39.3	Disseminated histoplasmosis capsulati	Diagnosis	ICD-10-CM
B39.4	Histoplasmosis capsulati, unspecified	Diagnosis	ICD-10-CM
B39.5	Histoplasmosis duboisii	Diagnosis	ICD-10-CM
B39.9	Histoplasmosis, unspecified	Diagnosis	ICD-10-CM
B40.0	Acute pulmonary blastomycosis	Diagnosis	ICD-10-CM
B40.1	Chronic pulmonary blastomycosis	Diagnosis	ICD-10-CM
B40.2	Pulmonary blastomycosis, unspecified	Diagnosis	ICD-10-CM
B40.3	Cutaneous blastomycosis	Diagnosis	ICD-10-CM
B40.7	Disseminated blastomycosis	Diagnosis	ICD-10-CM
B40.81	Blastomycotic meningoencephalitis	Diagnosis	ICD-10-CM
B40.89	Other forms of blastomycosis	Diagnosis	ICD-10-CM
B40.9	Blastomycosis, unspecified	Diagnosis	ICD-10-CM
B41.0	Pulmonary paracoccidioidomycosis	Diagnosis	ICD-10-CM
B41.7	Disseminated paracoccidioidomycosis	Diagnosis	ICD-10-CM
B41.8	Other forms of paracoccidioidomycosis	Diagnosis	ICD-10-CM
B41.9	Paracoccidioidomycosis, unspecified	Diagnosis	ICD-10-CM
B42.0	Pulmonary sporotrichosis	Diagnosis	ICD-10-CM
B42.1	Lymphocutaneous sporotrichosis	Diagnosis	ICD-10-CM
B42.7	Disseminated sporotrichosis	Diagnosis	ICD-10-CM
B42.81	Cerebral sporotrichosis	Diagnosis	ICD-10-CM
B42.82	Sporotrichosis arthritis	Diagnosis	ICD-10-CM
B42.89	Other forms of sporotrichosis	Diagnosis	ICD-10-CM
B42.9	Sporotrichosis, unspecified	Diagnosis	ICD-10-CM
B43.0	Cutaneous chromomycosis	Diagnosis	ICD-10-CM
B43.1	Pheomycotic brain abscess	Diagnosis	ICD-10-CM
B43.2	Subcutaneous pheomycotic abscess and cyst	Diagnosis	ICD-10-CM
B43.8	Other forms of chromomycosis	Diagnosis	ICD-10-CM
B43.9	Chromomycosis, unspecified	Diagnosis	ICD-10-CM
B44.0	Invasive pulmonary aspergillosis	Diagnosis	ICD-10-CM
B44.1	Other pulmonary aspergillosis	Diagnosis	ICD-10-CM
B44.2	Tonsillar aspergillosis	Diagnosis	ICD-10-CM
B44.7	Disseminated aspergillosis	Diagnosis	ICD-10-CM
B44.81	Allergic bronchopulmonary aspergillosis	Diagnosis	ICD-10-CM
B44.89	Other forms of aspergillosis	Diagnosis	ICD-10-CM
B44.9	Aspergillosis, unspecified	Diagnosis	ICD-10-CM
B45.0	Pulmonary cryptococcosis	Diagnosis	ICD-10-CM
B45.1	Cerebral cryptococcosis	Diagnosis	ICD-10-CM
B45.2	Cutaneous cryptococcosis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B45.3	Osseous cryptococcosis	Diagnosis	ICD-10-CM
B45.7	Disseminated cryptococcosis	Diagnosis	ICD-10-CM
B45.8	Other forms of cryptococcosis	Diagnosis	ICD-10-CM
B45.9	Cryptococcosis, unspecified	Diagnosis	ICD-10-CM
B46.0	Pulmonary mucormycosis	Diagnosis	ICD-10-CM
B46.1	Rhinocerebral mucormycosis	Diagnosis	ICD-10-CM
B46.2	Gastrointestinal mucormycosis	Diagnosis	ICD-10-CM
B46.3	Cutaneous mucormycosis	Diagnosis	ICD-10-CM
B46.4	Disseminated mucormycosis	Diagnosis	ICD-10-CM
B46.5	Mucormycosis, unspecified	Diagnosis	ICD-10-CM
B46.8	Other zygomycoses	Diagnosis	ICD-10-CM
B46.9	Zygomycosis, unspecified	Diagnosis	ICD-10-CM
B47.0	Eumycetoma	Diagnosis	ICD-10-CM
B47.1	Actinomycetoma	Diagnosis	ICD-10-CM
B47.9	Mycetoma, unspecified	Diagnosis	ICD-10-CM
B48.0	Lobomycosis	Diagnosis	ICD-10-CM
B48.1	Rhinosporidiosis	Diagnosis	ICD-10-CM
B48.2	Allescheriasis	Diagnosis	ICD-10-CM
B48.3	Geotrichosis	Diagnosis	ICD-10-CM
B48.4	Penicillosis	Diagnosis	ICD-10-CM
B48.8	Other specified mycoses	Diagnosis	ICD-10-CM
B49	Unspecified mycosis	Diagnosis	ICD-10-CM
B50.0	Plasmodium falciparum malaria with cerebral complications	Diagnosis	ICD-10-CM
B50.8	Other severe and complicated Plasmodium falciparum malaria	Diagnosis	ICD-10-CM
B50.9	Plasmodium falciparum malaria, unspecified	Diagnosis	ICD-10-CM
B51.0	Plasmodium vivax malaria with rupture of spleen	Diagnosis	ICD-10-CM
B51.8	Plasmodium vivax malaria with other complications	Diagnosis	ICD-10-CM
B51.9	Plasmodium vivax malaria without complication	Diagnosis	ICD-10-CM
B52.0	Plasmodium malariae malaria with nephropathy	Diagnosis	ICD-10-CM
B52.8	Plasmodium malariae malaria with other complications	Diagnosis	ICD-10-CM
B52.9	Plasmodium malariae malaria without complication	Diagnosis	ICD-10-CM
B53.0	Plasmodium ovale malaria	Diagnosis	ICD-10-CM
B53.1	Malaria due to simian plasmodia	Diagnosis	ICD-10-CM
B53.8	Other malaria, not elsewhere classified	Diagnosis	ICD-10-CM
B54	Unspecified malaria	Diagnosis	ICD-10-CM
B55.0	Visceral leishmaniasis	Diagnosis	ICD-10-CM
B55.1	Cutaneous leishmaniasis	Diagnosis	ICD-10-CM
B55.2	Mucocutaneous leishmaniasis	Diagnosis	ICD-10-CM
B55.9	Leishmaniasis, unspecified	Diagnosis	ICD-10-CM
B56.0	Gambiense trypanosomiasis	Diagnosis	ICD-10-CM
B56.1	Rhodesiense trypanosomiasis	Diagnosis	ICD-10-CM
B56.9	African trypanosomiasis, unspecified	Diagnosis	ICD-10-CM
B57.0	Acute Chagas' disease with heart involvement	Diagnosis	ICD-10-CM
B57.1	Acute Chagas' disease without heart involvement	Diagnosis	ICD-10-CM
B57.2	Chagas' disease (chronic) with heart involvement	Diagnosis	ICD-10-CM
B57.30	Chagas' disease with digestive system involvement, unspecified	Diagnosis	ICD-10-CM
B57.31	Megaesophagus in Chagas' disease	Diagnosis	ICD-10-CM
B57.32	Megacolon in Chagas' disease	Diagnosis	ICD-10-CM
B57.39	Other digestive system involvement in Chagas' disease	Diagnosis	ICD-10-CM
B57.40	Chagas' disease with nervous system involvement, unspecified	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B57.41	Meningitis in Chagas' disease	Diagnosis	ICD-10-CM
B57.42	Meningoencephalitis in Chagas' disease	Diagnosis	ICD-10-CM
B57.49	Other nervous system involvement in Chagas' disease	Diagnosis	ICD-10-CM
B57.5	Chagas' disease (chronic) with other organ involvement	Diagnosis	ICD-10-CM
B58.00	Toxoplasma oculopathy, unspecified	Diagnosis	ICD-10-CM
B58.01	Toxoplasma chorioretinitis	Diagnosis	ICD-10-CM
B58.09	Other toxoplasma oculopathy	Diagnosis	ICD-10-CM
B58.1	Toxoplasma hepatitis	Diagnosis	ICD-10-CM
B58.2	Toxoplasma meningoencephalitis	Diagnosis	ICD-10-CM
B58.3	Pulmonary toxoplasmosis	Diagnosis	ICD-10-CM
B58.81	Toxoplasma myocarditis	Diagnosis	ICD-10-CM
B58.82	Toxoplasma myositis	Diagnosis	ICD-10-CM
B58.83	Toxoplasma tubulo-interstitial nephropathy	Diagnosis	ICD-10-CM
B58.89	Toxoplasmosis with other organ involvement	Diagnosis	ICD-10-CM
B58.9	Toxoplasmosis, unspecified	Diagnosis	ICD-10-CM
B59	Pneumocystosis	Diagnosis	ICD-10-CM
B60.0	Babesiosis	Diagnosis	ICD-10-CM
B60.10	Acanthamebiasis, unspecified	Diagnosis	ICD-10-CM
B60.11	Meningoencephalitis due to Acanthamoeba (culbertsoni)	Diagnosis	ICD-10-CM
B60.12	Conjunctivitis due to Acanthamoeba	Diagnosis	ICD-10-CM
B60.13	Keratoconjunctivitis due to Acanthamoeba	Diagnosis	ICD-10-CM
B60.19	Other acanthamebic disease	Diagnosis	ICD-10-CM
B60.2	Naegleriasis	Diagnosis	ICD-10-CM
B60.8	Other specified protozoal diseases	Diagnosis	ICD-10-CM
B64	Unspecified protozoal disease	Diagnosis	ICD-10-CM
B65.0	Schistosomiasis due to Schistosoma haematobium [urinary schistosomiasis]	Diagnosis	ICD-10-CM
B65.1	Schistosomiasis due to Schistosoma mansoni [intestinal schistosomiasis]	Diagnosis	ICD-10-CM
B65.2	Schistosomiasis due to Schistosoma japonicum	Diagnosis	ICD-10-CM
B65.3	Cercarial dermatitis	Diagnosis	ICD-10-CM
B65.8	Other schistosomiasis	Diagnosis	ICD-10-CM
B65.9	Schistosomiasis, unspecified	Diagnosis	ICD-10-CM
B66.0	Opisthorchiasis	Diagnosis	ICD-10-CM
B66.1	Clonorchiasis	Diagnosis	ICD-10-CM
B66.2	Dicroceliasis	Diagnosis	ICD-10-CM
B66.3	Fascioliasis	Diagnosis	ICD-10-CM
B66.4	Paragonimiasis	Diagnosis	ICD-10-CM
B66.5	Fasciolopsiasis	Diagnosis	ICD-10-CM
B66.8	Other specified fluke infections	Diagnosis	ICD-10-CM
B66.9	Fluke infection, unspecified	Diagnosis	ICD-10-CM
B67.0	Echinococcus granulosus infection of liver	Diagnosis	ICD-10-CM
B67.1	Echinococcus granulosus infection of lung	Diagnosis	ICD-10-CM
B67.2	Echinococcus granulosus infection of bone	Diagnosis	ICD-10-CM
B67.31	Echinococcus granulosus infection, thyroid gland	Diagnosis	ICD-10-CM
B67.32	Echinococcus granulosus infection, multiple sites	Diagnosis	ICD-10-CM
B67.39	Echinococcus granulosus infection, other sites	Diagnosis	ICD-10-CM
B67.4	Echinococcus granulosus infection, unspecified	Diagnosis	ICD-10-CM
B67.5	Echinococcus multilocularis infection of liver	Diagnosis	ICD-10-CM
B67.61	Echinococcus multilocularis infection, multiple sites	Diagnosis	ICD-10-CM
B67.69	Echinococcus multilocularis infection, other sites	Diagnosis	ICD-10-CM
B67.7	Echinococcus multilocularis infection, unspecified	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B67.8	Echinococcosis, unspecified, of liver	Diagnosis	ICD-10-CM
B67.90	Echinococcosis, unspecified	Diagnosis	ICD-10-CM
B67.99	Other echinococcosis	Diagnosis	ICD-10-CM
B68.0	Taenia solium taeniasis	Diagnosis	ICD-10-CM
B68.1	Taenia saginata taeniasis	Diagnosis	ICD-10-CM
B68.9	Taeniasis, unspecified	Diagnosis	ICD-10-CM
B69.0	Cysticercosis of central nervous system	Diagnosis	ICD-10-CM
B69.1	Cysticercosis of eye	Diagnosis	ICD-10-CM
B69.81	Myositis in cysticercosis	Diagnosis	ICD-10-CM
B69.89	Cysticercosis of other sites	Diagnosis	ICD-10-CM
B69.9	Cysticercosis, unspecified	Diagnosis	ICD-10-CM
B70.0	Diphyllobothriasis	Diagnosis	ICD-10-CM
B70.1	Sparganosis	Diagnosis	ICD-10-CM
B71.0	Hymenolepiasis	Diagnosis	ICD-10-CM
B71.1	Dipylidiasis	Diagnosis	ICD-10-CM
B71.8	Other specified cestode infections	Diagnosis	ICD-10-CM
B71.9	Cestode infection, unspecified	Diagnosis	ICD-10-CM
B72	Dracunculiasis	Diagnosis	ICD-10-CM
B73.00	Onchocerciasis with eye involvement, unspecified	Diagnosis	ICD-10-CM
B73.01	Onchocerciasis with endophthalmitis	Diagnosis	ICD-10-CM
B73.02	Onchocerciasis with glaucoma	Diagnosis	ICD-10-CM
B73.09	Onchocerciasis with other eye involvement	Diagnosis	ICD-10-CM
B73.1	Onchocerciasis without eye disease	Diagnosis	ICD-10-CM
B74.0	Filariasis due to Wuchereria bancrofti	Diagnosis	ICD-10-CM
B74.1	Filariasis due to Brugia malayi	Diagnosis	ICD-10-CM
B74.2	Filariasis due to Brugia timori	Diagnosis	ICD-10-CM
B74.3	Loiasis	Diagnosis	ICD-10-CM
B74.4	Mansonelliasis	Diagnosis	ICD-10-CM
B74.8	Other filariases	Diagnosis	ICD-10-CM
B74.9	Filariasis, unspecified	Diagnosis	ICD-10-CM
B75	Trichinellosis	Diagnosis	ICD-10-CM
B76.0	Ancylostomiasis	Diagnosis	ICD-10-CM
B76.1	Necatoriasis	Diagnosis	ICD-10-CM
B76.8	Other hookworm diseases	Diagnosis	ICD-10-CM
B76.9	Hookworm disease, unspecified	Diagnosis	ICD-10-CM
B77.0	Ascariasis with intestinal complications	Diagnosis	ICD-10-CM
B77.81	Ascariasis pneumonia	Diagnosis	ICD-10-CM
B77.89	Ascariasis with other complications	Diagnosis	ICD-10-CM
B77.9	Ascariasis, unspecified	Diagnosis	ICD-10-CM
B78.0	Intestinal strongyloidiasis	Diagnosis	ICD-10-CM
B78.1	Cutaneous strongyloidiasis	Diagnosis	ICD-10-CM
B78.7	Disseminated strongyloidiasis	Diagnosis	ICD-10-CM
B78.9	Strongyloidiasis, unspecified	Diagnosis	ICD-10-CM
B79	Trichuriasis	Diagnosis	ICD-10-CM
B80	Enterobiasis	Diagnosis	ICD-10-CM
B81.0	Anisakiasis	Diagnosis	ICD-10-CM
B81.1	Intestinal capillariasis	Diagnosis	ICD-10-CM
B81.2	Trichostrongyliasis	Diagnosis	ICD-10-CM
B81.3	Intestinal angiostrongyliasis	Diagnosis	ICD-10-CM
B81.4	Mixed intestinal helminthiasis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B81.8	Other specified intestinal helminthiases	Diagnosis	ICD-10-CM
B82.0	Intestinal helminthiasis, unspecified	Diagnosis	ICD-10-CM
B82.9	Intestinal parasitism, unspecified	Diagnosis	ICD-10-CM
B83.0	Visceral larva migrans	Diagnosis	ICD-10-CM
B83.1	Gnathostomiasis	Diagnosis	ICD-10-CM
B83.2	Angiostrongyliasis due to <i>Parastrongylus cantonensis</i>	Diagnosis	ICD-10-CM
B83.3	Syngamiasis	Diagnosis	ICD-10-CM
B83.4	Internal hirudiniasis	Diagnosis	ICD-10-CM
B83.8	Other specified helminthiases	Diagnosis	ICD-10-CM
B83.9	Helminthiasis, unspecified	Diagnosis	ICD-10-CM
B85.0	Pediculosis due to <i>Pediculus humanus capitis</i>	Diagnosis	ICD-10-CM
B85.1	Pediculosis due to <i>Pediculus humanus corporis</i>	Diagnosis	ICD-10-CM
B85.2	Pediculosis, unspecified	Diagnosis	ICD-10-CM
B85.3	Phthiriasis	Diagnosis	ICD-10-CM
B85.4	Mixed pediculosis and phthiriasis	Diagnosis	ICD-10-CM
B86	Scabies	Diagnosis	ICD-10-CM
B87.0	Cutaneous myiasis	Diagnosis	ICD-10-CM
B87.1	Wound myiasis	Diagnosis	ICD-10-CM
B87.2	Ocular myiasis	Diagnosis	ICD-10-CM
B87.3	Nasopharyngeal myiasis	Diagnosis	ICD-10-CM
B87.4	Aural myiasis	Diagnosis	ICD-10-CM
B87.81	Genitourinary myiasis	Diagnosis	ICD-10-CM
B87.82	Intestinal myiasis	Diagnosis	ICD-10-CM
B87.89	Myiasis of other sites	Diagnosis	ICD-10-CM
B87.9	Myiasis, unspecified	Diagnosis	ICD-10-CM
B88.0	Other acariasis	Diagnosis	ICD-10-CM
B88.1	Tungiasis [sandflea infestation]	Diagnosis	ICD-10-CM
B88.2	Other arthropod infestations	Diagnosis	ICD-10-CM
B88.3	External hirudiniasis	Diagnosis	ICD-10-CM
B88.8	Other specified infestations	Diagnosis	ICD-10-CM
B88.9	Infestation, unspecified	Diagnosis	ICD-10-CM
B89	Unspecified parasitic disease	Diagnosis	ICD-10-CM
B90.0	Sequelae of central nervous system tuberculosis	Diagnosis	ICD-10-CM
B90.1	Sequelae of genitourinary tuberculosis	Diagnosis	ICD-10-CM
B90.2	Sequelae of tuberculosis of bones and joints	Diagnosis	ICD-10-CM
B90.8	Sequelae of tuberculosis of other organs	Diagnosis	ICD-10-CM
B90.9	Sequelae of respiratory and unspecified tuberculosis	Diagnosis	ICD-10-CM
B91	Sequelae of poliomyelitis	Diagnosis	ICD-10-CM
B92	Sequelae of leprosy	Diagnosis	ICD-10-CM
B94.0	Sequelae of trachoma	Diagnosis	ICD-10-CM
B94.1	Sequelae of viral encephalitis	Diagnosis	ICD-10-CM
B94.2	Sequelae of viral hepatitis	Diagnosis	ICD-10-CM
B94.8	Sequelae of other specified infectious and parasitic diseases	Diagnosis	ICD-10-CM
B94.9	Sequelae of unspecified infectious and parasitic disease	Diagnosis	ICD-10-CM
B95.0	<i>Streptococcus</i> , group A, as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B95.1	<i>Streptococcus</i> , group B, as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B95.2	<i>Enterococcus</i> as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B95.3	<i>Streptococcus pneumoniae</i> as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B95.4	Other streptococcus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B95.5	Unspecified streptococcus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B95.61	Methicillin susceptible Staphylococcus aureus infection as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B95.62	Methicillin resistant Staphylococcus aureus infection as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B95.7	Other staphylococcus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B95.8	Unspecified staphylococcus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.0	Mycoplasma pneumoniae [M. pneumoniae] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.1	Klebsiella pneumoniae [K. pneumoniae] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.20	Unspecified Escherichia coli [E. coli] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.21	Shiga toxin-producing Escherichia coli [E. coli] [STEC] O157 as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.22	Other specified Shiga toxin-producing Escherichia coli [E. coli] [STEC] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.23	Unspecified Shiga toxin-producing Escherichia coli [E. coli] [STEC] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.29	Other Escherichia coli [E. coli] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.3	Hemophilus influenzae [H. influenzae] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.4	Proteus (mirabilis) (morganii) as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.5	Pseudomonas (aeruginosa) (mallei) (pseudomallei) as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.6	Bacteroides fragilis [B. fragilis] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.7	Clostridium perfringens [C. perfringens] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.81	Helicobacter pylori [H. pylori] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.82	Vibrio vulnificus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B96.89	Other specified bacterial agents as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.0	Adenovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.10	Unspecified enterovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.11	Coxsackievirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.12	Echovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.19	Other enterovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.21	SARS-associated coronavirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.29	Other coronavirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.30	Unspecified retrovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.31	Lentivirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.32	Oncovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.33	Human T-cell lymphotropic virus, type I [HTLV-I] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.34	Human T-cell lymphotropic virus, type II [HTLV-II] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.35	Human immunodeficiency virus, type 2 [HIV 2] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.39	Other retrovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.4	Respiratory syncytial virus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.5	Reovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
B97.6	Parvovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.7	Papillomavirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.81	Human metapneumovirus as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B97.89	Other viral agents as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
B99.8	Other infectious disease	Diagnosis	ICD-10-CM
B99.9	Unspecified infectious disease	Diagnosis	ICD-10-CM
D73.3	Abscess of spleen	Diagnosis	ICD-10-CM
G00	Bacterial meningitis, not elsewhere classified	Diagnosis	ICD-10-CM
G00.0	Hemophilus meningitis	Diagnosis	ICD-10-CM
G00.1	Pneumococcal meningitis	Diagnosis	ICD-10-CM
G00.2	Streptococcal meningitis	Diagnosis	ICD-10-CM
G00.3	Staphylococcal meningitis	Diagnosis	ICD-10-CM
G00.8	Other bacterial meningitis	Diagnosis	ICD-10-CM
G00.9	Bacterial meningitis, unspecified	Diagnosis	ICD-10-CM
G01	Meningitis in bacterial diseases classified elsewhere	Diagnosis	ICD-10-CM
G02	Meningitis in other infectious and parasitic diseases classified elsewhere	Diagnosis	ICD-10-CM
G03.8	Meningitis due to other specified causes	Diagnosis	ICD-10-CM
G03.9	Meningitis, unspecified	Diagnosis	ICD-10-CM
H00.031	Abscess of right upper eyelid	Diagnosis	ICD-10-CM
H00.032	Abscess of right lower eyelid	Diagnosis	ICD-10-CM
H00.033	Abscess of eyelid right eye, unspecified eyelid	Diagnosis	ICD-10-CM
H00.034	Abscess of left upper eyelid	Diagnosis	ICD-10-CM
H00.035	Abscess of left lower eyelid	Diagnosis	ICD-10-CM
H00.036	Abscess of eyelid left eye, unspecified eyelid	Diagnosis	ICD-10-CM
H00.039	Abscess of eyelid unspecified eye, unspecified eyelid	Diagnosis	ICD-10-CM
H05.011	Cellulitis of right orbit	Diagnosis	ICD-10-CM
H05.012	Cellulitis of left orbit	Diagnosis	ICD-10-CM
H05.013	Cellulitis of bilateral orbits	Diagnosis	ICD-10-CM
H05.019	Cellulitis of unspecified orbit	Diagnosis	ICD-10-CM
H05.02	Osteomyelitis of orbit	Diagnosis	ICD-10-CM
H05.021	Osteomyelitis of right orbit	Diagnosis	ICD-10-CM
H05.022	Osteomyelitis of left orbit	Diagnosis	ICD-10-CM
H05.023	Osteomyelitis of bilateral orbits	Diagnosis	ICD-10-CM
H05.029	Osteomyelitis of unspecified orbit	Diagnosis	ICD-10-CM
H60.00	Abscess of external ear, unspecified ear	Diagnosis	ICD-10-CM
H60.01	Abscess of right external ear	Diagnosis	ICD-10-CM
H60.02	Abscess of left external ear	Diagnosis	ICD-10-CM
H60.03	Abscess of external ear, bilateral	Diagnosis	ICD-10-CM
H60.10	Cellulitis of external ear, unspecified ear	Diagnosis	ICD-10-CM
H60.11	Cellulitis of right external ear	Diagnosis	ICD-10-CM
H60.12	Cellulitis of left external ear	Diagnosis	ICD-10-CM
H60.13	Cellulitis of external ear, bilateral	Diagnosis	ICD-10-CM
I33.0	Acute and subacute infective endocarditis	Diagnosis	ICD-10-CM
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.268	Atherosclerosis of native arteries of extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.269	Atherosclerosis of native arteries of extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I73.01	Raynaud's syndrome with gangrene	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
I76	Septic arterial embolism	Diagnosis	ICD-10-CM
I96	Gangrene, not elsewhere classified	Diagnosis	ICD-10-CM
J00	Acute nasopharyngitis [common cold]	Diagnosis	ICD-10-CM
J01.00	Acute maxillary sinusitis, unspecified	Diagnosis	ICD-10-CM
J01.01	Acute recurrent maxillary sinusitis	Diagnosis	ICD-10-CM
J01.10	Acute frontal sinusitis, unspecified	Diagnosis	ICD-10-CM
J01.11	Acute recurrent frontal sinusitis	Diagnosis	ICD-10-CM
J01.20	Acute ethmoidal sinusitis, unspecified	Diagnosis	ICD-10-CM
J01.21	Acute recurrent ethmoidal sinusitis	Diagnosis	ICD-10-CM
J01.30	Acute sphenoidal sinusitis, unspecified	Diagnosis	ICD-10-CM
J01.31	Acute recurrent sphenoidal sinusitis	Diagnosis	ICD-10-CM
J01.40	Acute pansinusitis, unspecified	Diagnosis	ICD-10-CM
J01.41	Acute recurrent pansinusitis	Diagnosis	ICD-10-CM
J01.80	Other acute sinusitis	Diagnosis	ICD-10-CM
J01.81	Other acute recurrent sinusitis	Diagnosis	ICD-10-CM
J01.90	Acute sinusitis, unspecified	Diagnosis	ICD-10-CM
J01.91	Acute recurrent sinusitis, unspecified	Diagnosis	ICD-10-CM
J02.0	Streptococcal pharyngitis	Diagnosis	ICD-10-CM
J02.8	Acute pharyngitis due to other specified organisms	Diagnosis	ICD-10-CM
J02.9	Acute pharyngitis, unspecified	Diagnosis	ICD-10-CM
J03.00	Acute streptococcal tonsillitis, unspecified	Diagnosis	ICD-10-CM
J03.01	Acute recurrent streptococcal tonsillitis	Diagnosis	ICD-10-CM
J03.80	Acute tonsillitis due to other specified organisms	Diagnosis	ICD-10-CM
J03.81	Acute recurrent tonsillitis due to other specified organisms	Diagnosis	ICD-10-CM
J03.90	Acute tonsillitis, unspecified	Diagnosis	ICD-10-CM
J03.91	Acute recurrent tonsillitis, unspecified	Diagnosis	ICD-10-CM
J04.0	Acute laryngitis	Diagnosis	ICD-10-CM
J04.10	Acute tracheitis without obstruction	Diagnosis	ICD-10-CM
J04.11	Acute tracheitis with obstruction	Diagnosis	ICD-10-CM
J04.2	Acute laryngotracheitis	Diagnosis	ICD-10-CM
J04.30	Supraglottitis, unspecified, without obstruction	Diagnosis	ICD-10-CM
J04.31	Supraglottitis, unspecified, with obstruction	Diagnosis	ICD-10-CM
J05.0	Acute obstructive laryngitis [croup]	Diagnosis	ICD-10-CM
J05.10	Acute epiglottitis without obstruction	Diagnosis	ICD-10-CM
J05.11	Acute epiglottitis with obstruction	Diagnosis	ICD-10-CM
J06.0	Acute laryngopharyngitis	Diagnosis	ICD-10-CM
J06.9	Acute upper respiratory infection, unspecified	Diagnosis	ICD-10-CM
J09.X1	Influenza due to identified novel influenza A virus with pneumonia	Diagnosis	ICD-10-CM
J09.X2	Influenza due to identified novel influenza A virus with other respiratory manifestations	Diagnosis	ICD-10-CM
J09.X3	Influenza due to identified novel influenza A virus with gastrointestinal manifestations	Diagnosis	ICD-10-CM
J09.X9	Influenza due to identified novel influenza A virus with other manifestations	Diagnosis	ICD-10-CM
J10.00	Influenza due to other identified influenza virus with unspecified type of pneumonia	Diagnosis	ICD-10-CM
J10.01	Influenza due to other identified influenza virus with the same other identified influenza virus pneumonia	Diagnosis	ICD-10-CM
J10.08	Influenza due to other identified influenza virus with other specified pneumonia	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
J10.1	Influenza due to other identified influenza virus with other respiratory manifestations	Diagnosis	ICD-10-CM
J10.2	Influenza due to other identified influenza virus with gastrointestinal manifestations	Diagnosis	ICD-10-CM
J10.81	Influenza due to other identified influenza virus with encephalopathy	Diagnosis	ICD-10-CM
J10.82	Influenza due to other identified influenza virus with myocarditis	Diagnosis	ICD-10-CM
J10.83	Influenza due to other identified influenza virus with otitis media	Diagnosis	ICD-10-CM
J10.89	Influenza due to other identified influenza virus with other manifestations	Diagnosis	ICD-10-CM
J11.00	Influenza due to unidentified influenza virus with unspecified type of pneumonia	Diagnosis	ICD-10-CM
J11.08	Influenza due to unidentified influenza virus with specified pneumonia	Diagnosis	ICD-10-CM
J11.1	Influenza due to unidentified influenza virus with other respiratory manifestations	Diagnosis	ICD-10-CM
J11.2	Influenza due to unidentified influenza virus with gastrointestinal manifestations	Diagnosis	ICD-10-CM
J11.81	Influenza due to unidentified influenza virus with encephalopathy	Diagnosis	ICD-10-CM
J11.82	Influenza due to unidentified influenza virus with myocarditis	Diagnosis	ICD-10-CM
J11.83	Influenza due to unidentified influenza virus with otitis media	Diagnosis	ICD-10-CM
J11.89	Influenza due to unidentified influenza virus with other manifestations	Diagnosis	ICD-10-CM
J12	Viral pneumonia, not elsewhere classified	Diagnosis	ICD-10-CM
J12.0	Adenoviral pneumonia	Diagnosis	ICD-10-CM
J12.1	Respiratory syncytial virus pneumonia	Diagnosis	ICD-10-CM
J12.2	Parainfluenza virus pneumonia	Diagnosis	ICD-10-CM
J12.3	Human metapneumovirus pneumonia	Diagnosis	ICD-10-CM
J12.8	Other viral pneumonia	Diagnosis	ICD-10-CM
J12.81	Pneumonia due to SARS-associated coronavirus	Diagnosis	ICD-10-CM
J12.89	Other viral pneumonia	Diagnosis	ICD-10-CM
J12.9	Viral pneumonia, unspecified	Diagnosis	ICD-10-CM
J13	Pneumonia due to Streptococcus pneumoniae	Diagnosis	ICD-10-CM
J14	Pneumonia due to Hemophilus influenzae	Diagnosis	ICD-10-CM
J15	Bacterial pneumonia, not elsewhere classified	Diagnosis	ICD-10-CM
J15.0	Pneumonia due to Klebsiella pneumoniae	Diagnosis	ICD-10-CM
J15.1	Pneumonia due to Pseudomonas	Diagnosis	ICD-10-CM
J15.2	Pneumonia due to staphylococcus	Diagnosis	ICD-10-CM
J15.20	Pneumonia due to staphylococcus, unspecified	Diagnosis	ICD-10-CM
J15.21	Pneumonia due to staphylococcus aureus	Diagnosis	ICD-10-CM
J15.211	Pneumonia due to Methicillin susceptible Staphylococcus aureus	Diagnosis	ICD-10-CM
J15.212	Pneumonia due to Methicillin resistant Staphylococcus aureus	Diagnosis	ICD-10-CM
J15.29	Pneumonia due to other staphylococcus	Diagnosis	ICD-10-CM
J15.3	Pneumonia due to streptococcus, group B	Diagnosis	ICD-10-CM
J15.4	Pneumonia due to other streptococci	Diagnosis	ICD-10-CM
J15.5	Pneumonia due to Escherichia coli	Diagnosis	ICD-10-CM
J15.6	Pneumonia due to other Gram-negative bacteria	Diagnosis	ICD-10-CM
J15.7	Pneumonia due to Mycoplasma pneumoniae	Diagnosis	ICD-10-CM
J15.8	Pneumonia due to other specified bacteria	Diagnosis	ICD-10-CM
J15.9	Unspecified bacterial pneumonia	Diagnosis	ICD-10-CM
J16	Pneumonia due to other infectious organisms, not elsewhere classified	Diagnosis	ICD-10-CM
J16.0	Chlamydial pneumonia	Diagnosis	ICD-10-CM
J16.8	Pneumonia due to other specified infectious organisms	Diagnosis	ICD-10-CM
J17	Pneumonia in diseases classified elsewhere	Diagnosis	ICD-10-CM
J18	Pneumonia, unspecified organism	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
J18.0	Bronchopneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.1	Lobar pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.2	Hypostatic pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.8	Other pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.9	Pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J20.0	Acute bronchitis due to Mycoplasma pneumoniae	Diagnosis	ICD-10-CM
J20.1	Acute bronchitis due to Hemophilus influenzae	Diagnosis	ICD-10-CM
J20.2	Acute bronchitis due to streptococcus	Diagnosis	ICD-10-CM
J20.3	Acute bronchitis due to coxsackievirus	Diagnosis	ICD-10-CM
J20.4	Acute bronchitis due to parainfluenza virus	Diagnosis	ICD-10-CM
J20.5	Acute bronchitis due to respiratory syncytial virus	Diagnosis	ICD-10-CM
J20.6	Acute bronchitis due to rhinovirus	Diagnosis	ICD-10-CM
J20.7	Acute bronchitis due to echovirus	Diagnosis	ICD-10-CM
J20.8	Acute bronchitis due to other specified organisms	Diagnosis	ICD-10-CM
J20.9	Acute bronchitis, unspecified	Diagnosis	ICD-10-CM
J21.0	Acute bronchiolitis due to respiratory syncytial virus	Diagnosis	ICD-10-CM
J21.1	Acute bronchiolitis due to human metapneumovirus	Diagnosis	ICD-10-CM
J21.8	Acute bronchiolitis due to other specified organisms	Diagnosis	ICD-10-CM
J21.9	Acute bronchiolitis, unspecified	Diagnosis	ICD-10-CM
J22	Unspecified acute lower respiratory infection	Diagnosis	ICD-10-CM
J30.0	Vasomotor rhinitis	Diagnosis	ICD-10-CM
J30.1	Allergic rhinitis due to pollen	Diagnosis	ICD-10-CM
J30.2	Other seasonal allergic rhinitis	Diagnosis	ICD-10-CM
J30.5	Allergic rhinitis due to food	Diagnosis	ICD-10-CM
J30.81	Allergic rhinitis due to animal (cat) (dog) hair and dander	Diagnosis	ICD-10-CM
J30.89	Other allergic rhinitis	Diagnosis	ICD-10-CM
J30.9	Allergic rhinitis, unspecified	Diagnosis	ICD-10-CM
J31.0	Chronic rhinitis	Diagnosis	ICD-10-CM
J31.1	Chronic nasopharyngitis	Diagnosis	ICD-10-CM
J31.2	Chronic pharyngitis	Diagnosis	ICD-10-CM
J32.0	Chronic maxillary sinusitis	Diagnosis	ICD-10-CM
J32.1	Chronic frontal sinusitis	Diagnosis	ICD-10-CM
J32.2	Chronic ethmoidal sinusitis	Diagnosis	ICD-10-CM
J32.3	Chronic sphenoidal sinusitis	Diagnosis	ICD-10-CM
J32.4	Chronic pansinusitis	Diagnosis	ICD-10-CM
J32.8	Other chronic sinusitis	Diagnosis	ICD-10-CM
J32.9	Chronic sinusitis, unspecified	Diagnosis	ICD-10-CM
J33.0	Polyp of nasal cavity	Diagnosis	ICD-10-CM
J33.1	Polypoid sinus degeneration	Diagnosis	ICD-10-CM
J33.8	Other polyp of sinus	Diagnosis	ICD-10-CM
J33.9	Nasal polyp, unspecified	Diagnosis	ICD-10-CM
J34.0	Abscess, furuncle and carbuncle of nose	Diagnosis	ICD-10-CM
J34.1	Cyst and mucocele of nose and nasal sinus	Diagnosis	ICD-10-CM
J34.2	Deviated nasal septum	Diagnosis	ICD-10-CM
J34.3	Hypertrophy of nasal turbinates	Diagnosis	ICD-10-CM
J34.81	Nasal mucositis (ulcerative)	Diagnosis	ICD-10-CM
J34.89	Other specified disorders of nose and nasal sinuses	Diagnosis	ICD-10-CM
J34.9	Unspecified disorder of nose and nasal sinuses	Diagnosis	ICD-10-CM
J35.01	Chronic tonsillitis	Diagnosis	ICD-10-CM
J35.02	Chronic adenoiditis	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
J35.03	Chronic tonsillitis and adenoiditis	Diagnosis	ICD-10-CM
J35.1	Hypertrophy of tonsils	Diagnosis	ICD-10-CM
J35.2	Hypertrophy of adenoids	Diagnosis	ICD-10-CM
J35.3	Hypertrophy of tonsils with hypertrophy of adenoids	Diagnosis	ICD-10-CM
J35.8	Other chronic diseases of tonsils and adenoids	Diagnosis	ICD-10-CM
J35.9	Chronic disease of tonsils and adenoids, unspecified	Diagnosis	ICD-10-CM
J36	Peritonsillar abscess	Diagnosis	ICD-10-CM
J37.0	Chronic laryngitis	Diagnosis	ICD-10-CM
J37.1	Chronic laryngotracheitis	Diagnosis	ICD-10-CM
J38.00	Paralysis of vocal cords and larynx, unspecified	Diagnosis	ICD-10-CM
J38.01	Paralysis of vocal cords and larynx, unilateral	Diagnosis	ICD-10-CM
J38.02	Paralysis of vocal cords and larynx, bilateral	Diagnosis	ICD-10-CM
J38.1	Polyp of vocal cord and larynx	Diagnosis	ICD-10-CM
J38.2	Nodules of vocal cords	Diagnosis	ICD-10-CM
J38.3	Other diseases of vocal cords	Diagnosis	ICD-10-CM
J38.4	Edema of larynx	Diagnosis	ICD-10-CM
J38.5	Laryngeal spasm	Diagnosis	ICD-10-CM
J38.6	Stenosis of larynx	Diagnosis	ICD-10-CM
J38.7	Other diseases of larynx	Diagnosis	ICD-10-CM
J39.0	Retropharyngeal and parapharyngeal abscess	Diagnosis	ICD-10-CM
J39.1	Other abscess of pharynx	Diagnosis	ICD-10-CM
J39.2	Other diseases of pharynx	Diagnosis	ICD-10-CM
J39.3	Upper respiratory tract hypersensitivity reaction, site unspecified	Diagnosis	ICD-10-CM
J39.8	Other specified diseases of upper respiratory tract	Diagnosis	ICD-10-CM
J39.9	Disease of upper respiratory tract, unspecified	Diagnosis	ICD-10-CM
J40	Bronchitis, not specified as acute or chronic	Diagnosis	ICD-10-CM
J41.0	Simple chronic bronchitis	Diagnosis	ICD-10-CM
J41.1	Mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J41.8	Mixed simple and mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J42	Unspecified chronic bronchitis	Diagnosis	ICD-10-CM
J43.0	Unilateral pulmonary emphysema [MacLeod's syndrome]	Diagnosis	ICD-10-CM
J43.1	Panlobular emphysema	Diagnosis	ICD-10-CM
J43.2	Centrilobular emphysema	Diagnosis	ICD-10-CM
J43.8	Other emphysema	Diagnosis	ICD-10-CM
J43.9	Emphysema, unspecified	Diagnosis	ICD-10-CM
J44.0	Chronic obstructive pulmonary disease with (acute) lower respiratory infection	Diagnosis	ICD-10-CM
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation	Diagnosis	ICD-10-CM
J44.9	Chronic obstructive pulmonary disease, unspecified	Diagnosis	ICD-10-CM
J45.20	Mild intermittent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.21	Mild intermittent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.22	Mild intermittent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.30	Mild persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.31	Mild persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.32	Mild persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.40	Moderate persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.41	Moderate persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.42	Moderate persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.50	Severe persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.51	Severe persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.52	Severe persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
J45.901	Unspecified asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.902	Unspecified asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.909	Unspecified asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.990	Exercise induced bronchospasm	Diagnosis	ICD-10-CM
J45.991	Cough variant asthma	Diagnosis	ICD-10-CM
J45.998	Other asthma	Diagnosis	ICD-10-CM
J47.0	Bronchiectasis with acute lower respiratory infection	Diagnosis	ICD-10-CM
J47.1	Bronchiectasis with (acute) exacerbation	Diagnosis	ICD-10-CM
J47.9	Bronchiectasis, uncomplicated	Diagnosis	ICD-10-CM
J85.0	Gangrene and necrosis of lung	Diagnosis	ICD-10-CM
J85.1	Abscess of lung with pneumonia	Diagnosis	ICD-10-CM
K12.2	Cellulitis and abscess of mouth	Diagnosis	ICD-10-CM
K35.2	Acute appendicitis with generalized peritonitis	Diagnosis	ICD-10-CM
K35.3	Acute appendicitis with localized peritonitis	Diagnosis	ICD-10-CM
K35.80	Unspecified acute appendicitis	Diagnosis	ICD-10-CM
K35.89	Other acute appendicitis	Diagnosis	ICD-10-CM
K36	Other appendicitis	Diagnosis	ICD-10-CM
K37	Unspecified appendicitis	Diagnosis	ICD-10-CM
K38.9	Disease of appendix, unspecified	Diagnosis	ICD-10-CM
K55.30	Necrotizing enterocolitis, unspecified	Diagnosis	ICD-10-CM
K55.31	Stage 1 necrotizing enterocolitis	Diagnosis	ICD-10-CM
K55.32	Stage 2 necrotizing enterocolitis	Diagnosis	ICD-10-CM
K55.33	Stage 3 necrotizing enterocolitis	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
K57.12	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
K57.32	Diverticulitis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
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
K57.52	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
K57.92	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
K61	Abscess of anal and rectal regions	Diagnosis	ICD-10-CM
K61.0	Anal abscess	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
K61.1	Rectal abscess	Diagnosis	ICD-10-CM
K61.2	Anorectal abscess	Diagnosis	ICD-10-CM
K61.3	Ischiorectal abscess	Diagnosis	ICD-10-CM
K61.4	Intrasphincteric abscess	Diagnosis	ICD-10-CM
K63.0	Abscess of intestine	Diagnosis	ICD-10-CM
K65.0	Generalized (acute) peritonitis	Diagnosis	ICD-10-CM
K65.1	Peritoneal abscess	Diagnosis	ICD-10-CM
K65.2	Spontaneous bacterial peritonitis	Diagnosis	ICD-10-CM
K65.3	Choleperitonitis	Diagnosis	ICD-10-CM
K65.8	Other peritonitis	Diagnosis	ICD-10-CM
K65.9	Peritonitis, unspecified	Diagnosis	ICD-10-CM
K68.19	Other retroperitoneal abscess	Diagnosis	ICD-10-CM
K75.0	Abscess of liver	Diagnosis	ICD-10-CM
K81.0	Acute cholecystitis	Diagnosis	ICD-10-CM
K81.1	Chronic cholecystitis	Diagnosis	ICD-10-CM
K81.2	Acute cholecystitis with chronic cholecystitis	Diagnosis	ICD-10-CM
K81.9	Cholecystitis, unspecified	Diagnosis	ICD-10-CM
K85.0	Idiopathic acute pancreatitis	Diagnosis	ICD-10-CM
K85.00	Idiopathic acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.01	Idiopathic acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.02	Idiopathic acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.1	Biliary acute pancreatitis	Diagnosis	ICD-10-CM
K85.10	Biliary acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.11	Biliary acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.12	Biliary acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.2	Alcohol induced acute pancreatitis	Diagnosis	ICD-10-CM
K85.20	Alcohol induced acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.21	Alcohol induced acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.22	Alcohol induced acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.3	Drug induced acute pancreatitis	Diagnosis	ICD-10-CM
K85.30	Drug induced acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.31	Drug induced acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.32	Drug induced acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.8	Other acute pancreatitis	Diagnosis	ICD-10-CM
K85.80	Other acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.81	Other acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.82	Other acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.9	Acute pancreatitis, unspecified	Diagnosis	ICD-10-CM
K85.90	Acute pancreatitis without necrosis or infection, unspecified	Diagnosis	ICD-10-CM
K85.91	Acute pancreatitis with uninfected necrosis, unspecified	Diagnosis	ICD-10-CM
K85.92	Acute pancreatitis with infected necrosis, unspecified	Diagnosis	ICD-10-CM
K86.0	Alcohol-induced chronic pancreatitis	Diagnosis	ICD-10-CM
K86.1	Other chronic pancreatitis	Diagnosis	ICD-10-CM
L00	Staphylococcal scalded skin syndrome	Diagnosis	ICD-10-CM
L01.00	Impetigo, unspecified	Diagnosis	ICD-10-CM
L01.01	Non-bullous impetigo	Diagnosis	ICD-10-CM
L01.02	Bockhart's impetigo	Diagnosis	ICD-10-CM
L01.03	Bullous impetigo	Diagnosis	ICD-10-CM
L01.09	Other impetigo	Diagnosis	ICD-10-CM
L01.1	Impetiginization of other dermatoses	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
L02.01	Cutaneous abscess of face	Diagnosis	ICD-10-CM
L02.02	Furuncle of face	Diagnosis	ICD-10-CM
L02.03	Carbuncle of face	Diagnosis	ICD-10-CM
L02.11	Cutaneous abscess of neck	Diagnosis	ICD-10-CM
L02.12	Furuncle of neck	Diagnosis	ICD-10-CM
L02.13	Carbuncle of neck	Diagnosis	ICD-10-CM
L02.211	Cutaneous abscess of abdominal wall	Diagnosis	ICD-10-CM
L02.212	Cutaneous abscess of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.213	Cutaneous abscess of chest wall	Diagnosis	ICD-10-CM
L02.214	Cutaneous abscess of groin	Diagnosis	ICD-10-CM
L02.215	Cutaneous abscess of perineum	Diagnosis	ICD-10-CM
L02.216	Cutaneous abscess of umbilicus	Diagnosis	ICD-10-CM
L02.219	Cutaneous abscess of trunk, unspecified	Diagnosis	ICD-10-CM
L02.221	Furuncle of abdominal wall	Diagnosis	ICD-10-CM
L02.222	Furuncle of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.223	Furuncle of chest wall	Diagnosis	ICD-10-CM
L02.224	Furuncle of groin	Diagnosis	ICD-10-CM
L02.225	Furuncle of perineum	Diagnosis	ICD-10-CM
L02.226	Furuncle of umbilicus	Diagnosis	ICD-10-CM
L02.229	Furuncle of trunk, unspecified	Diagnosis	ICD-10-CM
L02.231	Carbuncle of abdominal wall	Diagnosis	ICD-10-CM
L02.232	Carbuncle of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.233	Carbuncle of chest wall	Diagnosis	ICD-10-CM
L02.234	Carbuncle of groin	Diagnosis	ICD-10-CM
L02.235	Carbuncle of perineum	Diagnosis	ICD-10-CM
L02.236	Carbuncle of umbilicus	Diagnosis	ICD-10-CM
L02.239	Carbuncle of trunk, unspecified	Diagnosis	ICD-10-CM
L02.31	Cutaneous abscess of buttock	Diagnosis	ICD-10-CM
L02.32	Furuncle of buttock	Diagnosis	ICD-10-CM
L02.33	Carbuncle of buttock	Diagnosis	ICD-10-CM
L02.411	Cutaneous abscess of right axilla	Diagnosis	ICD-10-CM
L02.412	Cutaneous abscess of left axilla	Diagnosis	ICD-10-CM
L02.413	Cutaneous abscess of right upper limb	Diagnosis	ICD-10-CM
L02.414	Cutaneous abscess of left upper limb	Diagnosis	ICD-10-CM
L02.415	Cutaneous abscess of right lower limb	Diagnosis	ICD-10-CM
L02.416	Cutaneous abscess of left lower limb	Diagnosis	ICD-10-CM
L02.419	Cutaneous abscess of limb, unspecified	Diagnosis	ICD-10-CM
L02.421	Furuncle of right axilla	Diagnosis	ICD-10-CM
L02.422	Furuncle of left axilla	Diagnosis	ICD-10-CM
L02.423	Furuncle of right upper limb	Diagnosis	ICD-10-CM
L02.424	Furuncle of left upper limb	Diagnosis	ICD-10-CM
L02.425	Furuncle of right lower limb	Diagnosis	ICD-10-CM
L02.426	Furuncle of left lower limb	Diagnosis	ICD-10-CM
L02.429	Furuncle of limb, unspecified	Diagnosis	ICD-10-CM
L02.431	Carbuncle of right axilla	Diagnosis	ICD-10-CM
L02.432	Carbuncle of left axilla	Diagnosis	ICD-10-CM
L02.433	Carbuncle of right upper limb	Diagnosis	ICD-10-CM
L02.434	Carbuncle of left upper limb	Diagnosis	ICD-10-CM
L02.435	Carbuncle of right lower limb	Diagnosis	ICD-10-CM
L02.436	Carbuncle of left lower limb	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
L02.439	Carbuncle of limb, unspecified	Diagnosis	ICD-10-CM
L02.511	Cutaneous abscess of right hand	Diagnosis	ICD-10-CM
L02.512	Cutaneous abscess of left hand	Diagnosis	ICD-10-CM
L02.519	Cutaneous abscess of unspecified hand	Diagnosis	ICD-10-CM
L02.521	Furuncle right hand	Diagnosis	ICD-10-CM
L02.522	Furuncle left hand	Diagnosis	ICD-10-CM
L02.529	Furuncle unspecified hand	Diagnosis	ICD-10-CM
L02.531	Carbuncle of right hand	Diagnosis	ICD-10-CM
L02.532	Carbuncle of left hand	Diagnosis	ICD-10-CM
L02.539	Carbuncle of unspecified hand	Diagnosis	ICD-10-CM
L02.611	Cutaneous abscess of right foot	Diagnosis	ICD-10-CM
L02.612	Cutaneous abscess of left foot	Diagnosis	ICD-10-CM
L02.619	Cutaneous abscess of unspecified foot	Diagnosis	ICD-10-CM
L02.621	Furuncle of right foot	Diagnosis	ICD-10-CM
L02.622	Furuncle of left foot	Diagnosis	ICD-10-CM
L02.629	Furuncle of unspecified foot	Diagnosis	ICD-10-CM
L02.631	Carbuncle of right foot	Diagnosis	ICD-10-CM
L02.632	Carbuncle of left foot	Diagnosis	ICD-10-CM
L02.639	Carbuncle of unspecified foot	Diagnosis	ICD-10-CM
L02.811	Cutaneous abscess of head [any part, except face]	Diagnosis	ICD-10-CM
L02.818	Cutaneous abscess of other sites	Diagnosis	ICD-10-CM
L02.821	Furuncle of head [any part, except face]	Diagnosis	ICD-10-CM
L02.828	Furuncle of other sites	Diagnosis	ICD-10-CM
L02.831	Carbuncle of head [any part, except face]	Diagnosis	ICD-10-CM
L02.838	Carbuncle of other sites	Diagnosis	ICD-10-CM
L02.91	Cutaneous abscess, unspecified	Diagnosis	ICD-10-CM
L02.92	Furuncle, unspecified	Diagnosis	ICD-10-CM
L02.93	Carbuncle, unspecified	Diagnosis	ICD-10-CM
L03	Cellulitis and acute lymphangitis	Diagnosis	ICD-10-CM
L03.0	Cellulitis and acute lymphangitis of finger and toe	Diagnosis	ICD-10-CM
L03.01	Cellulitis of finger	Diagnosis	ICD-10-CM
L03.011	Cellulitis of right finger	Diagnosis	ICD-10-CM
L03.012	Cellulitis of left finger	Diagnosis	ICD-10-CM
L03.019	Cellulitis of unspecified finger	Diagnosis	ICD-10-CM
L03.021	Acute lymphangitis of right finger	Diagnosis	ICD-10-CM
L03.022	Acute lymphangitis of left finger	Diagnosis	ICD-10-CM
L03.029	Acute lymphangitis of unspecified finger	Diagnosis	ICD-10-CM
L03.03	Cellulitis of toe	Diagnosis	ICD-10-CM
L03.031	Cellulitis of right toe	Diagnosis	ICD-10-CM
L03.032	Cellulitis of left toe	Diagnosis	ICD-10-CM
L03.039	Cellulitis of unspecified toe	Diagnosis	ICD-10-CM
L03.041	Acute lymphangitis of right toe	Diagnosis	ICD-10-CM
L03.042	Acute lymphangitis of left toe	Diagnosis	ICD-10-CM
L03.049	Acute lymphangitis of unspecified toe	Diagnosis	ICD-10-CM
L03.1	Cellulitis and acute lymphangitis of other parts of limb	Diagnosis	ICD-10-CM
L03.11	Cellulitis of other parts of limb	Diagnosis	ICD-10-CM
L03.111	Cellulitis of right axilla	Diagnosis	ICD-10-CM
L03.112	Cellulitis of left axilla	Diagnosis	ICD-10-CM
L03.113	Cellulitis of right upper limb	Diagnosis	ICD-10-CM
L03.114	Cellulitis of left upper limb	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
L03.115	Cellulitis of right lower limb	Diagnosis	ICD-10-CM
L03.116	Cellulitis of left lower limb	Diagnosis	ICD-10-CM
L03.119	Cellulitis of unspecified part of limb	Diagnosis	ICD-10-CM
L03.121	Acute lymphangitis of right axilla	Diagnosis	ICD-10-CM
L03.122	Acute lymphangitis of left axilla	Diagnosis	ICD-10-CM
L03.123	Acute lymphangitis of right upper limb	Diagnosis	ICD-10-CM
L03.124	Acute lymphangitis of left upper limb	Diagnosis	ICD-10-CM
L03.125	Acute lymphangitis of right lower limb	Diagnosis	ICD-10-CM
L03.126	Acute lymphangitis of left lower limb	Diagnosis	ICD-10-CM
L03.129	Acute lymphangitis of unspecified part of limb	Diagnosis	ICD-10-CM
L03.2	Cellulitis and acute lymphangitis of face and neck	Diagnosis	ICD-10-CM
L03.21	Cellulitis and acute lymphangitis of face	Diagnosis	ICD-10-CM
L03.211	Cellulitis of face	Diagnosis	ICD-10-CM
L03.212	Acute lymphangitis of face	Diagnosis	ICD-10-CM
L03.213	Periorbital cellulitis	Diagnosis	ICD-10-CM
L03.22	Cellulitis and acute lymphangitis of neck	Diagnosis	ICD-10-CM
L03.221	Cellulitis of neck	Diagnosis	ICD-10-CM
L03.222	Acute lymphangitis of neck	Diagnosis	ICD-10-CM
L03.3	Cellulitis and acute lymphangitis of trunk	Diagnosis	ICD-10-CM
L03.31	Cellulitis of trunk	Diagnosis	ICD-10-CM
L03.311	Cellulitis of abdominal wall	Diagnosis	ICD-10-CM
L03.312	Cellulitis of back [any part except buttock]	Diagnosis	ICD-10-CM
L03.313	Cellulitis of chest wall	Diagnosis	ICD-10-CM
L03.314	Cellulitis of groin	Diagnosis	ICD-10-CM
L03.315	Cellulitis of perineum	Diagnosis	ICD-10-CM
L03.316	Cellulitis of umbilicus	Diagnosis	ICD-10-CM
L03.317	Cellulitis of buttock	Diagnosis	ICD-10-CM
L03.319	Cellulitis of trunk, unspecified	Diagnosis	ICD-10-CM
L03.321	Acute lymphangitis of abdominal wall	Diagnosis	ICD-10-CM
L03.322	Acute lymphangitis of back [any part except buttock]	Diagnosis	ICD-10-CM
L03.323	Acute lymphangitis of chest wall	Diagnosis	ICD-10-CM
L03.324	Acute lymphangitis of groin	Diagnosis	ICD-10-CM
L03.325	Acute lymphangitis of perineum	Diagnosis	ICD-10-CM
L03.326	Acute lymphangitis of umbilicus	Diagnosis	ICD-10-CM
L03.327	Acute lymphangitis of buttock	Diagnosis	ICD-10-CM
L03.329	Acute lymphangitis of trunk, unspecified	Diagnosis	ICD-10-CM
L03.8	Cellulitis and acute lymphangitis of other sites	Diagnosis	ICD-10-CM
L03.81	Cellulitis of other sites	Diagnosis	ICD-10-CM
L03.811	Cellulitis of head [any part, except face]	Diagnosis	ICD-10-CM
L03.818	Cellulitis of other sites	Diagnosis	ICD-10-CM
L03.891	Acute lymphangitis of head [any part, except face]	Diagnosis	ICD-10-CM
L03.898	Acute lymphangitis of other sites	Diagnosis	ICD-10-CM
L03.9	Cellulitis and acute lymphangitis, unspecified	Diagnosis	ICD-10-CM
L03.90	Cellulitis, unspecified	Diagnosis	ICD-10-CM
L03.91	Acute lymphangitis, unspecified	Diagnosis	ICD-10-CM
L04.0	Acute lymphadenitis of face, head and neck	Diagnosis	ICD-10-CM
L04.1	Acute lymphadenitis of trunk	Diagnosis	ICD-10-CM
L04.2	Acute lymphadenitis of upper limb	Diagnosis	ICD-10-CM
L04.3	Acute lymphadenitis of lower limb	Diagnosis	ICD-10-CM
L04.8	Acute lymphadenitis of other sites	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
L04.9	Acute lymphadenitis, unspecified	Diagnosis	ICD-10-CM
L05.01	Pilonidal cyst with abscess	Diagnosis	ICD-10-CM
L05.02	Pilonidal sinus with abscess	Diagnosis	ICD-10-CM
L05.91	Pilonidal cyst without abscess	Diagnosis	ICD-10-CM
L05.92	Pilonidal sinus without abscess	Diagnosis	ICD-10-CM
L08.0	Pyoderma	Diagnosis	ICD-10-CM
L08.1	Erythrasma	Diagnosis	ICD-10-CM
L08.8	Other specified local infections of the skin and subcutaneous tissue	Diagnosis	ICD-10-CM
L08.81	Pyoderma vegetans	Diagnosis	ICD-10-CM
L08.82	Omphalitis not of newborn	Diagnosis	ICD-10-CM
L08.89	Other specified local infections of the skin and subcutaneous tissue	Diagnosis	ICD-10-CM
L08.9	Local infection of the skin and subcutaneous tissue, unspecified	Diagnosis	ICD-10-CM
M00.00	Staphylococcal arthritis, unspecified joint	Diagnosis	ICD-10-CM
M00.011	Staphylococcal arthritis, right shoulder	Diagnosis	ICD-10-CM
M00.012	Staphylococcal arthritis, left shoulder	Diagnosis	ICD-10-CM
M00.019	Staphylococcal arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M00.021	Staphylococcal arthritis, right elbow	Diagnosis	ICD-10-CM
M00.022	Staphylococcal arthritis, left elbow	Diagnosis	ICD-10-CM
M00.029	Staphylococcal arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M00.031	Staphylococcal arthritis, right wrist	Diagnosis	ICD-10-CM
M00.032	Staphylococcal arthritis, left wrist	Diagnosis	ICD-10-CM
M00.039	Staphylococcal arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M00.041	Staphylococcal arthritis, right hand	Diagnosis	ICD-10-CM
M00.042	Staphylococcal arthritis, left hand	Diagnosis	ICD-10-CM
M00.049	Staphylococcal arthritis, unspecified hand	Diagnosis	ICD-10-CM
M00.051	Staphylococcal arthritis, right hip	Diagnosis	ICD-10-CM
M00.052	Staphylococcal arthritis, left hip	Diagnosis	ICD-10-CM
M00.059	Staphylococcal arthritis, unspecified hip	Diagnosis	ICD-10-CM
M00.061	Staphylococcal arthritis, right knee	Diagnosis	ICD-10-CM
M00.062	Staphylococcal arthritis, left knee	Diagnosis	ICD-10-CM
M00.069	Staphylococcal arthritis, unspecified knee	Diagnosis	ICD-10-CM
M00.071	Staphylococcal arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M00.072	Staphylococcal arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M00.079	Staphylococcal arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M00.08	Staphylococcal arthritis, vertebrae	Diagnosis	ICD-10-CM
M00.09	Staphylococcal polyarthritis	Diagnosis	ICD-10-CM
M00.10	Pneumococcal arthritis, unspecified joint	Diagnosis	ICD-10-CM
M00.111	Pneumococcal arthritis, right shoulder	Diagnosis	ICD-10-CM
M00.112	Pneumococcal arthritis, left shoulder	Diagnosis	ICD-10-CM
M00.119	Pneumococcal arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M00.121	Pneumococcal arthritis, right elbow	Diagnosis	ICD-10-CM
M00.122	Pneumococcal arthritis, left elbow	Diagnosis	ICD-10-CM
M00.129	Pneumococcal arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M00.131	Pneumococcal arthritis, right wrist	Diagnosis	ICD-10-CM
M00.132	Pneumococcal arthritis, left wrist	Diagnosis	ICD-10-CM
M00.139	Pneumococcal arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M00.141	Pneumococcal arthritis, right hand	Diagnosis	ICD-10-CM
M00.142	Pneumococcal arthritis, left hand	Diagnosis	ICD-10-CM
M00.149	Pneumococcal arthritis, unspecified hand	Diagnosis	ICD-10-CM
M00.151	Pneumococcal arthritis, right hip	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
M00.152	Pneumococcal arthritis, left hip	Diagnosis	ICD-10-CM
M00.159	Pneumococcal arthritis, unspecified hip	Diagnosis	ICD-10-CM
M00.161	Pneumococcal arthritis, right knee	Diagnosis	ICD-10-CM
M00.162	Pneumococcal arthritis, left knee	Diagnosis	ICD-10-CM
M00.169	Pneumococcal arthritis, unspecified knee	Diagnosis	ICD-10-CM
M00.171	Pneumococcal arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M00.172	Pneumococcal arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M00.179	Pneumococcal arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M00.18	Pneumococcal arthritis, vertebrae	Diagnosis	ICD-10-CM
M00.19	Pneumococcal polyarthritis	Diagnosis	ICD-10-CM
M00.20	Other streptococcal arthritis, unspecified joint	Diagnosis	ICD-10-CM
M00.211	Other streptococcal arthritis, right shoulder	Diagnosis	ICD-10-CM
M00.212	Other streptococcal arthritis, left shoulder	Diagnosis	ICD-10-CM
M00.219	Other streptococcal arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M00.221	Other streptococcal arthritis, right elbow	Diagnosis	ICD-10-CM
M00.222	Other streptococcal arthritis, left elbow	Diagnosis	ICD-10-CM
M00.229	Other streptococcal arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M00.231	Other streptococcal arthritis, right wrist	Diagnosis	ICD-10-CM
M00.232	Other streptococcal arthritis, left wrist	Diagnosis	ICD-10-CM
M00.239	Other streptococcal arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M00.241	Other streptococcal arthritis, right hand	Diagnosis	ICD-10-CM
M00.242	Other streptococcal arthritis, left hand	Diagnosis	ICD-10-CM
M00.249	Other streptococcal arthritis, unspecified hand	Diagnosis	ICD-10-CM
M00.251	Other streptococcal arthritis, right hip	Diagnosis	ICD-10-CM
M00.252	Other streptococcal arthritis, left hip	Diagnosis	ICD-10-CM
M00.259	Other streptococcal arthritis, unspecified hip	Diagnosis	ICD-10-CM
M00.261	Other streptococcal arthritis, right knee	Diagnosis	ICD-10-CM
M00.262	Other streptococcal arthritis, left knee	Diagnosis	ICD-10-CM
M00.269	Other streptococcal arthritis, unspecified knee	Diagnosis	ICD-10-CM
M00.271	Other streptococcal arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M00.272	Other streptococcal arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M00.279	Other streptococcal arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M00.28	Other streptococcal arthritis, vertebrae	Diagnosis	ICD-10-CM
M00.29	Other streptococcal polyarthritis	Diagnosis	ICD-10-CM
M04.1	Periodic fever syndromes	Diagnosis	ICD-10-CM
M46.20	Osteomyelitis of vertebra, site unspecified	Diagnosis	ICD-10-CM
M46.21	Osteomyelitis of vertebra, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M46.22	Osteomyelitis of vertebra, cervical region	Diagnosis	ICD-10-CM
M46.23	Osteomyelitis of vertebra, cervicothoracic region	Diagnosis	ICD-10-CM
M46.24	Osteomyelitis of vertebra, thoracic region	Diagnosis	ICD-10-CM
M46.25	Osteomyelitis of vertebra, thoracolumbar region	Diagnosis	ICD-10-CM
M46.26	Osteomyelitis of vertebra, lumbar region	Diagnosis	ICD-10-CM
M46.27	Osteomyelitis of vertebra, lumbosacral region	Diagnosis	ICD-10-CM
M46.28	Osteomyelitis of vertebra, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M60.0	Infective myositis	Diagnosis	ICD-10-CM
M60.00	Infective myositis, unspecified site	Diagnosis	ICD-10-CM
M60.000	Infective myositis, unspecified right arm	Diagnosis	ICD-10-CM
M60.001	Infective myositis, unspecified left arm	Diagnosis	ICD-10-CM
M60.002	Infective myositis, unspecified arm	Diagnosis	ICD-10-CM
M60.003	Infective myositis, unspecified right leg	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
M60.004	Infective myositis, unspecified left leg	Diagnosis	ICD-10-CM
M60.005	Infective myositis, unspecified leg	Diagnosis	ICD-10-CM
M60.009	Infective myositis, unspecified site	Diagnosis	ICD-10-CM
M60.01	Infective myositis, shoulder	Diagnosis	ICD-10-CM
M60.011	Infective myositis, right shoulder	Diagnosis	ICD-10-CM
M60.012	Infective myositis, left shoulder	Diagnosis	ICD-10-CM
M60.019	Infective myositis, unspecified shoulder	Diagnosis	ICD-10-CM
M60.02	Infective myositis, upper arm	Diagnosis	ICD-10-CM
M60.021	Infective myositis, right upper arm	Diagnosis	ICD-10-CM
M60.022	Infective myositis, left upper arm	Diagnosis	ICD-10-CM
M60.029	Infective myositis, unspecified upper arm	Diagnosis	ICD-10-CM
M60.03	Infective myositis, forearm	Diagnosis	ICD-10-CM
M60.031	Infective myositis, right forearm	Diagnosis	ICD-10-CM
M60.032	Infective myositis, left forearm	Diagnosis	ICD-10-CM
M60.039	Infective myositis, unspecified forearm	Diagnosis	ICD-10-CM
M60.04	Infective myositis, hand and fingers	Diagnosis	ICD-10-CM
M60.041	Infective myositis, right hand	Diagnosis	ICD-10-CM
M60.042	Infective myositis, left hand	Diagnosis	ICD-10-CM
M60.043	Infective myositis, unspecified hand	Diagnosis	ICD-10-CM
M60.044	Infective myositis, right finger(s)	Diagnosis	ICD-10-CM
M60.045	Infective myositis, left finger(s)	Diagnosis	ICD-10-CM
M60.046	Infective myositis, unspecified finger(s)	Diagnosis	ICD-10-CM
M60.05	Infective myositis, thigh	Diagnosis	ICD-10-CM
M60.051	Infective myositis, right thigh	Diagnosis	ICD-10-CM
M60.052	Infective myositis, left thigh	Diagnosis	ICD-10-CM
M60.059	Infective myositis, unspecified thigh	Diagnosis	ICD-10-CM
M60.06	Infective myositis, lower leg	Diagnosis	ICD-10-CM
M60.061	Infective myositis, right lower leg	Diagnosis	ICD-10-CM
M60.062	Infective myositis, left lower leg	Diagnosis	ICD-10-CM
M60.069	Infective myositis, unspecified lower leg	Diagnosis	ICD-10-CM
M60.07	Infective myositis, ankle, foot and toes	Diagnosis	ICD-10-CM
M60.070	Infective myositis, right ankle	Diagnosis	ICD-10-CM
M60.071	Infective myositis, left ankle	Diagnosis	ICD-10-CM
M60.072	Infective myositis, unspecified ankle	Diagnosis	ICD-10-CM
M60.073	Infective myositis, right foot	Diagnosis	ICD-10-CM
M60.074	Infective myositis, left foot	Diagnosis	ICD-10-CM
M60.075	Infective myositis, unspecified foot	Diagnosis	ICD-10-CM
M60.076	Infective myositis, right toe(s)	Diagnosis	ICD-10-CM
M60.077	Infective myositis, left toe(s)	Diagnosis	ICD-10-CM
M60.078	Infective myositis, unspecified toe(s)	Diagnosis	ICD-10-CM
M60.08	Infective myositis, other site	Diagnosis	ICD-10-CM
M60.09	Infective myositis, multiple sites	Diagnosis	ICD-10-CM
M72.6	Necrotizing fasciitis	Diagnosis	ICD-10-CM
M86.00	Acute hematogenous osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.011	Acute hematogenous osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.012	Acute hematogenous osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.019	Acute hematogenous osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.021	Acute hematogenous osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.022	Acute hematogenous osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.029	Acute hematogenous osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
M86.031	Acute hematogenous osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.032	Acute hematogenous osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.039	Acute hematogenous osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.041	Acute hematogenous osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.042	Acute hematogenous osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.049	Acute hematogenous osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.051	Acute hematogenous osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.052	Acute hematogenous osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.059	Acute hematogenous osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.061	Acute hematogenous osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.062	Acute hematogenous osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.069	Acute hematogenous osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.071	Acute hematogenous osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.072	Acute hematogenous osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.079	Acute hematogenous osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.08	Acute hematogenous osteomyelitis, other sites	Diagnosis	ICD-10-CM
M86.09	Acute hematogenous osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.1	Other acute osteomyelitis	Diagnosis	ICD-10-CM
M86.10	Other acute osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.11	Other acute osteomyelitis, shoulder	Diagnosis	ICD-10-CM
M86.111	Other acute osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.112	Other acute osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.119	Other acute osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.12	Other acute osteomyelitis, humerus	Diagnosis	ICD-10-CM
M86.121	Other acute osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.122	Other acute osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.129	Other acute osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.13	Other acute osteomyelitis, radius and ulna	Diagnosis	ICD-10-CM
M86.131	Other acute osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.132	Other acute osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.139	Other acute osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.14	Other acute osteomyelitis, hand	Diagnosis	ICD-10-CM
M86.141	Other acute osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.142	Other acute osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.149	Other acute osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.15	Other acute osteomyelitis, femur	Diagnosis	ICD-10-CM
M86.151	Other acute osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.152	Other acute osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.159	Other acute osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.16	Other acute osteomyelitis, tibia and fibula	Diagnosis	ICD-10-CM
M86.161	Other acute osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.162	Other acute osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.169	Other acute osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.17	Other acute osteomyelitis, ankle and foot	Diagnosis	ICD-10-CM
M86.171	Other acute osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.172	Other acute osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.179	Other acute osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.18	Other acute osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.19	Other acute osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.20	Subacute osteomyelitis, unspecified site	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
M86.211	Subacute osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.212	Subacute osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.219	Subacute osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.221	Subacute osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.222	Subacute osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.229	Subacute osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.231	Subacute osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.232	Subacute osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.239	Subacute osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.241	Subacute osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.242	Subacute osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.249	Subacute osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.251	Subacute osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.252	Subacute osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.259	Subacute osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.261	Subacute osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.262	Subacute osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.269	Subacute osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.271	Subacute osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.272	Subacute osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.279	Subacute osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.28	Subacute osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.29	Subacute osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.8X0	Other osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.8X1	Other osteomyelitis, shoulder	Diagnosis	ICD-10-CM
M86.8X2	Other osteomyelitis, upper arm	Diagnosis	ICD-10-CM
M86.8X3	Other osteomyelitis, forearm	Diagnosis	ICD-10-CM
M86.8X4	Other osteomyelitis, hand	Diagnosis	ICD-10-CM
M86.8X5	Other osteomyelitis, thigh	Diagnosis	ICD-10-CM
M86.8X6	Other osteomyelitis, lower leg	Diagnosis	ICD-10-CM
M86.8X7	Other osteomyelitis, ankle and foot	Diagnosis	ICD-10-CM
M86.8X8	Other osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.8X9	Other osteomyelitis, unspecified sites	Diagnosis	ICD-10-CM
M86.9	Osteomyelitis, unspecified	Diagnosis	ICD-10-CM
N10	Acute pyelonephritis	Diagnosis	ICD-10-CM
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N34.0	Urethral abscess	Diagnosis	ICD-10-CM
N39.0	Urinary tract infection, site not specified	Diagnosis	ICD-10-CM
N48.21	Abscess of corpus cavernosum and penis	Diagnosis	ICD-10-CM
N48.22	Cellulitis of corpus cavernosum and penis	Diagnosis	ICD-10-CM
N61.0	Mastitis without abscess	Diagnosis	ICD-10-CM
N61.1	Abscess of the breast and nipple	Diagnosis	ICD-10-CM
N73.0	Acute parametritis and pelvic cellulitis	Diagnosis	ICD-10-CM
N73.2	Unspecified parametritis and pelvic cellulitis	Diagnosis	ICD-10-CM
P35.0	Congenital rubella syndrome	Diagnosis	ICD-10-CM
P35.1	Congenital cytomegalovirus infection	Diagnosis	ICD-10-CM
P35.2	Congenital herpesviral [herpes simplex] infection	Diagnosis	ICD-10-CM
P35.3	Congenital viral hepatitis	Diagnosis	ICD-10-CM
P35.8	Other congenital viral diseases	Diagnosis	ICD-10-CM
P35.9	Congenital viral disease, unspecified	Diagnosis	ICD-10-CM

Appendix P. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Outcomes in this Request

Code	Description	Code Category	Code Type
P36.0	Sepsis of newborn due to streptococcus, group B	Diagnosis	ICD-10-CM
P36.10	Sepsis of newborn due to unspecified streptococci	Diagnosis	ICD-10-CM
P36.19	Sepsis of newborn due to other streptococci	Diagnosis	ICD-10-CM
P36.2	Sepsis of newborn due to Staphylococcus aureus	Diagnosis	ICD-10-CM
P36.30	Sepsis of newborn due to unspecified staphylococci	Diagnosis	ICD-10-CM
P36.39	Sepsis of newborn due to other staphylococci	Diagnosis	ICD-10-CM
P36.4	Sepsis of newborn due to Escherichia coli	Diagnosis	ICD-10-CM
P36.5	Sepsis of newborn due to anaerobes	Diagnosis	ICD-10-CM
P36.8	Other bacterial sepsis of newborn	Diagnosis	ICD-10-CM
P36.9	Bacterial sepsis of newborn, unspecified	Diagnosis	ICD-10-CM
P37.0	Congenital tuberculosis	Diagnosis	ICD-10-CM
P37.1	Congenital toxoplasmosis	Diagnosis	ICD-10-CM
P37.2	Neonatal (disseminated) listeriosis	Diagnosis	ICD-10-CM
P37.3	Congenital falciparum malaria	Diagnosis	ICD-10-CM
P37.4	Other congenital malaria	Diagnosis	ICD-10-CM
P37.5	Neonatal candidiasis	Diagnosis	ICD-10-CM
P37.8	Other specified congenital infectious and parasitic diseases	Diagnosis	ICD-10-CM
P37.9	Congenital infectious or parasitic disease, unspecified	Diagnosis	ICD-10-CM
P38.1	Omphalitis with mild hemorrhage	Diagnosis	ICD-10-CM
P38.9	Omphalitis without hemorrhage	Diagnosis	ICD-10-CM
P39.0	Neonatal infective mastitis	Diagnosis	ICD-10-CM
P39.1	Neonatal conjunctivitis and dacryocystitis	Diagnosis	ICD-10-CM
P39.2	Intra-amniotic infection affecting newborn, not elsewhere classified	Diagnosis	ICD-10-CM
P39.3	Neonatal urinary tract infection	Diagnosis	ICD-10-CM
P39.4	Neonatal skin infection	Diagnosis	ICD-10-CM
P39.8	Other specified infections specific to the perinatal period	Diagnosis	ICD-10-CM
P39.9	Infection specific to the perinatal period, unspecified	Diagnosis	ICD-10-CM
R50.2	Drug induced fever	Diagnosis	ICD-10-CM
R50.81	Fever presenting with conditions classified elsewhere	Diagnosis	ICD-10-CM
R50.9	Fever, unspecified	Diagnosis	ICD-10-CM
R65.20	Severe sepsis without septic shock	Diagnosis	ICD-10-CM
R65.21	Severe sepsis with septic shock	Diagnosis	ICD-10-CM
R78.81	Bacteremia	Diagnosis	ICD-10-CM
U07.1	COVID-19, virus identified [code effective April 1, 2020]	Diagnosis	ICD-10-CM
COVID-19			
U07.1	COVID-19, virus identified [code effective April 1, 2020]	Diagnosis	ICD-10-CM

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
Antimicrobials	
NYSTATIN/HYDROCORTISONE/DIPHENHYDRAMINE HCL	FIRST-Duke's
NYSTATIN/LIDOCAINE HCL/DIPHENHYDRAMINE HCL	First-BXN
NYSTATIN/TETRACYCLINE HCL/HYDROCORTISONE/DIPHENHYDRAMINE HCL	FIRST-Mary's Mouthwash
abacavir sulfate	Ziagen
abacavir sulfate	abacavir
abacavir sulfate/dolutegravir sodium/lamivudine	Triumeq
abacavir sulfate/dolutegravir sodium/lamivudine	Triumeq PD
abacavir sulfate/lamivudine	Epzicom
abacavir sulfate/lamivudine	abacavir-lamivudine
abacavir sulfate/lamivudine/zidovudine	Trizivir
abacavir sulfate/lamivudine/zidovudine	abacavir-lamivudine-zidovudine
acyclovir	Sitavig
acyclovir	Zovirax
acyclovir	acyclovir
acyclovir sodium	acyclovir sodium
acyclovir sodium in 0.9 % sodium chloride	acyclovir in 0.9 % sodium chlr
acyclovir/benzyl alcohol	Acyclovix
adefovir dipivoxil	Hepsera
adefovir dipivoxil	adefovir
albendazole	Albenza
albendazole	albendazole
amikacin sulfate	amikacin
amikacin sulfate liposomal with nebulizer accessories	Arikayce
aminosalicylic acid	Paser
amoxicillin	Moxatag
amoxicillin	amoxicillin
amoxicillin/potassium clavulanate	Augmentin
amoxicillin/potassium clavulanate	Augmentin ES-600
amoxicillin/potassium clavulanate	Augmentin XR
amoxicillin/potassium clavulanate	amoxicillin-pot clavulanate
amphotericin B	amphotericin B
amphotericin B lipid complex	Abelcet
amphotericin B liposome	AmBisome
amphotericin B liposome	amphotericin B liposome
ampicillin sodium	ampicillin sodium
ampicillin sodium/sulbactam sodium	Unasyn
ampicillin sodium/sulbactam sodium	ampicillin-sulbactam
ampicillin trihydrate	ampicillin
anidulafungin	Eraxis(Water Diluent)
artemether/lumefantrine	Coartem
artesunate	artesunate
atazanavir sulfate	Reyataz
atazanavir sulfate	atazanavir
atazanavir sulfate/cobicistat	Evotaz
atovaquone	Mepron
atovaquone	atovaquone
atovaquone/proguanil HCl	Malarone

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
atovaquone/proguanil HCl	Malarone Pediatric
atovaquone/proguanil HCl	atovaquone-proguanil
azithromycin	Zithromax
azithromycin	Zithromax TRI-PAK
azithromycin	Zithromax Z-Pak
azithromycin	azithromycin
aztreonam	Azactam
aztreonam	aztreonam
aztreonam/dextrose-water	Azactam in dextrose (iso-osm)
bacitracin	BACiiM
bacitracin	bacitracin
baloxavir marboxil	Xofluza
bedaquiline fumarate	Sirturo
benznidazole	benznidazole
bictegravir sodium/emtricitabine/tenofovir alafenamide fumarate	Biktarvy
brincidofovir	Tembexa
cabotegravir	Apretude
cabotegravir	cabotegravir
cabotegravir sodium	Vocabria
cabotegravir/rilpivirine	Cabenuva
capreomycin sulfate	Capastat
caspofungin acetate	Cancidas
caspofungin acetate	caspofungin
cefaclor	cefaclor
cefadroxil	cefadroxil
cefazolin sodium	cefazolin
cefazolin sodium in 0.9 % sodium chloride	cefazolin in 0.9% sod chloride
cefazolin sodium/dextrose 5 % in water	cefazolin in dextrose 5 %
cefazolin sodium/dextrose, iso-osmotic	cefazolin in dextrose (iso-os)
cefazolin sodium/water for injection,sterile	cefazolin in sterile water
cefdinir	cefdinir
cefditoren pivoxil	Spectracef
cefditoren pivoxil	cefditoren pivoxil
cefepime HCl	Maxipime
cefepime HCl	cefepime
cefepime HCl in dextrose 5 % in water	cefepime in dextrose 5 %
cefepime HCl in iso-osmotic dextrose	cefepime in dextrose,iso-osm
cefiderocol sulfate tosylate	Fetroja
cefixime	Suprax
cefixime	cefixime
cefotaxime sodium	Claforan
cefotaxime sodium	cefotaxime
cefotaxime sodium/dextrose, iso-osmotic	Claforan in dextrose(iso-osm)
cefotetan disodium	cefotetan
cefotetan disodium in iso-osmotic dextrose	cefotetan in dextrose, iso-osm
cefoxitin sodium	cefoxitin
cefoxitin sodium/dextrose, iso-osmotic	cefoxitin in dextrose, iso-osm
cefpodoxime proxetil	cefpodoxime

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
cefprozil	cefprozil
ceftaroline fosamil acetate	Teflaro
ceftazidime	Fortaz
ceftazidime	Tazicef
ceftazidime	ceftazidime
ceftazidime in dextrose 5% and water	ceftazidime in D5W
ceftazidime/avibactam sodium	Avycaz
ceftibuten	Cedax
ceftibuten	ceftibuten
ceftolozane sulfate/tazobactam sodium	Zerbaxa
ceftriaxone sodium	ceftriaxone
ceftriaxone sodium in iso-osmotic dextrose	ceftriaxone in dextrose,iso-os
cefuroxime axetil	Ceftin
cefuroxime axetil	cefuroxime axetil
cefuroxime sodium	cefuroxime sodium
cephalexin	Daxbia
cephalexin	Keflex
cephalexin	cephalexin
chloramphenicol sod succinate	chloramphenicol sod succinate
chloroquine phosphate	chloroquine phosphate
cidofovir	Vistide
cidofovir	cidofovir
ciprofloxacin	Cipro
ciprofloxacin	ciprofloxacin
ciprofloxacin HCl	Cipro
ciprofloxacin HCl	ciprofloxacin HCl
ciprofloxacin lactate	ciprofloxacin lactate
ciprofloxacin lactate/dextrose 5 % in water	Cipro in D5W
ciprofloxacin lactate/dextrose 5 % in water	ciprofloxacin in 5 % dextrose
ciprofloxacin/ciprofloxacin HCl	Cipro XR
ciprofloxacin/ciprofloxacin HCl	ciprofloxacin (mixture)
clarithromycin	Biaxin
clarithromycin	clarithromycin
clindamycin HCl	Cleocin HCl
clindamycin HCl	clindamycin HCl
clindamycin palmitate HCl	Cleocin Pediatric
clindamycin palmitate HCl	Clindamycin Pediatric
clindamycin palmitate HCl	clindamycin palmitate HCl
clindamycin phosphate	Cleocin
clindamycin phosphate	Clin Single Use
clindamycin phosphate	clindamycin phosphate
clindamycin phosphate in 0.9 % sodium chloride	clindamycin in 0.9 % sod chlor
clindamycin phosphate/dextrose 5 % in water	Cleocin in 5 % dextrose
clindamycin phosphate/dextrose 5 % in water	clindamycin in 5 % dextrose
colistin (as colistimethate sodium)	Coly-Mycin M Parenteral
colistin (as colistimethate sodium)	colistin (colistimethate Na)
cycloserine	cycloserine
daclatasvir dihydrochloride	Daklinza

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
dalbavancin HCl	Dalvance
dapsone	dapsone
daptomycin	Cubicin
daptomycin	Cubicin RF
daptomycin	daptomycin
darunavir eth/cobicistat/emtricitabine/tenofovir alafenamide	Symtuza
darunavir ethanolate	Prezista
darunavir ethanolate/cobicistat	Prezcobix
delafloxacin meglumine	Baxdela
delavirdine mesylate	Rescriptor
demeclocycline HCl	demeclocycline
dicloxacillin sodium	dicloxacillin
didanosine	Videx 2 gram Pediatric
didanosine	Videx 4 gram Pediatric
didanosine	Videx EC
didanosine	didanosine
dolutegravir sodium	Tivicay
dolutegravir sodium	Tivicay PD
dolutegravir sodium/lamivudine	Dovato
dolutegravir sodium/rilpivirine HCl	Juluca
doravirine	Pifeltro
doravirine/lamivudine/tenofovir disoproxil fumarate	Delstrigo
doripenem	Doribax
doripenem	doripenem
doxycycline hyclate	Acticlate
doxycycline hyclate	Doryx
doxycycline hyclate	Doryx MPC
doxycycline hyclate	Doxy-100
doxycycline hyclate	LymePak
doxycycline hyclate	Morgidox
doxycycline hyclate	Targadox
doxycycline hyclate	Vibramycin
doxycycline hyclate	doxycycline hyclate
doxycycline hyclate/skin cleanser combination no.19	Morgidox 1x 50
doxycycline hyclate/skin cleanser combination no.19	Morgidox 1x100
doxycycline hyclate/skin cleanser combination no.19	Morgidox 2x100
doxycycline monohydrate	Avidoxy
doxycycline monohydrate	Mondoxyne NL
doxycycline monohydrate	Monodox
doxycycline monohydrate	Okebo
doxycycline monohydrate	Oracea
doxycycline monohydrate	doxycycline monohydrate
doxycycline monohydrate/benzoyl peroxide	BenoxylDoxy 30
doxycycline monohydrate/benzoyl peroxide	BenoxylDoxy 60
doxycycline monohydrate/benzoyl peroxide	BenzoDox 30
doxycycline monohydrate/benzoyl peroxide	BenzoDox 60
doxycycline monohydrate/salicylic acid/octinoxate/zinc oxide	Avidoxy DK
efavirenz	Sustiva

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
efavirenz	efavirenz
efavirenz/emtricitabine/tenofovir disoproxil fumarate	Atripla
efavirenz/emtricitabine/tenofovir disoproxil fumarate	efavirenz-emtricitabin-tenofov
efavirenz/lamivudine/tenofovir disoproxil fumarate	Symfi
efavirenz/lamivudine/tenofovir disoproxil fumarate	Symfi Lo
efavirenz/lamivudine/tenofovir disoproxil fumarate	efavirenz-lamivu-tenofov disop
elbasvir/grazoprevir	Zepatier
elvitegravir	Vitekta
elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide	Genvoya
elvitegravir/cobicistat/emtricitabine/tenofovir disoproxil	Stribild
emtricitabine	Emtriva
emtricitabine	emtricitabine
emtricitabine/rilpivirine HCl/tenofovir alafenamide fumarate	Odefsey
emtricitabine/rilpivirine HCl/tenofovir disoproxil fumarate	Complera
emtricitabine/tenofovir alafenamide fumarate	Descovy
emtricitabine/tenofovir disoproxil fumarate	Truvada
emtricitabine/tenofovir disoproxil fumarate	emtricitabine-tenofovir (TDF)
enfuvirtide	Fuzeon
entecavir	Baraclude
entecavir	entecavir
eravacycline di-hydrochloride	Xerava
ertapenem sodium	Invanz
ertapenem sodium	ertapenem
erythromycin base	Ery-Tab
erythromycin base	PCE
erythromycin base	erythromycin
erythromycin ethylsuccinate	E.E.S. 400
erythromycin ethylsuccinate	E.E.S. Granules
erythromycin ethylsuccinate	erythromycin ethylsuccinate
erythromycin lactobionate	erythromycin lactobionate
erythromycin stearate	Erythrocin (as stearate)
erythromycin stearate	erythromycin stearate
ethambutol HCl	Myambutol
ethambutol HCl	ethambutol
ethionamide	Trecator
etravirine	Intelence
etravirine	etravirine
famciclovir	Famvir
famciclovir	famciclovir
fidaxomicin	Difcid
fluconazole	Diflucan
fluconazole	fluconazole
fluconazole in dextrose, iso-osmotic	fluconazole in dextrose(iso-o)
fluconazole in sodium chloride, iso-osmotic	fluconazole in NaCl (iso-osm)
flucytosine	Ancobon
flucytosine	flucytosine
fosamprenavir calcium	Lexiva
fosamprenavir calcium	fosamprenavir

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
foscarnet sodium	Foscavir
foscarnet sodium	foscarnet
fosfomycin tromethamine	Monurol
fosfomycin tromethamine	fosfomycin tromethamine
fostemsavir tromethamine	Rukobia
ganciclovir	ganciclovir
ganciclovir sodium	Cytovene
ganciclovir sodium	ganciclovir sodium
gemifloxacin mesylate	Factive
gentamicin sulfate	gentamicin
gentamicin sulfate in sodium chloride, iso-osmotic	gentamicin in NaCl (iso-osm)
gentamicin sulfate/PF	gentamicin sulfate (PF)
gentamicin sulfate/PF	gentamicin sulfate (ped) (PF)
gentamicin sulfate/sodium citrate	gentamicin-sodium citrate
glecaprevir/pibrentasvir	Mavyret
griseofulvin ultramicrosize	Gris-PEG (ultramicrosize)
griseofulvin ultramicrosize	griseofulvin ultramicrosize
griseofulvin, microsize	Grifulvin V
griseofulvin, microsize	griseofulvin microsize
hydroxychloroquine sulfate	Plaquenil
hydroxychloroquine sulfate	hydroxychloroquine
ibalizumab-uiyk	Trogarzo
ibrexafungerp citrate	Brexafemme
imipenem/cilastatin sodium	Primaxin IV
imipenem/cilastatin sodium	imipenem-cilastatin
imipenem/cilastatin sodium/relebactam	Recarbrio
indinavir sulfate	Crixivan
interferon gamma-1b, recomb.	Actimmune
isavuconazonium sulfate	Cresemba
isoniazid	isoniazid
itraconazole	Onmel
itraconazole	Sporanox
itraconazole	Sporanox Pulsepak
itraconazole	Tolsura
itraconazole	itraconazole
ivermectin	Stromectol
ivermectin	ivermectin
ketoconazole	ketoconazole
lamivudine	Epivir
lamivudine	Epivir HBV
lamivudine	lamivudine
lamivudine/tenofovir disoproxil fumarate	Cimduo
lamivudine/tenofovir disoproxil fumarate	Temixys
lamivudine/zidovudine	Combivir
lamivudine/zidovudine	lamivudine-zidovudine
ledipasvir/sofosbuvir	Harvoni
ledipasvir/sofosbuvir	ledipasvir-sofosbuvir
lefamulin acetate	Xenleta

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
lenacapavir sodium	Sunlencia
letermovir	Prevymis
levofloxacin	Levaquin
levofloxacin	levofloxacin
levofloxacin/dextrose 5 % in water	Levaquin in 5 % dextrose
levofloxacin/dextrose 5 % in water	levofloxacin in D5W
lincomycin HCl	Lincocin
lincomycin HCl	lincomycin
linezolid	Zyvox
linezolid	linezolid
linezolid in 0.9 % sodium chloride	linezolid-0.9% sodium chloride
linezolid in dextrose 5 % in water	Zyvox
linezolid in dextrose 5 % in water	linezolid in dextrose 5%
lopinavir/ritonavir	Kaletra
lopinavir/ritonavir	lopinavir-ritonavir
maraviroc	Selzentry
maraviroc	maraviroc
maribavir	Livtency
mebendazole	Emverm
mefloquine HCl	mefloquine
meropenem	Merrem
meropenem	meropenem
meropenem in 0.9 % sodium chloride	meropenem-0.9% sodium chloride
meropenem/vaborbactam	Vabomere
methenamine hippurate	Hiprex
methenamine hippurate	methenamine hippurate
methenamine mandelate	methenamine mandelate
methenamine mandelate/sodium phosphate,monobasic	Uroqid-Acid No.2
methenamine/methylene blue/benzoic acid/salicylat/hyoscyamin	Hyophen
methenamine/methylene blue/benzoic acid/salicylat/hyoscyamin	Urophen MB
methenamine/methylene blue/salicylate/sodium phos/hyoscyamin	Azuphen MB
methenamine/methylene blue/salicylate/sodium phos/hyoscyamin	URIMAR-T
methenamine/methylene blue/salicylate/sodium phos/hyoscyamin	UTA (with phenyl salicylate)
methenamine/methylene blue/salicylate/sodium phos/hyoscyamin	Ustell
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Hyolev MB
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Phosphasal
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	UR N-C
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Uramit MB
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Urelle
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Uretron D-S
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Uribel
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Urin DS
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Uro-458
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Uro-L
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Uro-MP
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Uro-SP
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	UroAv-81
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	UroAv-B

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Utira-C
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Vilamit MB
methenamine/methylene blue/sod phos/p.salicylate/hyoscyamine	Vilelev MB
methenamine/sod phosph,monobasic/methylene blue/hyoscyamine	Indiomin MB
methenamine/sod phosph,monobasic/methylene blue/hyoscyamine	UTA
methenamine/sod phosph,monobasic/methylene blue/hyoscyamine	Uro-Blue
methenamine/sod phosph,monobasic/methylene blue/hyoscyamine	Urogesic-Blue
methenamine/sod phosph,monobasic/methylene blue/hyoscyamine	Urolet MB
methenamine/sod phosph,monobasic/methylene blue/hyoscyamine	Uryl
methenamine/sod phosph,monobasic/methylene blue/hyoscyamine	methen-sod phos-meth blue-hyos
methenamine/sodium salicylate	AZO Urinary Tract Defense
methenamine/sodium salicylate	Antibacterial-Urinary Pain Rlf
metronidazole	Flagyl
metronidazole	metronidazole
metronidazole in sodium chloride	Metro I.V.
metronidazole in sodium chloride	metronidazole in NaCl (iso-os)
micafungin sodium	Mycamine
micafungin sodium	micafungin
miconazole	Oravig
miltefosine	Impavido
minocycline HCl	CoreMino
minocycline HCl	Minocin
minocycline HCl	Solodyn
minocycline HCl	Ximino
minocycline HCl	minocycline
molnupiravir	molnupiravir
moxifloxacin HCl	Avelox
moxifloxacin HCl	Avelox ABC Pack
moxifloxacin HCl	moxifloxacin
moxifloxacin HCl in sodium acetate and sulfate,water,iso-osm	moxifloxacin-sod.ace,sul-water
moxifloxacin HCl in sodium chloride, iso-osmotic	Avelox in NaCl (iso-osmotic)
moxifloxacin HCl in sodium chloride, iso-osmotic	moxifloxacin-sod.chloride(iso)
nafcillin in dextrose, iso-osmotic	nafcillin in dextrose iso-osm
nafcillin sodium	nafcillin
nelfinavir mesylate	Viracept
neomycin sulfate	neomycin
nevirapine	Viramune
nevirapine	Viramune XR
nevirapine	nevirapine
nifurtimox	Lampit
nirmatrelvir/ritonavir	Paxlovid (EUA)
nitazoxanide	Alinia
nitazoxanide	nitazoxanide
nitrofurantoin	Furadantin
nitrofurantoin	nitrofurantoin
nitrofurantoin macrocrystal	Macrodantin
nitrofurantoin macrocrystal	nitrofurantoin macrocrystal
nitrofurantoin monohydrate/macrocrystals	Macrobid

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
nitrofurantoin monohydrate/macrocrystals	nitrofurantoin monohyd/m-cryst
nystatin	nystatin
ofloxacin	ofloxacin
omadacycline tosylate	Nuzyra
omadacycline tosylate	Nuzyra (7 Day with Load Dose)
omadacycline tosylate	Nuzyra (7 Day)
ombitasvir/paritaprevir/ritonavir	Technivie
ombitasvir/paritaprevir/ritonavir/dasabuvir sodium	Viekira Pak
ombitasvir/paritaprevir/ritonavir/dasabuvir sodium	Viekira XR
oritavancin diphosphate	Kimyrsa
oritavancin diphosphate	Orbactiv
oseltamivir phosphate	Tamiflu
oseltamivir phosphate	oseltamivir
oteseconazole	Vivjoa
oxacillin sodium	oxacillin
paromomycin sulfate	Humatin
paromomycin sulfate	paromomycin
peginterferon alfa-2a	Pegasys
peginterferon alfa-2a	Pegasys ProClick
peginterferon alfa-2b	PegIntron
peginterferon alfa-2b	PegIntron Redipen
penicillin G benzathine	Bicillin L-A
penicillin G benzathine/penicillin G procaine	Bicillin C-R
penicillin G potassium	Pfizerpen-G
penicillin G potassium	penicillin G potassium
penicillin G procaine	penicillin G procaine
penicillin G sodium	penicillin G sodium
penicillin V potassium	penicillin V potassium
pentamidine isethionate	Nebupent
pentamidine isethionate	Pentam
pentamidine isethionate	pentamidine
peramivir/PF	Rapivab (PF)
piperacillin and tazobactam in dextrose, iso-osmotic	Zosyn in dextrose (iso-osm)
piperacillin sodium/tazobactam sodium	Zosyn
piperacillin sodium/tazobactam sodium	piperacillin-tazobactam
plazomicin sulfate	Zemdri
polymyxin B sulfate	polymyxin B sulfate
posaconazole	Noxafil
posaconazole	posaconazole
praziquantel	praziquantel
pretomanid	pretomanid
primaquine phosphate	primaquine
pyrantel pamoate	Pin-X
pyrantel pamoate	Pinworm Treatment
pyrantel pamoate	Reese's Pinworm Medicine
pyrazinamide	pyrazinamide
pyrimethamine	Daraprim
pyrimethamine	pyrimethamine

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
quinine sulfate	Qualaquin
quinine sulfate	quinine sulfate
quinupristin/dalfopristin	Synercid
raltegravir potassium	Isentress
raltegravir potassium	Isentress HD
remdesivir	Veklury
remdesivir	remdesivir
ribavirin	Copegus
ribavirin	Moderiba
ribavirin	Moderiba Dose Pack
ribavirin	RIBATAB Dose Pack
ribavirin	Rebetol
ribavirin	Ribasphere
ribavirin	Ribasphere RibaPak
ribavirin	Virazole
ribavirin	ribavirin
rifabutin	Mycobutin
rifabutin	rifabutin
rifampin	Rifadin
rifampin	rifampin
rifampin/isoniazid/pyrazinamide	Rifater
rifamycin sodium	Aemcolo
rifapentine	Priftin
rifaximin	Xifaxan
rilpivirine	rilpivirine
rilpivirine HCl	Edurant
rimantadine HCl	Flumadine
rimantadine HCl	rimantadine
ritonavir	Norvir
ritonavir	ritonavir
saquinavir mesylate	Invirase
sarecycline HCl	Seysara
secnidazole	Solosec
simeprevir sodium	Olysio
sofosbuvir	Sovaldi
sofosbuvir/velpatasvir	Epclusa
sofosbuvir/velpatasvir	sofosbuvir-velpatasvir
sofosbuvir/velpatasvir/voxilaprevir	Vosevi
stavudine	Zerit
stavudine	stavudine
streptomycin sulfate	streptomycin
sulfadiazine	sulfadiazine
sulfamethoxazole/trimethoprim	Bactrim
sulfamethoxazole/trimethoprim	Bactrim DS
sulfamethoxazole/trimethoprim	Sulfatrim
sulfamethoxazole/trimethoprim	sulfamethoxazole-trimethoprim
tafenoquine succinate	Arakoda
tafenoquine succinate	Krintafel

Appendix Q. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Outcomes in this Request

Non-proprietary Name	Proprietary Name
tecovirimat	Tpoxx (National Stockpile)
tedizolid phosphate	Sivextro
telavancin HCl	Vibativ
telbivudine	Tyzeka
telithromycin	Ketek
tenofovir alafenamide	Vemlidy
tenofovir disoproxil fumarate	Viread
tenofovir disoproxil fumarate	tenofovir disoproxil fumarate
terbinafine HCl	Lamisil
terbinafine HCl	terbinafine HCl
tetracycline HCl	tetracycline
thalidomide	Thalomid
tigecycline	tigecycline
tinidazole	Tindamax
tinidazole	tinidazole
tipranavir	Aptivus
tipranavir/vitamin E TPGS	Aptivus (with vitamin E)
tobramycin sulfate	tobramycin sulfate
triclabendazole	Egaten
trimethoprim	Primsol
trimethoprim	trimethoprim
valacyclovir HCl	Valtrex
valacyclovir HCl	valacyclovir
valganciclovir HCl	Valcyte
valganciclovir HCl	valganciclovir
vancomycin HCl	Firvanq
vancomycin HCl	Vancocin
vancomycin HCl	vancomycin
vancomycin HCl in sterile water	vancomycin HCl in water
vancomycin HCl in water for injection (PEG-400, NADA)	vancomycin-water inject (PEG)
vancomycin in 0.9 % sodium chloride	vancomycin in 0.9 % sodium chl
vancomycin in 5 % dextrose in water	vancomycin in dextrose 5 %
voriconazole	Vfend
voriconazole	Vfend IV
voriconazole	voriconazole
zanamivir	Relenza Diskhaler
zidovudine	Retrovir
zidovudine	zidovudine

Appendix R. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request

Non-proprietary Name	Proprietary Name
Certolizumab	
certolizumab pegol	Cimzia
certolizumab pegol	Cimzia Powder for Reconst
certolizumab pegol	Cimzia Starter Kit
Golimumab	
golimumab	Simponi
golimumab	Simponi ARIA
Risankizumab	
risankizumab-rzaa	Skyrizi
Natalizumab	
natalizumab	Tysabri
Tofacitinib	
tofacitinib citrate	Xeljanz
tofacitinib citrate	Xeljanz XR
Ozanimod	
ozanimod hydrochloride	Zeposia
ozanimod hydrochloride	Zeposia Starter Kit
ozanimod hydrochloride	Zeposia Starter Pack
Upadacitinib	
upadacitinib	Rinvoq
Ustekinumab	
ustekinumab	Stelara
Infliximab	
infliximab	Remicade
infliximab-qbtx	Ifixi
infliximab	infliximab
infliximab-abda	Renflexis
infliximab-axxq	Avsola
infliximab-dyyb	Inflectra
Adalimumab	
adalimumab	Humira
adalimumab	Humira Pediatric Crohns Start
adalimumab	Humira Pen
adalimumab	Humira Pen Crohns-UC-HS Start
adalimumab	Humira Pen Psor-Uveits-Adol HS
adalimumab	Humira(CF)
adalimumab	Humira(CF) Pedi Crohns Starter
adalimumab	Humira(CF) Pen
adalimumab	Humira(CF) Pen Crohns-UC-HS
adalimumab	Humira(CF) Pen Pediatric UC
adalimumab	Humira(CF) Pen Psor-Uv-Adol HS
adalimumab-atto	AMJEVITA
Vedolizumab	
vedolizumab	Entyvio

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
Certolizumab			
J0717	Injection, certolizumab pegol, 1 mg (code may be used for Medicare when drug administered under the direct supervision of a physician, not for use when drug is self-administered)	Procedure	HCPCS
Golimumab			
J1602	Injection, golimumab, 1 mg, for intravenous use	Procedure	HCPCS
Risankizumab			
J2327	Injection, risankizumab-rzaa, intravenous, 1 mg	Procedure	HCPCS
Natalizumab			
J2323	Injection, natalizumab, 1 mg	Procedure	HCPCS
Ustekinumab			
C9487	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
J3357	Ustekinumab, for subcutaneous injection, 1 mg	Procedure	HCPCS
J3358	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
Q9989	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
Infliximab			
J1745	Injection, infliximab, excludes biosimilar, 10 mg	Procedure	HCPCS
Q5102	Injection, infliximab, biosimilar, 10 mg	Procedure	HCPCS
Q5103	Injection, infliximab-dyyb, biosimilar, (Inflectra), 10 mg	Procedure	HCPCS
Q5104	Injection, infliximab-abda, biosimilar, (Renflexis), 10 mg	Procedure	HCPCS
Q5109	Injection, infliximab-qbtx, biosimilar, (Ixifi), 10 mg	Procedure	HCPCS
Q5121	Injection, infliximab-axxq, biosimilar, (AVSOLA), 10 mg	Procedure	HCPCS
Adalimumab			
J0135	Injection, adalimumab, 20 mg	Procedure	HCPCS
Vedolizumab			
C9026	Injection, vedolizumab, 1 mg	Procedure	HCPCS
J3380	Injection, vedolizumab, 1 mg	Procedure	HCPCS
Crohns Disease			
K50	Crohn's disease [regional enteritis]	Diagnosis	ICD-10-CM
K50.0	Crohn's disease of small intestine	Diagnosis	ICD-10-CM
K50.00	Crohn's disease of small intestine without complications	Diagnosis	ICD-10-CM
K50.01	Crohn's disease of small intestine with complications	Diagnosis	ICD-10-CM
K50.011	Crohn's disease of small intestine with rectal bleeding	Diagnosis	ICD-10-CM
K50.012	Crohn's disease of small intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.013	Crohn's disease of small intestine with fistula	Diagnosis	ICD-10-CM
K50.014	Crohn's disease of small intestine with abscess	Diagnosis	ICD-10-CM
K50.018	Crohn's disease of small intestine with other complication	Diagnosis	ICD-10-CM
K50.019	Crohn's disease of small intestine with unspecified complications	Diagnosis	ICD-10-CM
K50.1	Crohn's disease of large intestine	Diagnosis	ICD-10-CM
K50.10	Crohn's disease of large intestine without complications	Diagnosis	ICD-10-CM
K50.11	Crohn's disease of large intestine with complications	Diagnosis	ICD-10-CM
K50.111	Crohn's disease of large intestine with rectal bleeding	Diagnosis	ICD-10-CM
K50.112	Crohn's disease of large intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.113	Crohn's disease of large intestine with fistula	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
K50.114	Crohn's disease of large intestine with abscess	Diagnosis	ICD-10-CM
K50.118	Crohn's disease of large intestine with other complication	Diagnosis	ICD-10-CM
K50.119	Crohn's disease of large intestine with unspecified complications	Diagnosis	ICD-10-CM
K50.8	Crohn's disease of both small and large intestine	Diagnosis	ICD-10-CM
K50.80	Crohn's disease of both small and large intestine without complications	Diagnosis	ICD-10-CM
K50.81	Crohn's disease of both small and large intestine with complications	Diagnosis	ICD-10-CM
K50.811	Crohn's disease of both small and large intestine with rectal bleeding	Diagnosis	ICD-10-CM
K50.812	Crohn's disease of both small and large intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.813	Crohn's disease of both small and large intestine with fistula	Diagnosis	ICD-10-CM
K50.814	Crohn's disease of both small and large intestine with abscess	Diagnosis	ICD-10-CM
K50.818	Crohn's disease of both small and large intestine with other complication	Diagnosis	ICD-10-CM
K50.819	Crohn's disease of both small and large intestine with unspecified complications	Diagnosis	ICD-10-CM
K50.9	Crohn's disease, unspecified	Diagnosis	ICD-10-CM
K50.90	Crohn's disease, unspecified, without complications	Diagnosis	ICD-10-CM
K50.91	Crohn's disease, unspecified, with complications	Diagnosis	ICD-10-CM
K50.911	Crohn's disease, unspecified, with rectal bleeding	Diagnosis	ICD-10-CM
K50.912	Crohn's disease, unspecified, with intestinal obstruction	Diagnosis	ICD-10-CM
K50.913	Crohn's disease, unspecified, with fistula	Diagnosis	ICD-10-CM
K50.914	Crohn's disease, unspecified, with abscess	Diagnosis	ICD-10-CM
K50.918	Crohn's disease, unspecified, with other complication	Diagnosis	ICD-10-CM
K50.919	Crohn's disease, unspecified, with unspecified complications	Diagnosis	ICD-10-CM
Ulcerative Colitis			
K51	Ulcerative colitis	Diagnosis	ICD-10-CM
K51.0	Ulcerative (chronic) pancolitis	Diagnosis	ICD-10-CM
K51.00	Ulcerative (chronic) pancolitis without complications	Diagnosis	ICD-10-CM
K51.01	Ulcerative (chronic) pancolitis with complications	Diagnosis	ICD-10-CM
K51.011	Ulcerative (chronic) pancolitis with rectal bleeding	Diagnosis	ICD-10-CM
K51.012	Ulcerative (chronic) pancolitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.013	Ulcerative (chronic) pancolitis with fistula	Diagnosis	ICD-10-CM
K51.014	Ulcerative (chronic) pancolitis with abscess	Diagnosis	ICD-10-CM
K51.018	Ulcerative (chronic) pancolitis with other complication	Diagnosis	ICD-10-CM
K51.019	Ulcerative (chronic) pancolitis with unspecified complications	Diagnosis	ICD-10-CM
K51.2	Ulcerative (chronic) proctitis	Diagnosis	ICD-10-CM
K51.20	Ulcerative (chronic) proctitis without complications	Diagnosis	ICD-10-CM
K51.21	Ulcerative (chronic) proctitis with complications	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
K51.211	Ulcerative (chronic) proctitis with rectal bleeding	Diagnosis	ICD-10-CM
K51.212	Ulcerative (chronic) proctitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.213	Ulcerative (chronic) proctitis with fistula	Diagnosis	ICD-10-CM
K51.214	Ulcerative (chronic) proctitis with abscess	Diagnosis	ICD-10-CM
K51.218	Ulcerative (chronic) proctitis with other complication	Diagnosis	ICD-10-CM
K51.219	Ulcerative (chronic) proctitis with unspecified complications	Diagnosis	ICD-10-CM
K51.3	Ulcerative (chronic) rectosigmoiditis	Diagnosis	ICD-10-CM
K51.30	Ulcerative (chronic) rectosigmoiditis without complications	Diagnosis	ICD-10-CM
K51.31	Ulcerative (chronic) rectosigmoiditis with complications	Diagnosis	ICD-10-CM
K51.311	Ulcerative (chronic) rectosigmoiditis with rectal bleeding	Diagnosis	ICD-10-CM
K51.312	Ulcerative (chronic) rectosigmoiditis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.313	Ulcerative (chronic) rectosigmoiditis with fistula	Diagnosis	ICD-10-CM
K51.314	Ulcerative (chronic) rectosigmoiditis with abscess	Diagnosis	ICD-10-CM
K51.318	Ulcerative (chronic) rectosigmoiditis with other complication	Diagnosis	ICD-10-CM
K51.319	Ulcerative (chronic) rectosigmoiditis with unspecified complications	Diagnosis	ICD-10-CM
K51.8	Other ulcerative colitis	Diagnosis	ICD-10-CM
K51.80	Other ulcerative colitis without complications	Diagnosis	ICD-10-CM
K51.81	Other ulcerative colitis with complications	Diagnosis	ICD-10-CM
K51.811	Other ulcerative colitis with rectal bleeding	Diagnosis	ICD-10-CM
K51.812	Other ulcerative colitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.813	Other ulcerative colitis with fistula	Diagnosis	ICD-10-CM
K51.814	Other ulcerative colitis with abscess	Diagnosis	ICD-10-CM
K51.818	Other ulcerative colitis with other complication	Diagnosis	ICD-10-CM
K51.819	Other ulcerative colitis with unspecified complications	Diagnosis	ICD-10-CM
K51.9	Ulcerative colitis, unspecified	Diagnosis	ICD-10-CM
K51.90	Ulcerative colitis, unspecified, without complications	Diagnosis	ICD-10-CM
K51.91	Ulcerative colitis, unspecified, with complications	Diagnosis	ICD-10-CM
K51.911	Ulcerative colitis, unspecified with rectal bleeding	Diagnosis	ICD-10-CM
K51.912	Ulcerative colitis, unspecified with intestinal obstruction	Diagnosis	ICD-10-CM
K51.913	Ulcerative colitis, unspecified with fistula	Diagnosis	ICD-10-CM
K51.914	Ulcerative colitis, unspecified with abscess	Diagnosis	ICD-10-CM
K51.918	Ulcerative colitis, unspecified with other complication	Diagnosis	ICD-10-CM
K51.919	Ulcerative colitis, unspecified with unspecified complications	Diagnosis	ICD-10-CM
Psoriasis			
L40	Psoriasis	Diagnosis	ICD-10-CM
L40.0	Psoriasis vulgaris	Diagnosis	ICD-10-CM
L40.1	Generalized pustular psoriasis	Diagnosis	ICD-10-CM
L40.2	Acrodermatitis continua	Diagnosis	ICD-10-CM
L40.3	Pustulosis palmaris et plantaris	Diagnosis	ICD-10-CM
L40.4	Guttate psoriasis	Diagnosis	ICD-10-CM
L40.8	Other psoriasis	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
L40.9	Psoriasis, unspecified	Diagnosis	ICD-10-CM
Psoriatic Arthritis			
L40.5	Arthropathic psoriasis	Diagnosis	ICD-10-CM
L40.50	Arthropathic psoriasis, unspecified	Diagnosis	ICD-10-CM
L40.51	Distal interphalangeal psoriatic arthropathy	Diagnosis	ICD-10-CM
L40.52	Psoriatic arthritis mutilans	Diagnosis	ICD-10-CM
L40.53	Psoriatic spondylitis	Diagnosis	ICD-10-CM
L40.54	Psoriatic juvenile arthropathy	Diagnosis	ICD-10-CM
L40.59	Other psoriatic arthropathy	Diagnosis	ICD-10-CM
Rheumatoid Arthritis/Juvenile Rheumatoid Arthritis			
M05	Rheumatoid arthritis with rheumatoid factor	Diagnosis	ICD-10-CM
M05.00	Felty's syndrome, unspecified site	Diagnosis	ICD-10-CM
M05.011	Felty's syndrome, right shoulder	Diagnosis	ICD-10-CM
M05.012	Felty's syndrome, left shoulder	Diagnosis	ICD-10-CM
M05.019	Felty's syndrome, unspecified shoulder	Diagnosis	ICD-10-CM
M05.021	Felty's syndrome, right elbow	Diagnosis	ICD-10-CM
M05.022	Felty's syndrome, left elbow	Diagnosis	ICD-10-CM
M05.029	Felty's syndrome, unspecified elbow	Diagnosis	ICD-10-CM
M05.031	Felty's syndrome, right wrist	Diagnosis	ICD-10-CM
M05.032	Felty's syndrome, left wrist	Diagnosis	ICD-10-CM
M05.039	Felty's syndrome, unspecified wrist	Diagnosis	ICD-10-CM
M05.041	Felty's syndrome, right hand	Diagnosis	ICD-10-CM
M05.042	Felty's syndrome, left hand	Diagnosis	ICD-10-CM
M05.049	Felty's syndrome, unspecified hand	Diagnosis	ICD-10-CM
M05.051	Felty's syndrome, right hip	Diagnosis	ICD-10-CM
M05.052	Felty's syndrome, left hip	Diagnosis	ICD-10-CM
M05.059	Felty's syndrome, unspecified hip	Diagnosis	ICD-10-CM
M05.061	Felty's syndrome, right knee	Diagnosis	ICD-10-CM
M05.062	Felty's syndrome, left knee	Diagnosis	ICD-10-CM
M05.069	Felty's syndrome, unspecified knee	Diagnosis	ICD-10-CM
M05.071	Felty's syndrome, right ankle and foot	Diagnosis	ICD-10-CM
M05.072	Felty's syndrome, left ankle and foot	Diagnosis	ICD-10-CM
M05.079	Felty's syndrome, unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.09	Felty's syndrome, multiple sites	Diagnosis	ICD-10-CM
M05.1	Rheumatoid lung disease with rheumatoid arthritis	Diagnosis	ICD-10-CM
M05.10	Rheumatoid lung disease with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.11	Rheumatoid lung disease with rheumatoid arthritis of shoulder	Diagnosis	ICD-10-CM
M05.111	Rheumatoid lung disease with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.112	Rheumatoid lung disease with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.119	Rheumatoid lung disease with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.12	Rheumatoid lung disease with rheumatoid arthritis of elbow	Diagnosis	ICD-10-CM
M05.121	Rheumatoid lung disease with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.122	Rheumatoid lung disease with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.129	Rheumatoid lung disease with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.13	Rheumatoid lung disease with rheumatoid arthritis of wrist	Diagnosis	ICD-10-CM
M05.131	Rheumatoid lung disease with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.132	Rheumatoid lung disease with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.139	Rheumatoid lung disease with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.14	Rheumatoid lung disease with rheumatoid arthritis of hand	Diagnosis	ICD-10-CM
M05.141	Rheumatoid lung disease with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.142	Rheumatoid lung disease with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.149	Rheumatoid lung disease with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.15	Rheumatoid lung disease with rheumatoid arthritis of hip	Diagnosis	ICD-10-CM
M05.151	Rheumatoid lung disease with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.152	Rheumatoid lung disease with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.159	Rheumatoid lung disease with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.16	Rheumatoid lung disease with rheumatoid arthritis of knee	Diagnosis	ICD-10-CM
M05.161	Rheumatoid lung disease with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.162	Rheumatoid lung disease with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.169	Rheumatoid lung disease with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.17	Rheumatoid lung disease with rheumatoid arthritis of ankle and foot	Diagnosis	ICD-10-CM
M05.171	Rheumatoid lung disease with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.172	Rheumatoid lung disease with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.179	Rheumatoid lung disease with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.19	Rheumatoid lung disease with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.2	Rheumatoid vasculitis with rheumatoid arthritis	Diagnosis	ICD-10-CM
M05.20	Rheumatoid vasculitis with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.21	Rheumatoid vasculitis with rheumatoid arthritis of shoulder	Diagnosis	ICD-10-CM
M05.211	Rheumatoid vasculitis with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.212	Rheumatoid vasculitis with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.219	Rheumatoid vasculitis with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.22	Rheumatoid vasculitis with rheumatoid arthritis of elbow	Diagnosis	ICD-10-CM
M05.221	Rheumatoid vasculitis with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.222	Rheumatoid vasculitis with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.229	Rheumatoid vasculitis with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.23	Rheumatoid vasculitis with rheumatoid arthritis of wrist	Diagnosis	ICD-10-CM
M05.231	Rheumatoid vasculitis with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.232	Rheumatoid vasculitis with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.239	Rheumatoid vasculitis with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.24	Rheumatoid vasculitis with rheumatoid arthritis of hand	Diagnosis	ICD-10-CM
M05.241	Rheumatoid vasculitis with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.242	Rheumatoid vasculitis with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.249	Rheumatoid vasculitis with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.25	Rheumatoid vasculitis with rheumatoid arthritis of hip	Diagnosis	ICD-10-CM
M05.251	Rheumatoid vasculitis with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.252	Rheumatoid vasculitis with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.259	Rheumatoid vasculitis with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.26	Rheumatoid vasculitis with rheumatoid arthritis of knee	Diagnosis	ICD-10-CM
M05.261	Rheumatoid vasculitis with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.262	Rheumatoid vasculitis with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.269	Rheumatoid vasculitis with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.27	Rheumatoid vasculitis with rheumatoid arthritis of ankle and foot	Diagnosis	ICD-10-CM
M05.271	Rheumatoid vasculitis with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.272	Rheumatoid vasculitis with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.279	Rheumatoid vasculitis with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.29	Rheumatoid vasculitis with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.3	Rheumatoid heart disease with rheumatoid arthritis	Diagnosis	ICD-10-CM
M05.30	Rheumatoid heart disease with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.31	Rheumatoid heart disease with rheumatoid arthritis of shoulder	Diagnosis	ICD-10-CM
M05.311	Rheumatoid heart disease with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.312	Rheumatoid heart disease with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.319	Rheumatoid heart disease with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.32	Rheumatoid heart disease with rheumatoid arthritis of elbow	Diagnosis	ICD-10-CM
M05.321	Rheumatoid heart disease with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.322	Rheumatoid heart disease with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.329	Rheumatoid heart disease with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.33	Rheumatoid heart disease with rheumatoid arthritis of wrist	Diagnosis	ICD-10-CM
M05.331	Rheumatoid heart disease with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.332	Rheumatoid heart disease with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.339	Rheumatoid heart disease with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.34	Rheumatoid heart disease with rheumatoid arthritis of hand	Diagnosis	ICD-10-CM
M05.341	Rheumatoid heart disease with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.342	Rheumatoid heart disease with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.349	Rheumatoid heart disease with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.35	Rheumatoid heart disease with rheumatoid arthritis of hip	Diagnosis	ICD-10-CM
M05.351	Rheumatoid heart disease with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.352	Rheumatoid heart disease with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.359	Rheumatoid heart disease with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.36	Rheumatoid heart disease with rheumatoid arthritis of knee	Diagnosis	ICD-10-CM
M05.361	Rheumatoid heart disease with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.362	Rheumatoid heart disease with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.369	Rheumatoid heart disease with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.37	Rheumatoid heart disease with rheumatoid arthritis of ankle and foot	Diagnosis	ICD-10-CM
M05.371	Rheumatoid heart disease with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.372	Rheumatoid heart disease with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.379	Rheumatoid heart disease with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.39	Rheumatoid heart disease with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.4	Rheumatoid myopathy with rheumatoid arthritis	Diagnosis	ICD-10-CM
M05.40	Rheumatoid myopathy with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.41	Rheumatoid myopathy with rheumatoid arthritis of shoulder	Diagnosis	ICD-10-CM
M05.411	Rheumatoid myopathy with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.412	Rheumatoid myopathy with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.419	Rheumatoid myopathy with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.42	Rheumatoid myopathy with rheumatoid arthritis of elbow	Diagnosis	ICD-10-CM
M05.421	Rheumatoid myopathy with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.422	Rheumatoid myopathy with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.429	Rheumatoid myopathy with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.43	Rheumatoid myopathy with rheumatoid arthritis of wrist	Diagnosis	ICD-10-CM
M05.431	Rheumatoid myopathy with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.432	Rheumatoid myopathy with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.439	Rheumatoid myopathy with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.44	Rheumatoid myopathy with rheumatoid arthritis of hand	Diagnosis	ICD-10-CM
M05.441	Rheumatoid myopathy with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.442	Rheumatoid myopathy with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.449	Rheumatoid myopathy with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.45	Rheumatoid myopathy with rheumatoid arthritis of hip	Diagnosis	ICD-10-CM
M05.451	Rheumatoid myopathy with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.452	Rheumatoid myopathy with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.459	Rheumatoid myopathy with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.46	Rheumatoid myopathy with rheumatoid arthritis of knee	Diagnosis	ICD-10-CM
M05.461	Rheumatoid myopathy with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.462	Rheumatoid myopathy with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.469	Rheumatoid myopathy with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.47	Rheumatoid myopathy with rheumatoid arthritis of ankle and foot	Diagnosis	ICD-10-CM
M05.471	Rheumatoid myopathy with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.472	Rheumatoid myopathy with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.479	Rheumatoid myopathy with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.49	Rheumatoid myopathy with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.5	Rheumatoid polyneuropathy with rheumatoid arthritis	Diagnosis	ICD-10-CM
M05.50	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.51	Rheumatoid polyneuropathy with rheumatoid arthritis of shoulder	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.511	Rheumatoid polyneuropathy with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.512	Rheumatoid polyneuropathy with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.519	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.52	Rheumatoid polyneuropathy with rheumatoid arthritis of elbow	Diagnosis	ICD-10-CM
M05.521	Rheumatoid polyneuropathy with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.522	Rheumatoid polyneuropathy with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.529	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.53	Rheumatoid polyneuropathy with rheumatoid arthritis of wrist	Diagnosis	ICD-10-CM
M05.531	Rheumatoid polyneuropathy with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.532	Rheumatoid polyneuropathy with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.539	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.54	Rheumatoid polyneuropathy with rheumatoid arthritis of hand	Diagnosis	ICD-10-CM
M05.541	Rheumatoid polyneuropathy with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.542	Rheumatoid polyneuropathy with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.549	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.55	Rheumatoid polyneuropathy with rheumatoid arthritis of hip	Diagnosis	ICD-10-CM
M05.551	Rheumatoid polyneuropathy with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.552	Rheumatoid polyneuropathy with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.559	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.56	Rheumatoid polyneuropathy with rheumatoid arthritis of knee	Diagnosis	ICD-10-CM
M05.561	Rheumatoid polyneuropathy with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.562	Rheumatoid polyneuropathy with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.569	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.57	Rheumatoid polyneuropathy with rheumatoid arthritis of ankle and foot	Diagnosis	ICD-10-CM
M05.571	Rheumatoid polyneuropathy with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.572	Rheumatoid polyneuropathy with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.579	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.59	Rheumatoid polyneuropathy with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.6	Rheumatoid arthritis with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.60	Rheumatoid arthritis of unspecified site with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.61	Rheumatoid arthritis of shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.611	Rheumatoid arthritis of right shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.612	Rheumatoid arthritis of left shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.619	Rheumatoid arthritis of unspecified shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.62	Rheumatoid arthritis of elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.621	Rheumatoid arthritis of right elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.622	Rheumatoid arthritis of left elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.629	Rheumatoid arthritis of unspecified elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.63	Rheumatoid arthritis of wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.631	Rheumatoid arthritis of right wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.632	Rheumatoid arthritis of left wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.639	Rheumatoid arthritis of unspecified wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.64	Rheumatoid arthritis of hand with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.641	Rheumatoid arthritis of right hand with involvement of other organs and systems	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.642	Rheumatoid arthritis of left hand with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.649	Rheumatoid arthritis of unspecified hand with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.65	Rheumatoid arthritis of hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.651	Rheumatoid arthritis of right hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.652	Rheumatoid arthritis of left hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.659	Rheumatoid arthritis of unspecified hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.66	Rheumatoid arthritis of knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.661	Rheumatoid arthritis of right knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.662	Rheumatoid arthritis of left knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.669	Rheumatoid arthritis of unspecified knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.67	Rheumatoid arthritis of ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.671	Rheumatoid arthritis of right ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.672	Rheumatoid arthritis of left ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.679	Rheumatoid arthritis of unspecified ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.69	Rheumatoid arthritis of multiple sites with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.7	Rheumatoid arthritis with rheumatoid factor without organ or systems involvement	Diagnosis	ICD-10-CM
M05.70	Rheumatoid arthritis with rheumatoid factor of unspecified site without organ or systems involvement	Diagnosis	ICD-10-CM
M05.71	Rheumatoid arthritis with rheumatoid factor of shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.711	Rheumatoid arthritis with rheumatoid factor of right shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.712	Rheumatoid arthritis with rheumatoid factor of left shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.719	Rheumatoid arthritis with rheumatoid factor of unspecified shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.72	Rheumatoid arthritis with rheumatoid factor of elbow without organ or systems involvement	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.721	Rheumatoid arthritis with rheumatoid factor of right elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.722	Rheumatoid arthritis with rheumatoid factor of left elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.729	Rheumatoid arthritis with rheumatoid factor of unspecified elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.73	Rheumatoid arthritis with rheumatoid factor of wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.731	Rheumatoid arthritis with rheumatoid factor of right wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.732	Rheumatoid arthritis with rheumatoid factor of left wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.739	Rheumatoid arthritis with rheumatoid factor of unspecified wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.74	Rheumatoid arthritis with rheumatoid factor of hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.741	Rheumatoid arthritis with rheumatoid factor of right hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.742	Rheumatoid arthritis with rheumatoid factor of left hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.749	Rheumatoid arthritis with rheumatoid factor of unspecified hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.75	Rheumatoid arthritis with rheumatoid factor of hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.751	Rheumatoid arthritis with rheumatoid factor of right hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.752	Rheumatoid arthritis with rheumatoid factor of left hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.759	Rheumatoid arthritis with rheumatoid factor of unspecified hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.76	Rheumatoid arthritis with rheumatoid factor of knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.761	Rheumatoid arthritis with rheumatoid factor of right knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.762	Rheumatoid arthritis with rheumatoid factor of left knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.769	Rheumatoid arthritis with rheumatoid factor of unspecified knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.77	Rheumatoid arthritis with rheumatoid factor of ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.771	Rheumatoid arthritis with rheumatoid factor of right ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.772	Rheumatoid arthritis with rheumatoid factor of left ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.779	Rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.79	Rheumatoid arthritis with rheumatoid factor of multiple sites without organ or systems involvement	Diagnosis	ICD-10-CM
M05.7A	Rheumatoid arthritis with rheumatoid factor of other specified site without organ or systems involvement	Diagnosis	ICD-10-CM
M05.8	Other rheumatoid arthritis with rheumatoid factor	Diagnosis	ICD-10-CM
M05.80	Other rheumatoid arthritis with rheumatoid factor of unspecified site	Diagnosis	ICD-10-CM
M05.81	Other rheumatoid arthritis with rheumatoid factor of shoulder	Diagnosis	ICD-10-CM
M05.811	Other rheumatoid arthritis with rheumatoid factor of right shoulder	Diagnosis	ICD-10-CM
M05.812	Other rheumatoid arthritis with rheumatoid factor of left shoulder	Diagnosis	ICD-10-CM
M05.819	Other rheumatoid arthritis with rheumatoid factor of unspecified shoulder	Diagnosis	ICD-10-CM
M05.82	Other rheumatoid arthritis with rheumatoid factor of elbow	Diagnosis	ICD-10-CM
M05.821	Other rheumatoid arthritis with rheumatoid factor of right elbow	Diagnosis	ICD-10-CM
M05.822	Other rheumatoid arthritis with rheumatoid factor of left elbow	Diagnosis	ICD-10-CM
M05.829	Other rheumatoid arthritis with rheumatoid factor of unspecified elbow	Diagnosis	ICD-10-CM
M05.83	Other rheumatoid arthritis with rheumatoid factor of wrist	Diagnosis	ICD-10-CM
M05.831	Other rheumatoid arthritis with rheumatoid factor of right wrist	Diagnosis	ICD-10-CM
M05.832	Other rheumatoid arthritis with rheumatoid factor of left wrist	Diagnosis	ICD-10-CM
M05.839	Other rheumatoid arthritis with rheumatoid factor of unspecified wrist	Diagnosis	ICD-10-CM
M05.84	Other rheumatoid arthritis with rheumatoid factor of hand	Diagnosis	ICD-10-CM
M05.841	Other rheumatoid arthritis with rheumatoid factor of right hand	Diagnosis	ICD-10-CM
M05.842	Other rheumatoid arthritis with rheumatoid factor of left hand	Diagnosis	ICD-10-CM
M05.849	Other rheumatoid arthritis with rheumatoid factor of unspecified hand	Diagnosis	ICD-10-CM
M05.85	Other rheumatoid arthritis with rheumatoid factor of hip	Diagnosis	ICD-10-CM
M05.851	Other rheumatoid arthritis with rheumatoid factor of right hip	Diagnosis	ICD-10-CM
M05.852	Other rheumatoid arthritis with rheumatoid factor of left hip	Diagnosis	ICD-10-CM
M05.859	Other rheumatoid arthritis with rheumatoid factor of unspecified hip	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M05.86	Other rheumatoid arthritis with rheumatoid factor of knee	Diagnosis	ICD-10-CM
M05.861	Other rheumatoid arthritis with rheumatoid factor of right knee	Diagnosis	ICD-10-CM
M05.862	Other rheumatoid arthritis with rheumatoid factor of left knee	Diagnosis	ICD-10-CM
M05.869	Other rheumatoid arthritis with rheumatoid factor of unspecified knee	Diagnosis	ICD-10-CM
M05.87	Other rheumatoid arthritis with rheumatoid factor of ankle and foot	Diagnosis	ICD-10-CM
M05.871	Other rheumatoid arthritis with rheumatoid factor of right ankle and foot	Diagnosis	ICD-10-CM
M05.872	Other rheumatoid arthritis with rheumatoid factor of left ankle and foot	Diagnosis	ICD-10-CM
M05.879	Other rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.89	Other rheumatoid arthritis with rheumatoid factor of multiple sites	Diagnosis	ICD-10-CM
M05.8A	Other rheumatoid arthritis with rheumatoid factor of other specified site	Diagnosis	ICD-10-CM
M05.9	Rheumatoid arthritis with rheumatoid factor, unspecified	Diagnosis	ICD-10-CM
M06	Other rheumatoid arthritis	Diagnosis	ICD-10-CM
M06.0	Rheumatoid arthritis without rheumatoid factor	Diagnosis	ICD-10-CM
M06.00	Rheumatoid arthritis without rheumatoid factor, unspecified site	Diagnosis	ICD-10-CM
M06.01	Rheumatoid arthritis without rheumatoid factor, shoulder	Diagnosis	ICD-10-CM
M06.011	Rheumatoid arthritis without rheumatoid factor, right shoulder	Diagnosis	ICD-10-CM
M06.012	Rheumatoid arthritis without rheumatoid factor, left shoulder	Diagnosis	ICD-10-CM
M06.019	Rheumatoid arthritis without rheumatoid factor, unspecified shoulder	Diagnosis	ICD-10-CM
M06.02	Rheumatoid arthritis without rheumatoid factor, elbow	Diagnosis	ICD-10-CM
M06.021	Rheumatoid arthritis without rheumatoid factor, right elbow	Diagnosis	ICD-10-CM
M06.022	Rheumatoid arthritis without rheumatoid factor, left elbow	Diagnosis	ICD-10-CM
M06.029	Rheumatoid arthritis without rheumatoid factor, unspecified elbow	Diagnosis	ICD-10-CM
M06.03	Rheumatoid arthritis without rheumatoid factor, wrist	Diagnosis	ICD-10-CM
M06.031	Rheumatoid arthritis without rheumatoid factor, right wrist	Diagnosis	ICD-10-CM
M06.032	Rheumatoid arthritis without rheumatoid factor, left wrist	Diagnosis	ICD-10-CM
M06.039	Rheumatoid arthritis without rheumatoid factor, unspecified wrist	Diagnosis	ICD-10-CM
M06.04	Rheumatoid arthritis without rheumatoid factor, hand	Diagnosis	ICD-10-CM
M06.041	Rheumatoid arthritis without rheumatoid factor, right hand	Diagnosis	ICD-10-CM
M06.042	Rheumatoid arthritis without rheumatoid factor, left hand	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M06.049	Rheumatoid arthritis without rheumatoid factor, unspecified hand	Diagnosis	ICD-10-CM
M06.05	Rheumatoid arthritis without rheumatoid factor, hip	Diagnosis	ICD-10-CM
M06.051	Rheumatoid arthritis without rheumatoid factor, right hip	Diagnosis	ICD-10-CM
M06.052	Rheumatoid arthritis without rheumatoid factor, left hip	Diagnosis	ICD-10-CM
M06.059	Rheumatoid arthritis without rheumatoid factor, unspecified hip	Diagnosis	ICD-10-CM
M06.06	Rheumatoid arthritis without rheumatoid factor, knee	Diagnosis	ICD-10-CM
M06.061	Rheumatoid arthritis without rheumatoid factor, right knee	Diagnosis	ICD-10-CM
M06.062	Rheumatoid arthritis without rheumatoid factor, left knee	Diagnosis	ICD-10-CM
M06.069	Rheumatoid arthritis without rheumatoid factor, unspecified knee	Diagnosis	ICD-10-CM
M06.07	Rheumatoid arthritis without rheumatoid factor, ankle and foot	Diagnosis	ICD-10-CM
M06.071	Rheumatoid arthritis without rheumatoid factor, right ankle and foot	Diagnosis	ICD-10-CM
M06.072	Rheumatoid arthritis without rheumatoid factor, left ankle and foot	Diagnosis	ICD-10-CM
M06.079	Rheumatoid arthritis without rheumatoid factor, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.08	Rheumatoid arthritis without rheumatoid factor, vertebrae	Diagnosis	ICD-10-CM
M06.09	Rheumatoid arthritis without rheumatoid factor, multiple sites	Diagnosis	ICD-10-CM
M06.0A	Rheumatoid arthritis without rheumatoid factor, other specified site	Diagnosis	ICD-10-CM
M06.1	Adult-onset Still's disease	Diagnosis	ICD-10-CM
M06.2	Rheumatoid bursitis	Diagnosis	ICD-10-CM
M06.20	Rheumatoid bursitis, unspecified site	Diagnosis	ICD-10-CM
M06.21	Rheumatoid bursitis, shoulder	Diagnosis	ICD-10-CM
M06.211	Rheumatoid bursitis, right shoulder	Diagnosis	ICD-10-CM
M06.212	Rheumatoid bursitis, left shoulder	Diagnosis	ICD-10-CM
M06.219	Rheumatoid bursitis, unspecified shoulder	Diagnosis	ICD-10-CM
M06.22	Rheumatoid bursitis, elbow	Diagnosis	ICD-10-CM
M06.221	Rheumatoid bursitis, right elbow	Diagnosis	ICD-10-CM
M06.222	Rheumatoid bursitis, left elbow	Diagnosis	ICD-10-CM
M06.229	Rheumatoid bursitis, unspecified elbow	Diagnosis	ICD-10-CM
M06.23	Rheumatoid bursitis, wrist	Diagnosis	ICD-10-CM
M06.231	Rheumatoid bursitis, right wrist	Diagnosis	ICD-10-CM
M06.232	Rheumatoid bursitis, left wrist	Diagnosis	ICD-10-CM
M06.239	Rheumatoid bursitis, unspecified wrist	Diagnosis	ICD-10-CM
M06.24	Rheumatoid bursitis, hand	Diagnosis	ICD-10-CM
M06.241	Rheumatoid bursitis, right hand	Diagnosis	ICD-10-CM
M06.242	Rheumatoid bursitis, left hand	Diagnosis	ICD-10-CM
M06.249	Rheumatoid bursitis, unspecified hand	Diagnosis	ICD-10-CM
M06.25	Rheumatoid bursitis, hip	Diagnosis	ICD-10-CM
M06.251	Rheumatoid bursitis, right hip	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M06.252	Rheumatoid bursitis, left hip	Diagnosis	ICD-10-CM
M06.259	Rheumatoid bursitis, unspecified hip	Diagnosis	ICD-10-CM
M06.26	Rheumatoid bursitis, knee	Diagnosis	ICD-10-CM
M06.261	Rheumatoid bursitis, right knee	Diagnosis	ICD-10-CM
M06.262	Rheumatoid bursitis, left knee	Diagnosis	ICD-10-CM
M06.269	Rheumatoid bursitis, unspecified knee	Diagnosis	ICD-10-CM
M06.27	Rheumatoid bursitis, ankle and foot	Diagnosis	ICD-10-CM
M06.271	Rheumatoid bursitis, right ankle and foot	Diagnosis	ICD-10-CM
M06.272	Rheumatoid bursitis, left ankle and foot	Diagnosis	ICD-10-CM
M06.279	Rheumatoid bursitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.28	Rheumatoid bursitis, vertebrae	Diagnosis	ICD-10-CM
M06.29	Rheumatoid bursitis, multiple sites	Diagnosis	ICD-10-CM
M06.3	Rheumatoid nodule	Diagnosis	ICD-10-CM
M06.30	Rheumatoid nodule, unspecified site	Diagnosis	ICD-10-CM
M06.31	Rheumatoid nodule, shoulder	Diagnosis	ICD-10-CM
M06.311	Rheumatoid nodule, right shoulder	Diagnosis	ICD-10-CM
M06.312	Rheumatoid nodule, left shoulder	Diagnosis	ICD-10-CM
M06.319	Rheumatoid nodule, unspecified shoulder	Diagnosis	ICD-10-CM
M06.32	Rheumatoid nodule, elbow	Diagnosis	ICD-10-CM
M06.321	Rheumatoid nodule, right elbow	Diagnosis	ICD-10-CM
M06.322	Rheumatoid nodule, left elbow	Diagnosis	ICD-10-CM
M06.329	Rheumatoid nodule, unspecified elbow	Diagnosis	ICD-10-CM
M06.33	Rheumatoid nodule, wrist	Diagnosis	ICD-10-CM
M06.331	Rheumatoid nodule, right wrist	Diagnosis	ICD-10-CM
M06.332	Rheumatoid nodule, left wrist	Diagnosis	ICD-10-CM
M06.339	Rheumatoid nodule, unspecified wrist	Diagnosis	ICD-10-CM
M06.34	Rheumatoid nodule, hand	Diagnosis	ICD-10-CM
M06.341	Rheumatoid nodule, right hand	Diagnosis	ICD-10-CM
M06.342	Rheumatoid nodule, left hand	Diagnosis	ICD-10-CM
M06.349	Rheumatoid nodule, unspecified hand	Diagnosis	ICD-10-CM
M06.35	Rheumatoid nodule, hip	Diagnosis	ICD-10-CM
M06.351	Rheumatoid nodule, right hip	Diagnosis	ICD-10-CM
M06.352	Rheumatoid nodule, left hip	Diagnosis	ICD-10-CM
M06.359	Rheumatoid nodule, unspecified hip	Diagnosis	ICD-10-CM
M06.36	Rheumatoid nodule, knee	Diagnosis	ICD-10-CM
M06.361	Rheumatoid nodule, right knee	Diagnosis	ICD-10-CM
M06.362	Rheumatoid nodule, left knee	Diagnosis	ICD-10-CM
M06.369	Rheumatoid nodule, unspecified knee	Diagnosis	ICD-10-CM
M06.37	Rheumatoid nodule, ankle and foot	Diagnosis	ICD-10-CM
M06.371	Rheumatoid nodule, right ankle and foot	Diagnosis	ICD-10-CM
M06.372	Rheumatoid nodule, left ankle and foot	Diagnosis	ICD-10-CM
M06.379	Rheumatoid nodule, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.38	Rheumatoid nodule, vertebrae	Diagnosis	ICD-10-CM
M06.39	Rheumatoid nodule, multiple sites	Diagnosis	ICD-10-CM
M06.8	Other specified rheumatoid arthritis	Diagnosis	ICD-10-CM
M06.80	Other specified rheumatoid arthritis, unspecified site	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M06.81	Other specified rheumatoid arthritis, shoulder	Diagnosis	ICD-10-CM
M06.811	Other specified rheumatoid arthritis, right shoulder	Diagnosis	ICD-10-CM
M06.812	Other specified rheumatoid arthritis, left shoulder	Diagnosis	ICD-10-CM
M06.819	Other specified rheumatoid arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M06.82	Other specified rheumatoid arthritis, elbow	Diagnosis	ICD-10-CM
M06.821	Other specified rheumatoid arthritis, right elbow	Diagnosis	ICD-10-CM
M06.822	Other specified rheumatoid arthritis, left elbow	Diagnosis	ICD-10-CM
M06.829	Other specified rheumatoid arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M06.83	Other specified rheumatoid arthritis, wrist	Diagnosis	ICD-10-CM
M06.831	Other specified rheumatoid arthritis, right wrist	Diagnosis	ICD-10-CM
M06.832	Other specified rheumatoid arthritis, left wrist	Diagnosis	ICD-10-CM
M06.839	Other specified rheumatoid arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M06.84	Other specified rheumatoid arthritis, hand	Diagnosis	ICD-10-CM
M06.841	Other specified rheumatoid arthritis, right hand	Diagnosis	ICD-10-CM
M06.842	Other specified rheumatoid arthritis, left hand	Diagnosis	ICD-10-CM
M06.849	Other specified rheumatoid arthritis, unspecified hand	Diagnosis	ICD-10-CM
M06.85	Other specified rheumatoid arthritis, hip	Diagnosis	ICD-10-CM
M06.851	Other specified rheumatoid arthritis, right hip	Diagnosis	ICD-10-CM
M06.852	Other specified rheumatoid arthritis, left hip	Diagnosis	ICD-10-CM
M06.859	Other specified rheumatoid arthritis, unspecified hip	Diagnosis	ICD-10-CM
M06.86	Other specified rheumatoid arthritis, knee	Diagnosis	ICD-10-CM
M06.861	Other specified rheumatoid arthritis, right knee	Diagnosis	ICD-10-CM
M06.862	Other specified rheumatoid arthritis, left knee	Diagnosis	ICD-10-CM
M06.869	Other specified rheumatoid arthritis, unspecified knee	Diagnosis	ICD-10-CM
M06.87	Other specified rheumatoid arthritis, ankle and foot	Diagnosis	ICD-10-CM
M06.871	Other specified rheumatoid arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M06.872	Other specified rheumatoid arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M06.879	Other specified rheumatoid arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.88	Other specified rheumatoid arthritis, vertebrae	Diagnosis	ICD-10-CM
M06.89	Other specified rheumatoid arthritis, multiple sites	Diagnosis	ICD-10-CM
M06.8A	Other specified rheumatoid arthritis, other specified site	Diagnosis	ICD-10-CM
M06.9	Rheumatoid arthritis, unspecified	Diagnosis	ICD-10-CM
M08.0	Unspecified juvenile rheumatoid arthritis	Diagnosis	ICD-10-CM
M08.00	Unspecified juvenile rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.01	Unspecified juvenile rheumatoid arthritis, shoulder	Diagnosis	ICD-10-CM
M08.011	Unspecified juvenile rheumatoid arthritis, right shoulder	Diagnosis	ICD-10-CM
M08.012	Unspecified juvenile rheumatoid arthritis, left shoulder	Diagnosis	ICD-10-CM
M08.019	Unspecified juvenile rheumatoid arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M08.02	Unspecified juvenile rheumatoid arthritis of elbow	Diagnosis	ICD-10-CM
M08.021	Unspecified juvenile rheumatoid arthritis, right elbow	Diagnosis	ICD-10-CM
M08.022	Unspecified juvenile rheumatoid arthritis, left elbow	Diagnosis	ICD-10-CM
M08.029	Unspecified juvenile rheumatoid arthritis, unspecified elbow	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.03	Unspecified juvenile rheumatoid arthritis, wrist	Diagnosis	ICD-10-CM
M08.031	Unspecified juvenile rheumatoid arthritis, right wrist	Diagnosis	ICD-10-CM
M08.032	Unspecified juvenile rheumatoid arthritis, left wrist	Diagnosis	ICD-10-CM
M08.039	Unspecified juvenile rheumatoid arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M08.04	Unspecified juvenile rheumatoid arthritis, hand	Diagnosis	ICD-10-CM
M08.041	Unspecified juvenile rheumatoid arthritis, right hand	Diagnosis	ICD-10-CM
M08.042	Unspecified juvenile rheumatoid arthritis, left hand	Diagnosis	ICD-10-CM
M08.049	Unspecified juvenile rheumatoid arthritis, unspecified hand	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.05	Unspecified juvenile rheumatoid arthritis, hip	Diagnosis	ICD-10-CM
M08.051	Unspecified juvenile rheumatoid arthritis, right hip	Diagnosis	ICD-10-CM
M08.052	Unspecified juvenile rheumatoid arthritis, left hip	Diagnosis	ICD-10-CM
M08.059	Unspecified juvenile rheumatoid arthritis, unspecified hip	Diagnosis	ICD-10-CM
M08.06	Unspecified juvenile rheumatoid arthritis, knee	Diagnosis	ICD-10-CM
M08.061	Unspecified juvenile rheumatoid arthritis, right knee	Diagnosis	ICD-10-CM
M08.062	Unspecified juvenile rheumatoid arthritis, left knee	Diagnosis	ICD-10-CM
M08.069	Unspecified juvenile rheumatoid arthritis, unspecified knee	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.07	Unspecified juvenile rheumatoid arthritis, ankle and foot	Diagnosis	ICD-10-CM
M08.071	Unspecified juvenile rheumatoid arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M08.072	Unspecified juvenile rheumatoid arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M08.079	Unspecified juvenile rheumatoid arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.08	Unspecified juvenile rheumatoid arthritis, vertebrae	Diagnosis	ICD-10-CM
M08.09	Unspecified juvenile rheumatoid arthritis, multiple sites	Diagnosis	ICD-10-CM
M08.0A	Unspecified juvenile rheumatoid arthritis, other specified site	Diagnosis	ICD-10-CM
M08.2	Juvenile rheumatoid arthritis with systemic onset	Diagnosis	ICD-10-CM
M08.20	Juvenile rheumatoid arthritis with systemic onset, unspecified site	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.21	Juvenile rheumatoid arthritis with systemic onset, shoulder	Diagnosis	ICD-10-CM
M08.211	Juvenile rheumatoid arthritis with systemic onset, right shoulder	Diagnosis	ICD-10-CM
M08.212	Juvenile rheumatoid arthritis with systemic onset, left shoulder	Diagnosis	ICD-10-CM
M08.219	Juvenile rheumatoid arthritis with systemic onset, unspecified shoulder	Diagnosis	ICD-10-CM
M08.22	Juvenile rheumatoid arthritis with systemic onset, elbow	Diagnosis	ICD-10-CM
M08.221	Juvenile rheumatoid arthritis with systemic onset, right elbow	Diagnosis	ICD-10-CM
M08.222	Juvenile rheumatoid arthritis with systemic onset, left elbow	Diagnosis	ICD-10-CM
M08.229	Juvenile rheumatoid arthritis with systemic onset, unspecified elbow	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.23	Juvenile rheumatoid arthritis with systemic onset, wrist	Diagnosis	ICD-10-CM
M08.231	Juvenile rheumatoid arthritis with systemic onset, right wrist	Diagnosis	ICD-10-CM
M08.232	Juvenile rheumatoid arthritis with systemic onset, left wrist	Diagnosis	ICD-10-CM
M08.239	Juvenile rheumatoid arthritis with systemic onset, unspecified wrist	Diagnosis	ICD-10-CM
M08.24	Juvenile rheumatoid arthritis with systemic onset, hand	Diagnosis	ICD-10-CM
M08.241	Juvenile rheumatoid arthritis with systemic onset, right hand	Diagnosis	ICD-10-CM
M08.242	Juvenile rheumatoid arthritis with systemic onset, left hand	Diagnosis	ICD-10-CM
M08.249	Juvenile rheumatoid arthritis with systemic onset, unspecified hand	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.25	Juvenile rheumatoid arthritis with systemic onset, hip	Diagnosis	ICD-10-CM
M08.251	Juvenile rheumatoid arthritis with systemic onset, right hip	Diagnosis	ICD-10-CM
M08.252	Juvenile rheumatoid arthritis with systemic onset, left hip	Diagnosis	ICD-10-CM
M08.259	Juvenile rheumatoid arthritis with systemic onset, unspecified hip	Diagnosis	ICD-10-CM
M08.26	Juvenile rheumatoid arthritis with systemic onset, knee	Diagnosis	ICD-10-CM
M08.261	Juvenile rheumatoid arthritis with systemic onset, right knee	Diagnosis	ICD-10-CM
M08.262	Juvenile rheumatoid arthritis with systemic onset, left knee	Diagnosis	ICD-10-CM
M08.269	Juvenile rheumatoid arthritis with systemic onset, unspecified knee	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.27	Juvenile rheumatoid arthritis with systemic onset, ankle and foot	Diagnosis	ICD-10-CM
M08.271	Juvenile rheumatoid arthritis with systemic onset, right ankle and foot	Diagnosis	ICD-10-CM
M08.272	Juvenile rheumatoid arthritis with systemic onset, left ankle and foot	Diagnosis	ICD-10-CM
M08.279	Juvenile rheumatoid arthritis with systemic onset, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.28	Juvenile rheumatoid arthritis with systemic onset, vertebrae	Diagnosis	ICD-10-CM
M08.29	Juvenile rheumatoid arthritis with systemic onset, multiple sites	Diagnosis	ICD-10-CM
M08.2A	Juvenile rheumatoid arthritis with systemic onset, other specified site	Diagnosis	ICD-10-CM
M08.3	Juvenile rheumatoid polyarthritis (seronegative)	Diagnosis	ICD-10-CM
M08.4	Pauciarticular juvenile rheumatoid arthritis	Diagnosis	ICD-10-CM
M08.40	Pauciarticular juvenile rheumatoid arthritis, unspecified site	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.41	Pauciarticular juvenile rheumatoid arthritis, shoulder	Diagnosis	ICD-10-CM
M08.411	Pauciarticular juvenile rheumatoid arthritis, right shoulder	Diagnosis	ICD-10-CM
M08.412	Pauciarticular juvenile rheumatoid arthritis, left shoulder	Diagnosis	ICD-10-CM
M08.419	Pauciarticular juvenile rheumatoid arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M08.42	Pauciarticular juvenile rheumatoid arthritis, elbow	Diagnosis	ICD-10-CM
M08.421	Pauciarticular juvenile rheumatoid arthritis, right elbow	Diagnosis	ICD-10-CM
M08.422	Pauciarticular juvenile rheumatoid arthritis, left elbow	Diagnosis	ICD-10-CM
M08.429	Pauciarticular juvenile rheumatoid arthritis, unspecified elbow	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.43	Pauciarticular juvenile rheumatoid arthritis, wrist	Diagnosis	ICD-10-CM
M08.431	Pauciarticular juvenile rheumatoid arthritis, right wrist	Diagnosis	ICD-10-CM
M08.432	Pauciarticular juvenile rheumatoid arthritis, left wrist	Diagnosis	ICD-10-CM
M08.439	Pauciarticular juvenile rheumatoid arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M08.44	Pauciarticular juvenile rheumatoid arthritis, hand	Diagnosis	ICD-10-CM
M08.441	Pauciarticular juvenile rheumatoid arthritis, right hand	Diagnosis	ICD-10-CM
M08.442	Pauciarticular juvenile rheumatoid arthritis, left hand	Diagnosis	ICD-10-CM
M08.449	Pauciarticular juvenile rheumatoid arthritis, unspecified hand	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.45	Pauciarticular juvenile rheumatoid arthritis, hip	Diagnosis	ICD-10-CM
M08.451	Pauciarticular juvenile rheumatoid arthritis, right hip	Diagnosis	ICD-10-CM
M08.452	Pauciarticular juvenile rheumatoid arthritis, left hip	Diagnosis	ICD-10-CM
M08.459	Pauciarticular juvenile rheumatoid arthritis, unspecified hip	Diagnosis	ICD-10-CM
M08.46	Pauciarticular juvenile rheumatoid arthritis, knee	Diagnosis	ICD-10-CM
M08.461	Pauciarticular juvenile rheumatoid arthritis, right knee	Diagnosis	ICD-10-CM
M08.462	Pauciarticular juvenile rheumatoid arthritis, left knee	Diagnosis	ICD-10-CM
M08.469	Pauciarticular juvenile rheumatoid arthritis, unspecified knee	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M08.47	Pauciarticular juvenile rheumatoid arthritis, ankle and foot	Diagnosis	ICD-10-CM
M08.471	Pauciarticular juvenile rheumatoid arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M08.472	Pauciarticular juvenile rheumatoid arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M08.479	Pauciarticular juvenile rheumatoid arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.48	Pauciarticular juvenile rheumatoid arthritis, vertebrae	Diagnosis	ICD-10-CM
M08.4A	Pauciarticular juvenile rheumatoid arthritis, other specified site	Diagnosis	ICD-10-CM
M08.80	Other juvenile arthritis, unspecified site	Diagnosis	ICD-10-CM
M08.811	Other juvenile arthritis, right shoulder	Diagnosis	ICD-10-CM
M08.812	Other juvenile arthritis, left shoulder	Diagnosis	ICD-10-CM
M08.819	Other juvenile arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M08.821	Other juvenile arthritis, right elbow	Diagnosis	ICD-10-CM
M08.822	Other juvenile arthritis, left elbow	Diagnosis	ICD-10-CM
M08.829	Other juvenile arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M08.831	Other juvenile arthritis, right wrist	Diagnosis	ICD-10-CM
M08.832	Other juvenile arthritis, left wrist	Diagnosis	ICD-10-CM
M08.839	Other juvenile arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M08.841	Other juvenile arthritis, right hand	Diagnosis	ICD-10-CM
M08.842	Other juvenile arthritis, left hand	Diagnosis	ICD-10-CM
M08.849	Other juvenile arthritis, unspecified hand	Diagnosis	ICD-10-CM
M08.851	Other juvenile arthritis, right hip	Diagnosis	ICD-10-CM
M08.852	Other juvenile arthritis, left hip	Diagnosis	ICD-10-CM
M08.859	Other juvenile arthritis, unspecified hip	Diagnosis	ICD-10-CM
M08.861	Other juvenile arthritis, right knee	Diagnosis	ICD-10-CM
M08.862	Other juvenile arthritis, left knee	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M08.869	Other juvenile arthritis, unspecified knee	Diagnosis	ICD-10-CM
M08.871	Other juvenile arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M08.872	Other juvenile arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M08.879	Other juvenile arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.88	Other juvenile arthritis, other specified site	Diagnosis	ICD-10-CM
M08.89	Other juvenile arthritis, multiple sites	Diagnosis	ICD-10-CM
M08.90	Juvenile arthritis, unspecified, unspecified site	Diagnosis	ICD-10-CM
M08.911	Juvenile arthritis, unspecified, right shoulder	Diagnosis	ICD-10-CM
M08.912	Juvenile arthritis, unspecified, left shoulder	Diagnosis	ICD-10-CM
M08.919	Juvenile arthritis, unspecified, unspecified shoulder	Diagnosis	ICD-10-CM
M08.921	Juvenile arthritis, unspecified, right elbow	Diagnosis	ICD-10-CM
M08.922	Juvenile arthritis, unspecified, left elbow	Diagnosis	ICD-10-CM
M08.929	Juvenile arthritis, unspecified, unspecified elbow	Diagnosis	ICD-10-CM
M08.931	Juvenile arthritis, unspecified, right wrist	Diagnosis	ICD-10-CM
M08.932	Juvenile arthritis, unspecified, left wrist	Diagnosis	ICD-10-CM
M08.939	Juvenile arthritis, unspecified, unspecified wrist	Diagnosis	ICD-10-CM
M08.941	Juvenile arthritis, unspecified, right hand	Diagnosis	ICD-10-CM
M08.942	Juvenile arthritis, unspecified, left hand	Diagnosis	ICD-10-CM
M08.949	Juvenile arthritis, unspecified, unspecified hand	Diagnosis	ICD-10-CM
M08.951	Juvenile arthritis, unspecified, right hip	Diagnosis	ICD-10-CM
M08.952	Juvenile arthritis, unspecified, left hip	Diagnosis	ICD-10-CM
M08.959	Juvenile arthritis, unspecified, unspecified hip	Diagnosis	ICD-10-CM
M08.961	Juvenile arthritis, unspecified, right knee	Diagnosis	ICD-10-CM
M08.962	Juvenile arthritis, unspecified, left knee	Diagnosis	ICD-10-CM
M08.969	Juvenile arthritis, unspecified, unspecified knee	Diagnosis	ICD-10-CM
M08.971	Juvenile arthritis, unspecified, right ankle and foot	Diagnosis	ICD-10-CM
M08.972	Juvenile arthritis, unspecified, left ankle and foot	Diagnosis	ICD-10-CM
M08.979	Juvenile arthritis, unspecified, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.98	Juvenile arthritis, unspecified, vertebrae	Diagnosis	ICD-10-CM
M08.99	Juvenile arthritis, unspecified, multiple sites	Diagnosis	ICD-10-CM
M08.9A	Juvenile arthritis, unspecified, other specified site	Diagnosis	ICD-10-CM
Ankylosing Spondylitis			
M08.1	Juvenile ankylosing spondylitis	Diagnosis	ICD-10-CM
M45	Ankylosing spondylitis	Diagnosis	ICD-10-CM
M45.0	Ankylosing spondylitis of multiple sites in spine	Diagnosis	ICD-10-CM
M45.1	Ankylosing spondylitis of occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M45.2	Ankylosing spondylitis of cervical region	Diagnosis	ICD-10-CM
M45.3	Ankylosing spondylitis of cervicothoracic region	Diagnosis	ICD-10-CM
M45.4	Ankylosing spondylitis of thoracic region	Diagnosis	ICD-10-CM
M45.5	Ankylosing spondylitis of thoracolumbar region	Diagnosis	ICD-10-CM
M45.6	Ankylosing spondylitis lumbar region	Diagnosis	ICD-10-CM
M45.7	Ankylosing spondylitis of lumbosacral region	Diagnosis	ICD-10-CM
M45.8	Ankylosing spondylitis sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M45.9	Ankylosing spondylitis of unspecified sites in spine	Diagnosis	ICD-10-CM
M45.A0	Non-radiographic axial spondyloarthritis of unspecified sites in spine	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M45.A1	Non-radiographic axial spondyloarthritis of occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M45.A2	Non-radiographic axial spondyloarthritis of cervical region	Diagnosis	ICD-10-CM
M45.A3	Non-radiographic axial spondyloarthritis of cervicothoracic region	Diagnosis	ICD-10-CM
M45.A4	Non-radiographic axial spondyloarthritis of thoracic region	Diagnosis	ICD-10-CM
M45.A5	Non-radiographic axial spondyloarthritis of thoracolumbar region	Diagnosis	ICD-10-CM
M45.A6	Non-radiographic axial spondyloarthritis of lumbar region	Diagnosis	ICD-10-CM
M45.A7	Non-radiographic axial spondyloarthritis of lumbosacral region	Diagnosis	ICD-10-CM
M45.A8	Non-radiographic axial spondyloarthritis of sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M45.AB	Non-radiographic axial spondyloarthritis of multiple sites in spine	Diagnosis	ICD-10-CM
M46.80	Other specified inflammatory spondylopathies, site unspecified	Diagnosis	ICD-10-CM
M46.81	Other specified inflammatory spondylopathies, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M46.82	Other specified inflammatory spondylopathies, cervical region	Diagnosis	ICD-10-CM
M46.83	Other specified inflammatory spondylopathies, cervicothoracic region	Diagnosis	ICD-10-CM
M46.84	Other specified inflammatory spondylopathies, thoracic region	Diagnosis	ICD-10-CM
M46.85	Other specified inflammatory spondylopathies, thoracolumbar region	Diagnosis	ICD-10-CM
M46.86	Other specified inflammatory spondylopathies, lumbar region	Diagnosis	ICD-10-CM
M46.87	Other specified inflammatory spondylopathies, lumbosacral region	Diagnosis	ICD-10-CM
M46.88	Other specified inflammatory spondylopathies, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M46.89	Other specified inflammatory spondylopathies, multiple sites in spine	Diagnosis	ICD-10-CM
M46.90	Unspecified inflammatory spondylopathy, site unspecified	Diagnosis	ICD-10-CM
M46.91	Unspecified inflammatory spondylopathy, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M46.92	Unspecified inflammatory spondylopathy, cervical region	Diagnosis	ICD-10-CM
M46.93	Unspecified inflammatory spondylopathy, cervicothoracic region	Diagnosis	ICD-10-CM
M46.94	Unspecified inflammatory spondylopathy, thoracic region	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M46.95	Unspecified inflammatory spondylopathy, thoracolumbar region	Diagnosis	ICD-10-CM
M46.96	Unspecified inflammatory spondylopathy, lumbar region	Diagnosis	ICD-10-CM
M46.97	Unspecified inflammatory spondylopathy, lumbosacral region	Diagnosis	ICD-10-CM
M46.98	Unspecified inflammatory spondylopathy, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M46.99	Unspecified inflammatory spondylopathy, multiple sites in spine	Diagnosis	ICD-10-CM

Hidradenitis Suppurativa

L73.2	Hidradenitis suppurativa	Diagnosis	ICD-10-CM
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Uveitis

A18.53	Tuberculous chorioretinitis	Diagnosis	ICD-10-CM
A18.54	Tuberculous iridocyclitis	Diagnosis	ICD-10-CM
A50.32	Late congenital syphilitic chorioretinitis	Diagnosis	ICD-10-CM
A54.32	Gonococcal iridocyclitis	Diagnosis	ICD-10-CM
B00.51	Herpesviral iridocyclitis	Diagnosis	ICD-10-CM
B02.32	Zoster iridocyclitis	Diagnosis	ICD-10-CM
B58.01	Toxoplasma chorioretinitis	Diagnosis	ICD-10-CM
D86.83	Sarcoid iridocyclitis	Diagnosis	ICD-10-CM
H20	Iridocyclitis	Diagnosis	ICD-10-CM
H20.0	Acute and subacute iridocyclitis	Diagnosis	ICD-10-CM
H20.00	Unspecified acute and subacute iridocyclitis	Diagnosis	ICD-10-CM
H20.01	Primary iridocyclitis	Diagnosis	ICD-10-CM
H20.011	Primary iridocyclitis, right eye	Diagnosis	ICD-10-CM
H20.012	Primary iridocyclitis, left eye	Diagnosis	ICD-10-CM
H20.013	Primary iridocyclitis, bilateral	Diagnosis	ICD-10-CM
H20.019	Primary iridocyclitis, unspecified eye	Diagnosis	ICD-10-CM
H20.02	Recurrent acute iridocyclitis	Diagnosis	ICD-10-CM
H20.021	Recurrent acute iridocyclitis, right eye	Diagnosis	ICD-10-CM
H20.022	Recurrent acute iridocyclitis, left eye	Diagnosis	ICD-10-CM
H20.023	Recurrent acute iridocyclitis, bilateral	Diagnosis	ICD-10-CM
H20.029	Recurrent acute iridocyclitis, unspecified eye	Diagnosis	ICD-10-CM
H20.03	Secondary infectious iridocyclitis	Diagnosis	ICD-10-CM
H20.031	Secondary infectious iridocyclitis, right eye	Diagnosis	ICD-10-CM
H20.032	Secondary infectious iridocyclitis, left eye	Diagnosis	ICD-10-CM
H20.033	Secondary infectious iridocyclitis, bilateral	Diagnosis	ICD-10-CM
H20.039	Secondary infectious iridocyclitis, unspecified eye	Diagnosis	ICD-10-CM
H20.04	Secondary noninfectious iridocyclitis	Diagnosis	ICD-10-CM
H20.041	Secondary noninfectious iridocyclitis, right eye	Diagnosis	ICD-10-CM
H20.042	Secondary noninfectious iridocyclitis, left eye	Diagnosis	ICD-10-CM
H20.043	Secondary noninfectious iridocyclitis, bilateral	Diagnosis	ICD-10-CM
H20.049	Secondary noninfectious iridocyclitis, unspecified eye	Diagnosis	ICD-10-CM
H20.1	Chronic iridocyclitis	Diagnosis	ICD-10-CM
H20.10	Chronic iridocyclitis, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H20.11	Chronic iridocyclitis, right eye	Diagnosis	ICD-10-CM
H20.12	Chronic iridocyclitis, left eye	Diagnosis	ICD-10-CM
H20.13	Chronic iridocyclitis, bilateral	Diagnosis	ICD-10-CM
H20.2	Lens-induced iridocyclitis	Diagnosis	ICD-10-CM
H20.20	Lens-induced iridocyclitis, unspecified eye	Diagnosis	ICD-10-CM
H20.21	Lens-induced iridocyclitis, right eye	Diagnosis	ICD-10-CM
H20.22	Lens-induced iridocyclitis, left eye	Diagnosis	ICD-10-CM
H20.23	Lens-induced iridocyclitis, bilateral	Diagnosis	ICD-10-CM
H20.8	Other iridocyclitis	Diagnosis	ICD-10-CM
H20.9	Unspecified iridocyclitis	Diagnosis	ICD-10-CM
H30	Chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.0	Focal chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.00	Unspecified focal chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.001	Unspecified focal chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.002	Unspecified focal chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.003	Unspecified focal chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM
H30.009	Unspecified focal chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.01	Focal chorioretinal inflammation, juxtapapillary	Diagnosis	ICD-10-CM
H30.011	Focal chorioretinal inflammation, juxtapapillary, right eye	Diagnosis	ICD-10-CM
H30.012	Focal chorioretinal inflammation, juxtapapillary, left eye	Diagnosis	ICD-10-CM
H30.013	Focal chorioretinal inflammation, juxtapapillary, bilateral	Diagnosis	ICD-10-CM
H30.019	Focal chorioretinal inflammation, juxtapapillary, unspecified eye	Diagnosis	ICD-10-CM
H30.02	Focal chorioretinal inflammation of posterior pole	Diagnosis	ICD-10-CM
H30.021	Focal chorioretinal inflammation of posterior pole, right eye	Diagnosis	ICD-10-CM
H30.022	Focal chorioretinal inflammation of posterior pole, left eye	Diagnosis	ICD-10-CM
H30.023	Focal chorioretinal inflammation of posterior pole, bilateral	Diagnosis	ICD-10-CM
H30.029	Focal chorioretinal inflammation of posterior pole, unspecified eye	Diagnosis	ICD-10-CM
H30.03	Focal chorioretinal inflammation, peripheral	Diagnosis	ICD-10-CM
H30.031	Focal chorioretinal inflammation, peripheral, right eye	Diagnosis	ICD-10-CM
H30.032	Focal chorioretinal inflammation, peripheral, left eye	Diagnosis	ICD-10-CM
H30.033	Focal chorioretinal inflammation, peripheral, bilateral	Diagnosis	ICD-10-CM
H30.039	Focal chorioretinal inflammation, peripheral, unspecified eye	Diagnosis	ICD-10-CM
H30.04	Focal chorioretinal inflammation, macular or paramacular	Diagnosis	ICD-10-CM
H30.041	Focal chorioretinal inflammation, macular or paramacular, right eye	Diagnosis	ICD-10-CM
H30.042	Focal chorioretinal inflammation, macular or paramacular, left eye	Diagnosis	ICD-10-CM
H30.043	Focal chorioretinal inflammation, macular or paramacular, bilateral	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H30.049	Focal chorioretinal inflammation, macular or paramacular, unspecified eye	Diagnosis	ICD-10-CM
H30.1	Disseminated chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.10	Unspecified disseminated chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.101	Unspecified disseminated chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.102	Unspecified disseminated chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.103	Unspecified disseminated chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM
H30.109	Unspecified disseminated chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.11	Disseminated chorioretinal inflammation of posterior pole	Diagnosis	ICD-10-CM
H30.111	Disseminated chorioretinal inflammation of posterior pole, right eye	Diagnosis	ICD-10-CM
H30.112	Disseminated chorioretinal inflammation of posterior pole, left eye	Diagnosis	ICD-10-CM
H30.113	Disseminated chorioretinal inflammation of posterior pole, bilateral	Diagnosis	ICD-10-CM
H30.119	Disseminated chorioretinal inflammation of posterior pole, unspecified eye	Diagnosis	ICD-10-CM
H30.12	Disseminated chorioretinal inflammation, peripheral	Diagnosis	ICD-10-CM
H30.121	Disseminated chorioretinal inflammation, peripheral right eye	Diagnosis	ICD-10-CM
H30.122	Disseminated chorioretinal inflammation, peripheral, left eye	Diagnosis	ICD-10-CM
H30.123	Disseminated chorioretinal inflammation, peripheral, bilateral	Diagnosis	ICD-10-CM
H30.129	Disseminated chorioretinal inflammation, peripheral, unspecified eye	Diagnosis	ICD-10-CM
H30.13	Disseminated chorioretinal inflammation, generalized	Diagnosis	ICD-10-CM
H30.131	Disseminated chorioretinal inflammation, generalized, right eye	Diagnosis	ICD-10-CM
H30.132	Disseminated chorioretinal inflammation, generalized, left eye	Diagnosis	ICD-10-CM
H30.133	Disseminated chorioretinal inflammation, generalized, bilateral	Diagnosis	ICD-10-CM
H30.139	Disseminated chorioretinal inflammation, generalized, unspecified eye	Diagnosis	ICD-10-CM
H30.8	Other chorioretinal inflammations	Diagnosis	ICD-10-CM
H30.89	Other chorioretinal inflammations	Diagnosis	ICD-10-CM
H30.891	Other chorioretinal inflammations, right eye	Diagnosis	ICD-10-CM
H30.892	Other chorioretinal inflammations, left eye	Diagnosis	ICD-10-CM
H30.893	Other chorioretinal inflammations, bilateral	Diagnosis	ICD-10-CM
H30.899	Other chorioretinal inflammations, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H30.9	Unspecified chorioretinal inflammation	Diagnosis	ICD-10-CM
H30.90	Unspecified chorioretinal inflammation, unspecified eye	Diagnosis	ICD-10-CM
H30.91	Unspecified chorioretinal inflammation, right eye	Diagnosis	ICD-10-CM
H30.92	Unspecified chorioretinal inflammation, left eye	Diagnosis	ICD-10-CM
H30.93	Unspecified chorioretinal inflammation, bilateral	Diagnosis	ICD-10-CM
H35.71	Central serous chorioretinopathy	Diagnosis	ICD-10-CM
H35.711	Central serous chorioretinopathy, right eye	Diagnosis	ICD-10-CM
H35.712	Central serous chorioretinopathy, left eye	Diagnosis	ICD-10-CM
H35.713	Central serous chorioretinopathy, bilateral	Diagnosis	ICD-10-CM
H35.719	Central serous chorioretinopathy, unspecified eye	Diagnosis	ICD-10-CM
H44.11	Panuveitis	Diagnosis	ICD-10-CM
H44.111	Panuveitis, right eye	Diagnosis	ICD-10-CM
H44.112	Panuveitis, left eye	Diagnosis	ICD-10-CM
H44.113	Panuveitis, bilateral	Diagnosis	ICD-10-CM
H44.119	Panuveitis, unspecified eye	Diagnosis	ICD-10-CM
H44.13	Sympathetic uveitis	Diagnosis	ICD-10-CM
H44.131	Sympathetic uveitis, right eye	Diagnosis	ICD-10-CM
H44.132	Sympathetic uveitis, left eye	Diagnosis	ICD-10-CM
H44.133	Sympathetic uveitis, bilateral	Diagnosis	ICD-10-CM
H44.139	Sympathetic uveitis, unspecified eye	Diagnosis	ICD-10-CM
HIV/AIDS			
042	Human immunodeficiency virus [HIV]	Diagnosis	ICD-9-CM
079.53	Human immunodeficiency virus, type 2 (HIV 2), in conditions classified elsewhere and of unspecified site	Diagnosis	ICD-9-CM
B20	Human immunodeficiency virus [HIV] disease	Diagnosis	ICD-10-CM
B97.35	Human immunodeficiency virus, type 2 [HIV 2] as the cause of diseases classified elsewhere	Diagnosis	ICD-10-CM
O98.7	Human immunodeficiency virus [HIV] disease complicating pregnancy, childbirth and the puerperium	Diagnosis	ICD-10-CM
O98.71	Human immunodeficiency virus [HIV] disease complicating pregnancy	Diagnosis	ICD-10-CM
O98.711	Human immunodeficiency virus [HIV] disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O98.712	Human immunodeficiency virus [HIV] disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O98.713	Human immunodeficiency virus [HIV] disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O98.719	Human immunodeficiency virus [HIV] disease complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O98.72	Human immunodeficiency virus [HIV] disease complicating childbirth	Diagnosis	ICD-10-CM
O98.73	Human immunodeficiency virus [HIV] disease complicating the puerperium	Diagnosis	ICD-10-CM
V08	Asymptomatic human immunodeficiency virus (HIV) infection status	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
Z21	Asymptomatic human immunodeficiency virus [HIV] infection status	Diagnosis	ICD-10-CM
Organ Transplantation			
00.91	Transplant from live related donor	Procedure	ICD-9-CM
00.92	Transplant from live non-related donor	Procedure	ICD-9-CM
00.93	Transplant from cadaver	Procedure	ICD-9-CM
00580	Anesthesia for heart transplant or heart/lung transplant	Procedure	CPT-4
00796	Anesthesia for intraperitoneal procedures in upper abdomen including laparoscopy; liver transplant (recipient)	Procedure	CPT-4
00868	Anesthesia for extraperitoneal procedures in lower abdomen, including urinary tract; renal transplant (recipient)	Procedure	CPT-4
0141T	Pancreatic islet cell transplantation through portal vein, percutaneous	Procedure	CPT-3
0142T	Pancreatic islet cell transplantation through portal vein, open	Procedure	CPT-3
0143T	Laparoscopy, surgical, pancreatic islet cell transplantation through portal vein	Procedure	CPT-3
02Y	Heart and Great Vessels, Transplantation	Procedure	ICD-10-PCS
02YA	Transplantation / Heart	Procedure	ICD-10-PCS
02YA0Z0	Transplantation of Heart, Allogeneic, Open Approach	Procedure	ICD-10-PCS
02YA0Z1	Transplantation of Heart, Syngeneic, Open Approach	Procedure	ICD-10-PCS
02YA0Z2	Transplantation of Heart, Zooplasic, Open Approach	Procedure	ICD-10-PCS
0584T	Islet cell transplant, includes portal vein catheterization and infusion, including all imaging, including guidance, and radiological supervision and interpretation, when performed; percutaneous	Procedure	CPT-3
0585T	Islet cell transplant, includes portal vein catheterization and infusion, including all imaging, including guidance, and radiological supervision and interpretation, when performed; laparoscopic	Procedure	CPT-3
0586T	Islet cell transplant, includes portal vein catheterization and infusion, including all imaging, including guidance, and radiological supervision and interpretation, when performed; open	Procedure	CPT-3
07Y	Lymphatic and Hemic Systems, Transplantation	Procedure	ICD-10-PCS
0BY	Respiratory System, Transplantation	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
OBYC	Transplantation / Upper Lung Lobe, Right	Procedure	ICD-10-PCS
OBYC0Z0	Transplantation of Right Upper Lung Lobe, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OBYC0Z1	Transplantation of Right Upper Lung Lobe, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYC0Z2	Transplantation of Right Upper Lung Lobe, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OBYD	Transplantation / Middle Lung Lobe, Right	Procedure	ICD-10-PCS
OBYD0Z0	Transplantation of Right Middle Lung Lobe, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OBYD0Z1	Transplantation of Right Middle Lung Lobe, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYD0Z2	Transplantation of Right Middle Lung Lobe, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OBYF	Transplantation / Lower Lung Lobe, Right	Procedure	ICD-10-PCS
OBYF0Z0	Transplantation of Right Lower Lung Lobe, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OBYF0Z1	Transplantation of Right Lower Lung Lobe, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYF0Z2	Transplantation of Right Lower Lung Lobe, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OBYG	Transplantation / Upper Lung Lobe, Left	Procedure	ICD-10-PCS
OBYG0Z0	Transplantation of Left Upper Lung Lobe, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OBYG0Z1	Transplantation of Left Upper Lung Lobe, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYG0Z2	Transplantation of Left Upper Lung Lobe, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OBYH	Transplantation / Lung Lingula	Procedure	ICD-10-PCS
OBYH0Z0	Transplantation of Lung Lingula, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OBYH0Z1	Transplantation of Lung Lingula, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYH0Z2	Transplantation of Lung Lingula, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OBYJ	Transplantation / Lower Lung Lobe, Left	Procedure	ICD-10-PCS
OBYJ0Z0	Transplantation of Left Lower Lung Lobe, Allogeneic, Open Approach	Procedure	ICD-10-PCS

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
OBYJ0Z1	Transplantation of Left Lower Lung Lobe, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYJ0Z2	Transplantation of Left Lower Lung Lobe, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OBYK	Transplantation / Lung, Right	Procedure	ICD-10-PCS
OBYK0Z0	Transplantation of Right Lung, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OBYK0Z1	Transplantation of Right Lung, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYK0Z2	Transplantation of Right Lung, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OBYL	Transplantation / Lung, Left	Procedure	ICD-10-PCS
OBYL0Z0	Transplantation of Left Lung, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OBYL0Z1	Transplantation of Left Lung, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYL0Z2	Transplantation of Left Lung, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OBYM	Transplantation / Lungs, Bilateral	Procedure	ICD-10-PCS
OBYM0Z0	Transplantation of Bilateral Lungs, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OBYM0Z1	Transplantation of Bilateral Lungs, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OBYM0Z2	Transplantation of Bilateral Lungs, Zooplastic, Open Approach	Procedure	ICD-10-PCS
ODY6	Transplantation / Stomach	Procedure	ICD-10-PCS
ODY60Z0	Transplantation of Stomach, Allogeneic, Open Approach	Procedure	ICD-10-PCS
ODY60Z1	Transplantation of Stomach, Syngeneic, Open Approach	Procedure	ICD-10-PCS
ODY60Z2	Transplantation of Stomach, Zooplastic, Open Approach	Procedure	ICD-10-PCS
ODY8	Transplantation / Small Intestine	Procedure	ICD-10-PCS
ODY80Z0	Transplantation of Small Intestine, Allogeneic, Open Approach	Procedure	ICD-10-PCS
ODY80Z1	Transplantation of Small Intestine, Syngeneic, Open Approach	Procedure	ICD-10-PCS
ODY80Z2	Transplantation of Small Intestine, Zooplastic, Open Approach	Procedure	ICD-10-PCS

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
ODYE	Transplantation / Large Intestine	Procedure	ICD-10-PCS
ODYE0Z0	Transplantation of Large Intestine, Allogeneic, Open Approach	Procedure	ICD-10-PCS
ODYE0Z1	Transplantation of Large Intestine, Syngeneic, Open Approach	Procedure	ICD-10-PCS
ODYE0Z2	Transplantation of Large Intestine, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OFY	Hepatobiliary System and Pancreas, Transplantation	Procedure	ICD-10-PCS
OFY0	Transplantation / Liver	Procedure	ICD-10-PCS
OFY00Z0	Transplantation of Liver, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OFY00Z1	Transplantation of Liver, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OFY00Z2	Transplantation of Liver, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OFYG	Transplantation / Pancreas	Procedure	ICD-10-PCS
OFYG0Z0	Transplantation of Pancreas, Allogeneic, Open Approach	Procedure	ICD-10-PCS
OFYG0Z1	Transplantation of Pancreas, Syngeneic, Open Approach	Procedure	ICD-10-PCS
OFYG0Z2	Transplantation of Pancreas, Zooplastic, Open Approach	Procedure	ICD-10-PCS
OTY0	Transplantation / Kidney, Right	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
OTY1	Transplantation / Kidney, Left	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
199.2	Malignant neoplasm associated with transplanted organ	Diagnosis	ICD-9-CM
238.77	Post-transplant lymphoproliferative disorder [PTLD]	Diagnosis	ICD-9-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
30230G2	Transfusion of Allogeneic Related Bone Marrow into Peripheral Vein, Open Approach	Procedure	ICD-10-PCS
30230G3	Transfusion of Allogeneic Unrelated Bone Marrow into Peripheral Vein, Open Approach	Procedure	ICD-10-PCS
30230G4	Transfusion of Allogeneic Unspecified Bone Marrow into Peripheral Vein, Open Approach	Procedure	ICD-10-PCS
30233G2	Transfusion of Allogeneic Related Bone Marrow into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30233G3	Transfusion of Allogeneic Unrelated Bone Marrow into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30233G4	Transfusion of Allogeneic Unspecified Bone Marrow into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30240G2	Transfusion of Allogeneic Related Bone Marrow into Central Vein, Open Approach	Procedure	ICD-10-PCS
30240G3	Transfusion of Allogeneic Unrelated Bone Marrow into Central Vein, Open Approach	Procedure	ICD-10-PCS
30240G4	Transfusion of Allogeneic Unspecified Bone Marrow into Central Vein, Open Approach	Procedure	ICD-10-PCS
30243G2	Transfusion of Allogeneic Related Bone Marrow into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30243G3	Transfusion of Allogeneic Unrelated Bone Marrow into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30243G4	Transfusion of Allogeneic Unspecified Bone Marrow into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
30250G1	Transfusion of Nonautologous Bone Marrow into Peripheral Artery, Open Approach	Procedure	ICD-10-PCS
30253G1	Transfusion of Nonautologous Bone Marrow into Peripheral Artery, Percutaneous Approach	Procedure	ICD-10-PCS
30260G1	Transfusion of Nonautologous Bone Marrow into Central Artery, Open Approach	Procedure	ICD-10-PCS
30263G1	Transfusion of Nonautologous Bone Marrow into Central Artery, Percutaneous Approach	Procedure	ICD-10-PCS
32851	Lung transplant, single; without cardiopulmonary bypass	Procedure	CPT-4
32852	Lung transplant, single; with cardiopulmonary bypass	Procedure	CPT-4
32853	Lung transplant, double (bilateral sequential or en bloc); without cardiopulmonary bypass	Procedure	CPT-4
32854	Lung transplant, double (bilateral sequential or en bloc); with cardiopulmonary bypass	Procedure	CPT-4
33.50	Lung transplantation, NOS	Procedure	ICD-9-CM
33.51	Unilateral lung transplantation	Procedure	ICD-9-CM
33.52	Bilateral lung transplantation	Procedure	ICD-9-CM
33.6	Combined heart-lung transplantation	Procedure	ICD-9-CM
33935	Heart-lung transplant with recipient cardiectomy-pneumonectomy	Procedure	CPT-4
33945	Heart transplant, with or without recipient cardiectomy	Procedure	CPT-4

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
37.51	Heart transplantation	Procedure	ICD-9-CM
38240	Hematopoietic progenitor cell (HPC); allogeneic transplantation per donor	Procedure	CPT-4
38241	Hematopoietic progenitor cell (HPC); autologous transplantation	Procedure	CPT-4
38242	Allogeneic lymphocyte infusions	Procedure	CPT-4
38243	Hematopoietic progenitor cell (HPC); HPC boost	Procedure	CPT-4
3E030U1	Introduction of Nonautologous Pancreatic Islet Cells into Peripheral Vein, Open Approach	Procedure	ICD-10-PCS
3E033U1	Introduction of Nonautologous Pancreatic Islet Cells into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
3E0J3U1	Introduction of Nonautologous Pancreatic Islet Cells into Biliary and Pancreatic Tract, Percutaneous Approach	Procedure	ICD-10-PCS
3E0J7U1	Introduction of Nonautologous Pancreatic Islet Cells into Biliary and Pancreatic Tract, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
3E0J8U1	Introduction of Nonautologous Pancreatic Islet Cells into Biliary and Pancreatic Tract, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
41.00	Bone marrow transplant, not otherwise specified	Procedure	ICD-9-CM
41.02	Allogeneic bone marrow transplant with purging	Procedure	ICD-9-CM
41.03	Allogeneic bone marrow transplant without purging	Procedure	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
44135	Intestinal allotransplantation; from cadaver donor	Procedure	CPT-4
44136	Intestinal allotransplantation; from living donor	Procedure	CPT-4
44137	Removal of transplanted intestinal allograft, complete	Procedure	CPT-4
46.97	Transplant of intestine	Procedure	ICD-9-CM
47135	Liver allotransplantation; orthotopic, partial or whole, from cadaver or living donor, any age	Procedure	CPT-4
47136	Liver allotransplantation; heterotopic, partial or whole, from cadaver or living donor, any age	Procedure	CPT-4
48160	Pancreatectomy, total or subtotal, with autologous transplantation of pancreas or pancreatic islet cells	Procedure	CPT-4
48554	Transplantation of pancreatic allograft	Procedure	CPT-4
48556	Removal of transplanted pancreatic allograft	Procedure	CPT-4
50.51	Auxiliary liver transplant	Procedure	ICD-9-CM
50.59	Other transplant of liver	Procedure	ICD-9-CM
50360	Renal allotransplantation, implantation of graft; without recipient nephrectomy	Procedure	CPT-4
50365	Renal allotransplantation, implantation of graft; with recipient nephrectomy	Procedure	CPT-4
50370	Removal of transplanted renal allograft	Procedure	CPT-4

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Code	Description	Code Category	Code Type
52.80	Pancreatic transplant, not otherwise specified	Procedure	ICD-9-CM
52.82	Homotransplant of pancreas	Procedure	ICD-9-CM
52.83	Heterotransplant of pancreas	Procedure	ICD-9-CM
52.85	Allotransplantation of cells of islets of Langerhans	Procedure	ICD-9-CM
52.86	Transplantation of cells of islets of Langerhans, not otherwise specified	Procedure	ICD-9-CM
55.69	Other kidney transplantation	Procedure	ICD-9-CM
76776	Ultrasound, transplanted kidney, real time and duplex Doppler with image documentation	Procedure	CPT-4
76778	Ultrasound, transplanted kidney, B-scan and/or real time with image documentation, with or without duplex Doppler study	Procedure	CPT-4
996.80	Complications of transplanted organ, unspecified site	Diagnosis	ICD-9-CM
996.81	Complications of transplanted kidney	Diagnosis	ICD-9-CM
996.82	Complications of transplanted liver	Diagnosis	ICD-9-CM
996.83	Complications of transplanted heart	Diagnosis	ICD-9-CM
996.84	Complications of transplanted lung	Diagnosis	ICD-9-CM
996.85	Complications of bone marrow transplant	Diagnosis	ICD-9-CM
996.87	Complications of transplanted organ, intestine	Diagnosis	ICD-9-CM
996.88	Complications of transplanted organ, stem cell	Diagnosis	ICD-9-CM
996.89	Complications of other transplanted organ	Diagnosis	ICD-9-CM
BT29	Computerized Tomography (CT Scan) / Kidney Transplant	Procedure	ICD-10-PCS
BT2900Z	Computerized Tomography (CT Scan) of Kidney Transplant using High Osmolar Contrast, Unenhanced and Enhanced	Procedure	ICD-10-PCS
BT290ZZ	Computerized Tomography (CT Scan) of Kidney Transplant using High Osmolar Contrast	Procedure	ICD-10-PCS
BT2910Z	Computerized Tomography (CT Scan) of Kidney Transplant using Low Osmolar Contrast, Unenhanced and Enhanced	Procedure	ICD-10-PCS
BT291ZZ	Computerized Tomography (CT Scan) of Kidney Transplant using Low Osmolar Contrast	Procedure	ICD-10-PCS
BT29Y0Z	Computerized Tomography (CT Scan) of Kidney Transplant using Other Contrast, Unenhanced and Enhanced	Procedure	ICD-10-PCS
BT29YZZ	Computerized Tomography (CT Scan) of Kidney Transplant using Other Contrast	Procedure	ICD-10-PCS
BT29ZZZ	Computerized Tomography (CT Scan) of Kidney Transplant	Procedure	ICD-10-PCS
BT39	Magnetic Resonance Imaging (MRI) / Kidney Transplant	Procedure	ICD-10-PCS
BT39Y0Z	Magnetic Resonance Imaging (MRI) of Kidney Transplant using Other Contrast, Unenhanced and Enhanced	Procedure	ICD-10-PCS

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
BT39YZZ	Magnetic Resonance Imaging (MRI) of Kidney Transplant using Other Contrast	Procedure	ICD-10-PCS
BT39ZZZ	Magnetic Resonance Imaging (MRI) of Kidney Transplant	Procedure	ICD-10-PCS
BT49	Ultrasonography / Kidney Transplant	Procedure	ICD-10-PCS
BT49ZZZ	Ultrasonography of Kidney Transplant	Procedure	ICD-10-PCS
C80.2	Malignant neoplasm associated with transplanted organ	Diagnosis	ICD-10-CM
D47.Z1	Post-transplant lymphoproliferative disorder (PTLD)	Diagnosis	ICD-10-CM
E878.0	Surgical operation with transplant of whole organ causing abnormal patient reaction, or later complication, without mention of misadventure at time of operation	Diagnosis	ICD-9-CM
G0341	Percutaneous islet cell transplant, includes portal vein catheterization and infusion	Procedure	HCPCS
G0342	Laparoscopy for islet cell transplant, includes portal vein catheterization and infusion	Procedure	HCPCS
G0343	Laparotomy for islet cell transplant, includes portal vein catheterization and infusion	Procedure	HCPCS
G0369	Pharmacy supply fee for initial immunosuppressive drugs first month following transplant.	Procedure	HCPCS
I25.7	Atherosclerosis of coronary artery bypass graft(s) and coronary artery of transplanted heart with angina pectoris	Diagnosis	ICD-10-CM
I25.75	Atherosclerosis of native coronary artery of transplanted heart with 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
I25.76	Atherosclerosis of bypass graft of coronary artery of transplanted heart with 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
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

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
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
Q0510	Pharmacy supply fee for initial immunosuppressive drug(s), first month following transplant	Procedure	HCPCS
S2052	Transplantation of small intestine allograft (there are cpt codes available for intestinal allotransplantation - 44135 for graft from cadaver donor or 44136 for graft from living donor)	Procedure	HCPCS
S2053	Transplantation of small intestine and liver allografts	Procedure	HCPCS
S2054	Transplantation of multivisceral organs	Procedure	HCPCS
S2060	Lobar lung transplantation	Procedure	HCPCS
S2065	Simultaneous pancreas kidney transplantation	Procedure	HCPCS
S2102	Islet cell tissue transplant from pancreas; allogeneic	Procedure	HCPCS
S2142	Cord blood-derived stem-cell transplantation, allogeneic	Procedure	HCPCS
S2150	Bone marrow or blood-derived stem cells (peripheral or umbilical), allogeneic or autologous, harvesting, transplantation, and related complications; including: pheresis and cell preparation/storage; marrow ablative therapy; drugs, supplies, hospitalization with outpatient follow-up; medical/surgical, diagnostic, emergency, and rehabilitative services; and the number of days of pre- and posttransplant care in the global definition	Procedure	HCPCS
T86	Complications of transplanted organs and tissue	Diagnosis	ICD-10-CM
T86.0	Complications of bone marrow transplant	Diagnosis	ICD-10-CM
T86.00	Unspecified complication of bone marrow transplant	Diagnosis	ICD-10-CM
T86.01	Bone marrow transplant rejection	Diagnosis	ICD-10-CM
T86.02	Bone marrow transplant failure	Diagnosis	ICD-10-CM
T86.03	Bone marrow transplant infection	Diagnosis	ICD-10-CM
T86.09	Other complications of bone marrow transplant	Diagnosis	ICD-10-CM
T86.1	Complications of kidney transplant	Diagnosis	ICD-10-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
T86.2	Complications of heart transplant	Diagnosis	ICD-10-CM
T86.20	Unspecified complication of heart transplant	Diagnosis	ICD-10-CM
T86.21	Heart transplant rejection	Diagnosis	ICD-10-CM
T86.22	Heart transplant failure	Diagnosis	ICD-10-CM
T86.23	Heart transplant infection	Diagnosis	ICD-10-CM
T86.29	Other complications of heart transplant	Diagnosis	ICD-10-CM
T86.290	Cardiac allograft vasculopathy	Diagnosis	ICD-10-CM
T86.298	Other complications of heart transplant	Diagnosis	ICD-10-CM
T86.3	Complications of heart-lung transplant	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
T86.30	Unspecified complication of heart-lung transplant	Diagnosis	ICD-10-CM
T86.31	Heart-lung transplant rejection	Diagnosis	ICD-10-CM
T86.32	Heart-lung transplant failure	Diagnosis	ICD-10-CM
T86.33	Heart-lung transplant infection	Diagnosis	ICD-10-CM
T86.39	Other complications of heart-lung transplant	Diagnosis	ICD-10-CM
T86.4	Complications of liver transplant	Diagnosis	ICD-10-CM
T86.40	Unspecified complication of liver transplant	Diagnosis	ICD-10-CM
T86.41	Liver transplant rejection	Diagnosis	ICD-10-CM
T86.42	Liver transplant failure	Diagnosis	ICD-10-CM
T86.43	Liver transplant infection	Diagnosis	ICD-10-CM
T86.49	Other complications of liver transplant	Diagnosis	ICD-10-CM
T86.5	Complications of stem cell transplant	Diagnosis	ICD-10-CM
T86.8	Complications of other transplanted organs and tissues	Diagnosis	ICD-10-CM
T86.81	Complications of lung transplant	Diagnosis	ICD-10-CM
T86.810	Lung transplant rejection	Diagnosis	ICD-10-CM
T86.811	Lung transplant failure	Diagnosis	ICD-10-CM
T86.812	Lung transplant infection	Diagnosis	ICD-10-CM
T86.818	Other complications of lung transplant	Diagnosis	ICD-10-CM
T86.819	Unspecified complication of lung transplant	Diagnosis	ICD-10-CM
T86.838	Other complications of bone graft	Diagnosis	ICD-10-CM
T86.839	Unspecified complication of bone graft	Diagnosis	ICD-10-CM
T86.85	Complication of intestine transplant	Diagnosis	ICD-10-CM
T86.850	Intestine transplant rejection	Diagnosis	ICD-10-CM
T86.851	Intestine transplant failure	Diagnosis	ICD-10-CM
T86.852	Intestine transplant infection	Diagnosis	ICD-10-CM
T86.858	Other complications of intestine transplant	Diagnosis	ICD-10-CM
T86.859	Unspecified complication of intestine transplant	Diagnosis	ICD-10-CM
T86.9	Complication of unspecified transplanted organ and tissue	Diagnosis	ICD-10-CM
T86.90	Unspecified complication of unspecified transplanted organ and tissue	Diagnosis	ICD-10-CM
T86.91	Unspecified transplanted organ and tissue rejection	Diagnosis	ICD-10-CM
T86.92	Unspecified transplanted organ and tissue failure	Diagnosis	ICD-10-CM
T86.93	Unspecified transplanted organ and tissue infection	Diagnosis	ICD-10-CM
T86.99	Other complications of unspecified transplanted organ and tissue	Diagnosis	ICD-10-CM
V42.0	Kidney replaced by transplant	Diagnosis	ICD-9-CM
V42.1	Heart replaced by transplant	Diagnosis	ICD-9-CM
V42.4	Bone replaced by transplant	Diagnosis	ICD-9-CM
V42.6	Lung replaced by transplant	Diagnosis	ICD-9-CM
V42.7	Liver replaced by transplant	Diagnosis	ICD-9-CM
V42.81	Bone marrow replaced by transplant	Diagnosis	ICD-9-CM
V42.82	Peripheral stem cells replaced by transplant	Diagnosis	ICD-9-CM
V42.83	Pancreas replaced by transplant	Diagnosis	ICD-9-CM
V42.84	Organ or tissue replaced by transplant, intestines	Diagnosis	ICD-9-CM
V42.89	Other organ or tissue replaced by transplant	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
V42.9	Unspecified organ or tissue replaced by transplant	Diagnosis	ICD-9-CM
V45.87	Transplanted organ removal status	Diagnosis	ICD-9-CM
V58.44	Aftercare following organ transplant	Diagnosis	ICD-9-CM
Y83.0	Surgical operation with transplant of whole organ as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure	Diagnosis	ICD-10-CM
Z48.2	Encounter for aftercare following organ transplant	Diagnosis	ICD-10-CM
Z48.21	Encounter for aftercare following heart transplant	Diagnosis	ICD-10-CM
Z48.22	Encounter for aftercare following kidney transplant	Diagnosis	ICD-10-CM
Z48.23	Encounter for aftercare following liver transplant	Diagnosis	ICD-10-CM
Z48.24	Encounter for aftercare following lung transplant	Diagnosis	ICD-10-CM
Z48.28	Encounter for aftercare following multiple organ transplant	Diagnosis	ICD-10-CM
Z48.280	Encounter for aftercare following heart-lung transplant	Diagnosis	ICD-10-CM
Z48.288	Encounter for aftercare following multiple organ transplant	Diagnosis	ICD-10-CM
Z48.29	Encounter for aftercare following other organ transplant	Diagnosis	ICD-10-CM
Z48.290	Encounter for aftercare following bone marrow transplant	Diagnosis	ICD-10-CM
Z48.298	Encounter for aftercare following other organ transplant	Diagnosis	ICD-10-CM
Z94.0	Kidney transplant status	Diagnosis	ICD-10-CM
Z94.1	Heart transplant status	Diagnosis	ICD-10-CM
Z94.2	Lung transplant status	Diagnosis	ICD-10-CM
Z94.3	Heart and lungs transplant status	Diagnosis	ICD-10-CM
Z94.4	Liver transplant status	Diagnosis	ICD-10-CM
Z94.6	Bone transplant status	Diagnosis	ICD-10-CM
Z94.8	Other transplanted organ and tissue status	Diagnosis	ICD-10-CM
Z94.81	Bone marrow transplant status	Diagnosis	ICD-10-CM
Z94.82	Intestine transplant status	Diagnosis	ICD-10-CM
Z94.83	Pancreas transplant status	Diagnosis	ICD-10-CM
Z94.84	Stem cells transplant status	Diagnosis	ICD-10-CM
Z98.85	Transplanted organ removal status	Diagnosis	ICD-10-CM
Serious Infection or COVID-19			
A01.01	Typhoid meningitis	Diagnosis	ICD-10-CM
A01.03	Typhoid pneumonia	Diagnosis	ICD-10-CM
A01.05	Typhoid osteomyelitis	Diagnosis	ICD-10-CM
A02.1	Salmonella sepsis	Diagnosis	ICD-10-CM
A02.21	Salmonella meningitis	Diagnosis	ICD-10-CM
A02.22	Salmonella pneumonia	Diagnosis	ICD-10-CM
A02.24	Salmonella osteomyelitis	Diagnosis	ICD-10-CM
A04.8	Other specified bacterial intestinal infections	Diagnosis	ICD-10-CM
A04.9	Bacterial intestinal infection, unspecified	Diagnosis	ICD-10-CM
A17.0	Tuberculous meningitis	Diagnosis	ICD-10-CM
A20.2	Pneumonic plague	Diagnosis	ICD-10-CM
A20.3	Plague meningitis	Diagnosis	ICD-10-CM
A21.2	Pulmonary tularemia	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
A27.81	Aseptic meningitis in leptospirosis	Diagnosis	ICD-10-CM
A31.0	Pulmonary mycobacterial infection	Diagnosis	ICD-10-CM
A31.1	Cutaneous mycobacterial infection	Diagnosis	ICD-10-CM
A32.11	Listerial meningitis	Diagnosis	ICD-10-CM
A32.7	Listerial sepsis	Diagnosis	ICD-10-CM
A32.82	Listerial endocarditis	Diagnosis	ICD-10-CM
A36.3	Cutaneous diphtheria	Diagnosis	ICD-10-CM
A37.01	Whooping cough due to Bordetella pertussis with pneumonia	Diagnosis	ICD-10-CM
A37.11	Whooping cough due to Bordetella parapertussis with pneumonia	Diagnosis	ICD-10-CM
A37.81	Whooping cough due to other Bordetella species with pneumonia	Diagnosis	ICD-10-CM
A37.91	Whooping cough, unspecified species with pneumonia	Diagnosis	ICD-10-CM
A39.0	Meningococcal meningitis	Diagnosis	ICD-10-CM
A39.2	Acute meningococcemia	Diagnosis	ICD-10-CM
A39.4	Meningococcemia, unspecified	Diagnosis	ICD-10-CM
A39.51	Meningococcal endocarditis	Diagnosis	ICD-10-CM
A40.0	Sepsis due to streptococcus, group A	Diagnosis	ICD-10-CM
A40.1	Sepsis due to streptococcus, group B	Diagnosis	ICD-10-CM
A40.3	Sepsis due to Streptococcus pneumoniae	Diagnosis	ICD-10-CM
A40.8	Other streptococcal sepsis	Diagnosis	ICD-10-CM
A40.9	Streptococcal sepsis, unspecified	Diagnosis	ICD-10-CM
A41.01	Sepsis due to Methicillin susceptible Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.02	Sepsis due to Methicillin resistant Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.1	Sepsis due to other specified staphylococcus	Diagnosis	ICD-10-CM
A41.2	Sepsis due to unspecified staphylococcus	Diagnosis	ICD-10-CM
A41.3	Sepsis due to Hemophilus influenzae	Diagnosis	ICD-10-CM
A41.4	Sepsis due to anaerobes	Diagnosis	ICD-10-CM
A41.50	Gram-negative sepsis, unspecified	Diagnosis	ICD-10-CM
A41.51	Sepsis due to Escherichia coli [E. coli]	Diagnosis	ICD-10-CM
A41.52	Sepsis due to Pseudomonas	Diagnosis	ICD-10-CM
A41.53	Sepsis due to Serratia	Diagnosis	ICD-10-CM
A41.59	Other Gram-negative sepsis	Diagnosis	ICD-10-CM
A41.81	Sepsis due to Enterococcus	Diagnosis	ICD-10-CM
A41.89	Other specified sepsis	Diagnosis	ICD-10-CM
A41.9	Sepsis, unspecified organism	Diagnosis	ICD-10-CM
A42.7	Actinomycotic sepsis	Diagnosis	ICD-10-CM
A42.81	Actinomycotic meningitis	Diagnosis	ICD-10-CM
A43.0	Pulmonary nocardiosis	Diagnosis	ICD-10-CM
A43.1	Cutaneous nocardiosis	Diagnosis	ICD-10-CM
A46	Erysipelas	Diagnosis	ICD-10-CM
A48.0	Gas gangrene	Diagnosis	ICD-10-CM
A48.1	Legionnaires' disease	Diagnosis	ICD-10-CM
A54.86	Gonococcal sepsis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
A69.21	Meningitis due to Lyme disease	Diagnosis	ICD-10-CM
A74.81	Chlamydial peritonitis	Diagnosis	ICD-10-CM
A87.0	Enteroviral meningitis	Diagnosis	ICD-10-CM
A87.1	Adenoviral meningitis	Diagnosis	ICD-10-CM
A87.2	Lymphocytic choriomeningitis	Diagnosis	ICD-10-CM
A87.8	Other viral meningitis	Diagnosis	ICD-10-CM
A87.9	Viral meningitis, unspecified	Diagnosis	ICD-10-CM
B00.3	Herpesviral meningitis	Diagnosis	ICD-10-CM
B01.0	Varicella meningitis	Diagnosis	ICD-10-CM
B01.2	Varicella pneumonia	Diagnosis	ICD-10-CM
B02.1	Zoster meningitis	Diagnosis	ICD-10-CM
B05.1	Measles complicated by meningitis	Diagnosis	ICD-10-CM
B05.2	Measles complicated by pneumonia	Diagnosis	ICD-10-CM
B06.02	Rubella meningitis	Diagnosis	ICD-10-CM
B06.81	Rubella pneumonia	Diagnosis	ICD-10-CM
B25.0	Cytomegaloviral pneumonitis	Diagnosis	ICD-10-CM
B26.1	Mumps meningitis	Diagnosis	ICD-10-CM
B27.02	Gammaherpesviral mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.12	Cytomegaloviral mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.82	Other infectious mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.92	Infectious mononucleosis, unspecified with meningitis	Diagnosis	ICD-10-CM
B33.21	Viral endocarditis	Diagnosis	ICD-10-CM
B37.1	Pulmonary candidiasis	Diagnosis	ICD-10-CM
B37.5	Candidal meningitis	Diagnosis	ICD-10-CM
B37.6	Candidal endocarditis	Diagnosis	ICD-10-CM
B37.7	Candidal sepsis	Diagnosis	ICD-10-CM
B38.0	Acute pulmonary coccidioidomycosis	Diagnosis	ICD-10-CM
B38.2	Pulmonary coccidioidomycosis, unspecified	Diagnosis	ICD-10-CM
B38.4	Coccidioidomycosis meningitis	Diagnosis	ICD-10-CM
B39.0	Acute pulmonary histoplasmosis capsulati	Diagnosis	ICD-10-CM
B39.2	Pulmonary histoplasmosis capsulati, unspecified	Diagnosis	ICD-10-CM
B45.1	Cerebral cryptococcosis	Diagnosis	ICD-10-CM
B57.41	Meningitis in Chagas' disease	Diagnosis	ICD-10-CM
B58.3	Pulmonary toxoplasmosis	Diagnosis	ICD-10-CM
B59	Pneumocystosis	Diagnosis	ICD-10-CM
B77.81	Ascariasis pneumonia	Diagnosis	ICD-10-CM
D73.3	Abscess of spleen	Diagnosis	ICD-10-CM
G00.0	Hemophilus meningitis	Diagnosis	ICD-10-CM
G00.1	Pneumococcal meningitis	Diagnosis	ICD-10-CM
G00.2	Streptococcal meningitis	Diagnosis	ICD-10-CM
G00.3	Staphylococcal meningitis	Diagnosis	ICD-10-CM
G00.8	Other bacterial meningitis	Diagnosis	ICD-10-CM
G00.9	Bacterial meningitis, unspecified	Diagnosis	ICD-10-CM
G01	Meningitis in bacterial diseases classified elsewhere	Diagnosis	ICD-10-CM
G02	Meningitis in other infectious and parasitic diseases classified elsewhere	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
G03.8	Meningitis due to other specified causes	Diagnosis	ICD-10-CM
G03.9	Meningitis, unspecified	Diagnosis	ICD-10-CM
H00.031	Abscess of right upper eyelid	Diagnosis	ICD-10-CM
H00.032	Abscess of right lower eyelid	Diagnosis	ICD-10-CM
H00.033	Abscess of eyelid right eye, unspecified eyelid	Diagnosis	ICD-10-CM
H00.034	Abscess of left upper eyelid	Diagnosis	ICD-10-CM
H00.035	Abscess of left lower eyelid	Diagnosis	ICD-10-CM
H00.036	Abscess of eyelid left eye, unspecified eyelid	Diagnosis	ICD-10-CM
H00.039	Abscess of eyelid unspecified eye, unspecified eyelid	Diagnosis	ICD-10-CM
H05.011	Cellulitis of right orbit	Diagnosis	ICD-10-CM
H05.012	Cellulitis of left orbit	Diagnosis	ICD-10-CM
H05.013	Cellulitis of bilateral orbits	Diagnosis	ICD-10-CM
H05.019	Cellulitis of unspecified orbit	Diagnosis	ICD-10-CM
H05.021	Osteomyelitis of right orbit	Diagnosis	ICD-10-CM
H05.022	Osteomyelitis of left orbit	Diagnosis	ICD-10-CM
H05.023	Osteomyelitis of bilateral orbits	Diagnosis	ICD-10-CM
H05.029	Osteomyelitis of unspecified orbit	Diagnosis	ICD-10-CM
H60.00	Abscess of external ear, unspecified ear	Diagnosis	ICD-10-CM
H60.01	Abscess of right external ear	Diagnosis	ICD-10-CM
H60.02	Abscess of left external ear	Diagnosis	ICD-10-CM
H60.03	Abscess of external ear, bilateral	Diagnosis	ICD-10-CM
H60.10	Cellulitis of external ear, unspecified ear	Diagnosis	ICD-10-CM
H60.11	Cellulitis of right external ear	Diagnosis	ICD-10-CM
H60.12	Cellulitis of left external ear	Diagnosis	ICD-10-CM
H60.13	Cellulitis of external ear, bilateral	Diagnosis	ICD-10-CM
I33.0	Acute and subacute infective endocarditis	Diagnosis	ICD-10-CM
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.268	Atherosclerosis of native arteries of extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.269	Atherosclerosis of native arteries of extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I73.01	Raynaud's syndrome with gangrene	Diagnosis	ICD-10-CM
I76	Septic arterial embolism	Diagnosis	ICD-10-CM
I96	Gangrene, not elsewhere classified	Diagnosis	ICD-10-CM
J10.00	Influenza due to other identified influenza virus with unspecified type of pneumonia	Diagnosis	ICD-10-CM
J10.08	Influenza due to other identified influenza virus with other specified pneumonia	Diagnosis	ICD-10-CM
J11.00	Influenza due to unidentified influenza virus with unspecified type of pneumonia	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
J11.08	Influenza due to unidentified influenza virus with specified pneumonia	Diagnosis	ICD-10-CM
J12.0	Adenoviral pneumonia	Diagnosis	ICD-10-CM
J12.1	Respiratory syncytial virus pneumonia	Diagnosis	ICD-10-CM
J12.2	Parainfluenza virus pneumonia	Diagnosis	ICD-10-CM
J12.3	Human metapneumovirus pneumonia	Diagnosis	ICD-10-CM
J12.81	Pneumonia due to SARS-associated coronavirus	Diagnosis	ICD-10-CM
J12.89	Other viral pneumonia	Diagnosis	ICD-10-CM
J12.9	Viral pneumonia, unspecified	Diagnosis	ICD-10-CM
J13	Pneumonia due to Streptococcus pneumoniae	Diagnosis	ICD-10-CM
J14	Pneumonia due to Hemophilus influenzae	Diagnosis	ICD-10-CM
J15.0	Pneumonia due to Klebsiella pneumoniae	Diagnosis	ICD-10-CM
J15.1	Pneumonia due to Pseudomonas	Diagnosis	ICD-10-CM
J15.20	Pneumonia due to staphylococcus, unspecified	Diagnosis	ICD-10-CM
J15.211	Pneumonia due to Methicillin susceptible Staphylococcus aureus	Diagnosis	ICD-10-CM
J15.212	Pneumonia due to Methicillin resistant Staphylococcus aureus	Diagnosis	ICD-10-CM
J15.29	Pneumonia due to other staphylococcus	Diagnosis	ICD-10-CM
J15.3	Pneumonia due to streptococcus, group B	Diagnosis	ICD-10-CM
J15.4	Pneumonia due to other streptococci	Diagnosis	ICD-10-CM
J15.5	Pneumonia due to Escherichia coli	Diagnosis	ICD-10-CM
J15.6	Pneumonia due to other Gram-negative bacteria	Diagnosis	ICD-10-CM
J15.7	Pneumonia due to Mycoplasma pneumoniae	Diagnosis	ICD-10-CM
J15.8	Pneumonia due to other specified bacteria	Diagnosis	ICD-10-CM
J15.9	Unspecified bacterial pneumonia	Diagnosis	ICD-10-CM
J16.0	Chlamydial pneumonia	Diagnosis	ICD-10-CM
J16.8	Pneumonia due to other specified infectious organisms	Diagnosis	ICD-10-CM
J17	Pneumonia in diseases classified elsewhere	Diagnosis	ICD-10-CM
J18.0	Bronchopneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.1	Lobar pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.8	Other pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.9	Pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J34.0	Abscess, furuncle and carbuncle of nose	Diagnosis	ICD-10-CM
J85.0	Gangrene and necrosis of lung	Diagnosis	ICD-10-CM
J85.1	Abscess of lung with pneumonia	Diagnosis	ICD-10-CM
K12.2	Cellulitis and abscess of mouth	Diagnosis	ICD-10-CM
K35.2	Acute appendicitis with generalized peritonitis	Diagnosis	ICD-10-CM
K35.3	Acute appendicitis with localized peritonitis	Diagnosis	ICD-10-CM
K35.80	Unspecified acute appendicitis	Diagnosis	ICD-10-CM
K35.89	Other acute appendicitis	Diagnosis	ICD-10-CM
K36	Other appendicitis	Diagnosis	ICD-10-CM
K37	Unspecified appendicitis	Diagnosis	ICD-10-CM
K38.9	Disease of appendix, unspecified	Diagnosis	ICD-10-CM
K55.30	Necrotizing enterocolitis, unspecified	Diagnosis	ICD-10-CM
K55.31	Stage 1 necrotizing enterocolitis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K55.32	Stage 2 necrotizing enterocolitis	Diagnosis	ICD-10-CM
K55.33	Stage 3 necrotizing enterocolitis	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
K57.12	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
K57.32	Diverticulitis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
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
K57.52	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
K57.92	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
K61.0	Anal abscess	Diagnosis	ICD-10-CM
K61.1	Rectal abscess	Diagnosis	ICD-10-CM
K61.2	Anorectal abscess	Diagnosis	ICD-10-CM
K61.3	Ischiorectal abscess	Diagnosis	ICD-10-CM
K63.0	Abscess of intestine	Diagnosis	ICD-10-CM
K65.0	Generalized (acute) peritonitis	Diagnosis	ICD-10-CM
K65.1	Peritoneal abscess	Diagnosis	ICD-10-CM
K65.2	Spontaneous bacterial peritonitis	Diagnosis	ICD-10-CM
K65.3	Choleperitonitis	Diagnosis	ICD-10-CM
K65.8	Other peritonitis	Diagnosis	ICD-10-CM
K65.9	Peritonitis, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K68.19	Other retroperitoneal abscess	Diagnosis	ICD-10-CM
K75.0	Abscess of liver	Diagnosis	ICD-10-CM
K81.0	Acute cholecystitis	Diagnosis	ICD-10-CM
K81.2	Acute cholecystitis with chronic cholecystitis	Diagnosis	ICD-10-CM
K81.9	Cholecystitis, unspecified	Diagnosis	ICD-10-CM
K85.0	Idiopathic acute pancreatitis	Diagnosis	ICD-10-CM
K85.00	Idiopathic acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.01	Idiopathic acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.02	Idiopathic acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.1	Biliary acute pancreatitis	Diagnosis	ICD-10-CM
K85.10	Biliary acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.11	Biliary acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.12	Biliary acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.3	Drug induced acute pancreatitis	Diagnosis	ICD-10-CM
K85.30	Drug induced acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.31	Drug induced acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.32	Drug induced acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.8	Other acute pancreatitis	Diagnosis	ICD-10-CM
K85.80	Other acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.81	Other acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.82	Other acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.9	Acute pancreatitis, unspecified	Diagnosis	ICD-10-CM
K85.90	Acute pancreatitis without necrosis or infection, unspecified	Diagnosis	ICD-10-CM
K85.91	Acute pancreatitis with uninfected necrosis, unspecified	Diagnosis	ICD-10-CM
K85.92	Acute pancreatitis with infected necrosis, unspecified	Diagnosis	ICD-10-CM
L01.00	Impetigo, unspecified	Diagnosis	ICD-10-CM
L01.01	Non-bullous impetigo	Diagnosis	ICD-10-CM
L01.02	Bockhart's impetigo	Diagnosis	ICD-10-CM
L01.03	Bullous impetigo	Diagnosis	ICD-10-CM
L01.09	Other impetigo	Diagnosis	ICD-10-CM
L01.1	Impetiginization of other dermatoses	Diagnosis	ICD-10-CM
L02.01	Cutaneous abscess of face	Diagnosis	ICD-10-CM
L02.02	Furuncle of face	Diagnosis	ICD-10-CM
L02.03	Carbuncle of face	Diagnosis	ICD-10-CM
L02.11	Cutaneous abscess of neck	Diagnosis	ICD-10-CM
L02.12	Furuncle of neck	Diagnosis	ICD-10-CM
L02.13	Carbuncle of neck	Diagnosis	ICD-10-CM
L02.211	Cutaneous abscess of abdominal wall	Diagnosis	ICD-10-CM
L02.212	Cutaneous abscess of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.213	Cutaneous abscess of chest wall	Diagnosis	ICD-10-CM
L02.214	Cutaneous abscess of groin	Diagnosis	ICD-10-CM
L02.215	Cutaneous abscess of perineum	Diagnosis	ICD-10-CM
L02.216	Cutaneous abscess of umbilicus	Diagnosis	ICD-10-CM
L02.219	Cutaneous abscess of trunk, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L02.221	Furuncle of abdominal wall	Diagnosis	ICD-10-CM
L02.222	Furuncle of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.223	Furuncle of chest wall	Diagnosis	ICD-10-CM
L02.224	Furuncle of groin	Diagnosis	ICD-10-CM
L02.225	Furuncle of perineum	Diagnosis	ICD-10-CM
L02.226	Furuncle of umbilicus	Diagnosis	ICD-10-CM
L02.229	Furuncle of trunk, unspecified	Diagnosis	ICD-10-CM
L02.231	Carbuncle of abdominal wall	Diagnosis	ICD-10-CM
L02.232	Carbuncle of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.233	Carbuncle of chest wall	Diagnosis	ICD-10-CM
L02.234	Carbuncle of groin	Diagnosis	ICD-10-CM
L02.235	Carbuncle of perineum	Diagnosis	ICD-10-CM
L02.236	Carbuncle of umbilicus	Diagnosis	ICD-10-CM
L02.239	Carbuncle of trunk, unspecified	Diagnosis	ICD-10-CM
L02.31	Cutaneous abscess of buttock	Diagnosis	ICD-10-CM
L02.32	Furuncle of buttock	Diagnosis	ICD-10-CM
L02.33	Carbuncle of buttock	Diagnosis	ICD-10-CM
L02.411	Cutaneous abscess of right axilla	Diagnosis	ICD-10-CM
L02.412	Cutaneous abscess of left axilla	Diagnosis	ICD-10-CM
L02.413	Cutaneous abscess of right upper limb	Diagnosis	ICD-10-CM
L02.414	Cutaneous abscess of left upper limb	Diagnosis	ICD-10-CM
L02.415	Cutaneous abscess of right lower limb	Diagnosis	ICD-10-CM
L02.416	Cutaneous abscess of left lower limb	Diagnosis	ICD-10-CM
L02.419	Cutaneous abscess of limb, unspecified	Diagnosis	ICD-10-CM
L02.421	Furuncle of right axilla	Diagnosis	ICD-10-CM
L02.422	Furuncle of left axilla	Diagnosis	ICD-10-CM
L02.423	Furuncle of right upper limb	Diagnosis	ICD-10-CM
L02.424	Furuncle of left upper limb	Diagnosis	ICD-10-CM
L02.425	Furuncle of right lower limb	Diagnosis	ICD-10-CM
L02.426	Furuncle of left lower limb	Diagnosis	ICD-10-CM
L02.429	Furuncle of limb, unspecified	Diagnosis	ICD-10-CM
L02.431	Carbuncle of right axilla	Diagnosis	ICD-10-CM
L02.432	Carbuncle of left axilla	Diagnosis	ICD-10-CM
L02.433	Carbuncle of right upper limb	Diagnosis	ICD-10-CM
L02.434	Carbuncle of left upper limb	Diagnosis	ICD-10-CM
L02.435	Carbuncle of right lower limb	Diagnosis	ICD-10-CM
L02.436	Carbuncle of left lower limb	Diagnosis	ICD-10-CM
L02.439	Carbuncle of limb, unspecified	Diagnosis	ICD-10-CM
L02.511	Cutaneous abscess of right hand	Diagnosis	ICD-10-CM
L02.512	Cutaneous abscess of left hand	Diagnosis	ICD-10-CM
L02.519	Cutaneous abscess of unspecified hand	Diagnosis	ICD-10-CM
L02.521	Furuncle right hand	Diagnosis	ICD-10-CM
L02.522	Furuncle left hand	Diagnosis	ICD-10-CM
L02.529	Furuncle unspecified hand	Diagnosis	ICD-10-CM
L02.531	Carbuncle of right hand	Diagnosis	ICD-10-CM
L02.532	Carbuncle of left hand	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
L02.539	Carbuncle of unspecified hand	Diagnosis	ICD-10-CM
L02.611	Cutaneous abscess of right foot	Diagnosis	ICD-10-CM
L02.612	Cutaneous abscess of left foot	Diagnosis	ICD-10-CM
L02.619	Cutaneous abscess of unspecified foot	Diagnosis	ICD-10-CM
L02.621	Furuncle of right foot	Diagnosis	ICD-10-CM
L02.622	Furuncle of left foot	Diagnosis	ICD-10-CM
L02.629	Furuncle of unspecified foot	Diagnosis	ICD-10-CM
L02.631	Carbuncle of right foot	Diagnosis	ICD-10-CM
L02.632	Carbuncle of left foot	Diagnosis	ICD-10-CM
L02.639	Carbuncle of unspecified foot	Diagnosis	ICD-10-CM
L02.811	Cutaneous abscess of head [any part, except face]	Diagnosis	ICD-10-CM
L02.818	Cutaneous abscess of other sites	Diagnosis	ICD-10-CM
L02.821	Furuncle of head [any part, except face]	Diagnosis	ICD-10-CM
L02.828	Furuncle of other sites	Diagnosis	ICD-10-CM
L02.831	Carbuncle of head [any part, except face]	Diagnosis	ICD-10-CM
L02.838	Carbuncle of other sites	Diagnosis	ICD-10-CM
L02.91	Cutaneous abscess, unspecified	Diagnosis	ICD-10-CM
L02.92	Furuncle, unspecified	Diagnosis	ICD-10-CM
L02.93	Carbuncle, unspecified	Diagnosis	ICD-10-CM
L03.011	Cellulitis of right finger	Diagnosis	ICD-10-CM
L03.012	Cellulitis of left finger	Diagnosis	ICD-10-CM
L03.019	Cellulitis of unspecified finger	Diagnosis	ICD-10-CM
L03.031	Cellulitis of right toe	Diagnosis	ICD-10-CM
L03.032	Cellulitis of left toe	Diagnosis	ICD-10-CM
L03.039	Cellulitis of unspecified toe	Diagnosis	ICD-10-CM
L03.111	Cellulitis of right axilla	Diagnosis	ICD-10-CM
L03.112	Cellulitis of left axilla	Diagnosis	ICD-10-CM
L03.113	Cellulitis of right upper limb	Diagnosis	ICD-10-CM
L03.114	Cellulitis of left upper limb	Diagnosis	ICD-10-CM
L03.115	Cellulitis of right lower limb	Diagnosis	ICD-10-CM
L03.116	Cellulitis of left lower limb	Diagnosis	ICD-10-CM
L03.119	Cellulitis of unspecified part of limb	Diagnosis	ICD-10-CM
L03.211	Cellulitis of face	Diagnosis	ICD-10-CM
L03.213	Periorbital cellulitis	Diagnosis	ICD-10-CM
L03.221	Cellulitis of neck	Diagnosis	ICD-10-CM
L03.311	Cellulitis of abdominal wall	Diagnosis	ICD-10-CM
L03.312	Cellulitis of back [any part except buttock]	Diagnosis	ICD-10-CM
L03.313	Cellulitis of chest wall	Diagnosis	ICD-10-CM
L03.314	Cellulitis of groin	Diagnosis	ICD-10-CM
L03.315	Cellulitis of perineum	Diagnosis	ICD-10-CM
L03.316	Cellulitis of umbilicus	Diagnosis	ICD-10-CM
L03.317	Cellulitis of buttock	Diagnosis	ICD-10-CM
L03.319	Cellulitis of trunk, unspecified	Diagnosis	ICD-10-CM
L03.811	Cellulitis of head [any part, except face]	Diagnosis	ICD-10-CM
L03.818	Cellulitis of other sites	Diagnosis	ICD-10-CM
L03.90	Cellulitis, unspecified	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
L05.01	Pilonidal cyst with abscess	Diagnosis	ICD-10-CM
L05.02	Pilonidal sinus with abscess	Diagnosis	ICD-10-CM
L05.91	Pilonidal cyst without abscess	Diagnosis	ICD-10-CM
L05.92	Pilonidal sinus without abscess	Diagnosis	ICD-10-CM
L08.89	Other specified local infections of the skin and subcutaneous tissue	Diagnosis	ICD-10-CM
L08.9	Local infection of the skin and subcutaneous tissue, unspecified	Diagnosis	ICD-10-CM
M46.20	Osteomyelitis of vertebra, site unspecified	Diagnosis	ICD-10-CM
M46.21	Osteomyelitis of vertebra, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M46.22	Osteomyelitis of vertebra, cervical region	Diagnosis	ICD-10-CM
M46.23	Osteomyelitis of vertebra, cervicothoracic region	Diagnosis	ICD-10-CM
M46.24	Osteomyelitis of vertebra, thoracic region	Diagnosis	ICD-10-CM
M46.25	Osteomyelitis of vertebra, thoracolumbar region	Diagnosis	ICD-10-CM
M46.26	Osteomyelitis of vertebra, lumbar region	Diagnosis	ICD-10-CM
M46.27	Osteomyelitis of vertebra, lumbosacral region	Diagnosis	ICD-10-CM
M46.28	Osteomyelitis of vertebra, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M72.6	Necrotizing fasciitis	Diagnosis	ICD-10-CM
M86.00	Acute hematogenous osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.011	Acute hematogenous osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.012	Acute hematogenous osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.019	Acute hematogenous osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.021	Acute hematogenous osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.022	Acute hematogenous osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.029	Acute hematogenous osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.031	Acute hematogenous osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.032	Acute hematogenous osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.039	Acute hematogenous osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.041	Acute hematogenous osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.042	Acute hematogenous osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.049	Acute hematogenous osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.051	Acute hematogenous osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.052	Acute hematogenous osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.059	Acute hematogenous osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.061	Acute hematogenous osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.062	Acute hematogenous osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.069	Acute hematogenous osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.071	Acute hematogenous osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.072	Acute hematogenous osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.079	Acute hematogenous osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.08	Acute hematogenous osteomyelitis, other sites	Diagnosis	ICD-10-CM
M86.09	Acute hematogenous osteomyelitis, multiple sites	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M86.10	Other acute osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.111	Other acute osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.112	Other acute osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.119	Other acute osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.121	Other acute osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.122	Other acute osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.129	Other acute osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.131	Other acute osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.132	Other acute osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.139	Other acute osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.141	Other acute osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.142	Other acute osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.149	Other acute osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.151	Other acute osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.152	Other acute osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.159	Other acute osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.161	Other acute osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.162	Other acute osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.169	Other acute osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.171	Other acute osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.172	Other acute osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.179	Other acute osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.18	Other acute osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.19	Other acute osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.20	Subacute osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.211	Subacute osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.212	Subacute osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.219	Subacute osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.221	Subacute osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.222	Subacute osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.229	Subacute osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.231	Subacute osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.232	Subacute osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.239	Subacute osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.241	Subacute osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.242	Subacute osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.249	Subacute osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.251	Subacute osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.252	Subacute osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.259	Subacute osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.261	Subacute osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.262	Subacute osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.269	Subacute osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.271	Subacute osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.272	Subacute osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.279	Subacute osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM

Appendix S. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
M86.28	Subacute osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.29	Subacute osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.8X0	Other osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.8X1	Other osteomyelitis, shoulder	Diagnosis	ICD-10-CM
M86.8X2	Other osteomyelitis, upper arm	Diagnosis	ICD-10-CM
M86.8X3	Other osteomyelitis, forearm	Diagnosis	ICD-10-CM
M86.8X4	Other osteomyelitis, hand	Diagnosis	ICD-10-CM
M86.8X5	Other osteomyelitis, thigh	Diagnosis	ICD-10-CM
M86.8X6	Other osteomyelitis, lower leg	Diagnosis	ICD-10-CM
M86.8X7	Other osteomyelitis, ankle and foot	Diagnosis	ICD-10-CM
M86.8X8	Other osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.8X9	Other osteomyelitis, unspecified sites	Diagnosis	ICD-10-CM
M86.9	Osteomyelitis, unspecified	Diagnosis	ICD-10-CM
N10	Acute pyelonephritis	Diagnosis	ICD-10-CM
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N48.21	Abscess of corpus cavernosum and penis	Diagnosis	ICD-10-CM
N48.22	Cellulitis of corpus cavernosum and penis	Diagnosis	ICD-10-CM
N61.1	Abscess of the breast and nipple	Diagnosis	ICD-10-CM
N73.0	Acute parametritis and pelvic cellulitis	Diagnosis	ICD-10-CM
N73.2	Unspecified parametritis and pelvic cellulitis	Diagnosis	ICD-10-CM
R65.20	Severe sepsis without septic shock	Diagnosis	ICD-10-CM
R65.21	Severe sepsis with septic shock	Diagnosis	ICD-10-CM
R78.81	Bacteremia	Diagnosis	ICD-10-CM
U07.1	COVID-19, virus identified [code effective April 1, 2020]	Diagnosis	ICD-10-CM

Appendix T. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Exposure Censoring Criteria in this Request

Non-proprietary Name	Proprietary Name
Certolizumab	
certolizumab pegol	Cimzia
certolizumab pegol	Cimzia Powder for Reconst
certolizumab pegol	Cimzia Starter Kit
Golimumab	
golimumab	Simponi
golimumab	Simponi ARIA
Risankizumab	
risankizumab-rzaa	Skyrizi
Natalizumab	
natalizumab	Tysabri
Tofacitinib	
tofacitinib citrate	Xeljanz
tofacitinib citrate	Xeljanz XR
Ozanimod	
ozanimod hydrochloride	Zeposia
ozanimod hydrochloride	Zeposia Starter Kit
ozanimod hydrochloride	Zeposia Starter Pack
Upadacitinib	
upadacitinib	Rinvoq
Ustekinumab	
ustekinumab	Stelara
Infliximab	
infliximab	Remicade
infliximab-qbtx	Ifixi
infliximab	infliximab
infliximab-abda	Renflexis
infliximab-axxq	Avsola
infliximab-dyyb	Inflectra
Adalimumab	
adalimumab	Humira
adalimumab	Humira Pediatric Crohns Start
adalimumab	Humira Pen
adalimumab	Humira Pen Crohns-UC-HS Start
adalimumab	Humira Pen Psor-Uveits-Adol HS
adalimumab	Humira(CF)
adalimumab	Humira(CF) Pedi Crohns Starter
adalimumab	Humira(CF) Pen
adalimumab	Humira(CF) Pen Crohns-UC-HS
adalimumab	Humira(CF) Pen Pediatric UC
adalimumab	Humira(CF) Pen Psor-Uv-Adol HS
adalimumab-atto	AMJEVITA
Vedolizumab	
vedolizumab	Entyvio

Appendix U. List of Healthcare Common Procedure Coding System, Level II (HCPCS) Codes Used to Define Exposure Censoring Criteria in this Request

Code	Description	Code Category	Code Type
Certolizumab			
J0717	Injection, certolizumab pegol, 1 mg (code may be used for Medicare when drug administered under the direct supervision of a physician, not for use when drug is self-administered)	Procedure	HCPCS
Golimumab			
J1602	Injection, golimumab, 1 mg, for intravenous use	Procedure	HCPCS
Risankizumab			
J2327	Injection, risankizumab-rzaa, intravenous, 1 mg	Procedure	HCPCS
Natalizumab			
J2323	Injection, natalizumab, 1 mg	Procedure	HCPCS
Ustekinumab			
C9487	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
J3357	Ustekinumab, for subcutaneous injection, 1 mg	Procedure	HCPCS
J3358	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
Q9989	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
Infliximab			
J1745	Injection, infliximab, excludes biosimilar, 10 mg	Procedure	HCPCS
Q5102	Injection, infliximab, biosimilar, 10 mg	Procedure	HCPCS
Q5103	Injection, infliximab-dyyb, biosimilar, (Inflectra), 10 mg	Procedure	HCPCS
Q5104	Injection, infliximab-abda, biosimilar, (Renflexis), 10 mg	Procedure	HCPCS
Q5109	Injection, infliximab-qbtx, biosimilar, (Ixifi), 10 mg	Procedure	HCPCS
Q5121	Injection, infliximab-axxq, biosimilar, (AVSOLA), 10 mg	Procedure	HCPCS
Adalimumab			
J0135	Injection, adalimumab, 20 mg	Procedure	HCPCS
Vedolizumab			
C9026	Injection, vedolizumab, 1 mg	Procedure	HCPCS
J3380	Injection, vedolizumab, 1 mg	Procedure	HCPCS

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
Infliximab	
infliximab	Remicade
infliximab-qbtx	Ifixi
infliximab	infliximab
infliximab-abda	Renflexis
infliximab-axxq	Avsola
infliximab-dyyb	Inflectra
Adalimumab	
adalimumab	Humira
adalimumab	Humira Pediatric Crohns Start
adalimumab	Humira Pen
adalimumab	Humira Pen Crohns-UC-HS Start
adalimumab	Humira Pen Psor-Uveits-Adol HS
adalimumab	Humira(CF)
adalimumab	Humira(CF) Pedi Crohns Starter
adalimumab	Humira(CF) Pen
adalimumab	Humira(CF) Pen Crohns-UC-HS
adalimumab	Humira(CF) Pen Pediatric UC
adalimumab	Humira(CF) Pen Psor-Uv-Adol HS
adalimumab-atto	AMJEVITA
Vedolizumab	
vedolizumab	Entyvio
Certolizumab	
certolizumab pegol	Cimzia
certolizumab pegol	Cimzia Powder for Reconst
certolizumab pegol	Cimzia Starter Kit
Golimumab	
golimumab	Simponi
golimumab	Simponi ARIA
Risankizumab	
risankizumab-rzaa	Skyrizi
Natalizumab	
natalizumab	Tysabri
Tofacitinib	
tofacitinib citrate	Xeljanz
tofacitinib citrate	Xeljanz XR
Ozanimod	
ozanimod hydrochloride	Zeposia
ozanimod hydrochloride	Zeposia Starter Kit
ozanimod hydrochloride	Zeposia Starter Pack
Upadacitinib	
upadacitinib	Rinvoq
Ustekinumab	
ustekinumab	Stelara
Aminosaliclates	
balsalazide disodium	Colazal
balsalazide disodium	Giazo
balsalazide disodium	balsalazide
mesalamine	Apriso

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
mesalamine	Asacol HD
mesalamine	Canasa
mesalamine	Delzicol
mesalamine	Lialda
mesalamine	Pentasa
mesalamine	Rowasa
mesalamine	mesalamine
mesalamine	sfRowasa
mesalamine with cleansing wipes	Rowasa
mesalamine with cleansing wipes	mesalamine with cleansing wipe
olsalazine sodium	Dipentum
sulfasalazine	Azulfidine
sulfasalazine	Azulfidine EN-tabs
sulfasalazine	Sulfazine
sulfasalazine	sulfasalazine
Immunomodulators	
azathioprine	Azasan
azathioprine	Imuran
azathioprine	azathioprine
azathioprine sodium	azathioprine sodium
cyclosporine	Sandimmune
cyclosporine	cyclosporine
cyclosporine, modified	Gengraf
cyclosporine, modified	Neoral
cyclosporine, modified	cyclosporine modified
mercaptopurine	Purixan
mercaptopurine	mercaptopurine
methotrexate	Xatmep
methotrexate sodium	Rheumatrex
methotrexate sodium	Trexall
methotrexate sodium	methotrexate sodium
methotrexate sodium/PF	methotrexate sodium (PF)
methotrexate/PF	Otrexup (PF)
methotrexate/PF	Rasuvo (PF)
methotrexate/PF	RediTrex (PF)
tacrolimus	Astagraf XL
tacrolimus	Envarsus XR
tacrolimus	Prograf
tacrolimus	tacrolimus
thioguanine	Tabloid
Corticosteroids Intravenous	
dexamethasone sodium phosphate in 0.9 % sodium chloride	dexamethasone-0.9 % sod. chlor
methylprednisolone sodium succinate	Solu-Medrol
methylprednisolone sodium succinate	methylprednisolone sodium succ
methylprednisolone sodium succinate/PF	Solu-Medrol (PF)
Corticosteroids Oral	
budesonide	Tarpeyo
cortisone acetate	cortisone

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
deflazacort	Emflaza
dexamethasone	Decadron
dexamethasone	DexPak 10 day
dexamethasone	DexPak 13 Day
dexamethasone	DexPak 6 Day
dexamethasone	Dexabliss
dexamethasone	Dexamethasone Intensol
dexamethasone	Dxevo
dexamethasone	Hemady
dexamethasone	HiDex
dexamethasone	LoCort
dexamethasone	TaperDex
dexamethasone	ZCort
dexamethasone	ZoDex
dexamethasone	ZonaCort
dexamethasone	dexamethasone
fludrocortisone acetate	fludrocortisone
hydrocortisone	Alkindi Sprinkle
hydrocortisone	Cortef
hydrocortisone	hydrocortisone
methylprednisolone	Medrol
methylprednisolone	Medrol (Pak)
methylprednisolone	Methylpred DP
methylprednisolone	methylprednisolone
prednisolone	Millipred
prednisolone	Millipred DP
prednisolone	prednisolone
prednisolone acetate	Flo-Pred
prednisolone sodium phosphate	Millipred
prednisolone sodium phosphate	Orapred ODT
prednisolone sodium phosphate	Pediapred
prednisolone sodium phosphate	Veripred 20
prednisolone sodium phosphate	prednisolone sodium phosphate
prednisone	Deltasone
prednisone	Prednisone Intensol
prednisone	Rayos
prednisone	prednisone
Corticosteroids Rectal	
budesonide	Uceris
hydrocortisone	Colocort
hydrocortisone	Cortenema
hydrocortisone	hydrocortisone
hydrocortisone acetate	Anucort-HC
hydrocortisone acetate	Anusol-HC
hydrocortisone acetate	Cortifoam
hydrocortisone acetate	GRx HiCort 25
hydrocortisone acetate	Hemmorex-HC
hydrocortisone acetate	Proctocort
hydrocortisone acetate	hydrocortisone acetate

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
Antibiotics	
<p>NYSTATIN/TETRACYCLINE</p> <p>HCL/HYDROCORTISONE/DIPHENHYDRAMINE HCL</p> <p>amikacin sulfate</p> <p>amikacin sulfate liposomal with nebulizer accessories</p> <p>aminosalicylic acid</p> <p>amoxicillin</p> <p>amoxicillin</p> <p>amoxicillin/potassium clavulanate</p> <p>amoxicillin/potassium clavulanate</p> <p>amoxicillin/potassium clavulanate</p> <p>amoxicillin/potassium clavulanate</p> <p>ampicillin sodium</p> <p>ampicillin sodium/sulbactam sodium</p> <p>ampicillin sodium/sulbactam sodium</p> <p>ampicillin trihydrate</p> <p>azithromycin</p> <p>azithromycin</p> <p>azithromycin</p> <p>azithromycin</p> <p>azithromycin</p> <p>azithromycin</p> <p>azithromycin</p> <p>azithromycin/chondroitin sulfate A sodium/PF</p> <p>aztreonam</p> <p>aztreonam</p> <p>aztreonam lysine</p> <p>aztreonam/dextrose-water</p> <p>bacitracin</p> <p>bacitracin</p> <p>bacitracin</p> <p>bacitracin zinc</p> <p>bacitracin zinc/polymyxin B sulfate</p> <p>bacitracin/polymyxin B sulfate</p> <p>bedaquiline fumarate</p> <p>besifloxacin HCl</p> <p>bismuth subsalicylate/metronidazole/tetracycline HCl</p> <p>bleomycin sulfate</p> <p>bleomycin sulfate</p> <p>capreomycin sulfate</p> <p>cefaclor</p> <p>cefadroxil</p> <p>cefazolin sodium</p> <p>cefazolin sodium in 0.9 % sodium chloride</p> <p>cefazolin sodium/dextrose 5 % in water</p> <p>cefazolin sodium/dextrose, iso-osmotic</p> <p>cefazolin sodium/water for injection,sterile</p>	<p>FIRST-Mary's Mouthwash</p> <p>amikacin</p> <p>Arikayce</p> <p>Paser</p> <p>Moxatag</p> <p>amoxicillin</p> <p>Augmentin</p> <p>Augmentin ES-600</p> <p>Augmentin XR</p> <p>amoxicillin-pot clavulanate</p> <p>ampicillin sodium</p> <p>Unasyn</p> <p>ampicillin-sulbactam</p> <p>ampicillin</p> <p>AzaSite</p> <p>Zithromax</p> <p>Zithromax TRI-PAK</p> <p>Zithromax Z-Pak</p> <p>Zmax</p> <p>azithromycin</p> <p>Klarity-A (azithro-chondr)(PF)</p> <p>Azactam</p> <p>aztreonam</p> <p>Cayston</p> <p>Azactam in dextrose (iso-osm)</p> <p>BACiiM</p> <p>Baciguent</p> <p>bacitracin</p> <p>Antibiotic (bacitracin zinc)</p> <p>Double Antibiotic (b.tracrn Zn)</p> <p>Double Antibiotic</p> <p>Sirturo</p> <p>Besivance</p> <p>Helidac</p> <p>Bleo 15K</p> <p>bleomycin</p> <p>Capastat</p> <p>cefaclor</p> <p>cefadroxil</p> <p>cefazolin</p> <p>cefazolin in 0.9% sod chloride</p> <p>cefazolin in dextrose 5 %</p> <p>cefazolin in dextrose (iso-os)</p> <p>cefazolin in sterile water</p>

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
cefdinir	cefdinir
cefditoren pivoxil	Spectracef
cefditoren pivoxil	cefditoren pivoxil
cefepime HCl	Maxipime
cefepime HCl	cefepime
cefepime HCl in dextrose 5 % in water	cefepime in dextrose 5 %
cefepime HCl in iso-osmotic dextrose	cefepime in dextrose,iso-osm
cefiderocol sulfate tosylate	Fetroja
cefixime	Suprax
cefixime	cefixime
cefotaxime sodium	Claforan
cefotaxime sodium	cefotaxime
cefotaxime sodium/dextrose, iso-osmotic	Claforan in dextrose(iso-osm)
cefotetan disodium	Cefotan
cefotetan disodium	cefotetan
cefotetan disodium in iso-osmotic dextrose	cefotetan in dextrose, iso-osm
cefoxitin sodium	cefoxitin
cefoxitin sodium/dextrose, iso-osmotic	cefoxitin in dextrose, iso-osm
cefpodoxime proxitil	cefpodoxime
cefprozil	cefprozil
ceftaroline fosamil acetate	Teflaro
ceftazidime	Fortaz
ceftazidime	Tazicef
ceftazidime	ceftazidime
ceftazidime in dextrose 5% and water	ceftazidime in D5W
ceftazidime sodium in iso-osmotic dextrose	Fortaz in dextrose 5 %
ceftazidime/avibactam sodium	Avycaz
ceftibuten	Cedax
ceftibuten	ceftibuten
ceftolozane sulfate/tazobactam sodium	Zerbaxa
ceftriaxone sodium	Rocephin
ceftriaxone sodium	ceftriaxone
ceftriaxone sodium in iso-osmotic dextrose	ceftriaxone in dextrose,iso-os
cefuroxime axetil	Ceftin
cefuroxime axetil	cefuroxime axetil
cefuroxime sodium	Zinacef
cefuroxime sodium	cefuroxime sodium
cefuroxime sodium in 0.9 % sodium chloride/PF	cefuroxime (PF) in 0.9% NaCl
cefuroxime sodium/water for injection,sterile	Zinacef in Sterile Water
cephalexin	Daxbia
cephalexin	Keflex
cephalexin	cephalexin
chloramphenicol sod succinate	chloramphenicol sod succinate
ciprofloxacin	Cipro
ciprofloxacin	ciprofloxacin
ciprofloxacin HCl	Ciloxan
ciprofloxacin HCl	Cipro
ciprofloxacin HCl	ciprofloxacin HCl
ciprofloxacin lactate	ciprofloxacin lactate

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
ciprofloxacin lactate/dextrose 5 % in water	Cipro in D5W
ciprofloxacin lactate/dextrose 5 % in water	ciprofloxacin in 5 % dextrose
ciprofloxacin/ciprofloxacin HCl	Cipro XR
ciprofloxacin/ciprofloxacin HCl	ciprofloxacin (mixture)
clarithromycin	Biaxin
clarithromycin	clarithromycin
clindamycin HCl	Cleocin HCl
clindamycin HCl	clindamycin HCl
clindamycin palmitate HCl	Cleocin Pediatric
clindamycin palmitate HCl	Clindamycin Pediatric
clindamycin palmitate HCl	clindamycin palmitate HCl
clindamycin phosphate	Cleocin
clindamycin phosphate	Clin Single Use
clindamycin phosphate	clindamycin phosphate
clindamycin phosphate in 0.9 % sodium chloride	clindamycin in 0.9 % sod chlor
clindamycin phosphate/dextrose 5 % in water	Cleocin in 5 % dextrose
clindamycin phosphate/dextrose 5 % in water	clindamycin in 5 % dextrose
colistin (as colistimethate sodium)	Coly-Mycin M Parenteral
colistin (as colistimethate sodium)	colistin (colistimethate Na)
colloidal bismuth subcitrate/metronidazole/tetracycline HCl	Pylera
cycloserine	cycloserine
dactinomycin	Cosmegen
dactinomycin	dactinomycin
dalbavancin HCl	Dalvance
dapson	dapson
daptomycin	Cubicin
daptomycin	Cubicin RF
daptomycin	daptomycin
daunorubicin/cytarabine liposomal	Vyxeos
delafloxacin meglumine	Baxdela
demeclocycline HCl	demeclocycline
dicloxacillin sodium	dicloxacillin
doripenem	Doribax
doripenem	doripenem
doxycycline calcium	Vibramycin (calcium)
doxycycline hyclate	Acticlate
doxycycline hyclate	Doryx
doxycycline hyclate	Doryx MPC
doxycycline hyclate	Doxy-100
doxycycline hyclate	LymePak
doxycycline hyclate	Morgidox
doxycycline hyclate	Soloxide
doxycycline hyclate	Targadox
doxycycline hyclate	Vibramycin
doxycycline hyclate	doxycycline hyclate

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
doxycycline monohydrate	Adoxa
doxycycline monohydrate	Avidoxy
doxycycline monohydrate	Mondoxyne NL
doxycycline monohydrate	Monodox
doxycycline monohydrate	Okebo
doxycycline monohydrate	Oracea
doxycycline monohydrate	Vibramycin (mono)
doxycycline monohydrate	doxycycline monohydrate
eravacycline di-hydrochloride	Xerava
ertapenem sodium	Invanz
ertapenem sodium	ertapenem
erythromycin base	Ery-Tab
erythromycin base	Ilotycin
erythromycin base	PCE
erythromycin base	erythromycin
erythromycin ethylsuccinate	E.E.S. 200
erythromycin ethylsuccinate	E.E.S. 400
erythromycin ethylsuccinate	E.E.S. Granules
erythromycin ethylsuccinate	EryPed 200
erythromycin ethylsuccinate	EryPed 400
erythromycin ethylsuccinate	erythromycin ethylsuccinate
erythromycin lactobionate	Erythrocin
erythromycin lactobionate	erythromycin lactobionate
erythromycin stearate	Erythrocin (as stearate)
erythromycin stearate	erythromycin stearate
ethambutol HCl	Myambutol
ethambutol HCl	ethambutol
ethionamide	Trecator
fidaxomicin	Difcid
fosfomicin tromethamine	Monurol
fosfomicin tromethamine	fosfomicin tromethamine
gatifloxacin	Zymaxid
gatifloxacin	gatifloxacin
gemifloxacin mesylate	Factive
gentamicin sulfate	Gentak
gentamicin sulfate	gentamicin
gentamicin sulfate in sodium chloride, iso-osmotic	gentamicin in NaCl (iso-osm)
gentamicin sulfate/PF	gentamicin sulfate (PF)
gentamicin sulfate/PF	gentamicin sulfate (ped) (PF)
gentamicin sulfate/sodium citrate	gentamicin-sodium citrate
imipenem/cilastatin sodium	Primaxin IV
imipenem/cilastatin sodium	imipenem-cilastatin
imipenem/cilastatin sodium/relebactam	Recarbrio
isoniazid	isoniazid
lansoprazole/amoxicillin trihydrate/clarithromycin	Prevpac
lansoprazole/amoxicillin trihydrate/clarithromycin	amoxicil-clarithromy-lansopraz

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
lefamulin acetate	Xenleta
levofloxacin	Levaquin
levofloxacin	levofloxacin
levofloxacin/dextrose 5 % in water	Levaquin in 5 % dextrose
levofloxacin/dextrose 5 % in water	levofloxacin in D5W
lincomycin HCl	Lincocin
lincomycin HCl	lincomycin
linezolid	Zyvox
linezolid	linezolid
linezolid in 0.9 % sodium chloride	linezolid-0.9% sodium chloride
linezolid in dextrose 5 % in water	Zyvox
linezolid in dextrose 5 % in water	linezolid in dextrose 5%
meropenem	Merrem
meropenem	meropenem
meropenem in 0.9 % sodium chloride	meropenem-0.9% sodium chloride
meropenem/vaborbactam	Vabomere
metronidazole	Flagyl
metronidazole	metronidazole
metronidazole in sodium chloride	Metro I.V.
metronidazole in sodium chloride	metronidazole in NaCl (iso-os)
minocycline HCl	CoreMino
minocycline HCl	Minocin
minocycline HCl	Minolira ER
minocycline HCl	Solodyn
minocycline HCl	Ximino
minocycline HCl	minocycline
mitomycin	Jelmyto
mitomycin	Mutamycin
mitomycin	mitomycin
moxifloxacin HCl	Avelox
moxifloxacin HCl	Avelox ABC Pack
moxifloxacin HCl	Moxeza
moxifloxacin HCl	Vigamox
moxifloxacin HCl	moxifloxacin
moxifloxacin HCl in balanced salt solution no.2/PF	moxifloxacin (PF)-BSS
moxifloxacin HCl in sodium acetate and sulfate,water,iso-osm	moxifloxacin-sod.ace,sul-water
moxifloxacin HCl in sodium chloride, iso-osmotic	Avelox in NaCl (iso-osmotic)
moxifloxacin HCl in sodium chloride, iso-osmotic	moxifloxacin-sod.chloride(iso)
moxifloxacin HCl in sodium chloride,iso-osmotic/PF	moxifloxacin-sod chlor,iso(PF)
mupirocin calcium	Bactroban Nasal
nafcillin in dextrose, iso-osmotic	nafcillin in dextrose iso-osm
nafcillin sodium	nafcillin
neomycin sulf/bacitracin zinc/polymyxin B sulf/pramoxine HCl	Antibiotic-Pain Relief (bacit)

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
neomycin sulf/bacitracin zinc/polymyxin B sulf/pramoxine HCl	First Aid Antibiotic-Pain Rlf
neomycin sulf/bacitracin zinc/polymyxin B sulf/pramoxine HCl	Triple Antibiotic (pram) Extra
neomycin sulf/bacitracin zinc/polymyxin B sulf/pramoxine HCl	Triple Antibiotic Plus
neomycin sulf/bacitracin zinc/polymyxin B sulf/pramoxine HCl neomycin sulfate neomycin sulfate/bacitracin zinc/polymyxin B neomycin sulfate/bacitracin zinc/polymyxin B neomycin sulfate/bacitracin zinc/polymyxin B	Triple Antibiotic-Pain Relief neomycin Antibiotic (neomy-bacit-polym) First Aid Antibiotic Triple Antibiotic
neomycin sulfate/bacitracin zinc/polymyxin B sulfate	Triple Antibiotic Spray
neomycin sulfate/polymyxin B sulfate/pramoxine	Antibiotic Plus (pramoxine)
neomycin sulfate/polymyxin B sulfate/pramoxine	Antibiotic Plus Pain Rel(pram)
neomycin sulfate/polymyxin B sulfate/pramoxine	Double Antibiotic-Pain Relief
neomycin sulfate/polymyxin B sulfate/pramoxine nitrofurantoin nitrofurantoin nitrofurantoin macrocrystal nitrofurantoin macrocrystal nitrofurantoin monohydrate/macrocrystals nitrofurantoin monohydrate/macrocrystals ofloxacin ofloxacin omadacycline tosylate omadacycline tosylate omadacycline tosylate	Multi Antibiotic Plus Furadantin nitrofurantoin Macrodantin nitrofurantoin macrocrystal Macrobid nitrofurantoin monohyd/m-cryst Ocuflox ofloxacin Nuzyra Nuzyra (7 Day with Load Dose) Nuzyra (7 Day)
omeprazole magnesium/amoxicillin trihydrate/rifabutin	Talicia
omeprazole/clarithromycin/amoxicillin trihydrate oritavancin diphosphate oritavancin diphosphate oxacillin sodium oxacillin sodium in iso-osmotic dextrose penicillin G benzathine penicillin G benzathine/penicillin G procaine penicillin G potassium penicillin G potassium penicillin G potassium/dextrose-water penicillin G procaine penicillin G sodium penicillin V potassium	Omeclamox-Pak Kimyrsa Orbactiv oxacillin oxacillin in dextrose(iso-osm) Bicillin L-A Bicillin C-R Pfizerpen-G penicillin G potassium penicillin G pot in dextrose penicillin G procaine penicillin G sodium penicillin V potassium

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
piperacillin and tazobactam in dextrose, iso-osmotic	Zosyn in dextrose (iso-osm)
piperacillin sodium/tazobactam sodium	Zosyn
piperacillin sodium/tazobactam sodium	piperacillin-tazobactam
plazomicin sulfate	Zemdri
polymyxin B sulfate	polymyxin B sulfate
pretomanid	pretomanid
pyrazinamide	pyrazinamide
quinupristin/dalfopristin	Synercid
rifabutin	Mycobutin
rifabutin	rifabutin
rifampin	Rifadin
rifampin	rifampin
rifampin/isoniazid	Rifamate
rifampin/isoniazid/pyrazinamide	Rifater
rifamycin sodium	Aemcolo
rifapentine	Priftin
rifaximin	Xifaxan
sarecycline HCl	Seysara
secnidazole	Solosec
streptomycin sulfate	streptomycin
streptozocin	Zanosar
sulfacetamide sodium	Bleph-10
sulfacetamide sodium	sulfacetamide sodium
sulfadiazine	sulfadiazine
sulfamethoxazole/trimethoprim	Bactrim
sulfamethoxazole/trimethoprim	Bactrim DS
sulfamethoxazole/trimethoprim	Sulfatrim
sulfamethoxazole/trimethoprim	sulfamethoxazole-trimethoprim
tedizolid phosphate	Sivextro
telavancin HCl	Vibativ
telithromycin	Ketek
tetracycline HCl	tetracycline
thalidomide	Thalomid
tigecycline	Tygacil
tigecycline	tigecycline
tinidazole	Tindamax
tinidazole	tinidazole
tobramycin	Bethkis
tobramycin	Tobi Podhaler
tobramycin	Tobrex
tobramycin	tobramycin
tobramycin in 0.225 % sodium chloride	Tobi
tobramycin in 0.225 % sodium chloride	tobramycin in 0.225 % NaCl
tobramycin sulfate	tobramycin sulfate
tobramycin sulfate/sodium chloride	tobramycin in 0.9 % NaCl
tobramycin sulfate/vancomycin HCl	tobramycin-vancomycin
tobramycin/nebulizer	Kitabis Pak
tobramycin/nebulizer	tobramycin with nebulizer
trimethoprim	Primsol

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
trimethoprim	Trimpex
trimethoprim	trimethoprim
vancomycin HCL/balanced salt solution no.2/PF	vancomycin (PF)-BSS
vancomycin HCl	Firvanq
vancomycin HCl	Vancocin
vancomycin HCl	vancomycin
vancomycin HCl in sterile water	vancomycin HCl in water
vancomycin HCl in water for injection (PEG-400, NADA)	vancomycin-diluent combo no.1
vancomycin in 0.9 % sodium chloride	vancomycin in 0.9 % sodium chl
vancomycin in 5 % dextrose in water	vancomycin in dextrose 5 %
vonoprazan fumarate/amoxicillin trihydrate	Voquezna Dual Pak
vonoprazan fumarate/amoxicillin trihydrate/clarithromycin	Voquezna Triple Pak
Antivirals	
abacavir sulfat	Ziagen
abacavir sulfat	abacavir
abacavir sulfat/dolutegravir sodium/lamivudine	Triumeq
abacavir sulfat/dolutegravir sodium/lamivudine	Triumeq PD
abacavir sulfat/lamivudine	Epzicom
abacavir sulfat/lamivudine	abacavir-lamivudine
abacavir sulfat/lamivudine/zidovudine	Trizivir
abacavir sulfat/lamivudine/zidovudine	abacavir-lamivudine-zidovudine
acyclovir	Sitavig
acyclovir	Zovirax
acyclovir	acyclovir
acyclovir sodium	acyclovir sodium
acyclovir sodium in 0.9 % sodium chloride	acyclovir in 0.9 % sodium chl
acyclovir sodium/dextrose 5 % in water	acyclovir sod in dextrose 5 %
adefovir dipivoxil	Hepsera
adefovir dipivoxil	adefovir
atazanavir sulfat	Reyataz
atazanavir sulfat	atazanavir
atazanavir sulfat/cobicistat	Evotaz
baloxavir marboxil	Xofluza
bictegravir sodium/emtricitabine/tenofovir alafenamide fumar	Biktarvy
brincidofovir	Tembexa
cabotegravir	Apretude
cabotegravir	cabotegravir
cabotegravir sodium	Vocabria
cabotegravir/rilpivirine	Cabenuva
cidofovir	Vistide
cidofovir	cidofovir
daclatasvir dihydrochloride	Daklinza

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
darunavir eth/cobicistat/emtricitabine/tenofovir alafenamide	Symtuza
darunavir ethanolate	Prezista
darunavir ethanolate/cobicistat	Prezcobix
delavirdine mesylate	Rescriptor
didanosine	Videx 2 gram Pediatric
didanosine	Videx 4 gram Pediatric
didanosine	Videx EC
didanosine	didanosine
dolutegravir sodium	Tivicay
dolutegravir sodium	Tivicay PD
dolutegravir sodium/lamivudine	Dovato
dolutegravir sodium/rilpivirine HCl	Juluca
doravirine	Pifeltro
doravirine/lamivudine/tenofovir disoproxil fumarate	Delstrigo
efavirenz	Sustiva
efavirenz	efavirenz
efavirenz/emtricitabine/tenofovir disoproxil fumarate	Atripla
efavirenz/emtricitabine/tenofovir disoproxil fumarate	efavirenz-emtricitabin-tenofov
efavirenz/lamivudine/tenofovir disoproxil fumarate	Symfi
efavirenz/lamivudine/tenofovir disoproxil fumarate	Symfi Lo
efavirenz/lamivudine/tenofovir disoproxil fumarate	efavirenz-lamivu-tenofov disop
elbasvir/grazoprevir	Zepatier
elvitegravir	Vitekta
elvitegravir/cobicistat/emtricitabine/tenofovir alafenamide	Genvoya
elvitegravir/cobicistat/emtricitabine/tenofovir disoproxil fumarate	Stribild
emtricitabine	Emtriva
emtricitabine	emtricitabine
emtricitabine/rilpivirine HCl/tenofovir alafenamide fumarate	Odefsey
emtricitabine/rilpivirine HCl/tenofovir disoproxil fumarate	Complera
emtricitabine/tenofovir alafenamide fumarate	Descovy
emtricitabine/tenofovir disoproxil fumarate	Truvada
emtricitabine/tenofovir disoproxil fumarate	emtricitabine-tenofovir (TDF)
enfuvirtide	Fuzeon
entecavir	Baraclude
entecavir	entecavir
etravirine	Intelence
etravirine	etravirine

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
famciclovir	Famvir
famciclovir	famciclovir
fosamprenavir calcium	Lexiva
fosamprenavir calcium	fosamprenavir
foscarnet sodium	Foscavir
foscarnet sodium	foscarnet
fostemsavir tromethamine	Rukobia
ganciclovir	ganciclovir
ganciclovir sodium	Cytovene
ganciclovir sodium	ganciclovir sodium
glecaprevir/pibrentasvir	Mavyret
ibalizumab-uiyk	Trogarzo
indinavir sulfate	Crixivan
lamivudine	Epivir
lamivudine	Epivir HBV
lamivudine	lamivudine
lamivudine/tenofovir disoproxil fumarate	Cimduo
lamivudine/tenofovir disoproxil fumarate	Temixys
lamivudine/zidovudine	Combivir
lamivudine/zidovudine	lamivudine-zidovudine
ledipasvir/sofosbuvir	Harvoni
ledipasvir/sofosbuvir	ledipasvir-sofosbuvir
lenacapavir sodium	Sunlenca
letermovir	Prevymis
lopinavir/ritonavir	Kaletra
lopinavir/ritonavir	lopinavir-ritonavir
maraviroc	Selzentry
maraviroc	maraviroc
maribavir	Livtency
molnupiravir	Lagevrio (EUA)
nelfinavir mesylate	Viracept
nevirapine	Viramune
nevirapine	Viramune XR
nevirapine	nevirapine
nirmatrelvir/ritonavir	Paxlovid (EUA)
ombitasvir/paritaprevir/ritonavir	Technivie
ombitasvir/paritaprevir/ritonavir/dasabuvir sodium	Viekira Pak
ombitasvir/paritaprevir/ritonavir/dasabuvir sodium	Viekira XR
oseltamivir phosphate	Tamiflu
oseltamivir phosphate	oseltamivir
peginterferon alfa-2a	Pegasys
peginterferon alfa-2a	Pegasys ProClick
peginterferon alfa-2b	PegIntron
peginterferon alfa-2b	PegIntron Redipen
peramivir/PF	Rapivab (PF)
raltegravir potassium	Isentress
raltegravir potassium	Isentress HD
remdesivir	Veklury

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
remdesivir	remdesivir
ribavirin	Copegus
ribavirin	Moderiba
ribavirin	Moderiba Dose Pack
ribavirin	RIBATAB Dose Pack
ribavirin	Rebetol
ribavirin	Ribasphere
ribavirin	Ribasphere RibaPak
ribavirin	Virazole
ribavirin	ribavirin
rilpivirine	rilpivirine
rilpivirine HCl	Edurant
rimantadine HCl	Flumadine
rimantadine HCl	rimantadine
ritonavir	Norvir
ritonavir	ritonavir
saquinavir mesylate	Invirase
simeprevir sodium	Olysio
sofosbuvir	Sovaldi
sofosbuvir/velpatasvir	Epclusa
sofosbuvir/velpatasvir	sofosbuvir-velpatasvir
sofosbuvir/velpatasvir/voxilaprevir	Vosevi
stavudine	Zerit
stavudine	stavudine
tecovirimat	Tpoxx (National Stockpile)
telbivudine	Tyzeka
tenofovir alafenamide	Vemlidy
tenofovir disoproxil fumarate	Viread
tenofovir disoproxil fumarate	tenofovir disoproxil fumarate
tipranavir	Aptivus
tipranavir/vitamin E TPGS	Aptivus (with vitamin E)
valacyclovir HCl	Valtrex
valacyclovir HCl	valacyclovir
valganciclovir HCl	Valcyte
valganciclovir HCl	valganciclovir
zanamivir	Relenza Diskhaler
zidovudine	Retrovir
zidovudine	zidovudine
Anticoagulants	
apixaban	Eliquis
apixaban	Eliquis DVT-PE Treat 30D Start
argatroban	argatroban
argatroban in 0.9 % sodium chloride	argatroban in 0.9 % sod chlor
argatroban in sodium chloride, iso-osmotic	argatroban in NaCL (iso-os)
betrixaban maleate	Bevyxxa
bivalirudin	Angiomax
bivalirudin	bivalirudin
bivalirudin in 0.9 % sodium chloride	bivalirudin-0.9 % sodium chlor
dabigatran etexilate mesylate	Pradaxa
dabigatran etexilate mesylate	dabigatran etexilate

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
dalteparin sodium,porcine	Fragmin
desirudin	Iprivask
edoxaban tosylate	Savaysa
enoxaparin sodium	Lovenox
enoxaparin sodium	enoxaparin
fondaparinux sodium	Arixtra
fondaparinux sodium	fondaparinux
heparin sodium,porcine	heparin (porcine)
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 in 0.45 % sodium chloride/PF	heparin (porc)-0.45% NaCl (PF)
heparin sodium,porcine in 0.9 % sodium chloride	Heparin Flush
heparin sodium,porcine in 0.9 % sodium chloride	heparin (porcine) in 0.9% NaCl
heparin sodium,porcine in 0.9 % sodium chloride	heparin flush(porcine)-0.9NaCl
heparin sodium,porcine/PF	Hep Flush-10 (PF)
heparin sodium,porcine/PF	Heparin LockFlush(Porcine)(PF)
heparin sodium,porcine/PF	Monoject Prefill (PF)
heparin sodium,porcine/PF	heparin, porcine (PF)
heparin sodium,porcine/dextrose 5 % in water	heparin (porcine) in 5 % dex
rivaroxaban	Xarelto
rivaroxaban	Xarelto DVT-PE Treat 30d Start
warfarin sodium	Coumadin
warfarin sodium	Jantoven
warfarin sodium	warfarin
Antidiabetics	
acarbose	Precose
acarbose	acarbose
albiglutide	Tanzeum
alogliptin benzoate	Nesina
alogliptin benzoate	alogliptin
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
alogliptin benzoate/pioglitazone HCl	Oseni
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
chlorpropamide	chlorpropamide
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
dapagliflozin propanediol/saxagliptin HCl	Qtern

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
dulaglutide	Trulicity
empagliflozin	Jardiance
empagliflozin/linagliptin	Glyxambi
empagliflozin/linagliptin/metformin HCl	Trijardy XR
empagliflozin/metformin HCl	Synjardy
empagliflozin/metformin HCl	Synjardy XR
ertugliflozin pidolate	Steglatro
ertugliflozin pidolate/metformin HCl	Segluromet
ertugliflozin pidolate/sitagliptin phosphate	Steglujan
exenatide	Byetta
exenatide microspheres	Bydureon
exenatide microspheres	Bydureon BCise
glimepiride	Amaryl
glimepiride	glimepiride
glipizide	Glucotrol
glipizide	Glucotrol XL
glipizide	glipizide
glipizide/metformin HCl	glipizide-metformin
glyburide	Diabeta
glyburide	glyburide
glyburide,micronized	Glynase
glyburide,micronized	glyburide micronized
glyburide/metformin HCl	Glucovance
glyburide/metformin HCl	glyburide-metformin
insulin NPH human isophane	Humulin N NPH Insulin KwikPen
insulin NPH human isophane	Humulin N NPH U-100 Insulin
insulin NPH human isophane	Novolin N FlexPen
insulin NPH human isophane	Novolin N NPH U-100 Insulin
insulin NPH human isophane/insulin regular, human	Humulin 70/30 U-100 Insulin
insulin NPH human isophane/insulin regular, human	Humulin 70/30 U-100 KwikPen
insulin NPH human isophane/insulin regular, human	Novolin 70-30 FlexPen U-100
insulin NPH human isophane/insulin regular, human	Novolin 70/30 U-100 Insulin
insulin aspart	Novolog FlexPen U-100 Insulin
insulin aspart	Novolog PenFill U-100 Insulin
insulin aspart	Novolog U-100 Insulin aspart
insulin aspart	insulin aspart U-100
insulin aspart (niacinamide)	Fiasp FlexTouch U-100 Insulin
insulin aspart (niacinamide)	Fiasp Penfill U-100 Insulin
insulin aspart (niacinamide)	Fiasp 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 aspart protamine human/insulin aspart	insulin asp prt-insulin aspart

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
insulin degludec	Tresiba FlexTouch U-100
insulin degludec	Tresiba FlexTouch U-200
insulin degludec	Tresiba U-100 Insulin
insulin degludec	insulin degludec
insulin degludec/liraglutide	Xultophy 100/3.6
insulin detemir	Levemir FlexPen
insulin detemir	Levemir FlexTouch U-100 Insuln
insulin detemir	Levemir U-100 Insulin
insulin glargine,human recombinant analog	Basaglar KwikPen U-100 Insulin
insulin glargine,human recombinant analog	Basaglar Tempo Pen(U-100)Insln
insulin glargine,human recombinant analog	Lantus Solostar U-100 Insulin
insulin glargine,human recombinant analog	Lantus U-100 Insulin
insulin glargine,human recombinant analog	Semglee Pen U-100 Insulin
insulin glargine,human recombinant analog	Semglee U-100 Insulin
insulin glargine,human recombinant analog	Toujeo Max U-300 SoloStar
insulin glargine,human recombinant analog	Toujeo SoloStar U-300 Insulin
insulin glargine,human recombinant analog	insulin glargine
insulin glargine,human recombinant analog/lixisenatide	Soliqua 100/33
insulin glargine-yfgn	Semglee(insulin glarg-yfgn)Pen
insulin glargine-yfgn	Semglee(insulin glargine-yfgn)
insulin glargine-yfgn	insulin glargine-yfgn
insulin glulisine	Apidra SoloStar U-100 Insulin
insulin glulisine	Apidra U-100 Insulin
insulin lispro	Admelog SoloStar U-100 Insulin
insulin lispro	Admelog U-100 Insulin lispro
insulin lispro	Humalog Junior KwikPen U-100
insulin lispro	Humalog KwikPen Insulin
insulin lispro	Humalog Tempo Pen(U-100)Insuln
insulin lispro	Humalog U-100 Insulin
insulin lispro	insulin lispro
insulin lispro protamine and insulin lispro	Humalog Mix 50-50 Insuln U-100
insulin lispro protamine and insulin lispro	Humalog Mix 50-50 KwikPen
insulin lispro protamine and insulin lispro	Humalog Mix 75-25 KwikPen
insulin lispro protamine and insulin lispro	Humalog Mix 75-25(U-100)Insuln
insulin lispro protamine and insulin lispro	insulin lispro protamin-lispro
insulin lispro-aabc	Lyumjev KwikPen U-100 Insulin
insulin lispro-aabc	Lyumjev KwikPen U-200 Insulin
insulin lispro-aabc	Lyumjev Tempo Pen(U-100)Insuln
insulin lispro-aabc	Lyumjev U-100 Insulin
insulin regular, human	Afrezza
insulin regular, human	Humulin R Regular U-100 Insulin
insulin regular, human	Humulin R U-500 (Conc) Insulin
insulin regular, human	Humulin R U-500 (Conc) Kwikpen
insulin regular, human	Novolin R FlexPen
insulin regular, human	Novolin R Regular U-100 Insuln
insulin regular, human in 0.9 % sodium chloride	Myxredlin
linagliptin	Tradjenta
linagliptin/metformin HCl	Jentadueto

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
linagliptin/metformin HCl	Jentaducto XR
liraglutide	Victoza 2-Pak
liraglutide	Victoza 3-Pak
lixisenatide	Adlyxin
metformin HCl	Fortamet
metformin HCl	Glucophage
metformin HCl	Glucophage XR
metformin HCl	Glumetza
metformin HCl	Riomet
metformin HCl	Riomet ER
metformin HCl	metformin
miglitol	Glyset
miglitol	miglitol
nateglinide	Starlix
nateglinide	nateglinide
pioglitazone HCl	Actos
pioglitazone HCl	pioglitazone
pioglitazone HCl/glimepiride	DUETACT
pioglitazone HCl/glimepiride	pioglitazone-glimepiride
pioglitazone HCl/metformin HCl	Actoplus MET
pioglitazone HCl/metformin HCl	Actoplus Met XR
pioglitazone HCl/metformin HCl	pioglitazone-metformin
pramlintide acetate	SymlinPen 120
pramlintide acetate	SymlinPen 60
repaglinide	Prandin
repaglinide	repaglinide
repaglinide/metformin HCl	Prandimet
repaglinide/metformin HCl	repaglinide-metformin
rosiglitazone maleate	Avandia
rosiglitazone maleate/metformin HCl	Avandamet
saxagliptin HCl	Onglyza
saxagliptin HCl/metformin HCl	Kombiglyze XR
semaglutide	Ozempic
semaglutide	Rybelsus
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
teplizumab-mzwv	Tzield
tirzepatide	Mounjaro
tolazamide	tolazamide
tolbutamide	tolbutamide
Antihypertensives	
aliskiren hemifumarate	Tekturna
aliskiren hemifumarate	aliskiren
aliskiren hemifumarate/hydrochlorothiazide	Tekturna HCT
amlodipine besylate/benazepril HCl	Lotrel
amlodipine besylate/benazepril HCl	amlodipine-benazepril
amlodipine besylate/olmesartan medoxomil	Azor
amlodipine besylate/olmesartan medoxomil	amlodipine-olmesartan
amlodipine besylate/valsartan	Exforge

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
amlodipine besylate/valsartan	amlodipine-valsartan
amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
amlodipine besylate/valsartan/hydrochlorothiazide	amlodipine-valsartan-hcthiazid
atenolol/chlorthalidone	Tenoretic 100
atenolol/chlorthalidone	Tenoretic 50
atenolol/chlorthalidone	atenolol-chlorthalidone
azilsartan medoxomil	Edarbi
azilsartan medoxomil/chlorthalidone	Edarbyclor
benazepril HCl	Lotensin
benazepril HCl	benazepril
benazepril HCl/hydrochlorothiazide	Lotensin HCT
benazepril HCl/hydrochlorothiazide	benazepril-hydrochlorothiazide
bisoprolol fumarate/hydrochlorothiazide	Ziac
bisoprolol fumarate/hydrochlorothiazide	bisoprolol-hydrochlorothiazide
candesartan cilexetil	Atacand
candesartan cilexetil	candesartan
candesartan cilexetil/hydrochlorothiazide	Atacand HCT
candesartan cilexetil/hydrochlorothiazide	candesartan-hydrochlorothiazid
captopril	captopril
captopril/hydrochlorothiazide	captopril-hydrochlorothiazide
clonidine	Catapres-TTS-1
clonidine	Catapres-TTS-2
clonidine	Catapres-TTS-3
clonidine	clonidine
clonidine HCl	Catapres
clonidine HCl	Nexiclon XR
clonidine HCl	clonidine HCl
clonidine HCl/chlorthalidone	Clorpres
doxazosin mesylate	Cardura
doxazosin mesylate	Cardura XL
doxazosin mesylate	doxazosin
enalapril maleate	Epaned
enalapril maleate	Vasotec
enalapril maleate	enalapril maleate
enalapril maleate/hydrochlorothiazide	Vaseretic
enalapril maleate/hydrochlorothiazide	enalapril-hydrochlorothiazide
enalaprilat dihydrate	enalaprilat
eplerenone	Inspra
eplerenone	eplerenone
eprosartan mesylate	eprosartan
finerenone	Kerendia
fosinopril sodium	fosinopril
fosinopril sodium/hydrochlorothiazide	fosinopril-hydrochlorothiazide
hydralazine HCl	hydralazine
irbesartan	Avapro
irbesartan	irbesartan
irbesartan/hydrochlorothiazide	Avalide
irbesartan/hydrochlorothiazide	irbesartan-hydrochlorothiazide

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
lisinopril	Prinivil
lisinopril	Qbrelis
lisinopril	Zestril
lisinopril	lisinopril
lisinopril/hydrochlorothiazide	Zestoretic
lisinopril/hydrochlorothiazide	lisinopril-hydrochlorothiazide
losartan potassium	Cozaar
losartan potassium	losartan
losartan potassium/hydrochlorothiazide	Hyzaar
losartan potassium/hydrochlorothiazide	losartan-hydrochlorothiazide
methyl dopa	methyl dopa
methyl dopa/hydrochlorothiazide	methyl dopa-hydrochlorothiazide
methyl dopate HCl	methyl dopate
metoprolol succinate/hydrochlorothiazide	Dutoprol
metoprolol succinate/hydrochlorothiazide	metoprolol su-hydrochlorothiaz
metoprolol tartrate/hydrochlorothiazide	metoprolol ta-hydrochlorothiaz
minoxidil	minoxidil
moexipril HCl	moexipril
moexipril HCl/hydrochlorothiazide	moexipril-hydrochlorothiazide
nadolol/bendroflumethiazide	Corzide
nadolol/bendroflumethiazide	nadolol-bendroflumethiazide
nebivolol HCl/valsartan	Byvalson
olmesartan medoxomil	Benicar
olmesartan medoxomil	olmesartan
olmesartan medoxomil/amlodipine	
besylate/hydrochlorothiazide	Tribenzor
olmesartan medoxomil/amlodipine	
besylate/hydrochlorothiazide	olmesartan-amlodipin-hcthiaziid
olmesartan medoxomil/hydrochlorothiazide	Benicar HCT
olmesartan medoxomil/hydrochlorothiazide	olmesartan-hydrochlorothiazide
perindopril arginine/amlodipine besylate	Prestalia
perindopril erbumine	Aceon
perindopril erbumine	perindopril erbumine
prazosin HCl	Minipress
prazosin HCl	prazosin
propranolol HCl/hydrochlorothiazide	propranolol-hydrochlorothiazid
quinapril HCl	Accupril
quinapril HCl	quinapril
quinapril HCl/hydrochlorothiazide	Accuretic
quinapril HCl/hydrochlorothiazide	quinapril-hydrochlorothiazide
ramipril	Altace
ramipril	ramipril
sacubitril/valsartan	Entresto
spironolactone	Aldactone
spironolactone	CaroSpir
spironolactone	spironolactone
telmisartan	Micardis
telmisartan	telmisartan
telmisartan/amlodipine besylate	Twynsta
telmisartan/amlodipine besylate	telmisartan-amlodipine

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
telmisartan/hydrochlorothiazide	Micardis HCT
telmisartan/hydrochlorothiazide	telmisartan-hydrochlorothiazid
terazosin HCl	terazosin
trandolapril	Mavik
trandolapril	trandolapril
trandolapril/verapamil HCl	Tarka
trandolapril/verapamil HCl	trandolapril-verapamil
valsartan	Diovan
valsartan	valsartan
valsartan/hydrochlorothiazide	Diovan HCT
valsartan/hydrochlorothiazide	valsartan-hydrochlorothiazide

Antiplatelets

abciximab	Reopro
anagrelide HCl	Agrylin
anagrelide HCl	anagrelide
aspirin	Adult Aspirin Regimen
aspirin	Adult Low Dose Aspirin
aspirin	Aspir-81
aspirin	Aspir-Low
aspirin	Aspir-Trin
aspirin	Aspirin Childrens
aspirin	Aspirin Low-Strength
aspirin	Bayer Advanced
aspirin	Bayer Aspirin
aspirin	Bayer Chewable Aspirin
aspirin	Bayer Low Dose Aspirin
aspirin	Child Aspirin
aspirin	Children's Aspirin
aspirin	Durlaza
aspirin	E.C. Prin
aspirin	Ecotrin
aspirin	Ecotrin Low Strength
aspirin	Enteric Coated Aspirin
aspirin	Extra Strength Bayer
aspirin	Lite Coat Aspirin
aspirin	Lo-Dose Aspirin
aspirin	St Joseph Aspirin
aspirin	St. Joseph Aspirin
aspirin	Vazalore
aspirin	aspirin
aspirin/calcium carbonate	Women's Aspirin with Calcium
aspirin/dipyridamole	Aggrenox
aspirin/dipyridamole	aspirin-dipyridamole
aspirin/omeprazole	Yosprala
aspirin/omeprazole	aspirin-omeprazole
cangrelor tetrasodium	Kengreal
cilostazol	Pletal
cilostazol	cilostazol
clopidogrel bisulfate	Plavix
clopidogrel bisulfate	clopidogrel

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
dipyridamole	Persantine
dipyridamole	dipyridamole
eptifibatide	Integrilin
eptifibatide	eptifibatide
prasugrel HCl	Effient
prasugrel HCl	prasugrel
ticagrelor	Brilinta
ticlopidine HCl	ticlopidine
tirofiban HCl monohydrate	Aggrastat Concentrate
tirofiban HCl monohydrate in 0.9 % sodium chloride	Aggrastat in sodium chloride
vorapaxar sulfate	Zontivity
Lipid-Lowering Drugs	
alirocumab	Praluent Pen
alirocumab	Praluent Syringe
amlodipine besylate/atorvastatin calcium	Caduet
amlodipine besylate/atorvastatin calcium	amlodipine-atorvastatin
atorvastatin calcium	Lipitor
atorvastatin calcium	atorvastatin
bempedoic acid	Nexletol
bempedoic acid/ezetimibe	Nexlizet
chia seed oil/alpha linolenic,linoleic,oleic acid/dha	Adult Omega Plus DHA
chia seed oil/linolenic acid/linoleic acid/oleic acid	chia seed oil-omega 3-6-9
cholestyramine (with sugar)	Questran
cholestyramine (with sugar)	cholestyramine (with sugar)
cholestyramine/aspartame	Cholestyramine Light
cholestyramine/aspartame	Prevalite
cholestyramine/aspartame	Questran Light
cholestyramine/aspartame	cholestyramine-aspartame
choline bitartrate	choline bitartrate
colesevelam HCl	WeIChol
colesevelam HCl	colesevelam
colestipol HCl	Colestid
colestipol HCl	Colestid Flavored
colestipol HCl	colestipol
docosahexaenoic acid	Algal Omega-3 DHA
docosahexaenoic acid	Algal-900 DHA
docosahexaenoic acid	Atabex DHA 200
docosahexaenoic acid	DHA Algal-900
docosahexaenoic acid	Prenatal DHA
docosahexaenoic acid	docosahexaenoic acid
docosahexaenoic acid/eicosapentaenoic acid	Atabex DHA
docosahexaenoic acid/eicosapentaenoic acid	Fish Oil
evinacumab-dgnb	Evkeeza
evolocumab	Repatha Pushtronex

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
evolocumab	Repatha SureClick
evolocumab	Repatha Syringe
ezetimibe	Zetia
ezetimibe	ezetimibe
ezetimibe/atorvastatin calcium	ezetimibe-atorvastatin
ezetimibe/rosuvastatin calcium	Roszet
ezetimibe/rosuvastatin calcium	ezetimibe-rosuvastatin
ezetimibe/simvastatin	Vytorin 10-10
ezetimibe/simvastatin	Vytorin 10-20
ezetimibe/simvastatin	Vytorin 10-40
ezetimibe/simvastatin	Vytorin 10-80
ezetimibe/simvastatin	ezetimibe-simvastatin
fenofibrate	Fenoglide
fenofibrate	Lipofen
fenofibrate	Lofibra
fenofibrate	fenofibrate
fenofibrate nanocrystallized	Tricor
fenofibrate nanocrystallized	Triglide
fenofibrate nanocrystallized	fenofibrate nanocrystallized
fenofibrate,micronized	Antara
fenofibrate,micronized	Lofibra
fenofibrate,micronized	fenofibrate micronized
fenofibric acid	Fibricor
fenofibric acid	fenofibric acid
fenofibric acid (choline)	Trilipix
fenofibric acid (choline)	fenofibric acid (choline)
fish oil/borage oil/flaxseed oil/omega 3,6,9 combination no1	Omega 3-6-9
fish oil/borage oil/flaxseed oil/omega 3,6,9 combination no1	Omega 3-6-9 Complex
fish oil/borage oil/flaxseed oil/omega 3,6,9 combination no1	Triple Omega 3-6-9
fish oil/borage oil/flaxseed oil/omega 3,6,9 combination no1	fish,bora,flax oils-om3,6,9no1
fish oil/docosahexaenoic acid/eicosapentaenoic acid	fish oil-dha-epa
fish oil/flax oil/e.primrose/b.currant/bor oil/om 3,6,9 no.6	Fish, Flax andBorage Oil(Prim)
fish oil/omega-3 fatty acids/ascorbic acid/vitamin E	Coromega
fish oil/omega-3 fatty acids/vit E/folic acid/B6-B12	CardioVid PLUS
fish oil/safflower, flaxseed, borage oils/omega 3,6,9 no.2	Fish-Flax-Borage Oil
fish,flaxseed,eve primrose,blk currant,bor oils/om3,6,9 no.5	Omega 3-6-9 Fatty Acids
fish,flaxseed,eve primrose,blk currant,bor oils/om3,6,9 no.5 fluvastatin sodium	Super Omega-3 Lescol

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
fluvastatin sodium	Lescol XL
fluvastatin sodium	fluvastatin
gemfibrozil	Lopid
gemfibrozil	gemfibrozil
icosapent ethyl	Vascepa
icosapent ethyl	icosapent ethyl
inclisiran sodium	Leqvio
inositol	inositol
inositol/choline/vitamin B complex	Lipogen
krill oil	krill oil
krill oil/omega-3 fatty acids/dha/epa/phospholipids	MegaKrill
krill oil/omega-3 fatty acids/dha/epa/phospholipids	krill oil
krill oil/omega-3 fatty acids/dha/epa/phospholipids	krill-omega-3-dha-epa-lipids
krill oil/omega-3 fatty acids/dha/epa/phospholipids/astaxan	Antarctic Krill Oil
krill oil/omega-3 fatty acids/dha/epa/phospholipids/astaxan	Maximum Red Krill Omega-3
krill oil/omega-3 fatty acids/dha/epa/phospholipids/astaxan	MegaRed Omega-3 Krill Oil
krill oil/omega-3 fatty acids/dha/epa/phospholipids/astaxan	Omega-3 Krill Oil
krill oil/omega-3 fatty acids/dha/epa/phospholipids/astaxan	krill oil
krill oil/omega-3 fatty acids/dha/epa/phospholipids/astaxan	krill-om-3-dha-epa-phospho-ast
krill oil/omega-3 fatty acids/docosahexaenoic acid/epa	Fish Oil with Krill
krill oil/omega-3 fatty acids/docosahexaenoic acid/epa	krill oil-omega-3-dha-epa
krill oil/omega-3/dha/epa/omega-6/phospholipids/astaxanthin	Krill Oil (Omega 3 and 6)
lecithin	Gram-O-Leci
lecithin	lecithin
lecithin, soy	lecithin, soy
lomitapide mesylate	Juxtapid
lovastatin	Altoprev
lovastatin	lovastatin
methionine/inositol/choline/folic acid	Lipochol Plus
mipomersen sodium	Kynamro
niacin	Niacor
niacin	Niaspan Extended-Release
niacin	niacin
niacin/lovastatin	Advicor
niacin/simvastatin	Simcor
omega 3,5,6,7,9 combination no.1/salmon oil	Complete Omega

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
omega 3,6,9 combination no.7	Omega DHA
omega-3 acid ethyl esters	Lovaza
omega-3 acid ethyl esters	TriKlo
omega-3 acid ethyl esters	omega-3 acid ethyl esters
omega-3 fatty acids	Fish Oil
omega-3 fatty acids	Fish Oil Concentrate
omega-3 fatty acids	MaxEPA
omega-3 fatty acids	Super Omega-3
omega-3 fatty acids	Super Twin EPA-DHA
omega-3 fatty acids	omega-3 fatty acids
omega-3 fatty acids/dha/epa/ala/vitamin D3	omega-3-dha-epa-ala-vit D3
omega-3 fatty acids/dha/epa/cod liver oil/vit A palm/vit D3	cod liver oil
omega-3 fatty acids/dha/epa/dpa/fish oil	Omega MonoPure
omega-3 fatty acids/dha/epa/dpa/fish oil	Omega-3 (with dpa)
omega-3 fatty acids/dha/epa/dpa/fish oil	Omega-3 2100
omega-3 fatty acids/dha/epa/fish oil/Lactobacillus casei	Restora
omega-3 fatty acids/dha/epa/fish oil/krill oil	MegaRed Advanced 4-in-1
omega-3 fatty acids/dha/epa/fish oil/krill oil	omega 3-dha-epa-fish oil-krill
omega-3 fatty acids/dha/epa/fish oil/krill/lutein/zeaxanth	Megared Adv Total Body Refresh
omega-3 fatty acids/dha/epa/fish oil/krill/lutein/zeaxanth	Megared Advanced Total Body
omega-3 fatty acids/dha/epa/fish oil/vitamin D3	Fish Oil-Vit D3
omega-3 fatty acids/dha/epa/fish oil/vitamin D3	Omega-3 Plus Vitamin D3
omega-3 fatty acids/dha/epa/fish oil/vitamin D3	om-3-dha-epa-fish oil-vit D3
omega-3 fatty acids/dha/epa/other omega-3s/fish oil	Centrum ProNutrients Omega-3
omega-3 fatty acids/dha/epa/other omega-3s/fish oil	Fish Oil
omega-3 fatty acids/dha/epa/other omega-3s/fish oil	Ocean Blue Omega-3
omega-3 fatty acids/dha/epa/other omega-3s/fish oil	Omega Essentials Basic
omega-3 fatty acids/dha/epa/other omega-3s/fish oil	Omega Power
omega-3 fatty acids/dha/epa/other omega-3s/fish oil	Vascazen
omega-3 fatty acids/dha/epa/other omega-3s/fish oil	omega-3s-dha-epa-fish oil
omega-3 fatty acids/dha/epa/other omega-3s/vitamin D3	Omega-3 Plus Vitamin D3
omega-3 fatty acids/docosahexaenoic acid/epa	Ovega-3

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Coromega
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	EPA-DHA 720
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Extreme Omega-3
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Fish Oil
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Luvira
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Omega 3 Fish Oil
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Omega MonoPure DHA EC
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Omega-3
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Omega-3 Fish Oil
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	OmegaPure-600 EC
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	OmegaPure-780 EC
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	OmegaPure-820
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	OmegaPure-900 EC
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Omera
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Sea-Omega 30
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Super DHA Gems
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	TherOmega
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	TherOmega Sport
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	Ultra Omega-3
omega-3 fatty acids/docosahexaenoic acid/epa/fish oil	omega 3-dha-epa-fish oil
omega-3 fatty acids/eicosapentaenoic acid (epa)/fish oil	Omega MonoPure EPA EC
omega-3 fatty acids/fish oil	Fish Oil
omega-3 fatty acids/fish oil	Fish Oil Extra Strength
omega-3 fatty acids/fish oil	Fish Oil Pearls
omega-3 fatty acids/fish oil	Omega 3 Fish Oil
omega-3 fatty acids/fish oil	One-Per-Day Omega-3
omega-3 fatty acids/fish oil	omega-3 fatty acids-fish oil

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
omega-3/dha/epa/other omega-3s/fish oil/vitamin D3	Cardio Omega Benefits
omega-3/dha/epa/other omega-3s/fish oil/vitamin D3	Fish Oil-Vit D3
omega-3/dha/epa/other omega-3s/fish oil/vitamin D3	Ocean Blue Omega-3 Plus D3
omega-3/dha/epa/other omega-3s/fish oil/vitamin D3	Omega Essentials
omega-3/dha/epa/other omega-3s/fish oil/vitamin D3	Omega-3 Plus Vitamin D3
omega-3/dha/epa/other omega-3s/fish oil/vitamin D3	omega-3s-dha-epa-fish oil-D3
omega-3s/E/linoleic acid/alph-linoleic/oleic acid/gla/lipase phytosterol/cholecalciferol (vit D3)/fish oil	Omega 3-6-9 (with lipase) Cholesterol Relief
phytosterol/omega-3 fatty acids/dha/epa/fish oil	CardioSterol
phytosterol/omega-3 fatty acids/dha/epa/fish oil	Vayarol
phytosterol/omega-3 fatty acids/dha/epa/fish oil phytosterol/pantethine pitavastatin calcium pitavastatin magnesium policosanol combination no.3 policosanol/inositol niacinate/garlic pravastatin sodium pravastatin sodium	phytosterol-om-3-dha-epa-fish CholestOff Complete Livalo Zypitamag Zyncol Policosanol-Garlic-Niacin Pravachol pravastatin
racemethionine/inositol/choline/lysine/cyanocobalamin rosuvastatin calcium rosuvastatin calcium rosuvastatin calcium salmon oil/omega-3 fatty acids salmon oil/omega-3 fatty acids simvastatin simvastatin simvastatin vitamin E vitamin E acetate	Lipochol Crestor Ezallor Sprinkle rosuvastatin Salmon Oil-1000 salmon oil-omega-3 fatty acids FloLipid Zocor simvastatin vitamin E vitamin E
Non-steroidal Anti-inflammatory Drugs	
amlodipine besylate/celecoxib	Consensi
bromfenac sodium	BromSite
bromfenac sodium	Prolensa
bromfenac sodium	bromfenac
bupivacaine/ketorolac/ketamine	bupivacaine-ketorolac-ketamine
bupivacaine/meloxicam	Zynrelef
celecoxib	Celebrex
celecoxib	Elyxyb

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
celecoxib	celecoxib
chlorpheniramine maleate/phenylephrine HCl/ibuprofen	Advil Allergy-Congestion Rlf
chlorpheniramine maleate/pseudoephedrine HCl/ibuprofen	Advil Allergy Sinus
dexamethasone sod ph/moxifloxacin HCl/ketorolac/sod chlor/PF	dexamet-moxifl-ketoro-NaCl(PF)
diclofenac epolamine	Flector
diclofenac epolamine	Licart
diclofenac epolamine	diclofenac epolamine
diclofenac potassium	Cambia
diclofenac potassium	Cataflam
diclofenac potassium	Lofena
diclofenac potassium	Zipsor
diclofenac potassium	diclofenac potassium
diclofenac sodium	Arthritis Pain (diclofenac)
diclofenac sodium	Aspercreme Arthritis Pain
diclofenac sodium	Diclo Gel
diclofenac sodium	Diclofono
diclofenac sodium	Dicloprep-100
diclofenac sodium	Diclozor
diclofenac sodium	Dyloject
diclofenac sodium	Klofensaid II
diclofenac sodium	Pennaaid
diclofenac sodium	Solaraze
diclofenac sodium	VennGel One
diclofenac sodium	Voltaren
diclofenac sodium	Voltaren Arthritis Pain
diclofenac sodium	Voltaren-XR
diclofenac sodium	Vopac MDS
diclofenac sodium	diclofenac sodium
diclofenac sodium/benzalkonium chloride	DS Prep Pak
diclofenac sodium/capsaicin	CapsFenac Pak
diclofenac sodium/capsaicin	Dicloheal-60
diclofenac sodium/capsaicin	Diclopak
diclofenac sodium/capsaicin	NuDiclo SoluPAK
diclofenac sodium/capsaicin	Pennaicin
diclofenac sodium/capsaicin	Ziclocin
diclofenac sodium/capsicum oleoresin	Capsinac
diclofenac sodium/capsicum oleoresin	DermacinRx Lexitral
diclofenac sodium/capsicum oleoresin	Diclofex DC
diclofenac sodium/capsicum oleoresin	Diclosaicin
diclofenac sodium/capsicum oleoresin	Diclotral
diclofenac sodium/capsicum oleoresin	Iclofenac CP
diclofenac sodium/capsicum oleoresin	Kapzin DC
diclofenac sodium/capsicum oleoresin	Lexitral PharmaPak II
diclofenac sodium/capsicum oleoresin	Sure Result DSS Premium Pack
diclofenac sodium/capsicum oleoresin	Xelitral
diclofenac sodium/capsicum oleoresin	Ziclopro

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
diclofenac sodium/hyaluronate sodium/niacinamide	Roaxia
diclofenac sodium/hyaluronate sodium/niacinamide	diclofenac-hyaluronate-niacin
diclofenac sodium/kinesiology tape	Clofenax
diclofenac sodium/kinesiology tape	Diclo Gel-Xrylix Sheet
diclofenac sodium/kinesiology tape	Lexixryl
diclofenac sodium/kinesiology tape	Profinac
diclofenac sodium/kinesiology tape	Xrylix (diclofenac-kines tape)
diclofenac sodium/kinesiology tape	Xrylix II
diclofenac sodium/lidocaine HCl/kinesiology tape	TriXylitral
diclofenac sodium/lidocaine/methyl salicylate/camphor	Diclovix
diclofenac sodium/menthol	DiThol
diclofenac sodium/menthol/camphor	Diclotrex
diclofenac sodium/menthol/camphor	Diclotrex II
diclofenac sodium/menthol/kinesiology tape	DiMentho
diclofenac sodium/menthol/kinesiology tape	Diclovix M
diclofenac sodium/methyl salicylate/menthol	DicloPR
diclofenac sodium/methyl salicylate/menthol	Fenovar
diclofenac sodium/methyl salicylate/menthol	Varophen (diclofenac)
diclofenac sodium/methyl salicylate/menthol/camphor	Inflamma-K
diclofenac sodium/misoprostol	Arthrotec 50
diclofenac sodium/misoprostol	Arthrotec 75
diclofenac sodium/misoprostol	diclofenac-misoprostol
diclofenac sodium/silicone, adhesive	Solaravix
diclofenac submicronized	Zorvolex
diclofenac submicronized	diclofenac submicronized
etodolac	Lodine
etodolac	etodolac
fenoprofen calcium	Fenortho
fenoprofen calcium	Nalfon
fenoprofen calcium	ProFeno
fenoprofen calcium	fenoprofen
flurbiprofen	flurbiprofen
flurbiprofen sodium	Ocufer
flurbiprofen sodium	flurbiprofen sodium
hydrocodone/ibuprofen	Ibudone
hydrocodone/ibuprofen	Reprexain
hydrocodone/ibuprofen	Vicoprofen
hydrocodone/ibuprofen	Xylon 10
hydrocodone/ibuprofen	hydrocodone-ibuprofen
ibuprofen	Addaprin
ibuprofen	Advil
ibuprofen	Advil Junior Strength
ibuprofen	Advil Liqui-Gel
ibuprofen	Advil Migraine

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
ibuprofen	Caldolor
ibuprofen	Child Ibuprofen
ibuprofen	Children's Advil
ibuprofen	Children's Ibu-Drops
ibuprofen	Children's Ibuprofen
ibuprofen	Children's Motrin
ibuprofen	Children's Motrin Jr Strength
ibuprofen	Children's Profen IB
ibuprofen	I-Prin
ibuprofen	IBU
ibuprofen	IBU-200
ibuprofen	Ibu-Drops
ibuprofen	Ibuprofen IB
ibuprofen	Ibuprofen Jr Strength
ibuprofen	Infant's Advil
ibuprofen	Infant's Ibuprofen
ibuprofen	Infant's Motrin
ibuprofen	Infants Ibu-Drops
ibuprofen	Infants ProfenIB
ibuprofen	Motrin IB
ibuprofen	Provil
ibuprofen	Wal-Profen
ibuprofen	ibuprofen
ibuprofen lysine/PF	NeoProfen (ibuprofen lysn)(PF)
ibuprofen lysine/PF	ibuprofen lysine (PF)
ibuprofen/acetaminophen	Advil Dual Action
ibuprofen/diphenhydramine HCl	Advil PM Liqui-Gels
ibuprofen/diphenhydramine HCl	Ibuprofen PM
ibuprofen/diphenhydramine HCl	ibuprofen-diphenhydramine HCl
ibuprofen/diphenhydramine citrate	Advil PM
ibuprofen/diphenhydramine citrate	Ibuprofen PM
ibuprofen/diphenhydramine citrate	Motrin PM
ibuprofen/diphenhydramine citrate	ibuprofen-diphenhydramine cit
ibuprofen/famotidine	Duexis
ibuprofen/famotidine	ibuprofen-famotidine
ibuprofen/glycerin	Ibupak
ibuprofen/oxycodone HCl	ibuprofen-oxycodone
ibuprofen/phenylephrine HCl	Advil Congestion Relief
ibuprofen/phenylephrine HCl	Advil Sinus Congestion-Pain
ibuprofen/phenylephrine HCl	Congestion Relief (ibuprof-PE)
ibuprofen/phenylephrine HCl	Sudafed PE Head Congestn-Pain
ibuprofen/pseudoephedrine HCl	Advil Cold and Sinus
ibuprofen/pseudoephedrine HCl	Cold and Sinus Pain Relief
ibuprofen/pseudoephedrine HCl	Cold-Sinus Relief
ibuprofen/pseudoephedrine HCl	Cold-Sinus Relief (ibuprofen)
ibuprofen/pseudoephedrine HCl	Ibuprofen Cold
ibuprofen/pseudoephedrine HCl	Ibuprofen Cold-Sinus(with PSE)
ibuprofen/pseudoephedrine HCl	Wal-Profen Cold-Sinus
ibuprofen/pseudoephedrine HCl	Wal-Profen D Cold and Sinus
indomethacin	Indocin

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
indomethacin	indomethacin
indomethacin sodium	indomethacin sodium
indomethacin, submicronized	Tivorbex
indomethacin, submicronized	indomethacin submicronized
ketoprofen	Frotek
ketoprofen	ketoprofen
ketoprofen, micronized	Frotek
ketorolac tromethamine	Acular
ketorolac tromethamine	Acular LS
ketorolac tromethamine	ReadySharp ketorolac
ketorolac tromethamine	Sprix
ketorolac tromethamine	ketorolac
ketorolac tromethamine/PF	Acuvail (PF)
meclofenamate sodium	meclofenamate
mefenamic acid	Ponstel
mefenamic acid	mefenamic acid
meloxicam	Anjeso
meloxicam	Mobic
meloxicam	Qmiiz ODT
meloxicam	meloxicam
meloxicam, submicronized	Vivlodex
meloxicam, submicronized	meloxicam submicronized
nabumetone	Relafen
nabumetone	Relafen DS
nabumetone	nabumetone
naproxen	EC-Naprosyn
naproxen	EC-Naproxen
naproxen	Naprosyn
naproxen	naproxen
naproxen sodium	Aleve
naproxen sodium	All Day Pain Relief
naproxen sodium	All Day Relief
naproxen sodium	Anaprox
naproxen sodium	Anaprox DS
naproxen sodium	Flanax (naproxen)
naproxen sodium	Mediproxen
naproxen sodium	Midol (naproxen)
naproxen sodium	Naprelan CR
naproxen sodium	Wal-Proxen
naproxen sodium	naproxen sodium
naproxen sodium/diphenhydramine HCl	Aleve PM
naproxen sodium/diphenhydramine HCl	Naproxen PM
naproxen sodium/pseudoephedrine HCl	Aleve Cold and Sinus
naproxen sodium/pseudoephedrine HCl	Aleve Sinus and Headache
naproxen sodium/pseudoephedrine HCl	Aleve-D Sinus and Cold
naproxen sodium/pseudoephedrine HCl	Aleve-D Sinus and Headache
naproxen sodium/pseudoephedrine HCl	All Day Cold and Sinus
naproxen sodium/pseudoephedrine HCl	All Day Pain Relief Sinus,Cold
naproxen sodium/pseudoephedrine HCl	Sinus and Cold-D
naproxen sodium/pseudoephedrine HCl	Sudafed Sinus 12Hr Pressr-Pain

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
naproxen/esomeprazole magnesium	Vimovo
naproxen/esomeprazole magnesium nepafenac	naproxen-esomeprazole Ilevro
nepafenac	Nevanac
oxaprozin	Daypro
oxaprozin	oxaprozin
phenylephrine HCl/ketorolac tromethamine	Omidria
piroxicam	Feldene
piroxicam	piroxicam
prednisolone acetate/bromfenac sodium	prednisolone acetate-bromfenac
prednisolone acetate/gatifloxacin/bromfenac sodium	prednisol ace-gatiflox-bromfen
prednisolone acetate/gatifloxacin/nepafenac	prednisolone-gatiflox-nepafen
prednisolone acetate/moxifloxacin HCl/bromfenac sodium	prednisolone-moxiflox-bromfen
prednisolone acetate/moxifloxacin HCl/nepafenac	prednisolone-moxiflo-nepafenac
prednisolone acetate/nepafenac	prednisolone acetate-nepafenac
prednisolone sodium phosphate/bromfenac sodium	prednisolone sod ph-bromfenac
prednisolone sodium phosphate/gatifloxacin/bromfenac sodium	prednisoln sp-gatiflox-bromfen
prednisolone sodium phosphate/moxifloxacin HCl/bromfenac sod	prednisoln sp-moxiflox-bromfen
ropivacaine HCl/clonidine HCl/ketorolac tromethamine	ropivacaine-clonidin-ketorolac
ropivacaine HCl/epinephrine/clonidine HCl/ketorolac trometh ropivacaine/ketorolac/ketamine	ropivacaine-epi-clonid-ketorol ropivacaine-ketorolac-ketamine
sulindac	sulindac
sumatriptan succinate/naproxen sodium	Treximet
sumatriptan succinate/naproxen sodium	sumatriptan-naproxen
tolmetin sodium	tolmetin
tramadol HCl/celecoxib	Seglentis
tropicamide/proparacaine/phenylephrine/ketorolac in water	Mydriatic4(trop-prop-PE-ktrlc)
tropicamide/proparacaine/phenylephrine/ketorolac in water	tropic-proparacai-pe-ketor-wat
Opioids	
TRAMADOL HCL/GLUCOSAMINE SULFATE	Synapryn
acetaminophen with codeine phosphate	Capital with Codeine
acetaminophen with codeine phosphate	Tylenol-Codeine #3
acetaminophen with codeine phosphate	Tylenol-Codeine #4
acetaminophen with codeine phosphate	acetaminophen-codeine
acetaminophen/caffeine/dihydrocodeine bitartrate	Dvorah
acetaminophen/caffeine/dihydrocodeine bitartrate	Panlor(acetam-caff-dihydrocod)

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
acetaminophen/caffeine/dihydrocodeine bitartrate	Trezix
acetaminophen/caffeine/dihydrocodeine bitartrate	acetaminophen-caff-dihydrocod
aspirin/caffeine/dihydrocodeine bitartrate	Synalgos-DC
aspirin/caffeine/dihydrocodeine bitartrate	aspirin-caffeine-dihydrocodein
benzhydrocodone HCl/acetaminophen	Apadaz
benzhydrocodone HCl/acetaminophen	benzhydrocodone-acetaminophen
brompheniramine maleate/phenylephrine HCl/codeine phosphate	M-END PE
brompheniramine maleate/phenylephrine HCl/codeine phosphate	Poly-Tussin AC
brompheniramine maleate/pseudoephedrine HCl/codeine phosphat	Mar-Cof BP
brompheniramine maleate/pseudoephedrine HCl/codeine phosphat	Rydex
buprenorphine	Butrans
buprenorphine	buprenorphine
buprenorphine HCl	Belbuca
buprenorphine HCl	buprenorphine HCl
butalbital/acetaminophen/caffeine/codeine phosphate	Fioricet with Codeine
butalbital/acetaminophen/caffeine/codeine phosphate	butalbital-acetaminop-caf-cod
butorphanol tartrate	butorphanol
carisoprodol/aspirin/codeine phosphate	carisoprodol-aspirin-codeine
chlorpheniramine maleate/codeine phosphate	Tuxarin ER
chlorpheniramine maleate/codeine phosphate	Z-Tuss AC
chlorpheniramine maleate/codeine phosphate	Zodryl AC 25
chlorpheniramine maleate/codeine phosphate	Zodryl AC 30
chlorpheniramine maleate/codeine phosphate	Zodryl AC 35
chlorpheniramine maleate/codeine phosphate	Zodryl AC 40
chlorpheniramine maleate/codeine phosphate	Zodryl AC 50
chlorpheniramine maleate/codeine phosphate	Zodryl AC 60
chlorpheniramine maleate/codeine phosphate	Zodryl AC 80
chlorpheniramine maleate/phenylephrine HCl/codeine phosphate	CapCof
chlorpheniramine maleate/phenylephrine HCl/codeine phosphate	Maxi-Tuss CD

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 25
chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 30
chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 35
chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 40
chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 50
chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 60
chlorpheniramine maleate/pseudoephedrine HCl/codeine	Zodryl DAC 80
codeine phosphate/butalbital/aspirin/caffeine	Ascomp with Codeine
codeine phosphate/butalbital/aspirin/caffeine	Butalbital Compound W/Codeine
codeine phosphate/butalbital/aspirin/caffeine	Butalbital Compound-Codeine
codeine phosphate/butalbital/aspirin/caffeine	Fiorinal-Codeine #3
codeine phosphate/butalbital/aspirin/caffeine	codeine-butalbital-ASA-caff
codeine phosphate/guaifenesin	Cheratussin AC
codeine phosphate/guaifenesin	Coditussin AC
codeine phosphate/guaifenesin	G Tussin AC
codeine phosphate/guaifenesin	Guaiatussin AC
codeine phosphate/guaifenesin	Guaifenesin AC
codeine phosphate/guaifenesin	Iophen C-NR
codeine phosphate/guaifenesin	M-Clear WC
codeine phosphate/guaifenesin	Mar-Cof CG
codeine phosphate/guaifenesin	Maxi-Tuss AC
codeine phosphate/guaifenesin	Ninjacof-XG
codeine phosphate/guaifenesin	Pro-Clear Caps
codeine phosphate/guaifenesin	RelCof C
codeine phosphate/guaifenesin	Robafen AC
codeine phosphate/guaifenesin	Virtussin AC
codeine phosphate/guaifenesin	codeine-guaifenesin
codeine phosphate/pyrilamine maleate	Pro-Clear AC
codeine polistirex/chlorpheniramine polistirex	Tuzistra XR
codeine sulfate	codeine sulfate
dexbrompheniramine maleate/pseudoephedrine HCl/codeine	
phos	M-End Max D
dexchlorpheniramine maleate/phenylephrine HCl/codeine	Pro-Red AC (w/ dexchlorphenir)
fentanyl	Duragesic
fentanyl	Subsys
fentanyl	fentanyl
fentanyl HCl	Ionsys
fentanyl citrate	Abstral
fentanyl citrate	Actiq
fentanyl citrate	Fentora
fentanyl citrate	Lazanda

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
fentanyl citrate	fentanyl citrate
hydrocodone bitart/chlorpheniramine maleate/pseudoephedrine	Zutripro
hydrocodone bitart/chlorpheniramine maleate/pseudoephedrine hydrocodone bitartrate hydrocodone bitartrate hydrocodone bitartrate	hydrocodone-cpm-pseudoephed Hysingla ER Zohydro ER hydrocodone bitartrate
hydrocodone bitartrate/acetaminophen	Hycet
hydrocodone bitartrate/acetaminophen	Lorcet (hydrocodone)
hydrocodone bitartrate/acetaminophen	Lorcet HD
hydrocodone bitartrate/acetaminophen	Lorcet Plus
hydrocodone bitartrate/acetaminophen	Lortab 10-325
hydrocodone bitartrate/acetaminophen	Lortab 5-325
hydrocodone bitartrate/acetaminophen	Lortab 7.5-325
hydrocodone bitartrate/acetaminophen	Lortab Elixir
hydrocodone bitartrate/acetaminophen	Norco
hydrocodone bitartrate/acetaminophen	Vicodin
hydrocodone bitartrate/acetaminophen	Vicodin ES
hydrocodone bitartrate/acetaminophen	Vicodin HP
hydrocodone bitartrate/acetaminophen	Xodol 10/300
hydrocodone bitartrate/acetaminophen	Xodol 5/300
hydrocodone bitartrate/acetaminophen	Xodol 7.5/300
hydrocodone bitartrate/acetaminophen	Zamicet
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen
hydrocodone bitartrate/chlorpheniramine maleate	Vitz
hydrocodone bitartrate/guaifenesin	Flowtuss
hydrocodone bitartrate/guaifenesin	Obredon
hydrocodone bitartrate/guaifenesin	hydrocodone-guaifenesin
hydrocodone bitartrate/homatropine methylbromide	Hycodan
hydrocodone bitartrate/homatropine methylbromide	Hycodan (with homatropine)
hydrocodone bitartrate/homatropine methylbromide	Hydrocodone Compound
hydrocodone bitartrate/homatropine methylbromide	Hydromet
hydrocodone bitartrate/homatropine methylbromide	Tussigon
hydrocodone bitartrate/homatropine methylbromide	hydrocodone-homatropine
hydrocodone bitartrate/pseudoephedrine HCl/guaifenesin	Hycofenix
hydrocodone polistirex/chlorpheniramine polistirex	TussiCaps
hydrocodone polistirex/chlorpheniramine polistirex	Tussionex Pennkinetic ER

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
hydrocodone polistirex/chlorpheniramine polistirex	hydrocodone-chlorpheniramine
hydrocodone/ibuprofen	Ibudone
hydrocodone/ibuprofen	Reprexain
hydrocodone/ibuprofen	Vicoprofen
hydrocodone/ibuprofen	Xylon 10
hydrocodone/ibuprofen	hydrocodone-ibuprofen
hydromorphone HCl	Dilaudid
hydromorphone HCl	Exalgo ER
hydromorphone HCl	hydromorphone
ibuprofen/oxycodone HCl	ibuprofen-oxycodone
levorphanol tartrate	levorphanol tartrate
meperidine HCl	Demerol
meperidine HCl	meperidine
methadone HCl	Diskets
methadone HCl	Dolophine
methadone HCl	Methadone Intensol
methadone HCl	Methadose
methadone HCl	methadone
morphine sulfate	Arymo ER
morphine sulfate	Kadian
morphine sulfate	MS Contin
morphine sulfate	MorphaBond ER
morphine sulfate	morphine
morphine sulfate/naltrexone HCl	morphine concentrate
oxycodone HCl	Embeda
oxycodone HCl	Oxaydo
oxycodone HCl	Oxecta
oxycodone HCl	OxyContin
oxycodone HCl	Roxicodone
oxycodone HCl	RoxyBond
oxycodone HCl	oxycodone
oxycodone HCl/acetaminophen	Endocet
oxycodone HCl/acetaminophen	Nalocet
oxycodone HCl/acetaminophen	Percocet
oxycodone HCl/acetaminophen	Primlev
oxycodone HCl/acetaminophen	Prolate
oxycodone HCl/acetaminophen	Xartemis XR
oxycodone HCl/aspirin	oxycodone-acetaminophen
oxycodone myristate	oxycodone-aspirin
oxymorphone HCl	Xtampza ER
oxymorphone HCl	Opana
oxymorphone HCl	Opana ER
pentazocine HCl/naloxone HCl	oxymorphone
promethazine HCl/codeine	pentazocine-naloxone
promethazine/phenylephrine HCl/codeine	promethazine-codeine
promethazine/phenylephrine HCl/codeine	Promethazine VC-Codeine
pseudoephedrine HCl/codeine phosphate/guaifenesin	promethazine-phenyleph-codeine
	Cheratussin DAC

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
pseudoephedrine HCl/codeine phosphate/guaifenesin	Coditussin DAC
pseudoephedrine HCl/codeine phosphate/guaifenesin	Guaifenesin DAC
pseudoephedrine HCl/codeine phosphate/guaifenesin	Lortuss EX
pseudoephedrine HCl/codeine phosphate/guaifenesin	Tusnel C
pseudoephedrine HCl/codeine phosphate/guaifenesin	Virtussin DAC
pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 25
pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 30
pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 35
pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 40
pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 50
pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 60
pseudoephedrine HCl/codeine phosphate/guaifenesin	Zodryl DEC 80
pseudoephedrine HCl/codeine/chlorpheniramine	Phenylhistine DH
pseudoephedrine HCl/hydrocodone bitartrate	Rezira
sufentanil citrate	Dsuvia
tapentadol HCl	Nucynta
tapentadol HCl	Nucynta ER
tramadol HCl	ConZip
tramadol HCl	Qdolo
tramadol HCl	Ultram
tramadol HCl	Ultram ER
tramadol HCl	tramadol
tramadol HCl/acetaminophen	Ultracet
tramadol HCl/acetaminophen	tramadol-acetaminophen
tramadol HCl/celecoxib	Seglentis
triprolidine HCl/phenylephrine HCl/codeine phosphate	Histex-AC
COVID-19 Vaccination	
0.5 mL dose (same as original EUA formula)	Spikevax
0.5 mL dose of Original and Omicron COVID-19 strains	Moderna COVID-19 Vaccine, Bivalent
30 mcg/0.3 mL for adult 16+ (original formula)	Comirnaty
COVID-19 vac mRNA, tris(Pfizer)/PF	Pfizer-BioNTech Covid-19 Vaccine
COVID-19 vaccine, mRNA, spike protein, LNP, preservative free,	
50 mcg/0.5 mL dose	Moderna COVID-19 Vaccine

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
COVID-19, mRNA, LNP-S, PF, 10 mcg/0.2 mL dose, tris-sucrose	Pfizer-BioNTech Covid-19 Vaccine
COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5mL dose or 50 mcg/0.25mL dose	Moderna COVID-19 Vaccine
COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5mL dose or 50 mcg/0.25mL dose	Spikevax
COVID-19, mRNA, LNP-S, PF, 3 mcg/0.2 mL dose, tris-sucrose	Pfizer-BioNTech Covid-19 Vaccine
COVID-19, mRNA, LNP-S, PF, 30 mcg/0.3 mL dose, tris-sucrose	Pfizer-BioNTech Covid-19 Vaccine
COVID-19, mRNA, LNP-S, PF, 50 mcg/0.5 mL dose	Moderna COVID-19 Vaccine
COVID-19, mRNA, LNP-S, PF, pediatric 25 mcg/0.25 mL dose	Moderna COVID-19 Vaccine, Pediatric Vaccine
COVID-19, mRNA, LNP-S, PF, pediatric 25 mcg/0.25 mL dose, 6mo-<6yr	Moderna COVID-19 Vaccine, Pediatric Vaccine
COVID-19, mRNA, LNP-S, PF, pediatric 50 mcg/0.5 mL dose	Moderna COVID-19 Vaccine, Pediatric Vaccine
COVID-19, mRNA, LNP-S, PF, pediatric 50 mcg/0.5 mL dose, 6yr-<12yr	Moderna COVID-19 Vaccine, Pediatric Vaccine
COVID-19, mRNA, LNP-S, bivalent booster, PF, 10 mcg/0.2 mL	Moderna COVID-19 Vaccine, Bivalent
COVID-19, mRNA, LNP-S, bivalent booster, PF, 10 mcg/0.2 mL dose	Pfizer-BioNTech Covid-19 Vaccine, Bivalent
COVID-19, mRNA, LNP-S, bivalent booster, PF, 30 mcg/0.3 mL dose	Pfizer-BioNTech Covid-19 Vaccine, Bivalent
COVID-19, mRNA, LNP-S, bivalent booster, PF, 50 mcg/0.5 mL or 25mcg/0.25 mL dose	Moderna COVID-19 Vaccine, Bivalent
COVID-19, mRNA, LNP-S, bivalent, PF, 3 mcg/0.2 mL dose	Pfizer-BioNTech Covid-19 Vaccine, Bivalent
SARS-COV-2 (COVID-19) vaccine, Subunit, recombinant spike protein-nanoparticle+Matrix-M1 Adjuvant, preservative free, 0.5mL per dose	NOVAVAX COVID-19 Vaccine, Adjuvanted
SARS-COV-2 (COVID-19) vaccine, mRNA, spike protein, LNP, preservative free, 100 mcg/0.5mL dose	Moderna COVID-19 Vaccine
SARS-COV-2 (COVID-19) vaccine, mRNA, spike protein, LNP, preservative free, 100 mcg/0.5mL or 50mcg/0.25mL dose	Moderna COVID-19 Vaccine
SARS-COV-2 (COVID-19) vaccine, mRNA, spike protein, LNP, preservative free, 30 mcg/0.3mL dose	Pfizer-BioNTech Covid-19 Vaccine
SARS-COV-2 (COVID-19) vaccine, mRNA, spike protein, LNP, preservative free, 30 mcg/0.3mL dose, tris-sucrose formulation	Comirnaty

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
SARS-COV-2 (COVID-19) vaccine, mRNA, spike protein, LNP, preservative free, reconstituted, 30 mcg/0.3mL dose	Pfizer-BioNTech Covid-19 Vaccine
SARS-COV-2 (COVID-19) vaccine, vector non-replicating, recombinant spike protein-Ad26, preservative free, 0.5 mL	Janssen COVID-19 Vaccine
Influenza Vaccination	
flu vaccine quad 2019-2020(4 years and older)cell derived/PF	Flucelvax Quad 2019-2020 (PF)
flu vaccine quad 2020-2021(4 years and older)cell derived/PF	Flucelvax Quad 2020-2021 (PF)
flu vaccine quad 2021-2022(6 month and older)cell derived/PF	Flucelvax Quad 2021-2022 (PF)
flu vaccine quad 2022-2023(6 month and older)cell derived/PF	Flucelvax Quad 2022-2023 (PF)
flu vaccine quadriv 2019-2020(4 years and older)cell derived	Flucelvax Quad 2019-2020
flu vaccine quadriv 2020-2021(4 years and older)cell derived	Flucelvax Quad 2020-2021
flu vaccine quadriv 2021-2022(6 month and older)cell derived	Flucelvax Quad 2021-2022
flu vaccine quadriv 2022-2023(6 month and older)cell derived	Flucelvax Quad 2022-2023
influenza vaccine quadrivalent 2020-21 (65 yr up)/MF59C.1/PF	Fluad Quad 2020-21(65y up)(PF)
influenza vaccine quadrivalent 2021-22 (65 yr up)/MF59C.1/PF	Fluad Quad 2021-22(65y up)(PF)
influenza vaccine quadrivalent 2022-23 (65 yr up)/MF59C.1/PF	Fluad Quad 2022-23(65y up)(PF)
influenza vaccine quadrivalent live 2019-2020 (2 yrs-49 yrs)	Flumist Quad 2019-2020
influenza vaccine quadrivalent live 2020-2021 (2 yrs-49 yrs)	Flumist Quad 2020-2021
influenza vaccine quadrivalent live 2021-2022 (2 yrs-49 yrs)	Flumist Quad 2021-2022
influenza vaccine quadrivalent live 2022-2023 (2 yrs-49 yrs)	Flumist Quad 2022-2023
influenza vaccine tvs 2019-20 (65 yr up)/adjuvant MF59C.1/PF	Fluad 2019-2020 (65 yr up)(PF)
influenza vaccine tvs 2020-21 (65 yr up)/adjuvant MF59C.1/PF	Fluad 2020-2021 (65 yr up)(PF)
influenza virus vacc quad 2020 south hem (6 mos and up)	Fluzone Quad Southern Hem 2020
influenza virus vacc quad 2020 south hem (6 mos and up)/PF	Fluzone Quad South Hem2020(PF)
influenza virus vacc quad 2021 south hem (6 months and up)	Fluzone Quad Southern Hem 2021

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
influenza virus vacc quad 2021 south hem (6 mos and up)/PF	Fluzone Quad South Hem2021(PF)
influenza virus vaccine quadrival 2019-20 (6 mos-35 mos)/PF	Afluria Qd 2019-20(6-35mo)(PF)
influenza virus vaccine quadrival 2019-20 (6 mos-35 mos)/PF	Fluzone Quad Pedi 2019-20 (PF)
influenza virus vaccine quadrival 2019-2020(6 mos and up)/PF	Fluarix Quad 2019-2020 (PF)
influenza virus vaccine quadrival 2019-2020(6 mos and up)/PF	Flulaval Quad 2019-2020 (PF)
influenza virus vaccine quadrival 2019-2020(6 mos and up)/PF	Fluzone Quad 2019-2020 (PF)
influenza virus vaccine quadrival 2020-2021(6 mos and up)/PF	Fluarix Quad 2020-2021 (PF)
influenza virus vaccine quadrival 2020-2021(6 mos and up)/PF	Flulaval Quad 2020-2021 (PF)
influenza virus vaccine quadrival 2020-2021(6 mos and up)/PF	Fluzone Quad 2020-2021 (PF)
influenza virus vaccine quadrival 2020-21 (6 mos-35 mos)/PF	Afluria Qd 2020-21(6-35mo)(PF)
influenza virus vaccine quadrival 2021-2022(6 mos and up)/PF	Fluarix Quad 2021-2022 (PF)
influenza virus vaccine quadrival 2021-2022(6 mos and up)/PF	Flulaval Quad 2021-2022 (PF)
influenza virus vaccine quadrival 2021-2022(6 mos and up)/PF	Fluzone Quad 2021-2022 (PF)
influenza virus vaccine quadrival 2021-22 (6 mos-35 mos)/PF	Afluria Qd 2021-22(6-35mo)(PF)
influenza virus vaccine quadrival 2022-2023(6 mos and up)/PF	Fluarix Quad 2022-2023 (PF)
influenza virus vaccine quadrival 2022-2023(6 mos and up)/PF	Flulaval Quad 2022-2023 (PF)
influenza virus vaccine quadrival 2022-2023(6 mos and up)/PF	Fluzone Quad 2022-2023 (PF)
influenza virus vaccine quadrival split 2020-21(65 yr up)/PF	Fluzone HighDose Quad 20-21 PF
influenza virus vaccine quadrival split 2021-22(65 yr up)/PF	Fluzone HighDose Quad 21-22 PF
influenza virus vaccine quadrival split 2022-23(65 yr up)/PF	Fluzone HighDose Quad 22-23 PF
influenza virus vaccine quadrivalent 2018-19	AFLURIA
influenza virus vaccine quadrivalent 2019-20	FLUZONE QUADRIVALENT SOUTHERN HEMISPHERE
influenza virus vaccine quadrivalent 2019-20 (36 mos up)/PF	Afluria Qd 2019-20(3yr up)(PF)
influenza virus vaccine quadrivalent 2019-20 (6 mos and up)	Afluria Quad 2019-20(6mo up)

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
influenza virus vaccine quadrivalent 2019-20 (6 mos and up)	Flulaval Quad 2019-2020
influenza virus vaccine quadrivalent 2019-20 (6 mos and up)	Fluzone Quad 2019-2020
influenza virus vaccine quadrivalent 2020-21 (36 mos up)/PF	Afluria Qd 2020-21(3yr up)(PF)
influenza virus vaccine quadrivalent 2020-21 (6 mos and up)	Afluria Quad 2020-2021(6mo up)
influenza virus vaccine quadrivalent 2020-21 (6 mos and up)	Fluzone Quad 2020-2021
influenza virus vaccine quadrivalent 2021 influenza virus vaccine quadrivalent 2021-22	FLUZONE QUADRIVALENT SOUTHERN HEMISPHERE FLUZONE QUADRIVALENT
influenza virus vaccine quadrivalent 2021-22 (36 mos up)/PF	Afluria Qd 2021-22(3yr up)(PF)
influenza virus vaccine quadrivalent 2021-22 (6 mos and up)	Afluria Quad 2021-2022(6mo up)
influenza virus vaccine quadrivalent 2021-22 (6 mos and up)	Fluzone Quad 2021-2022
influenza virus vaccine quadrivalent 2022	FLUZONE QUADRIVALENT SOUTHERN HEMISPHERE
influenza virus vaccine quadrivalent 2022-23 (36 mos up)/PF	Afluria Qd 2022-23(3yr up)(PF)
influenza virus vaccine quadrivalent 2022-23 (6 mos and up)	Afluria Quad 2022-2023(6mo up)
influenza virus vaccine quadrivalent 2022-23 (6 mos and up)	Fluzone Quad 2022-2023
influenza virus vaccine qv 2019-20(18 yrs and older)rcmb/PF	Flublok Quad 2019-2020 (PF)
influenza virus vaccine qv 2020-21(18 yrs and older)rcmb/PF	Flublok Quad 2020-2021 (PF)
influenza virus vaccine qv 2021-22(18 yrs and older)rcmb/PF	Flublok Quad 2021-2022 (PF)
influenza virus vaccine qv 2022-23(18 yrs and older)rcmb/PF	Flublok Quad 2022-2023 (PF)
influenza virus vaccine trival split 2019-2020(65 yr up)/PF	Fluzone High-Dose 2019-20 (PF)
DTaP Vaccination	
DIPHtherIA AND TETANUS TOXoids ADSORBED	DIPHtherIA AND TETANUS TOXoids ADSORBED
Haemophilus B polysacc conj-tetanus tox,component 2 of 2/PF	Pentacel ActHIB Component (PF)
diphther, pertus(acel), tetanus, polio vacc, component 1 of 2/PF	Pentacel DTaP-IPV Compnt (PF)
diphtheria, pertussis (acell), tetanus pediatric vaccine	INFANRIX
diphtheria, pertussis (acell), tetanus pediatric vaccine/PF	DAPTACEL

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
diphtheria, pertussis (acell), tetanus pediatric vaccine/PF	Daptacel (DTaP Pediatric) (PF)
diphtheria, pertussis (acell), tetanus pediatric vaccine/PF	Infanrix (DTaP) (PF)
diphtheria, pertussis(acell),tetanus,polio vaccine/PF	Kinrix (PF)
diphtheria, pertussis(acell),tetanus,polio vaccine/PF	Quadracel (PF)
diphtheria,pertus(acell),tetanus/hepB/polio/Hib conj-meng	VAXELIS
diphtheria,pertus(acell),tetanus/hepB/polio/Hib conj-meng/PF	Vaxelis (PF)
diphtheria,pertussis(acell),tetanus,polio/Haemophilus B/PF	Pentacel (PF)
diphtheria,pertussis(acellular),tetanus vaccine	Boostrix Tdap
diphtheria,pertussis(acellular),tetanus vaccine/PF	Adacel
diphtheria,pertussis(acellular),tetanus vaccine/PF	Adacel(Tdap Adolesn/Adult)(PF)
hep B virus,rcmb/diphth,pertus(acell),tet,polio vaccine/PF	Pediarix (PF)
tetanus and diphtheria toxoids, adsorbed, adult/PF	Tenivac (PF)
tetanus and diphtheria toxoids, adult	TDVAX

Haemophilus Influenza Type B Vaccination

Haemophilus B polysacc conj-tetanus tox,component 2 of 2/PF	Pentacel ActHIB Component (PF)
Haemophilus b conjugate vaccine (meningococcal prot.conj)/PF	Pedvax HIB (PF)
Haemophilus b conjugate vaccine(tetanus toxoid conjugate)/PF	ActHIB
Haemophilus b conjugate vaccine(tetanus toxoid conjugate)/PF	ActHIB (PF)
Haemophilus b conjugate vaccine(tetanus toxoid conjugate)/PF	HIBERIX
Haemophilus b conjugate vaccine(tetanus toxoid conjugate)/PF	Hiberix (PF)
Meningococcal C/Y-HIB PRP	MENHIBRIX
Meningococcal C/Y-HIB PRP	Menhibrix
diphther,pertus(accel),tetanus,polio vacc,component 1 of 2/PF	Pentacel DTaP-IPV Compnt (PF)
diphtheria,pertus(acell),tetanus/hepB/polio/Hib conj-meng/PF	VAXELIS
diphtheria,pertus(acell),tetanus/hepB/polio/Hib conj-meng/PF	Vaxelis (PF)
diphtheria,pertussis(acell),tetanus,polio/Haemophilus B/PF	Pentacel (PF)

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
MMR Vaccination	
measles, mumps, and rubella vaccine live/PF	M-M-R II
measles, mumps, and rubella vaccine live/PF	M-M-R II (PF)
measles, mumps, and rubella vaccine live/PF	Priorix (PF)
measles, mumps, rubella, and varicella vaccine live/PF	ProQuad
measles, mumps, rubella, and varicella vaccine live/PF	ProQuad (PF)
Meningococcal Vaccination	
Meningococcal C/Y-HIB PRP	MENHIBRIX
Meningococcal C/Y-HIB PRP	Menhibrix
Neisseria meningitidis group B, lipidated fHBP recombinant	Trumenba
meningococcal A diphtheria-conj vaccine component 2 of 2/PF	Menveo MenA Component (PF)
meningococcal C,Y,W-135,dip-conj vaccine component 1 of 2/PF meningococcal MPSV4	Menveo MenCYW-135 Compnt (PF) MENOMUNE - A/C/Y/W-135 COMBINED
meningococcal group B vaccine, 4-component	Bexsero
meningococcal vaccine A,C,Y and W-135,conj tetanus toxoid/PF	MenQuadfi (PF)
meningococcalvaccine A,C,Y,W-135,diphtheria toxoid conj/PF	Menactra (PF)
meningococcalvaccine A,C,Y,W-135,diphtheria toxoid conj/PF	Menveo
meningococcalvaccine A,C,Y,W-135,diphtheria toxoid conj/PF	Menveo A-C-Y-W-135-Dip (PF)
Pneumococcal Vaccination	
pneumococcal 13-valent conjugate vaccine (Diphtheria crm)/PF	Prevnar 13 (PF)
pneumococcal 15-valent conjugate vaccine (Diphtheria crm)/PF	Vaxneuvance
pneumococcal 20-valent conjugate vaccine (Diphtheria crm)/PF	Prevnar 20 (PF)
pneumococcal 23-valent polysaccharide vaccine	Pneumovax-23
Varicella Vaccination	
measles, mumps, rubella, and varicella vaccine live/PF	ProQuad
measles, mumps, rubella, and varicella vaccine live/PF varicella virus vaccine live/PF	ProQuad (PF) Varivax (PF)
varicella-zoster immune globulin/maltose	Varizig

Appendix V. List of Non-proprietary and Proprietary Names of Medical Products Used to Define Covariates in this Request

Non-proprietary Name	Proprietary Name
Zoster Recombinant Vaccination	
vaccine adjuvant system, AS01B/PF, component vial 1 of 2 varicella-zoster immune globulin/maltose	Shingrix Adjuvant Component-PF Varizig
varicella-zoster virus glycoprotein E,rec,component 2 of 2	Shingrix gE Antigen Component
varicella-zoster virus glycoprotein E,rec/AS01B adjuvant	Shingrix
varicella-zoster virus glycoprotein E,rec/AS01B adjuvant/PF zoster vaccine live/PF	Shingrix (PF) Zostavax (PF)

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
Infliximab			
J1745	Injection, infliximab, excludes biosimilar, 10 mg	Procedure	HCPCS
Q5102	Injection, infliximab, biosimilar, 10 mg	Procedure	HCPCS
Q5103	Injection, infliximab-dyyb, biosimilar, (Inflixtra), 10 mg	Procedure	HCPCS
Q5104	Injection, infliximab-abda, biosimilar, (Renflexis), 10 mg	Procedure	HCPCS
Q5109	Injection, infliximab-qbtx, biosimilar, (Ixifi), 10 mg	Procedure	HCPCS
Q5121	Injection, infliximab-axxq, biosimilar, (AVSOLA), 10 mg	Procedure	HCPCS
Adalimumab			
J0135	Injection, adalimumab, 20 mg	Procedure	HCPCS
Vedolizumab			
C9026	Injection, vedolizumab, 1 mg	Procedure	HCPCS
J3380	Injection, vedolizumab, 1 mg	Procedure	HCPCS
Certolizumab			
J0717	Injection, certolizumab pegol, 1 mg (code may be used for Medicare when drug administered under the direct supervision of a physician, not for use when drug is self-administered)	Procedure	HCPCS
Golimumab			
J1602	Injection, golimumab, 1 mg, for intravenous use	Procedure	HCPCS
Risankizumab			
J2327	Injection, risankizumab-rzaa, intravenous, 1 mg	Procedure	HCPCS
Natalizumab			
J2323	Injection, natalizumab, 1 mg	Procedure	HCPCS
Ustekinumab			
C9487	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
J3357	Ustekinumab, for subcutaneous injection, 1 mg	Procedure	HCPCS
J3358	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
Q9989	Ustekinumab, for intravenous injection, 1 mg	Procedure	HCPCS
Immunomodulators			
80158	Cyclosporine	Procedure	CPT-4
80197	Tacrolimus	Procedure	CPT-4
80204	Methotrexate	Procedure	CPT-4
J7500	Azathioprine, oral, 50 mg	Procedure	HCPCS
J7501	Azathioprine, parenteral, 100 mg	Procedure	HCPCS
J7502	Cyclosporine, oral, 100 mg	Procedure	HCPCS
J7503	Tacrolimus, extended release, (Envarsus XR), oral, 0.25 mg	Procedure	HCPCS
J7507	Tacrolimus, immediate release, oral, 1 mg	Procedure	HCPCS
J7508	Tacrolimus, extended release, (Astagraf XL), oral, 0.1 mg	Procedure	HCPCS
J7515	Cyclosporine, oral, 25 mg	Procedure	HCPCS
J7516	Cyclosporine, parenteral, 250 mg	Procedure	HCPCS
J7525	Tacrolimus, parenteral, 5 mg	Procedure	HCPCS
J8610	Methotrexate, oral, 2.5 mg	Procedure	HCPCS
J9250	Methotrexate sodium, 5 mg	Procedure	HCPCS
J9260	Methotrexate sodium, 50 mg	Procedure	HCPCS

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S0108	Mercaptopurine, oral, 50 mg	Procedure	HCPCS
Antibiotics			
80150	Amikacin	Procedure	CPT-4
80200	Tobramycin	Procedure	CPT-4
82415	Chloramphenicol	Procedure	CPT-4
C9064	Mitomycin pyelocalyceal instillation, 1 mg	Procedure	HCPCS
C9446	Injection, tedizolid phosphate, 1 mg	Procedure	HCPCS
C9479	Instillation, ciprofloxacin otic suspension, 6 mg	Procedure	HCPCS
G9313	Amoxicillin, with or without clavulanate, not prescribed as first line antibiotic at the time of diagnosis for documented reason	Procedure	HCPCS
G9314	Amoxicillin, with or without clavulanate, not prescribed as first line antibiotic at the time of diagnosis, reason not given	Procedure	HCPCS
G9315	Amoxicillin, with or without clavulanate, prescribed as a first line antibiotic at the time of diagnosis	Procedure	HCPCS
J0200	Injection, alatrofloxacin mesylate, 100 mg	Procedure	HCPCS
J0278	Injection, amikacin sulfate, 100 mg	Procedure	HCPCS
J0290	Injection, ampicillin sodium, 500 mg	Procedure	HCPCS
J0295	Injection, ampicillin sodium/sulbactam sodium, per 1.5 g	Procedure	HCPCS
J0456	Injection, azithromycin, 500 mg	Procedure	HCPCS
J0558	Injection, penicillin G benzathine and penicillin G procaine, 100,000 units	Procedure	HCPCS
J0561	Injection, penicillin G benzathine, 100,000 units	Procedure	HCPCS
J0689	Injection, cefazolin sodium (Baxter), not therapeutically equivalent to J0690, 500 mg	Procedure	HCPCS
J0690	Injection, cefazolin sodium, 500 mg	Procedure	HCPCS
J0692	Injection, cefepime HCl, 500 mg	Procedure	HCPCS
J0694	Injection, cefoxitin sodium, 1 g	Procedure	HCPCS
J0696	Injection, ceftriaxone sodium, per 250 mg	Procedure	HCPCS
J0697	Injection, sterile cefuroxime sodium, per 750 mg	Procedure	HCPCS
J0698	Injection, cefotaxime sodium, per g	Procedure	HCPCS
J0701	Injection, cefepime HCl (Baxter), not therapeutically equivalent to Maxipime, 500 mg	Procedure	HCPCS
J0703	Injection, cefepime HCl (B. Braun), not therapeutically equivalent to Maxipime, 500 mg	Procedure	HCPCS
J0713	Injection, ceftazidime, per 500 mg	Procedure	HCPCS
J0714	Injection, ceftazidime and avibactam, 0.5 g/0.125 g	Procedure	HCPCS
J0720	Injection, chloramphenicol sodium succinate, up to 1 g	Procedure	HCPCS
J0744	Injection, ciprofloxacin for intravenous infusion, 200 mg	Procedure	HCPCS
J0877	Injection, daptomycin (Hospira), not therapeutically equivalent to J0878, 1 mg	Procedure	HCPCS
J0878	Injection, daptomycin, 1 mg	Procedure	HCPCS
J1267	Injection, doripenem, 10 mg	Procedure	HCPCS
J1335	Injection, ertapenem sodium, 500 mg	Procedure	HCPCS

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
J1364	Injection, erythromycin lactobionate, per 500 mg	Procedure	HCPCS
J1590	Injection, gatifloxacin, 10 mg	Procedure	HCPCS
J1840	Injection, kanamycin sulfate, up to 500 mg	Procedure	HCPCS
J1850	Injection, kanamycin sulfate, up to 75 mg	Procedure	HCPCS
J1956	Injection, levofloxacin, 250 mg	Procedure	HCPCS
J2010	Injection, lincomycin HCl, up to 300 mg	Procedure	HCPCS
J2020	Injection, linezolid, 200 mg	Procedure	HCPCS
J2021	Injection, linezolid (Hospira) not therapeutically equivalent to J2020, 200 mg	Procedure	HCPCS
J2184	Injection, meropenem (B. Braun) not therapeutically equivalent to J2185, 100 mg	Procedure	HCPCS
J2185	Injection, meropenem, 100 mg	Procedure	HCPCS
J2186	Injection, meropenem, vaborbactam, 10 mg/10 mg, (20 mg)	Procedure	HCPCS
J2265	Injection, minocycline HCl, 1 mg	Procedure	HCPCS
J2460	Injection, oxytetracycline HCl, up to 50 mg	Procedure	HCPCS
J2510	Injection, penicillin G procaine, aqueous, up to 600,000 units	Procedure	HCPCS
J2540	Injection, penicillin G potassium, up to 600,000 units	Procedure	HCPCS
J2543	Injection, piperacillin sodium/tazobactam sodium, 1 g/0.125 g (1.125 g)	Procedure	HCPCS
J2700	Injection, oxacillin sodium, up to 250 mg	Procedure	HCPCS
J2770	Injection, quinupristin/dalfopristin, 500 mg (150/350)	Procedure	HCPCS
J3090	Injection, tedizolid phosphate, 1 mg	Procedure	HCPCS
J3243	Injection, tigecycline, 1 mg	Procedure	HCPCS
J3244	Injection, tigecycline (Accord) not therapeutically equivalent to J3243, 1 mg	Procedure	HCPCS
J3260	Injection, tobramycin sulfate, up to 80 mg	Procedure	HCPCS
J3370	Injection, vancomycin HCl, 500 mg	Procedure	HCPCS
J3371	Injection, vancomycin HCl (Mylan) not therapeutically equivalent to J3370, 500 mg	Procedure	HCPCS
J3372	Injection, vancomycin HCl (Xellia) not therapeutically equivalent to J3370, 500 mg	Procedure	HCPCS
J7315	Mitomycin, ophthalmic, 0.2 mg	Procedure	HCPCS
J7342	Instillation, ciprofloxacin otic suspension, 6 mg	Procedure	HCPCS
J7682	Tobramycin, inhalation solution, FDA-approved final product, noncompounded, unit dose form, administered through DME, per 300 mg	Procedure	HCPCS
J7685	Tobramycin, inhalation solution, compounded product, administered through DME, unit dose form, per 300 mg	Procedure	HCPCS
J9000	Injection, doxorubicin HCl, 10 mg	Procedure	HCPCS
J9040	Injection, bleomycin sulfate, 15 units	Procedure	HCPCS
J9120	Injection, dactinomycin, 0.5 mg	Procedure	HCPCS
J9151	Injection, daunorubicin citrate, liposomal formulation, 10 mg	Procedure	HCPCS

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Code	Description	Code Category	Code Type
J9178	Injection, epirubicin HCl, 2 mg	Procedure	HCPCS
J9203	Injection, gemtuzumab ozogamicin, 0.1 mg	Procedure	HCPCS
J9211	Injection, idarubicin HCl, 5 mg	Procedure	HCPCS
J9229	Injection, inotuzumab ozogamicin, 0.1 mg	Procedure	HCPCS
J9280	Injection, mitomycin, 5 mg	Procedure	HCPCS
J9281	Mitomycin pyelocalyceal instillation, 1 mg	Procedure	HCPCS
J9320	Injection, streptozocin, 1 g	Procedure	HCPCS
J9357	Injection, valrubicin, intravesical, 200 mg	Procedure	HCPCS
Q0144	Azithromycin dihydrate, oral, capsules/powder, 1 g	Procedure	HCPCS
Q2049	Injection, doxorubicin HCl, liposomal, imported Lipodox, 10 mg	Procedure	HCPCS
Q2050	Injection, doxorubicin HCl, liposomal, not otherwise specified, 10 mg	Procedure	HCPCS
S0030	Injection, metronidazole, 500 mg	Procedure	HCPCS
S0032	Injection, nafcillin sodium, 2 g	Procedure	HCPCS
S0034	Injection, ofloxacin, 400 mg	Procedure	HCPCS
S0039	Injection, sulfamethoxazole and trimethoprim, 10 ml	Procedure	HCPCS
S0073	Injection, aztreonam, 500 mg	Procedure	HCPCS
S0074	Injection, cefotetan disodium, 500 mg	Procedure	HCPCS
S0077	Injection, clindamycin phosphate, 300 mg	Procedure	HCPCS
Antivirals			
4153F	Combination peginterferon and ribavirin therapy prescribed (HEP-C)	Procedure	CPT-2
C9077	Injection, cabotegravir and rilpivirine, 2 mg/3 mg	Procedure	HCPCS
XW033E5	Introduction of Remdesivir Anti-infective into Peripheral Vein, Percutaneous Approach, New Technology Group 5	Procedure	ICD-10-PCS
XW043E5	Introduction of Remdesivir Anti-infective into Central Vein, Percutaneous Approach, New Technology Group 5	Procedure	ICD-10-PCS
Anticoagulants			
C9121	Injection, argatroban, per 5 mg	Procedure	HCPCS
J0583	Injection, bivalirudin, 1 mg	Procedure	HCPCS
J0883	Injection, argatroban, 1 mg (for non-ESRD use)	Procedure	HCPCS
J0884	Injection, argatroban, 1 mg (for ESRD on dialysis)	Procedure	HCPCS
J0891	Injection, argatroban (Accord), not therapeutically equivalent to J0883, 1 mg (for non-ESRD use)	Procedure	HCPCS
J0892	Injection, argatroban (Accord), not therapeutically equivalent to J0884, 1 mg (for ESRD on dialysis)	Procedure	HCPCS
J0898	Injection, argatroban (AuroMedics), not therapeutically equivalent to J0883, 1 mg (for non-ESRD use)	Procedure	HCPCS
J0899	Injection, argatroban (AuroMedics), not therapeutically equivalent to J0884, 1 mg (for ESRD on dialysis)	Procedure	HCPCS
J1642	Injection, heparin sodium, (heparin lock flush), per 10 units	Procedure	HCPCS

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
J1644	Injection, Heparin sodium, per 1000 units	Procedure	HCPCS
J1645	Injection, dalteparin sodium, per 2500 IU	Procedure	HCPCS
J1650	Injection, enoxaparin sodium, 10 mg	Procedure	HCPCS
J1652	Injection, fondaparinux sodium, 0.5 mg	Procedure	HCPCS
Antidiabetics			
3E013VG	Introduction of Insulin into Subcutaneous Tissue, Percutaneous Approach	Procedure	ICD-10-PCS
3E030VG	Introduction of Insulin into Peripheral Vein, Open Approach	Procedure	ICD-10-PCS
3E033VG	Introduction of Insulin into Peripheral Vein, Percutaneous Approach	Procedure	ICD-10-PCS
3E040VG	Introduction of Insulin into Central Vein, Open Approach	Procedure	ICD-10-PCS
3E043VG	Introduction of Insulin into Central Vein, Percutaneous Approach	Procedure	ICD-10-PCS
3E050VG	Introduction of Insulin into Peripheral Artery, Open Approach	Procedure	ICD-10-PCS
3E053VG	Introduction of Insulin into Peripheral Artery, Percutaneous Approach	Procedure	ICD-10-PCS
3E060VG	Introduction of Insulin into Central Artery, Open Approach	Procedure	ICD-10-PCS
3E063VG	Introduction of Insulin into Central Artery, Percutaneous Approach	Procedure	ICD-10-PCS
J1815	Injection, insulin, per 5 units	Procedure	HCPCS
J1817	Insulin for administration through DME (i.e., insulin pump) per 50 units	Procedure	HCPCS
S5550	Insulin, rapid onset, 5 units	Procedure	HCPCS
S5551	Insulin, most rapid onset (Lispro or Aspart); 5 units	Procedure	HCPCS
S5552	Insulin, intermediate acting (NPH or LENTE); 5 units	Procedure	HCPCS
S5553	Insulin, long acting; 5 units	Procedure	HCPCS
S5565	Insulin cartridge for use in insulin delivery device other than pump; 150 units	Procedure	HCPCS
S5566	Insulin cartridge for use in insulin delivery device other than pump; 300 units	Procedure	HCPCS
S5570	Insulin delivery device, disposable pen (including insulin); 1.5 ml size	Procedure	HCPCS
S5571	Insulin delivery device, disposable pen (including insulin); 3 ml size	Procedure	HCPCS
Antihypertensives			
J0210	Injection, methyldopate HCl, up to 250 mg	Procedure	HCPCS
J0360	Injection, hydralazine HCl, up to 20 mg	Procedure	HCPCS
J0735	Injection, clonidine HCl, 1 mg	Procedure	HCPCS
J1730	Injection, diazoxide, up to 300 mg	Procedure	HCPCS

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Code	Description	Code Category	Code Type
J2670	Injection, tolazoline HCl, up to 25 mg	Procedure	HCPCS
S0139	Minoxidil, 10 mg	Procedure	HCPCS
Antiplatelets			
4084F	Aspirin received within 24 hours before emergency department arrival or during emergency department stay (EM)	Procedure	CPT-2
4086F	Aspirin or clopidogrel prescribed or currently being taken (CAD)	Procedure	CPT-2
4563F	Patient received aspirin within 24 hours prior to anesthesia start time (Peri2)	Procedure	CPT-2
C9460	Injection, cangrelor, 1 mg	Procedure	HCPCS
G8598	Aspirin or another antiplatelet therapy used	Procedure	HCPCS
G9435	Aspirin prescribed at discharge	Procedure	HCPCS
G9793	Patient is currently on a daily aspirin or other antiplatelet	Procedure	HCPCS
J0130	Injection abciximab, 10 mg	Procedure	HCPCS
J1245	Injection, dipyridamole, per 10 mg	Procedure	HCPCS
J1327	Injection, eptifibatide, 5 mg	Procedure	HCPCS
J3246	Injection, tirofiban HCl, 0.25 mg	Procedure	HCPCS
M1055	Aspirin or another antiplatelet therapy used	Procedure	HCPCS
Lipid-Lowering Drugs			
4013F	Statin therapy prescribed or currently being taken (CAD)	Procedure	CPT-2
G8816	Statin medication prescribed at discharge	Procedure	HCPCS
G9441	Statin prescribed at discharge	Procedure	HCPCS
G9664	Patients who are currently statin therapy users or received an order (prescription) for statin therapy	Procedure	HCPCS
G9796	Patient is currently on a statin therapy	Procedure	HCPCS
Non-steroidal Anti-inflammatory Drugs			
C9059	Injection, meloxicam, 1 mg	Procedure	HCPCS
C9088	Instillation, bupivacaine and meloxicam, 1 mg/0.03 mg	Procedure	HCPCS
J1130	Injection, diclofenac sodium, 0.5 mg	Procedure	HCPCS
J1738	Injection, meloxicam, 1 mg	Procedure	HCPCS
J1741	Injection, ibuprofen, 100 mg	Procedure	HCPCS
J1885	Injection, ketorolac tromethamine, per 15 mg	Procedure	HCPCS
Opioids			
G2068	Medication assisted treatment, buprenorphine (oral); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS

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Code	Description	Code Category	Code Type
G2069	Medication assisted treatment, buprenorphine (injectable); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2070	Medication assisted treatment, buprenorphine (implant insertion); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2071	Medication assisted treatment, buprenorphine (implant removal); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2072	Medication assisted treatment, buprenorphine (implant insertion and removal); weekly bundle including dispensing and/or administration, substance use counseling, individual and group therapy, and toxicology testing if performed (provision of the services by a Medicare-enrolled opioid treatment program)	Procedure	HCPCS
G2079	Take home supply of buprenorphine (oral); up to 7 additional day supply (provision of the services by a Medicare-enrolled opioid treatment program); list separately in addition to code for primary procedure	Procedure	HCPCS
J0570	Buprenorphine implant, 74.2 mg	Procedure	HCPCS
J0571	Buprenorphine, oral, 1 mg	Procedure	HCPCS
J0572	Buprenorphine/naloxone, oral, less than or equal to 3 mg buprenorphine	Procedure	HCPCS
J0573	Buprenorphine/naloxone, oral, greater than 3 mg, but less than or equal to 6 mg buprenorphine	Procedure	HCPCS
J0574	Buprenorphine/naloxone, oral, greater than 6 mg, but less than or equal to 10 mg buprenorphine	Procedure	HCPCS
J0575	Buprenorphine/naloxone, oral, greater than 10 mg buprenorphine	Procedure	HCPCS
S0012	Butorphanol tartrate, nasal spray, 25 mg	Procedure	HCPCS
COVID-19 Vaccination			

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Code	Description	Code Category	Code Type
0001A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, first dose	Procedure	CPT-4
0002A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, second dose	Procedure	CPT-4
0003A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, third dose	Procedure	CPT-4
0004A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, booster dose	Procedure	CPT-4
0011A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRN-LNP, spike protein, preservative free, 100mcg/0.5mL dosage, first dose	Procedure	CPT-4
0012A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRN-LNP, spike protein, preservative free, 100mcg/0.5mL dosage, second dose	Procedure	CPT-4
0013A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRN-LNP, spike protein, preservative free, 100mcg/0.5mL dosage, third dose	Procedure	CPT-4
0031A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, DNA, spike protein, adenovirus type 26 (Ad26) vector, preservative free, 5x10 ¹⁰ viral particles/0.5mL dosage; single dose	Procedure	CPT-4

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Code	Description	Code Category	Code Type
0034A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, DNA, spike protein, adenovirus type 26 (Ad26) vector, preservative free, 5x10 ¹⁰ viral particles/0.5mL dosage; booster	Procedure	CPT-4
0041A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, recombinant spike protein nanoparticle, saponin-based adjuvant, preservative free, 5mcg/0.5mL dosage; first dose	Procedure	CPT-4
0042A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, recombinant spike protein nanoparticle, saponin-based adjuvant, preservative free, 5mcg/0.5mL dosage; second dose	Procedure	CPT-4
0044A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, recombinant spike protein nanoparticle, saponin-based adjuvant, preservative free, 5mcg/0.5mL dosage; booster	Procedure	CPT-4
0051A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, tris-sucrose formulation, first dose	Procedure	CPT-4
0052A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, tris-sucrose formulation, second dose	Procedure	CPT-4
0053A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, tris-sucrose formulation, third dose	Procedure	CPT-4

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Code	Description	Code Category	Code Type
0054A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, tris-sucrose formulation, booster dose	Procedure	CPT-4
0064A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRN-LNP, spike protein, preservative free, 50mcg/0.25mL dosage, booster dose	Procedure	CPT-4
0071A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 10mcg/0.2mL dosage, diluent reconstituted, tris-sucrose formulation, first dose	Procedure	CPT-4
0072A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 10mcg/0.2mL dosage, diluent reconstituted, tris-sucrose formulation, second dose	Procedure	CPT-4
0073A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 10mcg/0.2mL dosage, diluent reconstituted, tris-sucrose formulation, third dose	Procedure	CPT-4
0074A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 10mcg/0.2mL dosage, diluent reconstituted, tris-sucrose formulation, booster dose	Procedure	CPT-4
0081A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 3mcg/0.2mL dosage, diluent reconstituted, tris-sucrose formulation, first dose	Procedure	CPT-4

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Code	Description	Code Category	Code Type
0082A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 3mcg/0.2mL dosage, diluent reconstituted, tris-sucrose formulation, second dose	Procedure	CPT-4
0083A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 3mcg/0.2mL dosage, diluent reconstituted, tris-sucrose formulation, third dose	Procedure	CPT-4
0091A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 50mcg/0.5mL dosage, for intramuscular use, first dose	Procedure	CPT-4
0092A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 50mcg/0.5mL dosage, for intramuscular use, second dose	Procedure	CPT-4
0093A	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 50mcg/0.5mL dosage, for intramuscular use, third dose	Procedure	CPT-4
0094A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 50mcg/0.5mL dosage, for intramuscular use, booster dose	Procedure	CPT-4
0111A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 25mcg/0.25mL dosage, for intramuscular use, first dose	Procedure	CPT-4

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
0112A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 25mcg/0.25mL dosage, for intramuscular use, second dose	Procedure	CPT-4
0113A	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 25mcg/0.25mL dosage, for intramuscular use, third dose	Procedure	CPT-4
0124A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, bivalent spike protein, preservative free, 30 mcg/0.3mL dosage, diluent reconstituted, tris-sucrose formulation booster dose	Procedure	CPT-4
0134A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRN-LNP, spike protein, bivalent, preservative free, 50mcg/0.5mL dosage, booster dose	Procedure	CPT-4
0144A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease[COVID-19]) vaccine, mRN-LNP, spike protein, bivalent, preservative free, 25mcg/0.25mL dosage, booster dose	Procedure	CPT-4
0154A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, bivalent spike protein, preservative free, 10 mcg/0.2mL dosage, diluent reconstituted, tris-sucrose formulation booster dose	Procedure	CPT-4
0164A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, bivalent, preservative free, 10 mcg/0.2mL dosage, booster dose	Procedure	CPT-4
207	COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5mL dose or 50 mcg/0.25mL dose; FDA EUA and BLA (18+ yrs), Moderna adult primary series and IC dose. EUA 8/31/2022 rescinded monovalent booster dose. Used to record Moderna vaccines administered in the US and in non-US locations (includes tradename Spikevax)	Procedure	CV

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
208	COVID-19, mRNA, LNP-S, PF, 30 mcg/0.3 mL dose; FDA EUA (12+ yrs) and BLA (16+ yrs), Pfizer adult primary series and IC dose original formulation. EUA 8/31/2022 rescinded monovalent booster dose. Used to record Pfizer vaccines administered in the US and in non-US locations (includes tradename Comirnaty)	Procedure	CV
211	COVID-19, subunit, rS-nanoparticle+Matrix-M1 Adjuvant, PF, 0.5 mL; FDA EUA Authorized, Novavax primary series adult dose	Procedure	CV
212	COVID-19 vaccine, vector-nr, rS-Ad26, PF, 0.5 mL; FDA EUA 02/27/2021, 1-dose vaccine. Used to record Janssen/J&J vaccines administered in the US and in non-US locations	Procedure	CV
213	SARS-COV-2 (COVID-19) vaccine, UNSPECIFIED; Unspecified code for COVID-19 not to be used to record patient US administration. May be used to record historic US administration if product not known. CVX code 500 should be used to record Non-US vaccine where product is not known.	Procedure	CV
217	COVID-19, mRNA, LNP-S, PF, 30 mcg/0.3 mL dose, tris-sucrose; FDA EUA (12+ yrs) and BLA (16+ yrs), Pfizer adult primary series and IC dose tris-sucrose formulation. EUA 8/31/2022 rescinded monovalent booster dose	Procedure	CV
218	COVID-19, mRNA, LNP-S, PF, 10 mcg/0.2 mL dose, tris-sucrose; FDA EUA (5 yrs through 11 yrs), Pfizer tris-sucrose pediatric primary series, IC, and booster	Procedure	CV
219	COVID-19, mRNA, LNP-S, PF, 3 mcg/0.2 mL dose, tris-sucrose; FDA EUA (6 mo through 4 yrs), Pfizer tris-sucrose pediatric primary series	Procedure	CV
221	COVID-19, mRNA, LNP-S, PF, 50 mcg/0.5 mL dose; FDA EUA Moderna, EUA 8/31/2022 rescinded use of this product for adult monovalent booster dose. Vaccine now only authorized for 6 yrs through 11 primary series and IC doses	Procedure	CV
227	COVID-19, mRNA, LNP-S, PF, pediatric 50 mcg/0.5 mL dose; Temporarily inactivated - Use CVX code 221 for EUA Moderna Pediatric 6yr to<12 yr vaccine 2.5 mL vial, 50 mcg/0.5 mL dose	Procedure	CV
228	COVID-19, mRNA, LNP-S, PF, pediatric 25 mcg/0.25 mL dose; FDA EUA Authorized (6 mo through 5 yrs), Moderna pediatric primary series and IC dose	Procedure	CV

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Code	Description	Code Category	Code Type
229	COVID-19, mRNA, LNP-S, bivalent booster, PF, 50 mcg/0.5 mL or 25mcg/0.25 mL dose; EUA authorized Moderna bivalent booster 2 dose levels: ages 6 yrs thru 11 yrs 0.25mL dose; 12 years and older 0.5mL dose	Procedure	CV
230	COVID-19, mRNA, LNP-S, bivalent booster, PF, 10 mcg/0.2 mL; Pre-EUA Moderna bivalent booster (ages 6 mo through 5 yrs), original strain + omicron BA.4/BA.5	Procedure	CV
300	COVID-19, mRNA, LNP-S, bivalent booster, PF, 30 mcg/0.3 mL dose; EUA authorized Pfizer adult bivalent booster ages 12+ yrs, original strain + omicron BA.4/BA.5	Procedure	CV
301	COVID-19, mRNA, LNP-S, bivalent booster, PF, 10 mcg/0.2 mL dose; EUA authorized (5 yrs through 11 yrs) Pfizer bivalent booster, original strain + omicron BA.4/BA.5	Procedure	CV
302	COVID-19, mRNA, LNP-S, bivalent, PF, 3 mcg/0.2 mL dose; Pre-EUA Pfizer bivalent (ages 6 mo through 4 yrs), original strain + omicron BA.4/BA.5	Procedure	CV
91300	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3 mL dosage, diluent reconstituted, for intramuscular use	Procedure	CPT-4
91301	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 100 mcg/0.5 mL dosage, for intramuscular use	Procedure	CPT-4
91303	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, DNA, spike protein, adenovirus type 26 (Ad26) vector, preservative free, 5x10 ¹⁰ viral particles/0.5 mL dosage, for intramuscular use	Procedure	CPT-4
91304	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, recombinant spike protein nanoparticle, saponin-based adjuvant, preservative free, 5 mcg/0.5 mL dosage, for intramuscular use	Procedure	CPT-4
91305	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 30 mcg/0.3 mL dosage, tris-sucrose formulation, for intramuscular use	Procedure	CPT-4

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Code	Description	Code Category	Code Type
91306	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 50 mcg/0.25 mL dosage, for intramuscular use	Procedure	CPT-4
91307	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 10 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation, for intramuscular use	Procedure	CPT-4
91308	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 3 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation, for intramuscular use	Procedure	CPT-4
91309	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 50 mcg/0.5 mL dosage, for intramuscular use	Procedure	CPT-4
91311	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, preservative free, 25 mcg/0.25 mL dosage, for intramuscular use	Procedure	CPT-4
91312	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, bivalent spike protein, preservative free, 30 mcg/0.3 mL dosage, tris-sucrose formulation, for intramuscular use	Procedure	CPT-4
91313	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, bivalent, preservative free, 50 mcg/0.5 mL dosage, for intramuscular use	Procedure	CPT-4
91314	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, bivalent, preservative free, 25 mcg/0.25 mL dosage, for intramuscular use	Procedure	CPT-4
91315	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, bivalent spike protein, preservative free, 10 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation, for intramuscular use	Procedure	CPT-4

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Code	Description	Code Category	Code Type
91316	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, bivalent, preservative free, 10 mcg/0.2mL dosage, for intramuscular use	Procedure	CPT-4
91317	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, bivalent spike protein, preservative free, 3 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation, for intramuscular use	Procedure	CPT-4
M0201	COVID-19 vaccine home admin	Procedure	HCPCS
Influenza Vaccination			
90470	H1N1 immunization administration (intramuscular, intranasal), including counseling when performed	Procedure	CPT-4
90630	Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, for intradermal use	Procedure	CPT-4
90653	Influenza vaccine, inactivated (IIV), subunit, adjuvanted, for intramuscular use	Procedure	CPT-4
90654	Influenza virus vaccine, trivalent (IIV3), split virus, preservative-free, for intradermal use	Procedure	CPT-4
90655	Influenza virus vaccine, trivalent (IIV3), split virus, preservative free, 0.25 mL dosage, for intramuscular use	Procedure	CPT-4
90656	Influenza virus vaccine, trivalent (IIV3), split virus, preservative free, 0.5 mL dosage, for intramuscular use	Procedure	CPT-4
90657	Influenza virus vaccine, trivalent (IIV3), split virus, 0.25 mL dosage, for intramuscular use	Procedure	CPT-4
90658	Influenza virus vaccine, trivalent (IIV3), split virus, 0.5 mL dosage, for intramuscular use	Procedure	CPT-4
90659	Influenza virus vaccine, whole virus, for intramuscular or jet injection use	Procedure	CPT-4
90660	Influenza virus vaccine, trivalent, live (LAIV3), for intranasal use	Procedure	CPT-4
90661	Influenza virus vaccine, trivalent (ccIIV3), derived from cell cultures, subunit, preservative and antibiotic free, 0.5 mL dosage, for intramuscular use	Procedure	CPT-4
90662	Influenza virus vaccine (IIV), split virus, preservative free, enhanced immunogenicity via increased antigen content, for intramuscular use	Procedure	CPT-4
90663	Influenza virus vaccine, pandemic formulation, H1N1	Procedure	CPT-4
90664	Influenza virus vaccine, live (LAIV), pandemic formulation, for intranasal use	Procedure	CPT-4
90666	Influenza virus vaccine (IIV), pandemic formulation, split virus, preservative free, for intramuscular use	Procedure	CPT-4

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Code	Description	Code Category	Code Type
90667	Influenza virus vaccine (IIV), pandemic formulation, split virus, adjuvanted, for intramuscular use	Procedure	CPT-4
90668	Influenza virus vaccine (IIV), pandemic formulation, split virus, for intramuscular use	Procedure	CPT-4
90672	Influenza virus vaccine, quadrivalent, live (LAIV4), for intranasal use	Procedure	CPT-4
90673	Influenza virus vaccine, trivalent (RIV3), derived from recombinant DNA, hemagglutinin (HA) protein only, preservative and antibiotic free, for intramuscular use	Procedure	CPT-4
90674	Influenza virus vaccine, quadrivalent (ccIIV4), derived from cell cultures, subunit, preservative and antibiotic free, 0.5 mL dosage, for intramuscular use	Procedure	CPT-4
90682	Influenza virus vaccine, quadrivalent (RIV4), derived from recombinant DNA, hemagglutinin (HA) protein only, preservative and antibiotic free, for intramuscular use	Procedure	CPT-4
90685	Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, 0.25 mL, for intramuscular use	Procedure	CPT-4
90686	Influenza virus vaccine, quadrivalent (IIV4), split virus, preservative free, 0.5 mL dosage, for intramuscular use	Procedure	CPT-4
90687	Influenza virus vaccine, quadrivalent (IIV4), split virus, 0.25 mL dosage, for intramuscular use	Procedure	CPT-4
90688	Influenza virus vaccine, quadrivalent (IIV4), split virus, 0.5 mL dosage, for intramuscular use	Procedure	CPT-4
90689	Influenza virus vaccine quadrivalent (IIV4), inactivated, adjuvanted, preservative free, 0.25 mL dosage, for intramuscular use	Procedure	CPT-4
90694	Influenza virus vaccine, quadrivalent (aIIV4), inactivated, adjuvanted, preservative free, 0.5 mL dosage, for intramuscular use	Procedure	CPT-4
90724	IMMUNIZ ACTIVE; INFLUENZA VIRUS VACCINE	Procedure	CPT-4
90756	Influenza virus vaccine, quadrivalent (ccIIV4), derived from cell cultures, subunit, antibiotic free, 0.5mL dosage, for intramuscular use	Procedure	CPT-4
G0008	Administration of influenza virus vaccine	Procedure	HCPCS
G9141	Influenza A (H1N1) immunization administration (includes the physician counseling the patient/family)	Procedure	HCPCS
G9142	Influenza A (H1N1) vaccine, any route of administration	Procedure	HCPCS
Q0034	Administration of influenza vaccine to Medicare beneficiaries by participating demonstration sites	Procedure	HCPCS
Q2033	Influenza vaccine, recombinant hemagglutinin antigens, for intramuscular use (Flublok)	Procedure	HCPCS
Q2034	Influenza virus vaccine, split virus, for intramuscular use (Agriflu)	Procedure	HCPCS

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Code	Description	Code Category	Code Type
Q2035	Influenza virus vaccine, split virus, when administered to individuals 3 years of age and older, for intramuscular use (AFLURIA)	Procedure	HCPCS
Q2036	Influenza virus vaccine, split virus, when administered to individuals 3 years of age and older, for intramuscular use (FLULAVAL)	Procedure	HCPCS
Q2037	Influenza virus vaccine, split virus, when administered to individuals 3 years of age and older, for intramuscular use (FLUVIRIN)	Procedure	HCPCS
Q2038	Influenza virus vaccine, split virus, when administered to individuals 3 years of age and older, for intramuscular use (Fluzone)	Procedure	HCPCS
Q2039	Influenza virus vaccine, not otherwise specified	Procedure	HCPCS
DTaP Vaccination			
90696	Diphtheria, tetanus toxoids, acellular pertussis vaccine and inactivated poliovirus vaccine (DTaP-IPV), when administered to children 4 through 6 years of age, for intramuscular use	Procedure	CPT-4
90697	Diphtheria, tetanus toxoids, acellular pertussis vaccine, inactivated poliovirus vaccine, Haemophilus influenzae type b PRP-OMP conjugate vaccine, and hepatitis B vaccine (DTaP-IPV-Hib-HepB), for intramuscular use	Procedure	CPT-4
90698	Diphtheria, tetanus toxoids, acellular pertussis vaccine, Haemophilus influenzae type b, and inactivated poliovirus vaccine, (DTaP-IPV/Hib), for intramuscular use	Procedure	CPT-4
90700	Diphtheria, tetanus toxoids, and acellular pertussis vaccine (DTaP), when administered to individuals younger than 7 years, for intramuscular use	Procedure	CPT-4
90702	Diphtheria and tetanus toxoids adsorbed (DT) when administered to individuals younger than 7 years, for intramuscular use	Procedure	CPT-4
90714	Tetanus and diphtheria toxoids adsorbed (Td), preservative free, when administered to individuals 7 years or older, for intramuscular use	Procedure	CPT-4
90715	Tetanus, diphtheria toxoids and acellular pertussis vaccine (Tdap), when administered to individuals 7 years or older, for intramuscular use	Procedure	CPT-4
90718	Tetanus and diphtheria toxoids (Td) adsorbed when administered to individuals 7 years or older, for intramuscular use	Procedure	CPT-4
90720	Diphtheria, tetanus toxoids, and whole cell pertussis vaccine and Hemophilus influenza B vaccine (DTP-Hib), for intramuscular use	Procedure	CPT-4

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Code	Description	Code Category	Code Type
90721	Diphtheria, tetanus toxoids, and acellular pertussis vaccine and Hemophilus influenza B vaccine (DTaP/Hib), for intramuscular use	Procedure	CPT-4
90723	Diphtheria, tetanus toxoids, acellular pertussis vaccine, hepatitis B, and inactivated poliovirus vaccine (DTaP-HepB-IPV), for intramuscular use	Procedure	CPT-4
Haemophilus Influenza Type B Vaccination			
90644	Meningococcal conjugate vaccine, serogroups C & Y and Haemophilus influenzae type b vaccine (Hib-MenCY), 4 dose schedule, when administered to children 6 weeks-18 months of age, for intramuscular use	Procedure	CPT-4
90645	Hemophilus influenza b vaccine (Hib), HbOC conjugate (4 dose schedule), for intramuscular use	Procedure	CPT-4
90646	Hemophilus influenza b vaccine (Hib), PRP-D conjugate, for booster use only, intramuscular use	Procedure	CPT-4
90647	Haemophilus influenzae type b vaccine (Hib), PRP-OMP conjugate, 3 dose schedule, for intramuscular use	Procedure	CPT-4
90648	Haemophilus influenzae type b vaccine (Hib), PRP-T conjugate, 4 dose schedule, for intramuscular use	Procedure	CPT-4
90697	Diphtheria, tetanus toxoids, acellular pertussis vaccine, inactivated poliovirus vaccine, Haemophilus influenzae type b PRP-OMP conjugate vaccine, and hepatitis B vaccine (DTaP-IPV-Hib-HepB), for intramuscular use	Procedure	CPT-4
90698	Diphtheria, tetanus toxoids, acellular pertussis vaccine, Haemophilus influenzae type b, and inactivated poliovirus vaccine, (DTaP-IPV/Hib), for intramuscular use	Procedure	CPT-4
90720	Diphtheria, tetanus toxoids, and whole cell pertussis vaccine and Hemophilus influenza B vaccine (DTP-Hib), for intramuscular use	Procedure	CPT-4
90721	Diphtheria, tetanus toxoids, and acellular pertussis vaccine and Hemophilus influenza B vaccine (DTaP/Hib), for intramuscular use	Procedure	CPT-4
90737	Hemophilus influenza B	Procedure	CPT-4
90748	Hepatitis B and Haemophilus influenzae type b vaccine (Hib-HepB), for intramuscular use	Procedure	CPT-4
MMR Vaccination			
90704	Mumps virus vaccine, live, for subcutaneous use	Procedure	CPT-4
90705	Measles virus vaccine, live, for subcutaneous use	Procedure	CPT-4
90706	Rubella virus vaccine, live, for subcutaneous use	Procedure	CPT-4
90707	Measles, mumps and rubella virus vaccine (MMR), live, for subcutaneous use	Procedure	CPT-4
90708	Measles and rubella virus vaccine, live, for subcutaneous use	Procedure	CPT-4

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Code	Description	Code Category	Code Type
90710	Measles, mumps, rubella, and varicella vaccine (MMRV), live, for subcutaneous use	Procedure	CPT-4
Meningococcal Vaccination			
90619	Meningococcal conjugate vaccine, serogroups A, C, W, Y, quadrivalent, tetanus toxoid carrier (MenACWY-TT), for intramuscular use	Procedure	CPT-4
90620	Meningococcal recombinant protein and outer membrane vesicle vaccine, serogroup B (MenB-4C), 2 dose schedule, for intramuscular use	Procedure	CPT-4
90621	Meningococcal recombinant lipoprotein vaccine, serogroup B (MenB-FHbp), 2 or 3 dose schedule, for intramuscular use	Procedure	CPT-4
90644	Meningococcal conjugate vaccine, serogroups C & Y and Haemophilus influenzae type b vaccine (Hib-MenCY), 4 dose schedule, when administered to children 6 weeks-18 months of age, for intramuscular use	Procedure	CPT-4
90733	Meningococcal polysaccharide vaccine, serogroups A, C, Y, W-135, quadrivalent (MPSV4), for subcutaneous use	Procedure	CPT-4
90734	Meningococcal conjugate vaccine, serogroups A, C, W, Y, quadrivalent, diphtheria toxoid carrier (MenACWY-D) or CRM197 carrier (MenACWY-CRM), for intramuscular use	Procedure	CPT-4
G9414	Patient had one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays	Procedure	HCPCS
G9415	Patient did not have one dose of meningococcal vaccine (serogroups A, C, W, Y) on or between the patient's 11th and 13th birthdays	Procedure	HCPCS
Pneumococcal Vaccination			
90669	Pneumococcal conjugate vaccine, 7 valent (PCV7), for intramuscular use	Procedure	CPT-4
90670	Pneumococcal conjugate vaccine, 13 valent (PCV13), for intramuscular use	Procedure	CPT-4
90671	Pneumococcal conjugate vaccine, 15 valent (PCV15), for intramuscular use	Procedure	CPT-4
90677	Pneumococcal conjugate vaccine, 20 valent (PCV20), for intramuscular use	Procedure	CPT-4
90732	Pneumococcal polysaccharide vaccine, 23-valent (PPSV23), adult or immunosuppressed patient dosage, when administered to individuals 2 years or older, for subcutaneous or intramuscular use	Procedure	CPT-4
G0009	Administration of pneumococcal vaccine	Procedure	HCPCS
G8864	Pneumococcal vaccine administered or previously received	Procedure	HCPCS

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Code	Description	Code Category	Code Type
S0195	Pneumococcal conjugate vaccine, polyvalent, intramuscular, for children from 5 years to 9 years of age who have not previously received the vaccine	Procedure	HCPCS
Varicella Vaccination			
86787	Antibody; varicella-zoster	Procedure	CPT-4
87290	Infectious agent antigen detection by immunofluorescent technique; Varicella zoster virus	Procedure	CPT-4
87483	Infectious agent detection by nucleic acid (DNA or RNA); central nervous system pathogen (eg, Neisseria meningitidis, Streptococcus pneumoniae, Listeria, Haemophilus influenzae, E. coli, Streptococcus agalactiae, enterovirus, human parechovirus, herpes simplex virus type 1 and 2, human herpesvirus 6, cytomegalovirus, varicella zoster virus, Cryptococcus), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 12-25 targets	Procedure	CPT-4
90396	Varicella-zoster immune globulin, human, for intramuscular use	Procedure	CPT-4
90710	Measles, mumps, rubella, and varicella vaccine (MMRV), live, for subcutaneous use	Procedure	CPT-4
90716	Varicella virus vaccine (VAR), live, for subcutaneous use	Procedure	CPT-4
Zoster Recombinant Vaccination			
86787	Antibody; varicella-zoster	Procedure	CPT-4
87290	Infectious agent antigen detection by immunofluorescent technique; Varicella zoster virus	Procedure	CPT-4
87483	Infectious agent detection by nucleic acid (DNA or RNA); central nervous system pathogen (eg, Neisseria meningitidis, Streptococcus pneumoniae, Listeria, Haemophilus influenzae, E. coli, Streptococcus agalactiae, enterovirus, human parechovirus, herpes simplex virus type 1 and 2, human herpesvirus 6, cytomegalovirus, varicella zoster virus, Cryptococcus), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 12-25 targets	Procedure	CPT-4
90396	Varicella-zoster immune globulin, human, for intramuscular use	Procedure	CPT-4
90736	Zoster (shingles) vaccine (HZV), live, for subcutaneous injection	Procedure	CPT-4
90750	Zoster (shingles) vaccine (HZV), recombinant, subunit, adjuvanted, for intramuscular use	Procedure	CPT-4

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
G2160	Patient received at least one dose of the herpes zoster live vaccine or two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient's 50th birthday before or during the measurement period	Procedure	HCPCS
G2161	Patient had prior adverse reaction caused by zoster vaccine or its components any time during or before the measurement period	Procedure	HCPCS
G2162	Patient did not receive at least one dose of the herpes zoster live vaccine or two doses of the herpes zoster recombinant vaccine (at least 28 days apart) anytime on or after the patient's 50th birthday before or during the measurement period; or have prior adverse reaction caused by zoster vaccine or its components any time during or before the measurement period	Procedure	HCPCS

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
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site	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
Alzheimers Disease			
G30.0	Alzheimer's disease with early onset	Diagnosis	ICD-10-CM
G30.1	Alzheimer's disease with late onset	Diagnosis	ICD-10-CM
G30.8	Other Alzheimer's disease	Diagnosis	ICD-10-CM
G30.9	Alzheimer's disease, unspecified	Diagnosis	ICD-10-CM
Anemia			
C94.6	Myelodysplastic disease, not classified	Diagnosis	ICD-10-CM
D46.0	Refractory anemia without ring sideroblasts, so stated	Diagnosis	ICD-10-CM
D46.1	Refractory anemia with ring sideroblasts	Diagnosis	ICD-10-CM
D46.20	Refractory anemia with excess of blasts, unspecified	Diagnosis	ICD-10-CM
D46.21	Refractory anemia with excess of blasts 1	Diagnosis	ICD-10-CM
D46.22	Refractory anemia with excess of blasts 2	Diagnosis	ICD-10-CM
D46.4	Refractory anemia, unspecified	Diagnosis	ICD-10-CM
D46.9	Myelodysplastic syndrome, unspecified	Diagnosis	ICD-10-CM
D46.A	Refractory cytopenia with multilineage dysplasia	Diagnosis	ICD-10-CM
D46.B	Refractory cytopenia with multilineage dysplasia and ring sideroblasts	Diagnosis	ICD-10-CM
D46.C	Myelodysplastic syndrome with isolated del(5q) chromosomal abnormality	Diagnosis	ICD-10-CM
D46.Z	Other myelodysplastic syndromes	Diagnosis	ICD-10-CM
D47.4	Osteomyelofibrosis	Diagnosis	ICD-10-CM
D50.0	Iron deficiency anemia secondary to blood loss (chronic)	Diagnosis	ICD-10-CM
D50.1	Sideropenic dysphagia	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
D50.8	Other iron deficiency anemias	Diagnosis	ICD-10-CM
D50.9	Iron deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D51.0	Vitamin B12 deficiency anemia due to intrinsic factor deficiency	Diagnosis	ICD-10-CM
D51.1	Vitamin B12 deficiency anemia due to selective vitamin B12 malabsorption with proteinuria	Diagnosis	ICD-10-CM
D51.2	Transcobalamin II deficiency	Diagnosis	ICD-10-CM
D51.3	Other dietary vitamin B12 deficiency anemia	Diagnosis	ICD-10-CM
D51.8	Other vitamin B12 deficiency anemias	Diagnosis	ICD-10-CM
D51.9	Vitamin B12 deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D52.0	Dietary folate deficiency anemia	Diagnosis	ICD-10-CM
D52.1	Drug-induced folate deficiency anemia	Diagnosis	ICD-10-CM
D52.8	Other folate deficiency anemias	Diagnosis	ICD-10-CM
D52.9	Folate deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D53.0	Protein deficiency anemia	Diagnosis	ICD-10-CM
D53.1	Other megaloblastic anemias, not elsewhere classified	Diagnosis	ICD-10-CM
D53.2	Scorbutic anemia	Diagnosis	ICD-10-CM
D53.8	Other specified nutritional anemias	Diagnosis	ICD-10-CM
D53.9	Nutritional anemia, unspecified	Diagnosis	ICD-10-CM
D55.0	Anemia due to glucose-6-phosphate dehydrogenase [G6PD] deficiency	Diagnosis	ICD-10-CM
D55.1	Anemia due to other disorders of glutathione metabolism	Diagnosis	ICD-10-CM
D55.2	Anemia due to disorders of glycolytic enzymes	Diagnosis	ICD-10-CM
D55.21	Anemia due to pyruvate kinase deficiency	Diagnosis	ICD-10-CM
D55.29	Anemia due to other disorders of glycolytic enzymes	Diagnosis	ICD-10-CM
D55.3	Anemia due to disorders of nucleotide metabolism	Diagnosis	ICD-10-CM
D55.8	Other anemias due to enzyme disorders	Diagnosis	ICD-10-CM
D55.9	Anemia due to enzyme disorder, unspecified	Diagnosis	ICD-10-CM
D56.0	Alpha thalassemia	Diagnosis	ICD-10-CM
D56.1	Beta thalassemia	Diagnosis	ICD-10-CM
D56.2	Delta-beta thalassemia	Diagnosis	ICD-10-CM
D56.3	Thalassemia minor	Diagnosis	ICD-10-CM
D56.4	Hereditary persistence of fetal hemoglobin [HPFH]	Diagnosis	ICD-10-CM
D56.5	Hemoglobin E-beta thalassemia	Diagnosis	ICD-10-CM
D56.8	Other thalassemias	Diagnosis	ICD-10-CM
D56.9	Thalassemia, unspecified	Diagnosis	ICD-10-CM
D57.00	Hb-SS disease with crisis, unspecified	Diagnosis	ICD-10-CM
D57.01	Hb-SS disease with acute chest syndrome	Diagnosis	ICD-10-CM
D57.02	Hb-SS disease with splenic sequestration	Diagnosis	ICD-10-CM
D57.03	Hb-SS disease with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.09	Hb-SS disease with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.1	Sickle-cell disease without crisis	Diagnosis	ICD-10-CM
D57.20	Sickle-cell/Hb-C disease without crisis	Diagnosis	ICD-10-CM
D57.211	Sickle-cell/Hb-C disease with acute chest syndrome	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
D57.212	Sickle-cell/Hb-C disease with splenic sequestration	Diagnosis	ICD-10-CM
D57.213	Sickle-cell/Hb-C disease with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.218	Sickle-cell/Hb-C disease with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.219	Sickle-cell/Hb-C disease with crisis, unspecified	Diagnosis	ICD-10-CM
D57.3	Sickle-cell trait	Diagnosis	ICD-10-CM
D57.40	Sickle-cell thalassemia without crisis	Diagnosis	ICD-10-CM
D57.411	Sickle-cell thalassemia, unspecified, with acute chest syndrome	Diagnosis	ICD-10-CM
D57.412	Sickle-cell thalassemia, unspecified, with splenic sequestration	Diagnosis	ICD-10-CM
D57.413	Sickle-cell thalassemia, unspecified, with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.418	Sickle-cell thalassemia, unspecified, with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.419	Sickle-cell thalassemia, unspecified, with crisis	Diagnosis	ICD-10-CM
D57.42	Sickle-cell thalassemia beta zero without crisis	Diagnosis	ICD-10-CM
D57.431	Sickle-cell thalassemia beta zero with acute chest syndrome	Diagnosis	ICD-10-CM
D57.432	Sickle-cell thalassemia beta zero with splenic sequestration	Diagnosis	ICD-10-CM
D57.433	Sickle-cell thalassemia beta zero with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.438	Sickle-cell thalassemia beta zero with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.439	Sickle-cell thalassemia beta zero with crisis, unspecified	Diagnosis	ICD-10-CM
D57.44	Sickle-cell thalassemia beta plus without crisis	Diagnosis	ICD-10-CM
D57.451	Sickle-cell thalassemia beta plus with acute chest syndrome	Diagnosis	ICD-10-CM
D57.452	Sickle-cell thalassemia beta plus with splenic sequestration	Diagnosis	ICD-10-CM
D57.453	Sickle-cell thalassemia beta plus with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.458	Sickle-cell thalassemia beta plus with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.459	Sickle-cell thalassemia beta plus with crisis, unspecified	Diagnosis	ICD-10-CM
D57.80	Other sickle-cell disorders without crisis	Diagnosis	ICD-10-CM
D57.811	Other sickle-cell disorders with acute chest syndrome	Diagnosis	ICD-10-CM
D57.812	Other sickle-cell disorders with splenic sequestration	Diagnosis	ICD-10-CM
D57.813	Other sickle-cell disorders with cerebral vascular involvement	Diagnosis	ICD-10-CM
D57.818	Other sickle-cell disorders with crisis with other specified complication	Diagnosis	ICD-10-CM
D57.819	Other sickle-cell disorders with crisis, unspecified	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
D58.0	Hereditary spherocytosis	Diagnosis	ICD-10-CM
D58.1	Hereditary elliptocytosis	Diagnosis	ICD-10-CM
D58.2	Other hemoglobinopathies	Diagnosis	ICD-10-CM
D58.8	Other specified hereditary hemolytic anemias	Diagnosis	ICD-10-CM
D58.9	Hereditary hemolytic anemia, unspecified	Diagnosis	ICD-10-CM
D59.0	Drug-induced autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.1	Other autoimmune hemolytic anemias	Diagnosis	ICD-10-CM
D59.10	Autoimmune hemolytic anemia, unspecified	Diagnosis	ICD-10-CM
D59.11	Warm autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.12	Cold autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.13	Mixed type autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.19	Other autoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.2	Drug-induced nonautoimmune hemolytic anemia	Diagnosis	ICD-10-CM
D59.3	Hemolytic-uremic syndrome	Diagnosis	ICD-10-CM
D59.4	Other nonautoimmune hemolytic anemias	Diagnosis	ICD-10-CM
D59.5	Paroxysmal nocturnal hemoglobinuria [Marchiafava-Micheli]	Diagnosis	ICD-10-CM
D59.6	Hemoglobinuria due to hemolysis from other external causes	Diagnosis	ICD-10-CM
D59.8	Other acquired hemolytic anemias	Diagnosis	ICD-10-CM
D59.9	Acquired hemolytic anemia, unspecified	Diagnosis	ICD-10-CM
D60.0	Chronic acquired pure red cell aplasia	Diagnosis	ICD-10-CM
D60.1	Transient acquired pure red cell aplasia	Diagnosis	ICD-10-CM
D60.8	Other acquired pure red cell aplasias	Diagnosis	ICD-10-CM
D60.9	Acquired pure red cell aplasia, unspecified	Diagnosis	ICD-10-CM
D61.01	Constitutional (pure) red blood cell aplasia	Diagnosis	ICD-10-CM
D61.09	Other constitutional aplastic anemia	Diagnosis	ICD-10-CM
D61.1	Drug-induced aplastic anemia	Diagnosis	ICD-10-CM
D61.2	Aplastic anemia due to other external agents	Diagnosis	ICD-10-CM
D61.3	Idiopathic aplastic anemia	Diagnosis	ICD-10-CM
D61.810	Antineoplastic chemotherapy induced pancytopenia	Diagnosis	ICD-10-CM
D61.811	Other drug-induced pancytopenia	Diagnosis	ICD-10-CM
D61.818	Other pancytopenia	Diagnosis	ICD-10-CM
D61.82	Myelophthisis	Diagnosis	ICD-10-CM
D61.89	Other specified aplastic anemias and other bone marrow failure syndromes	Diagnosis	ICD-10-CM
D61.9	Aplastic anemia, unspecified	Diagnosis	ICD-10-CM
D63.0	Anemia in neoplastic disease	Diagnosis	ICD-10-CM
D63.1	Anemia in chronic kidney disease	Diagnosis	ICD-10-CM
D63.8	Anemia in other chronic diseases classified elsewhere	Diagnosis	ICD-10-CM
D64.0	Hereditary sideroblastic anemia	Diagnosis	ICD-10-CM
D64.1	Secondary sideroblastic anemia due to disease	Diagnosis	ICD-10-CM
D64.2	Secondary sideroblastic anemia due to drugs and toxins	Diagnosis	ICD-10-CM
D64.3	Other sideroblastic anemias	Diagnosis	ICD-10-CM
D64.4	Congenital dyserythropoietic anemia	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
D64.81	Anemia due to antineoplastic chemotherapy	Diagnosis	ICD-10-CM
D64.89	Other specified anemias	Diagnosis	ICD-10-CM
D64.9	Anemia, unspecified	Diagnosis	ICD-10-CM
D75.81	Myelofibrosis	Diagnosis	ICD-10-CM

Asthma

J45.20	Mild intermittent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.21	Mild intermittent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.22	Mild intermittent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.30	Mild persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.31	Mild persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.32	Mild persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.40	Moderate persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.41	Moderate persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.42	Moderate persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.50	Severe persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.51	Severe persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.52	Severe persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.901	Unspecified asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.902	Unspecified asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.909	Unspecified asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.990	Exercise induced bronchospasm	Diagnosis	ICD-10-CM
J45.991	Cough variant asthma	Diagnosis	ICD-10-CM
J45.998	Other asthma	Diagnosis	ICD-10-CM

Atrial Fibrillation and Flutter

I48.0	Paroxysmal atrial fibrillation	Diagnosis	ICD-10-CM
I48.1	Persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.11	Longstanding persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.19	Other persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.2	Chronic atrial fibrillation	Diagnosis	ICD-10-CM
I48.20	Chronic atrial fibrillation, unspecified	Diagnosis	ICD-10-CM
I48.21	Permanent atrial fibrillation	Diagnosis	ICD-10-CM
I48.3	Typical atrial flutter	Diagnosis	ICD-10-CM
I48.4	Atypical atrial flutter	Diagnosis	ICD-10-CM
I48.91	Unspecified atrial fibrillation	Diagnosis	ICD-10-CM

Benign Prostatic Hyperplasia - Inclusion Codes

N40.0	Benign prostatic hyperplasia without lower urinary tract symptoms	Diagnosis	ICD-10-CM
N40.1	Benign prostatic hyperplasia with lower urinary tract symptoms	Diagnosis	ICD-10-CM
N40.2	Nodular prostate without lower urinary tract symptoms	Diagnosis	ICD-10-CM
N40.3	Nodular prostate with lower urinary tract symptoms	Diagnosis	ICD-10-CM

Benign Prostatic Hyperplasia - Exclusion Codes

D29.1	Benign neoplasm of prostate	Diagnosis	ICD-10-CM
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Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
Cancer - Breast			
C50.011	Malignant neoplasm of nipple and areola, right female breast	Diagnosis	ICD-10-CM
C50.012	Malignant neoplasm of nipple and areola, left female breast	Diagnosis	ICD-10-CM
C50.019	Malignant neoplasm of nipple and areola, unspecified female breast	Diagnosis	ICD-10-CM
C50.021	Malignant neoplasm of nipple and areola, right male breast	Diagnosis	ICD-10-CM
C50.022	Malignant neoplasm of nipple and areola, left male breast	Diagnosis	ICD-10-CM
C50.029	Malignant neoplasm of nipple and areola, unspecified male breast	Diagnosis	ICD-10-CM
C50.111	Malignant neoplasm of central portion of right female breast	Diagnosis	ICD-10-CM
C50.112	Malignant neoplasm of central portion of left female breast	Diagnosis	ICD-10-CM
C50.119	Malignant neoplasm of central portion of unspecified female breast	Diagnosis	ICD-10-CM
C50.121	Malignant neoplasm of central portion of right male breast	Diagnosis	ICD-10-CM
C50.122	Malignant neoplasm of central portion of left male breast	Diagnosis	ICD-10-CM
C50.129	Malignant neoplasm of central portion of unspecified male breast	Diagnosis	ICD-10-CM
C50.211	Malignant neoplasm of upper-inner quadrant of right female breast	Diagnosis	ICD-10-CM
C50.212	Malignant neoplasm of upper-inner quadrant of left female breast	Diagnosis	ICD-10-CM
C50.219	Malignant neoplasm of upper-inner quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.221	Malignant neoplasm of upper-inner quadrant of right male breast	Diagnosis	ICD-10-CM
C50.222	Malignant neoplasm of upper-inner quadrant of left male breast	Diagnosis	ICD-10-CM
C50.229	Malignant neoplasm of upper-inner quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.311	Malignant neoplasm of lower-inner quadrant of right female breast	Diagnosis	ICD-10-CM
C50.312	Malignant neoplasm of lower-inner quadrant of left female breast	Diagnosis	ICD-10-CM
C50.319	Malignant neoplasm of lower-inner quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.321	Malignant neoplasm of lower-inner quadrant of right male breast	Diagnosis	ICD-10-CM
C50.322	Malignant neoplasm of lower-inner quadrant of left male breast	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C50.329	Malignant neoplasm of lower-inner quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.411	Malignant neoplasm of upper-outer quadrant of right female breast	Diagnosis	ICD-10-CM
C50.412	Malignant neoplasm of upper-outer quadrant of left female breast	Diagnosis	ICD-10-CM
C50.419	Malignant neoplasm of upper-outer quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.421	Malignant neoplasm of upper-outer quadrant of right male breast	Diagnosis	ICD-10-CM
C50.422	Malignant neoplasm of upper-outer quadrant of left male breast	Diagnosis	ICD-10-CM
C50.429	Malignant neoplasm of upper-outer quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.511	Malignant neoplasm of lower-outer quadrant of right female breast	Diagnosis	ICD-10-CM
C50.512	Malignant neoplasm of lower-outer quadrant of left female breast	Diagnosis	ICD-10-CM
C50.519	Malignant neoplasm of lower-outer quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.521	Malignant neoplasm of lower-outer quadrant of right male breast	Diagnosis	ICD-10-CM
C50.522	Malignant neoplasm of lower-outer quadrant of left male breast	Diagnosis	ICD-10-CM
C50.529	Malignant neoplasm of lower-outer quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.611	Malignant neoplasm of axillary tail of right female breast	Diagnosis	ICD-10-CM
C50.612	Malignant neoplasm of axillary tail of left female breast	Diagnosis	ICD-10-CM
C50.619	Malignant neoplasm of axillary tail of unspecified female breast	Diagnosis	ICD-10-CM
C50.621	Malignant neoplasm of axillary tail of right male breast	Diagnosis	ICD-10-CM
C50.622	Malignant neoplasm of axillary tail of left male breast	Diagnosis	ICD-10-CM
C50.629	Malignant neoplasm of axillary tail of unspecified male breast	Diagnosis	ICD-10-CM
C50.811	Malignant neoplasm of overlapping sites of right female breast	Diagnosis	ICD-10-CM
C50.812	Malignant neoplasm of overlapping sites of left female breast	Diagnosis	ICD-10-CM
C50.819	Malignant neoplasm of overlapping sites of unspecified female breast	Diagnosis	ICD-10-CM
C50.821	Malignant neoplasm of overlapping sites of right male breast	Diagnosis	ICD-10-CM
C50.822	Malignant neoplasm of overlapping sites of left male breast	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C50.829	Malignant neoplasm of overlapping sites of unspecified male breast	Diagnosis	ICD-10-CM
C50.911	Malignant neoplasm of unspecified site of right female breast	Diagnosis	ICD-10-CM
C50.912	Malignant neoplasm of unspecified site of left female breast	Diagnosis	ICD-10-CM
C50.919	Malignant neoplasm of unspecified site of unspecified female breast	Diagnosis	ICD-10-CM
C50.921	Malignant neoplasm of unspecified site of right male breast	Diagnosis	ICD-10-CM
C50.922	Malignant neoplasm of unspecified site of left male breast	Diagnosis	ICD-10-CM
C50.929	Malignant neoplasm of unspecified site of unspecified male breast	Diagnosis	ICD-10-CM
D05.00	Lobular carcinoma in situ of unspecified breast	Diagnosis	ICD-10-CM
D05.01	Lobular carcinoma in situ of right breast	Diagnosis	ICD-10-CM
D05.02	Lobular carcinoma in situ of left breast	Diagnosis	ICD-10-CM
D05.10	Intraductal carcinoma in situ of unspecified breast	Diagnosis	ICD-10-CM
D05.11	Intraductal carcinoma in situ of right breast	Diagnosis	ICD-10-CM
D05.12	Intraductal carcinoma in situ of left breast	Diagnosis	ICD-10-CM
D05.80	Other specified type of carcinoma in situ of unspecified breast	Diagnosis	ICD-10-CM
D05.81	Other specified type of carcinoma in situ of right breast	Diagnosis	ICD-10-CM
D05.82	Other specified type of carcinoma in situ of left breast	Diagnosis	ICD-10-CM
D05.90	Unspecified type of carcinoma in situ of unspecified breast	Diagnosis	ICD-10-CM
D05.91	Unspecified type of carcinoma in situ of right breast	Diagnosis	ICD-10-CM
D05.92	Unspecified type of carcinoma in situ of left breast	Diagnosis	ICD-10-CM
Z17.0	Estrogen receptor positive status [ER+]	Diagnosis	ICD-10-CM
Z17.1	Estrogen receptor negative status [ER-]	Diagnosis	ICD-10-CM
Z19.1	Hormone sensitive malignancy status	Diagnosis	ICD-10-CM
Z19.2	Hormone resistant malignancy status	Diagnosis	ICD-10-CM
Z85.3	Personal history of malignant neoplasm of breast	Diagnosis	ICD-10-CM
Z86.000	Personal history of in-situ neoplasm of breast	Diagnosis	ICD-10-CM
Cancer - Colorectal			
C18.0	Malignant neoplasm of cecum	Diagnosis	ICD-10-CM
C18.1	Malignant neoplasm of appendix	Diagnosis	ICD-10-CM
C18.2	Malignant neoplasm of ascending colon	Diagnosis	ICD-10-CM
C18.3	Malignant neoplasm of hepatic flexure	Diagnosis	ICD-10-CM
C18.4	Malignant neoplasm of transverse colon	Diagnosis	ICD-10-CM
C18.5	Malignant neoplasm of splenic flexure	Diagnosis	ICD-10-CM
C18.6	Malignant neoplasm of descending colon	Diagnosis	ICD-10-CM
C18.7	Malignant neoplasm of sigmoid colon	Diagnosis	ICD-10-CM
C18.8	Malignant neoplasm of overlapping sites of colon	Diagnosis	ICD-10-CM
C18.9	Malignant neoplasm of colon, unspecified	Diagnosis	ICD-10-CM
C19	Malignant neoplasm of rectosigmoid junction	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C20	Malignant neoplasm of rectum	Diagnosis	ICD-10-CM
C49.A4	Gastrointestinal stromal tumor of large intestine	Diagnosis	ICD-10-CM
C49.A5	Gastrointestinal stromal tumor of rectum	Diagnosis	ICD-10-CM
D01.0	Carcinoma in situ of colon	Diagnosis	ICD-10-CM
D01.1	Carcinoma in situ of rectosigmoid junction	Diagnosis	ICD-10-CM
D01.2	Carcinoma in situ of rectum	Diagnosis	ICD-10-CM
Z85.030	Personal history of malignant carcinoid tumor of large intestine	Diagnosis	ICD-10-CM
Z85.038	Personal history of other malignant neoplasm of large intestine	Diagnosis	ICD-10-CM
Z85.040	Personal history of malignant carcinoid tumor of rectum	Diagnosis	ICD-10-CM
Z85.048	Personal history of other malignant neoplasm of rectum, rectosigmoid junction, and anus	Diagnosis	ICD-10-CM
Cancer - Endometrial			
C54.0	Malignant neoplasm of isthmus uteri	Diagnosis	ICD-10-CM
C54.1	Malignant neoplasm of endometrium	Diagnosis	ICD-10-CM
C54.2	Malignant neoplasm of myometrium	Diagnosis	ICD-10-CM
C54.3	Malignant neoplasm of fundus uteri	Diagnosis	ICD-10-CM
C54.8	Malignant neoplasm of overlapping sites of corpus uteri	Diagnosis	ICD-10-CM
C54.9	Malignant neoplasm of corpus uteri, unspecified	Diagnosis	ICD-10-CM
D07.0	Carcinoma in situ of endometrium	Diagnosis	ICD-10-CM
Z85.42	Personal history of malignant neoplasm of other parts of uterus	Diagnosis	ICD-10-CM
Cancer - Lung			
C34.00	Malignant neoplasm of unspecified main bronchus	Diagnosis	ICD-10-CM
C34.01	Malignant neoplasm of right main bronchus	Diagnosis	ICD-10-CM
C34.02	Malignant neoplasm of left main bronchus	Diagnosis	ICD-10-CM
C34.10	Malignant neoplasm of upper lobe, unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.11	Malignant neoplasm of upper lobe, right bronchus or lung	Diagnosis	ICD-10-CM
C34.12	Malignant neoplasm of upper lobe, left bronchus or lung	Diagnosis	ICD-10-CM
C34.2	Malignant neoplasm of middle lobe, bronchus or lung	Diagnosis	ICD-10-CM
C34.30	Malignant neoplasm of lower lobe, unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.31	Malignant neoplasm of lower lobe, right bronchus or lung	Diagnosis	ICD-10-CM
C34.32	Malignant neoplasm of lower lobe, left bronchus or lung	Diagnosis	ICD-10-CM
C34.80	Malignant neoplasm of overlapping sites of unspecified bronchus and lung	Diagnosis	ICD-10-CM
C34.81	Malignant neoplasm of overlapping sites of right bronchus and lung	Diagnosis	ICD-10-CM
C34.82	Malignant neoplasm of overlapping sites of left bronchus and lung	Diagnosis	ICD-10-CM
C34.90	Malignant neoplasm of unspecified part of unspecified bronchus or lung	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C34.91	Malignant neoplasm of unspecified part of right bronchus or lung	Diagnosis	ICD-10-CM
C34.92	Malignant neoplasm of unspecified part of left bronchus or lung	Diagnosis	ICD-10-CM
D02.20	Carcinoma in situ of unspecified bronchus and lung	Diagnosis	ICD-10-CM
D02.21	Carcinoma in situ of right bronchus and lung	Diagnosis	ICD-10-CM
D02.22	Carcinoma in situ of left bronchus and lung	Diagnosis	ICD-10-CM
Z85.110	Personal history of malignant carcinoid tumor of bronchus and lung	Diagnosis	ICD-10-CM
Z85.118	Personal history of other malignant neoplasm of bronchus and lung	Diagnosis	ICD-10-CM
Cancer - Prostate			
C61	Malignant neoplasm of prostate	Diagnosis	ICD-10-CM
D07.5	Carcinoma in situ of prostate	Diagnosis	ICD-10-CM
Z85.46	Personal history of malignant neoplasm of prostate	Diagnosis	ICD-10-CM
Cancer - Urologic			
C64.1	Malignant neoplasm of right kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.2	Malignant neoplasm of left kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.9	Malignant neoplasm of unspecified kidney, except renal pelvis	Diagnosis	ICD-10-CM
C65.1	Malignant neoplasm of right renal pelvis	Diagnosis	ICD-10-CM
C65.2	Malignant neoplasm of left renal pelvis	Diagnosis	ICD-10-CM
C65.9	Malignant neoplasm of unspecified renal pelvis	Diagnosis	ICD-10-CM
C66.1	Malignant neoplasm of right ureter	Diagnosis	ICD-10-CM
C66.2	Malignant neoplasm of left ureter	Diagnosis	ICD-10-CM
C66.9	Malignant neoplasm of unspecified ureter	Diagnosis	ICD-10-CM
C68.8	Malignant neoplasm of overlapping sites of urinary organs	Diagnosis	ICD-10-CM
C68.9	Malignant neoplasm of urinary organ, unspecified	Diagnosis	ICD-10-CM
D09.10	Carcinoma in situ of unspecified urinary organ	Diagnosis	ICD-10-CM
D09.19	Carcinoma in situ of other urinary organs	Diagnosis	ICD-10-CM
Z85.520	Personal history of malignant carcinoid tumor of kidney	Diagnosis	ICD-10-CM
Z85.528	Personal history of other malignant neoplasm of kidney	Diagnosis	ICD-10-CM
Z85.53	Personal history of malignant neoplasm of renal pelvis	Diagnosis	ICD-10-CM
Z85.54	Personal history of malignant neoplasm of ureter	Diagnosis	ICD-10-CM
Z85.59	Personal history of malignant neoplasm of other urinary tract organ	Diagnosis	ICD-10-CM
Cataract			
E08.36	Diabetes mellitus due to underlying condition with diabetic cataract	Diagnosis	ICD-10-CM
E09.36	Drug or chemical induced diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E10.36	Type 1 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E11.36	Type 2 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E13.36	Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
H25.011	Cortical age-related cataract, right eye	Diagnosis	ICD-10-CM
H25.012	Cortical age-related cataract, left eye	Diagnosis	ICD-10-CM
H25.013	Cortical age-related cataract, bilateral	Diagnosis	ICD-10-CM
H25.019	Cortical age-related cataract, unspecified eye	Diagnosis	ICD-10-CM
H25.031	Anterior subcapsular polar age-related cataract, right eye	Diagnosis	ICD-10-CM
H25.032	Anterior subcapsular polar age-related cataract, left eye	Diagnosis	ICD-10-CM
H25.033	Anterior subcapsular polar age-related cataract, bilateral	Diagnosis	ICD-10-CM
H25.039	Anterior subcapsular polar age-related cataract, unspecified eye	Diagnosis	ICD-10-CM
H25.041	Posterior subcapsular polar age-related cataract, right eye	Diagnosis	ICD-10-CM
H25.042	Posterior subcapsular polar age-related cataract, left eye	Diagnosis	ICD-10-CM
H25.043	Posterior subcapsular polar age-related cataract, bilateral	Diagnosis	ICD-10-CM
H25.049	Posterior subcapsular polar age-related cataract, unspecified eye	Diagnosis	ICD-10-CM
H25.091	Other age-related incipient cataract, right eye	Diagnosis	ICD-10-CM
H25.092	Other age-related incipient cataract, left eye	Diagnosis	ICD-10-CM
H25.093	Other age-related incipient cataract, bilateral	Diagnosis	ICD-10-CM
H25.099	Other age-related incipient cataract, unspecified eye	Diagnosis	ICD-10-CM
H25.10	Age-related nuclear cataract, unspecified eye	Diagnosis	ICD-10-CM
H25.11	Age-related nuclear cataract, right eye	Diagnosis	ICD-10-CM
H25.12	Age-related nuclear cataract, left eye	Diagnosis	ICD-10-CM
H25.13	Age-related nuclear cataract, bilateral	Diagnosis	ICD-10-CM
H25.20	Age-related cataract, morgagnian type, unspecified eye	Diagnosis	ICD-10-CM
H25.21	Age-related cataract, morgagnian type, right eye	Diagnosis	ICD-10-CM
H25.22	Age-related cataract, morgagnian type, left eye	Diagnosis	ICD-10-CM
H25.23	Age-related cataract, morgagnian type, bilateral	Diagnosis	ICD-10-CM
H25.811	Combined forms of age-related cataract, right eye	Diagnosis	ICD-10-CM
H25.812	Combined forms of age-related cataract, left eye	Diagnosis	ICD-10-CM
H25.813	Combined forms of age-related cataract, bilateral	Diagnosis	ICD-10-CM
H25.819	Combined forms of age-related cataract, unspecified eye	Diagnosis	ICD-10-CM
H25.89	Other age-related cataract	Diagnosis	ICD-10-CM
H25.9	Unspecified age-related cataract	Diagnosis	ICD-10-CM
H26.001	Unspecified infantile and juvenile cataract, right eye	Diagnosis	ICD-10-CM
H26.002	Unspecified infantile and juvenile cataract, left eye	Diagnosis	ICD-10-CM
H26.003	Unspecified infantile and juvenile cataract, bilateral	Diagnosis	ICD-10-CM
H26.009	Unspecified infantile and juvenile cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.011	Infantile and juvenile cortical, lamellar, or zonular cataract, right eye	Diagnosis	ICD-10-CM
H26.012	Infantile and juvenile cortical, lamellar, or zonular cataract, left eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H26.013	Infantile and juvenile cortical, lamellar, or zonular cataract, bilateral	Diagnosis	ICD-10-CM
H26.019	Infantile and juvenile cortical, lamellar, or zonular cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.031	Infantile and juvenile nuclear cataract, right eye	Diagnosis	ICD-10-CM
H26.032	Infantile and juvenile nuclear cataract, left eye	Diagnosis	ICD-10-CM
H26.033	Infantile and juvenile nuclear cataract, bilateral	Diagnosis	ICD-10-CM
H26.039	Infantile and juvenile nuclear cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.041	Anterior subcapsular polar infantile and juvenile cataract, right eye	Diagnosis	ICD-10-CM
H26.042	Anterior subcapsular polar infantile and juvenile cataract, left eye	Diagnosis	ICD-10-CM
H26.043	Anterior subcapsular polar infantile and juvenile cataract, bilateral	Diagnosis	ICD-10-CM
H26.049	Anterior subcapsular polar infantile and juvenile cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.051	Posterior subcapsular polar infantile and juvenile cataract, right eye	Diagnosis	ICD-10-CM
H26.052	Posterior subcapsular polar infantile and juvenile cataract, left eye	Diagnosis	ICD-10-CM
H26.053	Posterior subcapsular polar infantile and juvenile cataract, bilateral	Diagnosis	ICD-10-CM
H26.059	Posterior subcapsular polar infantile and juvenile cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.061	Combined forms of infantile and juvenile cataract, right eye	Diagnosis	ICD-10-CM
H26.062	Combined forms of infantile and juvenile cataract, left eye	Diagnosis	ICD-10-CM
H26.063	Combined forms of infantile and juvenile cataract, bilateral	Diagnosis	ICD-10-CM
H26.069	Combined forms of infantile and juvenile cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.09	Other infantile and juvenile cataract	Diagnosis	ICD-10-CM
H26.101	Unspecified traumatic cataract, right eye	Diagnosis	ICD-10-CM
H26.102	Unspecified traumatic cataract, left eye	Diagnosis	ICD-10-CM
H26.103	Unspecified traumatic cataract, bilateral	Diagnosis	ICD-10-CM
H26.109	Unspecified traumatic cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.111	Localized traumatic opacities, right eye	Diagnosis	ICD-10-CM
H26.112	Localized traumatic opacities, left eye	Diagnosis	ICD-10-CM
H26.113	Localized traumatic opacities, bilateral	Diagnosis	ICD-10-CM
H26.119	Localized traumatic opacities, unspecified eye	Diagnosis	ICD-10-CM
H26.121	Partially resolved traumatic cataract, right eye	Diagnosis	ICD-10-CM
H26.122	Partially resolved traumatic cataract, left eye	Diagnosis	ICD-10-CM
H26.123	Partially resolved traumatic cataract, bilateral	Diagnosis	ICD-10-CM
H26.129	Partially resolved traumatic cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.131	Total traumatic cataract, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H26.132	Total traumatic cataract, left eye	Diagnosis	ICD-10-CM
H26.133	Total traumatic cataract, bilateral	Diagnosis	ICD-10-CM
H26.139	Total traumatic cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.20	Unspecified complicated cataract	Diagnosis	ICD-10-CM
H26.211	Cataract with neovascularization, right eye	Diagnosis	ICD-10-CM
H26.212	Cataract with neovascularization, left eye	Diagnosis	ICD-10-CM
H26.213	Cataract with neovascularization, bilateral	Diagnosis	ICD-10-CM
H26.219	Cataract with neovascularization, unspecified eye	Diagnosis	ICD-10-CM
H26.221	Cataract secondary to ocular disorders (degenerative) (inflammatory), right eye	Diagnosis	ICD-10-CM
H26.222	Cataract secondary to ocular disorders (degenerative) (inflammatory), left eye	Diagnosis	ICD-10-CM
H26.223	Cataract secondary to ocular disorders (degenerative) (inflammatory), bilateral	Diagnosis	ICD-10-CM
H26.229	Cataract secondary to ocular disorders (degenerative) (inflammatory), unspecified eye	Diagnosis	ICD-10-CM
H26.30	Drug-induced cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.31	Drug-induced cataract, right eye	Diagnosis	ICD-10-CM
H26.32	Drug-induced cataract, left eye	Diagnosis	ICD-10-CM
H26.33	Drug-induced cataract, bilateral	Diagnosis	ICD-10-CM
H26.40	Unspecified secondary cataract	Diagnosis	ICD-10-CM
H26.411	Soemmering's ring, right eye	Diagnosis	ICD-10-CM
H26.412	Soemmering's ring, left eye	Diagnosis	ICD-10-CM
H26.413	Soemmering's ring, bilateral	Diagnosis	ICD-10-CM
H26.419	Soemmering's ring, unspecified eye	Diagnosis	ICD-10-CM
H26.491	Other secondary cataract, right eye	Diagnosis	ICD-10-CM
H26.492	Other secondary cataract, left eye	Diagnosis	ICD-10-CM
H26.493	Other secondary cataract, bilateral	Diagnosis	ICD-10-CM
H26.499	Other secondary cataract, unspecified eye	Diagnosis	ICD-10-CM
H26.8	Other specified cataract	Diagnosis	ICD-10-CM
H26.9	Unspecified cataract	Diagnosis	ICD-10-CM
Q12.0	Congenital cataract	Diagnosis	ICD-10-CM

Chronic Kidney Disease

A18.11	Tuberculosis of kidney and ureter	Diagnosis	ICD-10-CM
A52.75	Syphilis of kidney and ureter	Diagnosis	ICD-10-CM
B52.0	Plasmodium malariae malaria with nephropathy	Diagnosis	ICD-10-CM
E08.21	Diabetes mellitus due to underlying condition with diabetic nephropathy	Diagnosis	ICD-10-CM
E08.22	Diabetes mellitus due to underlying condition with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E08.29	Diabetes mellitus due to underlying condition with other diabetic kidney complication	Diagnosis	ICD-10-CM
E09.21	Drug or chemical induced diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E09.22	Drug or chemical induced diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E09.29	Drug or chemical induced diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E10.21	Type 1 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease	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
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication	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
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
K76.7	Hepatorenal syndrome	Diagnosis	ICD-10-CM
M10.30	Gout due to renal impairment, unspecified site	Diagnosis	ICD-10-CM
M10.311	Gout due to renal impairment, right shoulder	Diagnosis	ICD-10-CM
M10.312	Gout due to renal impairment, left shoulder	Diagnosis	ICD-10-CM
M10.319	Gout due to renal impairment, unspecified shoulder	Diagnosis	ICD-10-CM
M10.321	Gout due to renal impairment, right elbow	Diagnosis	ICD-10-CM
M10.322	Gout due to renal impairment, left elbow	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M10.329	Gout due to renal impairment, unspecified elbow	Diagnosis	ICD-10-CM
M10.331	Gout due to renal impairment, right wrist	Diagnosis	ICD-10-CM
M10.332	Gout due to renal impairment, left wrist	Diagnosis	ICD-10-CM
M10.339	Gout due to renal impairment, unspecified wrist	Diagnosis	ICD-10-CM
M10.341	Gout due to renal impairment, right hand	Diagnosis	ICD-10-CM
M10.342	Gout due to renal impairment, left hand	Diagnosis	ICD-10-CM
M10.349	Gout due to renal impairment, unspecified hand	Diagnosis	ICD-10-CM
M10.351	Gout due to renal impairment, right hip	Diagnosis	ICD-10-CM
M10.352	Gout due to renal impairment, left hip	Diagnosis	ICD-10-CM
M10.359	Gout due to renal impairment, unspecified hip	Diagnosis	ICD-10-CM
M10.361	Gout due to renal impairment, right knee	Diagnosis	ICD-10-CM
M10.362	Gout due to renal impairment, left knee	Diagnosis	ICD-10-CM
M10.369	Gout due to renal impairment, unspecified knee	Diagnosis	ICD-10-CM
M10.371	Gout due to renal impairment, right ankle and foot	Diagnosis	ICD-10-CM
M10.372	Gout due to renal impairment, left ankle and foot	Diagnosis	ICD-10-CM
M10.379	Gout due to renal impairment, unspecified ankle and foot	Diagnosis	ICD-10-CM
M10.38	Gout due to renal impairment, vertebrae	Diagnosis	ICD-10-CM
M10.39	Gout due to renal impairment, multiple sites	Diagnosis	ICD-10-CM
M32.14	Glomerular disease in systemic lupus erythematosus	Diagnosis	ICD-10-CM
M32.15	Tubulo-interstitial nephropathy in systemic lupus erythematosus	Diagnosis	ICD-10-CM
M35.04	Sicca syndrome with tubulo-interstitial nephropathy	Diagnosis	ICD-10-CM
M35.0A	Sjogren syndrome with glomerular disease	Diagnosis	ICD-10-CM
N01.0	Rapidly progressive nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N01.1	Rapidly progressive nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N01.2	Rapidly progressive nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N01.3	Rapidly progressive nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N01.4	Rapidly progressive nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N01.5	Rapidly progressive nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N01.6	Rapidly progressive nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N01.7	Rapidly progressive nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N01.8	Rapidly progressive nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N01.9	Rapidly progressive nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N01.A	Rapidly progressive nephritic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
N02.0	Recurrent and persistent hematuria with minor glomerular abnormality	Diagnosis	ICD-10-CM
N02.1	Recurrent and persistent hematuria with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N02.2	Recurrent and persistent hematuria with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N02.3	Recurrent and persistent hematuria with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N02.4	Recurrent and persistent hematuria with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N02.5	Recurrent and persistent hematuria with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N02.6	Recurrent and persistent hematuria with dense deposit disease	Diagnosis	ICD-10-CM
N02.7	Recurrent and persistent hematuria with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N02.8	Recurrent and persistent hematuria with other morphologic changes	Diagnosis	ICD-10-CM
N02.9	Recurrent and persistent hematuria with unspecified morphologic changes	Diagnosis	ICD-10-CM
N02.A	Recurrent and persistent hematuria with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N03.0	Chronic nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N03.1	Chronic nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N03.2	Chronic nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N03.3	Chronic nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N03.4	Chronic nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N03.5	Chronic nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N03.6	Chronic nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N03.7	Chronic nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N03.8	Chronic nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N03.9	Chronic nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N03.A	Chronic nephritic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N04.0	Nephrotic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
N04.1	Nephrotic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N04.2	Nephrotic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N04.3	Nephrotic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N04.4	Nephrotic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N04.5	Nephrotic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N04.6	Nephrotic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N04.7	Nephrotic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N04.8	Nephrotic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N04.9	Nephrotic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N04.A	Nephrotic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N05.0	Unspecified nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N05.1	Unspecified nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N05.2	Unspecified nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N05.3	Unspecified nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N05.4	Unspecified nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N05.5	Unspecified nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N05.6	Unspecified nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N05.7	Unspecified nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N05.8	Unspecified nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N05.9	Unspecified nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N05.A	Unspecified nephritic syndrome with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N06.0	Isolated proteinuria with minor glomerular abnormality	Diagnosis	ICD-10-CM
N06.1	Isolated proteinuria with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N06.2	Isolated proteinuria with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
N06.3	Isolated proteinuria with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N06.4	Isolated proteinuria with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N06.5	Isolated proteinuria with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N06.6	Isolated proteinuria with dense deposit disease	Diagnosis	ICD-10-CM
N06.7	Isolated proteinuria with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N06.8	Isolated proteinuria with other morphologic lesion	Diagnosis	ICD-10-CM
N06.9	Isolated proteinuria with unspecified morphologic lesion	Diagnosis	ICD-10-CM
N06.A	Isolated proteinuria with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N07.0	Hereditary nephropathy, not elsewhere classified with minor glomerular abnormality	Diagnosis	ICD-10-CM
N07.1	Hereditary nephropathy, not elsewhere classified with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N07.2	Hereditary nephropathy, not elsewhere classified with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N07.3	Hereditary nephropathy, not elsewhere classified with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N07.4	Hereditary nephropathy, not elsewhere classified with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N07.5	Hereditary nephropathy, not elsewhere classified with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N07.6	Hereditary nephropathy, not elsewhere classified with dense deposit disease	Diagnosis	ICD-10-CM
N07.7	Hereditary nephropathy, not elsewhere classified with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N07.8	Hereditary nephropathy, not elsewhere classified with other morphologic lesions	Diagnosis	ICD-10-CM
N07.9	Hereditary nephropathy, not elsewhere classified with unspecified morphologic lesions	Diagnosis	ICD-10-CM
N07.A	Hereditary nephropathy, not elsewhere classified with C3 glomerulonephritis	Diagnosis	ICD-10-CM
N08	Glomerular disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N14.0	Analgesic nephropathy	Diagnosis	ICD-10-CM
N14.1	Nephropathy induced by other drugs, medicaments and biological substances	Diagnosis	ICD-10-CM
N14.2	Nephropathy induced by unspecified drug, medicament or biological substance	Diagnosis	ICD-10-CM
N14.3	Nephropathy induced by heavy metals	Diagnosis	ICD-10-CM
N14.4	Toxic nephropathy, not elsewhere classified	Diagnosis	ICD-10-CM
N15.0	Balkan nephropathy	Diagnosis	ICD-10-CM
N15.8	Other specified renal tubulo-interstitial diseases	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
N15.9	Renal tubulo-interstitial disease, unspecified	Diagnosis	ICD-10-CM
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	Diagnosis	ICD-10-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
N18.30	Chronic kidney disease, stage 3 unspecified	Diagnosis	ICD-10-CM
N18.31	Chronic kidney disease, stage 3a	Diagnosis	ICD-10-CM
N18.32	Chronic kidney disease, stage 3b	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
N25.1	Nephrogenic diabetes insipidus	Diagnosis	ICD-10-CM
N25.89	Other disorders resulting from impaired renal tubular function	Diagnosis	ICD-10-CM
N25.9	Disorder resulting from impaired renal tubular function, unspecified	Diagnosis	ICD-10-CM
N26.1	Atrophy of kidney (terminal)	Diagnosis	ICD-10-CM
N26.9	Renal sclerosis, unspecified	Diagnosis	ICD-10-CM
N99.0	Postprocedural (acute) (chronic) kidney failure	Diagnosis	ICD-10-CM
Q61.02	Congenital multiple renal cysts	Diagnosis	ICD-10-CM
Q61.11	Cystic dilatation of collecting ducts	Diagnosis	ICD-10-CM
Q61.19	Other polycystic kidney, infantile type	Diagnosis	ICD-10-CM
Q61.2	Polycystic kidney, adult type	Diagnosis	ICD-10-CM
Q61.3	Polycystic kidney, unspecified	Diagnosis	ICD-10-CM
Q61.4	Renal dysplasia	Diagnosis	ICD-10-CM
Q61.5	Medullary cystic kidney	Diagnosis	ICD-10-CM
Q61.8	Other cystic kidney diseases	Diagnosis	ICD-10-CM
COPD			
J40	Bronchitis, not specified as acute or chronic	Diagnosis	ICD-10-CM
J41.0	Simple chronic bronchitis	Diagnosis	ICD-10-CM
J41.1	Mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J41.8	Mixed simple and mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J42	Unspecified chronic bronchitis	Diagnosis	ICD-10-CM
J43.0	Unilateral pulmonary emphysema [MacLeod's syndrome]	Diagnosis	ICD-10-CM
J43.1	Panlobular emphysema	Diagnosis	ICD-10-CM
J43.2	Centrilobular emphysema	Diagnosis	ICD-10-CM
J43.9	Emphysema, unspecified	Diagnosis	ICD-10-CM
J44.0	Chronic obstructive pulmonary disease with (acute) lower respiratory infection	Diagnosis	ICD-10-CM
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation	Diagnosis	ICD-10-CM
J44.9	Chronic obstructive pulmonary disease, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
J47.0	Bronchiectasis with acute lower respiratory infection	Diagnosis	ICD-10-CM
J47.1	Bronchiectasis with (acute) exacerbation	Diagnosis	ICD-10-CM
J47.9	Bronchiectasis, uncomplicated	Diagnosis	ICD-10-CM
J98.2	Interstitial emphysema	Diagnosis	ICD-10-CM
J98.3	Compensatory emphysema	Diagnosis	ICD-10-CM
Depression/Bipolar/Other Depressive Mood Disorders			
F06.31	Mood disorder due to known physiological condition with depressive features	Diagnosis	ICD-10-CM
F06.32	Mood disorder due to known physiological condition with major depressive-like episode	Diagnosis	ICD-10-CM
F31.0	Bipolar disorder, current episode hypomanic	Diagnosis	ICD-10-CM
F31.10	Bipolar disorder, current episode manic without psychotic features, unspecified	Diagnosis	ICD-10-CM
F31.11	Bipolar disorder, current episode manic without psychotic features, mild	Diagnosis	ICD-10-CM
F31.12	Bipolar disorder, current episode manic without psychotic features, moderate	Diagnosis	ICD-10-CM
F31.13	Bipolar disorder, current episode manic without psychotic features, severe	Diagnosis	ICD-10-CM
F31.2	Bipolar disorder, current episode manic severe with psychotic features	Diagnosis	ICD-10-CM
F31.30	Bipolar disorder, current episode depressed, mild or moderate severity, unspecified	Diagnosis	ICD-10-CM
F31.31	Bipolar disorder, current episode depressed, mild	Diagnosis	ICD-10-CM
F31.32	Bipolar disorder, current episode depressed, moderate	Diagnosis	ICD-10-CM
F31.4	Bipolar disorder, current episode depressed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.5	Bipolar disorder, current episode depressed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.60	Bipolar disorder, current episode mixed, unspecified	Diagnosis	ICD-10-CM
F31.61	Bipolar disorder, current episode mixed, mild	Diagnosis	ICD-10-CM
F31.62	Bipolar disorder, current episode mixed, moderate	Diagnosis	ICD-10-CM
F31.63	Bipolar disorder, current episode mixed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.64	Bipolar disorder, current episode mixed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.71	Bipolar disorder, in partial remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.73	Bipolar disorder, in partial remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.75	Bipolar disorder, in partial remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.76	Bipolar disorder, in full remission, most recent episode depressed	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F31.77	Bipolar disorder, in partial remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.78	Bipolar disorder, in full remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.81	Bipolar II disorder	Diagnosis	ICD-10-CM
F31.89	Other bipolar disorder	Diagnosis	ICD-10-CM
F31.9	Bipolar disorder, unspecified	Diagnosis	ICD-10-CM
F32.0	Major depressive disorder, single episode, mild	Diagnosis	ICD-10-CM
F32.1	Major depressive disorder, single episode, moderate	Diagnosis	ICD-10-CM
F32.2	Major depressive disorder, single episode, severe without psychotic features	Diagnosis	ICD-10-CM
F32.3	Major depressive disorder, single episode, severe with psychotic features	Diagnosis	ICD-10-CM
F32.4	Major depressive disorder, single episode, in partial remission	Diagnosis	ICD-10-CM
F32.5	Major depressive disorder, single episode, in full remission	Diagnosis	ICD-10-CM
F32.8	Other depressive episodes	Diagnosis	ICD-10-CM
F32.89	Other specified depressive episodes	Diagnosis	ICD-10-CM
F32.9	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-10-CM
F32.A	Depression, unspecified	Diagnosis	ICD-10-CM
F33.0	Major depressive disorder, recurrent, mild	Diagnosis	ICD-10-CM
F33.1	Major depressive disorder, recurrent, moderate	Diagnosis	ICD-10-CM
F33.2	Major depressive disorder, recurrent severe without psychotic features	Diagnosis	ICD-10-CM
F33.3	Major depressive disorder, recurrent, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F33.40	Major depressive disorder, recurrent, in remission, unspecified	Diagnosis	ICD-10-CM
F33.41	Major depressive disorder, recurrent, in partial remission	Diagnosis	ICD-10-CM
F33.42	Major depressive disorder, recurrent, in full remission	Diagnosis	ICD-10-CM
F33.8	Other recurrent depressive disorders	Diagnosis	ICD-10-CM
F33.9	Major depressive disorder, recurrent, unspecified	Diagnosis	ICD-10-CM
F34.0	Cyclothymic disorder	Diagnosis	ICD-10-CM
F34.1	Dysthymic disorder	Diagnosis	ICD-10-CM
F43.21	Adjustment disorder with depressed mood	Diagnosis	ICD-10-CM
F43.23	Adjustment disorder with mixed anxiety and depressed mood	Diagnosis	ICD-10-CM
Diabetes			
E08.00	Diabetes mellitus due to underlying condition with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E08.01	Diabetes mellitus due to underlying condition with hyperosmolarity with coma	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E08.10	Diabetes mellitus due to underlying condition with ketoacidosis without coma	Diagnosis	ICD-10-CM
E08.11	Diabetes mellitus due to underlying condition with ketoacidosis with coma	Diagnosis	ICD-10-CM
E08.21	Diabetes mellitus due to underlying condition with diabetic nephropathy	Diagnosis	ICD-10-CM
E08.22	Diabetes mellitus due to underlying condition with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E08.29	Diabetes mellitus due to underlying condition with other diabetic kidney complication	Diagnosis	ICD-10-CM
E08.311	Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.319	Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.321	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3211	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3212	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3213	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3219	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.329	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3291	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3292	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3293	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3299	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E08.331	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3311	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3312	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3313	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3319	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.339	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3391	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3392	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3393	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3399	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.341	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3411	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3412	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3413	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3419	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E08.349	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3491	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3492	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3493	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3499	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.351	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3511	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3512	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3513	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3519	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.3521	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E08.3522	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E08.3523	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E08.3529	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E08.3531	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E08.3532	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E08.3533	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E08.3539	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E08.3541	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E08.3542	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E08.3543	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E08.3549	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E08.3551	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E08.3552	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E08.3553	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E08.3559	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E08.359	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3591	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3592	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3593	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E08.3599	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.36	Diabetes mellitus due to underlying condition with diabetic cataract	Diagnosis	ICD-10-CM
E08.37X1	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E08.37X2	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E08.37X3	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E08.37X9	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E08.39	Diabetes mellitus due to underlying condition with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E08.40	Diabetes mellitus due to underlying condition with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E08.41	Diabetes mellitus due to underlying condition with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E08.42	Diabetes mellitus due to underlying condition with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E08.43	Diabetes mellitus due to underlying condition with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E08.44	Diabetes mellitus due to underlying condition with diabetic amyotrophy	Diagnosis	ICD-10-CM
E08.49	Diabetes mellitus due to underlying condition with other diabetic neurological complication	Diagnosis	ICD-10-CM
E08.51	Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E08.52	Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E08.59	Diabetes mellitus due to underlying condition with other circulatory complications	Diagnosis	ICD-10-CM
E08.610	Diabetes mellitus due to underlying condition with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E08.618	Diabetes mellitus due to underlying condition with other diabetic arthropathy	Diagnosis	ICD-10-CM
E08.620	Diabetes mellitus due to underlying condition with diabetic dermatitis	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E08.621	Diabetes mellitus due to underlying condition with foot ulcer	Diagnosis	ICD-10-CM
E08.622	Diabetes mellitus due to underlying condition with other skin ulcer	Diagnosis	ICD-10-CM
E08.628	Diabetes mellitus due to underlying condition with other skin complications	Diagnosis	ICD-10-CM
E08.630	Diabetes mellitus due to underlying condition with periodontal disease	Diagnosis	ICD-10-CM
E08.638	Diabetes mellitus due to underlying condition with other oral complications	Diagnosis	ICD-10-CM
E08.641	Diabetes mellitus due to underlying condition with hypoglycemia with coma	Diagnosis	ICD-10-CM
E08.649	Diabetes mellitus due to underlying condition with hypoglycemia without coma	Diagnosis	ICD-10-CM
E08.65	Diabetes mellitus due to underlying condition with hyperglycemia	Diagnosis	ICD-10-CM
E08.69	Diabetes mellitus due to underlying condition with other specified complication	Diagnosis	ICD-10-CM
E08.8	Diabetes mellitus due to underlying condition with unspecified complications	Diagnosis	ICD-10-CM
E08.9	Diabetes mellitus due to underlying condition without complications	Diagnosis	ICD-10-CM
E09.00	Drug or chemical induced diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E09.01	Drug or chemical induced diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E09.10	Drug or chemical induced diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E09.11	Drug or chemical induced diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E09.21	Drug or chemical induced diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E09.22	Drug or chemical induced diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E09.29	Drug or chemical induced diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E09.311	Drug or chemical induced diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.319	Drug or chemical induced diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.321	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E09.3211	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E09.3212	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3213	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3219	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.329	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3291	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3292	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3293	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3299	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.331	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.3311	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E09.3312	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3313	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3319	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E09.339	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3391	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3392	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3393	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3399	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.341	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.3411	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E09.3412	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3413	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3419	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.349	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3491	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3492	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3493	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3499	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E09.351	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.3511	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E09.3512	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3513	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3519	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.3521	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E09.3522	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E09.3523	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E09.3529	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E09.3531	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E09.3532	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E09.3533	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E09.3539	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E09.3541	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E09.3542	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E09.3543	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E09.3549	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E09.3551	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E09.3552	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E09.3553	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E09.3559	Drug or chemical induced diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E09.359	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3591	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3592	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3593	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3599	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.36	Drug or chemical induced diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E09.37X1	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E09.37X2	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E09.37X3	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E09.37X9	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E09.39	Drug or chemical induced diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E09.40	Drug or chemical induced diabetes mellitus with neurological complications with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E09.41	Drug or chemical induced diabetes mellitus with neurological complications with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E09.42	Drug or chemical induced diabetes mellitus with neurological complications with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E09.43	Drug or chemical induced diabetes mellitus with neurological complications with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E09.44	Drug or chemical induced diabetes mellitus with neurological complications with diabetic amyotrophy	Diagnosis	ICD-10-CM
E09.49	Drug or chemical induced diabetes mellitus with neurological complications with other diabetic neurological complication	Diagnosis	ICD-10-CM
E09.51	Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E09.52	Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E09.59	Drug or chemical induced diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E09.610	Drug or chemical induced diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E09.618	Drug or chemical induced diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E09.620	Drug or chemical induced diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E09.622	Drug or chemical induced diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E09.628	Drug or chemical induced diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E09.630	Drug or chemical induced diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E09.638	Drug or chemical induced diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E09.641	Drug or chemical induced diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E09.649	Drug or chemical induced diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E09.65	Drug or chemical induced diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E09.69	Drug or chemical induced diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E09.8	Drug or chemical induced diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E09.9	Drug or chemical induced diabetes mellitus without complications	Diagnosis	ICD-10-CM
E10.10	Type 1 diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E10.11	Type 1 diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E10.21	Type 1 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E10.29	Type 1 diabetes mellitus with other diabetic kidney 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
E10.321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	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
E10.329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	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
E10.331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

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
E10.339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	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
E10.341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	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
E10.349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	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
E10.351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.3511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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, bilateral	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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
E10.359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	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
E10.36	Type 1 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E10.37X1	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	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, bilateral	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
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
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
E10.51	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	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
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
E10.641	Type 1 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E10.649	Type 1 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E10.65	Type 1 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E10.69	Type 1 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E10.8	Type 1 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E10.9	Type 1 diabetes mellitus without complications	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
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
E11.21	Type 2 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication	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
E11.321	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	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
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
E11.329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E11.3299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	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
E11.339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	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
E11.341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	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
E11.349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

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
E11.351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema	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, bilateral	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
E11.359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema	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
E11.36	Type 2 diabetes mellitus with diabetic cataract	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, bilateral	Diagnosis	ICD-10-CM
E11.37X9	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E11.39	Type 2 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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene	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
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy	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
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E11.65	Type 2 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E11.69	Type 2 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E11.8	Type 2 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E11.9	Type 2 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
E13.10	Other specified diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E13.11	Other specified diabetes mellitus with ketoacidosis 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
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
E13.321	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

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
E13.329	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	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
E13.331	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	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
E13.339	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
E13.341	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	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
E13.349	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
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
E13.351	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
E13.359	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
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
E13.36	Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication	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
E13.51	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	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
E13.641	Other specified diabetes mellitus with hypoglycemia with coma	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
E13.9	Other specified diabetes mellitus without complications	Diagnosis	ICD-10-CM
Glaucoma			
H40.011	Open angle with borderline findings, low risk, right eye	Diagnosis	ICD-10-CM
H40.012	Open angle with borderline findings, low risk, left eye	Diagnosis	ICD-10-CM
H40.013	Open angle with borderline findings, low risk, bilateral	Diagnosis	ICD-10-CM
H40.019	Open angle with borderline findings, low risk, unspecified eye	Diagnosis	ICD-10-CM
H40.021	Open angle with borderline findings, high risk, right eye	Diagnosis	ICD-10-CM
H40.022	Open angle with borderline findings, high risk, left eye	Diagnosis	ICD-10-CM
H40.023	Open angle with borderline findings, high risk, bilateral	Diagnosis	ICD-10-CM
H40.029	Open angle with borderline findings, high risk, unspecified eye	Diagnosis	ICD-10-CM
H40.041	Steroid responder, right eye	Diagnosis	ICD-10-CM
H40.042	Steroid responder, left eye	Diagnosis	ICD-10-CM
H40.043	Steroid responder, bilateral	Diagnosis	ICD-10-CM
H40.049	Steroid responder, unspecified eye	Diagnosis	ICD-10-CM
H40.051	Ocular hypertension, right eye	Diagnosis	ICD-10-CM
H40.052	Ocular hypertension, left eye	Diagnosis	ICD-10-CM
H40.053	Ocular hypertension, bilateral	Diagnosis	ICD-10-CM
H40.059	Ocular hypertension, unspecified eye	Diagnosis	ICD-10-CM
H40.10X0	Unspecified open-angle glaucoma, stage unspecified	Diagnosis	ICD-10-CM
H40.10X1	Unspecified open-angle glaucoma, mild stage	Diagnosis	ICD-10-CM
H40.10X2	Unspecified open-angle glaucoma, moderate stage	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H40.10X3	Unspecified open-angle glaucoma, severe stage	Diagnosis	ICD-10-CM
H40.10X4	Unspecified open-angle glaucoma, indeterminate stage	Diagnosis	ICD-10-CM
H40.1110	Primary open-angle glaucoma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1111	Primary open-angle glaucoma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.1112	Primary open-angle glaucoma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.1113	Primary open-angle glaucoma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.1114	Primary open-angle glaucoma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1120	Primary open-angle glaucoma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1121	Primary open-angle glaucoma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.1122	Primary open-angle glaucoma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.1123	Primary open-angle glaucoma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.1124	Primary open-angle glaucoma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1130	Primary open-angle glaucoma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.1131	Primary open-angle glaucoma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.1132	Primary open-angle glaucoma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.1133	Primary open-angle glaucoma, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.1134	Primary open-angle glaucoma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.1190	Primary open-angle glaucoma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1191	Primary open-angle glaucoma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.1192	Primary open-angle glaucoma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.1193	Primary open-angle glaucoma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.1194	Primary open-angle glaucoma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.11X0	Primary open-angle glaucoma, stage unspecified	Diagnosis	ICD-10-CM
H40.11X1	Primary open-angle glaucoma, mild stage	Diagnosis	ICD-10-CM
H40.11X2	Primary open-angle glaucoma, moderate stage	Diagnosis	ICD-10-CM
H40.11X3	Primary open-angle glaucoma, severe stage	Diagnosis	ICD-10-CM
H40.11X4	Primary open-angle glaucoma, indeterminate stage	Diagnosis	ICD-10-CM
H40.1210	Low-tension glaucoma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1211	Low-tension glaucoma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.1212	Low-tension glaucoma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.1213	Low-tension glaucoma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.1214	Low-tension glaucoma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1220	Low-tension glaucoma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1221	Low-tension glaucoma, left eye, mild stage	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H40.1222	Low-tension glaucoma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.1223	Low-tension glaucoma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.1224	Low-tension glaucoma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1230	Low-tension glaucoma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.1231	Low-tension glaucoma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.1232	Low-tension glaucoma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.1233	Low-tension glaucoma, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.1234	Low-tension glaucoma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.1290	Low-tension glaucoma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1291	Low-tension glaucoma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.1292	Low-tension glaucoma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.1293	Low-tension glaucoma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.1294	Low-tension glaucoma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1310	Pigmentary glaucoma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1311	Pigmentary glaucoma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.1312	Pigmentary glaucoma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.1313	Pigmentary glaucoma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.1314	Pigmentary glaucoma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1320	Pigmentary glaucoma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1321	Pigmentary glaucoma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.1322	Pigmentary glaucoma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.1323	Pigmentary glaucoma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.1324	Pigmentary glaucoma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1330	Pigmentary glaucoma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.1331	Pigmentary glaucoma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.1332	Pigmentary glaucoma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.1333	Pigmentary glaucoma, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.1334	Pigmentary glaucoma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.1390	Pigmentary glaucoma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1391	Pigmentary glaucoma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.1392	Pigmentary glaucoma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.1393	Pigmentary glaucoma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.1394	Pigmentary glaucoma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1410	Capsular glaucoma with pseudoexfoliation of lens, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1411	Capsular glaucoma with pseudoexfoliation of lens, right eye, mild stage	Diagnosis	ICD-10-CM
H40.1412	Capsular glaucoma with pseudoexfoliation of lens, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.1413	Capsular glaucoma with pseudoexfoliation of lens, right eye, severe stage	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H40.1414	Capsular glaucoma with pseudoexfoliation of lens, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1420	Capsular glaucoma with pseudoexfoliation of lens, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1421	Capsular glaucoma with pseudoexfoliation of lens, left eye, mild stage	Diagnosis	ICD-10-CM
H40.1422	Capsular glaucoma with pseudoexfoliation of lens, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.1423	Capsular glaucoma with pseudoexfoliation of lens, left eye, severe stage	Diagnosis	ICD-10-CM
H40.1424	Capsular glaucoma with pseudoexfoliation of lens, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.1430	Capsular glaucoma with pseudoexfoliation of lens, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.1431	Capsular glaucoma with pseudoexfoliation of lens, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.1432	Capsular glaucoma with pseudoexfoliation of lens, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.1433	Capsular glaucoma with pseudoexfoliation of lens, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.1434	Capsular glaucoma with pseudoexfoliation of lens, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.1490	Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.1491	Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.1492	Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.1493	Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.1494	Capsular glaucoma with pseudoexfoliation of lens, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.151	Residual stage of open-angle glaucoma, right eye	Diagnosis	ICD-10-CM
H40.152	Residual stage of open-angle glaucoma, left eye	Diagnosis	ICD-10-CM
H40.153	Residual stage of open-angle glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.159	Residual stage of open-angle glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.20X0	Unspecified primary angle-closure glaucoma, stage unspecified	Diagnosis	ICD-10-CM
H40.20X1	Unspecified primary angle-closure glaucoma, mild stage	Diagnosis	ICD-10-CM
H40.20X2	Unspecified primary angle-closure glaucoma, moderate stage	Diagnosis	ICD-10-CM
H40.20X3	Unspecified primary angle-closure glaucoma, severe stage	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H40.20X4	Unspecified primary angle-closure glaucoma, indeterminate stage	Diagnosis	ICD-10-CM
H40.211	Acute angle-closure glaucoma, right eye	Diagnosis	ICD-10-CM
H40.212	Acute angle-closure glaucoma, left eye	Diagnosis	ICD-10-CM
H40.213	Acute angle-closure glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.219	Acute angle-closure glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.2210	Chronic angle-closure glaucoma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.2211	Chronic angle-closure glaucoma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.2212	Chronic angle-closure glaucoma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.2213	Chronic angle-closure glaucoma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.2214	Chronic angle-closure glaucoma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.2220	Chronic angle-closure glaucoma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.2221	Chronic angle-closure glaucoma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.2222	Chronic angle-closure glaucoma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.2223	Chronic angle-closure glaucoma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.2224	Chronic angle-closure glaucoma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.2230	Chronic angle-closure glaucoma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.2231	Chronic angle-closure glaucoma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.2232	Chronic angle-closure glaucoma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.2233	Chronic angle-closure glaucoma, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.2234	Chronic angle-closure glaucoma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.2290	Chronic angle-closure glaucoma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.2291	Chronic angle-closure glaucoma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.2292	Chronic angle-closure glaucoma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.2293	Chronic angle-closure glaucoma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.2294	Chronic angle-closure glaucoma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.231	Intermittent angle-closure glaucoma, right eye	Diagnosis	ICD-10-CM
H40.232	Intermittent angle-closure glaucoma, left eye	Diagnosis	ICD-10-CM
H40.233	Intermittent angle-closure glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.239	Intermittent angle-closure glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.241	Residual stage of angle-closure glaucoma, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H40.242	Residual stage of angle-closure glaucoma, left eye	Diagnosis	ICD-10-CM
H40.243	Residual stage of angle-closure glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.249	Residual stage of angle-closure glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.30X0	Glaucoma secondary to eye trauma, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.30X1	Glaucoma secondary to eye trauma, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.30X2	Glaucoma secondary to eye trauma, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.30X3	Glaucoma secondary to eye trauma, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.30X4	Glaucoma secondary to eye trauma, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.31X0	Glaucoma secondary to eye trauma, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.31X1	Glaucoma secondary to eye trauma, right eye, mild stage	Diagnosis	ICD-10-CM
H40.31X2	Glaucoma secondary to eye trauma, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.31X3	Glaucoma secondary to eye trauma, right eye, severe stage	Diagnosis	ICD-10-CM
H40.31X4	Glaucoma secondary to eye trauma, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.32X0	Glaucoma secondary to eye trauma, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.32X1	Glaucoma secondary to eye trauma, left eye, mild stage	Diagnosis	ICD-10-CM
H40.32X2	Glaucoma secondary to eye trauma, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.32X3	Glaucoma secondary to eye trauma, left eye, severe stage	Diagnosis	ICD-10-CM
H40.32X4	Glaucoma secondary to eye trauma, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.33X0	Glaucoma secondary to eye trauma, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.33X1	Glaucoma secondary to eye trauma, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.33X2	Glaucoma secondary to eye trauma, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.33X3	Glaucoma secondary to eye trauma, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.33X4	Glaucoma secondary to eye trauma, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.40X0	Glaucoma secondary to eye inflammation, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H40.40X1	Glaucoma secondary to eye inflammation, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.40X2	Glaucoma secondary to eye inflammation, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.40X3	Glaucoma secondary to eye inflammation, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.40X4	Glaucoma secondary to eye inflammation, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.41X0	Glaucoma secondary to eye inflammation, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.41X1	Glaucoma secondary to eye inflammation, right eye, mild stage	Diagnosis	ICD-10-CM
H40.41X2	Glaucoma secondary to eye inflammation, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.41X3	Glaucoma secondary to eye inflammation, right eye, severe stage	Diagnosis	ICD-10-CM
H40.41X4	Glaucoma secondary to eye inflammation, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.42X0	Glaucoma secondary to eye inflammation, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.42X1	Glaucoma secondary to eye inflammation, left eye, mild stage	Diagnosis	ICD-10-CM
H40.42X2	Glaucoma secondary to eye inflammation, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.42X3	Glaucoma secondary to eye inflammation, left eye, severe stage	Diagnosis	ICD-10-CM
H40.42X4	Glaucoma secondary to eye inflammation, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.43X0	Glaucoma secondary to eye inflammation, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.43X1	Glaucoma secondary to eye inflammation, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.43X2	Glaucoma secondary to eye inflammation, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.43X3	Glaucoma secondary to eye inflammation, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.43X4	Glaucoma secondary to eye inflammation, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.50X0	Glaucoma secondary to other eye disorders, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.50X1	Glaucoma secondary to other eye disorders, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.50X2	Glaucoma secondary to other eye disorders, unspecified eye, moderate stage	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H40.50X3	Glaucoma secondary to other eye disorders, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.50X4	Glaucoma secondary to other eye disorders, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.51X0	Glaucoma secondary to other eye disorders, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.51X1	Glaucoma secondary to other eye disorders, right eye, mild stage	Diagnosis	ICD-10-CM
H40.51X2	Glaucoma secondary to other eye disorders, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.51X3	Glaucoma secondary to other eye disorders, right eye, severe stage	Diagnosis	ICD-10-CM
H40.51X4	Glaucoma secondary to other eye disorders, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.52X0	Glaucoma secondary to other eye disorders, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.52X1	Glaucoma secondary to other eye disorders, left eye, mild stage	Diagnosis	ICD-10-CM
H40.52X2	Glaucoma secondary to other eye disorders, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.52X3	Glaucoma secondary to other eye disorders, left eye, severe stage	Diagnosis	ICD-10-CM
H40.52X4	Glaucoma secondary to other eye disorders, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.53X0	Glaucoma secondary to other eye disorders, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.53X1	Glaucoma secondary to other eye disorders, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.53X2	Glaucoma secondary to other eye disorders, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.53X3	Glaucoma secondary to other eye disorders, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.53X4	Glaucoma secondary to other eye disorders, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.60X0	Glaucoma secondary to drugs, unspecified eye, stage unspecified	Diagnosis	ICD-10-CM
H40.60X1	Glaucoma secondary to drugs, unspecified eye, mild stage	Diagnosis	ICD-10-CM
H40.60X2	Glaucoma secondary to drugs, unspecified eye, moderate stage	Diagnosis	ICD-10-CM
H40.60X3	Glaucoma secondary to drugs, unspecified eye, severe stage	Diagnosis	ICD-10-CM
H40.60X4	Glaucoma secondary to drugs, unspecified eye, indeterminate stage	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H40.61X0	Glaucoma secondary to drugs, right eye, stage unspecified	Diagnosis	ICD-10-CM
H40.61X1	Glaucoma secondary to drugs, right eye, mild stage	Diagnosis	ICD-10-CM
H40.61X2	Glaucoma secondary to drugs, right eye, moderate stage	Diagnosis	ICD-10-CM
H40.61X3	Glaucoma secondary to drugs, right eye, severe stage	Diagnosis	ICD-10-CM
H40.61X4	Glaucoma secondary to drugs, right eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.62X0	Glaucoma secondary to drugs, left eye, stage unspecified	Diagnosis	ICD-10-CM
H40.62X1	Glaucoma secondary to drugs, left eye, mild stage	Diagnosis	ICD-10-CM
H40.62X2	Glaucoma secondary to drugs, left eye, moderate stage	Diagnosis	ICD-10-CM
H40.62X3	Glaucoma secondary to drugs, left eye, severe stage	Diagnosis	ICD-10-CM
H40.62X4	Glaucoma secondary to drugs, left eye, indeterminate stage	Diagnosis	ICD-10-CM
H40.63X0	Glaucoma secondary to drugs, bilateral, stage unspecified	Diagnosis	ICD-10-CM
H40.63X1	Glaucoma secondary to drugs, bilateral, mild stage	Diagnosis	ICD-10-CM
H40.63X2	Glaucoma secondary to drugs, bilateral, moderate stage	Diagnosis	ICD-10-CM
H40.63X3	Glaucoma secondary to drugs, bilateral, severe stage	Diagnosis	ICD-10-CM
H40.63X4	Glaucoma secondary to drugs, bilateral, indeterminate stage	Diagnosis	ICD-10-CM
H40.811	Glaucoma with increased episcleral venous pressure, right eye	Diagnosis	ICD-10-CM
H40.812	Glaucoma with increased episcleral venous pressure, left eye	Diagnosis	ICD-10-CM
H40.813	Glaucoma with increased episcleral venous pressure, bilateral	Diagnosis	ICD-10-CM
H40.819	Glaucoma with increased episcleral venous pressure, unspecified eye	Diagnosis	ICD-10-CM
H40.821	Hypersecretion glaucoma, right eye	Diagnosis	ICD-10-CM
H40.822	Hypersecretion glaucoma, left eye	Diagnosis	ICD-10-CM
H40.823	Hypersecretion glaucoma, bilateral	Diagnosis	ICD-10-CM
H40.829	Hypersecretion glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H40.831	Aqueous misdirection, right eye	Diagnosis	ICD-10-CM
H40.832	Aqueous misdirection, left eye	Diagnosis	ICD-10-CM
H40.833	Aqueous misdirection, bilateral	Diagnosis	ICD-10-CM
H40.839	Aqueous misdirection, unspecified eye	Diagnosis	ICD-10-CM
H40.89	Other specified glaucoma	Diagnosis	ICD-10-CM
H40.9	Unspecified glaucoma	Diagnosis	ICD-10-CM
H42	Glaucoma in diseases classified elsewhere	Diagnosis	ICD-10-CM
H44.511	Absolute glaucoma, right eye	Diagnosis	ICD-10-CM
H44.512	Absolute glaucoma, left eye	Diagnosis	ICD-10-CM
H44.513	Absolute glaucoma, bilateral	Diagnosis	ICD-10-CM
H44.519	Absolute glaucoma, unspecified eye	Diagnosis	ICD-10-CM
H47.231	Glaucomatous optic atrophy, right eye	Diagnosis	ICD-10-CM
H47.232	Glaucomatous optic atrophy, left eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H47.233	Glaucomatous optic atrophy, bilateral	Diagnosis	ICD-10-CM
H47.239	Glaucomatous optic atrophy, unspecified eye	Diagnosis	ICD-10-CM
Q15.0	Congenital glaucoma	Diagnosis	ICD-10-CM
Heart Failure and Non-Ischemic Heart Disease			
I09.81	Rheumatic heart failure	Diagnosis	ICD-10-CM
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
I42.0	Dilated cardiomyopathy	Diagnosis	ICD-10-CM
I42.5	Other restrictive cardiomyopathy	Diagnosis	ICD-10-CM
I42.6	Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
I42.7	Cardiomyopathy due to drug and external agent	Diagnosis	ICD-10-CM
I42.8	Other cardiomyopathies	Diagnosis	ICD-10-CM
I43	Cardiomyopathy in diseases classified elsewhere	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

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Code	Description	Code Category	Code Type
P29.0	Neonatal cardiac failure	Diagnosis	ICD-10-CM
Hip/Pelvic Fracture			
M80.051A	Age-related osteoporosis with current pathological fracture, right femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.052A	Age-related osteoporosis with current pathological fracture, left femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.059A	Age-related osteoporosis with current pathological fracture, unspecified femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.851A	Other osteoporosis with current pathological fracture, right femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.852A	Other osteoporosis with current pathological fracture, left femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.859A	Other osteoporosis with current pathological fracture, unspecified femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.350A	Stress fracture, pelvis, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.351A	Stress fracture, right femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.352A	Stress fracture, left femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.353A	Stress fracture, unspecified femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.359A	Stress fracture, hip, unspecified, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.451A	Pathological fracture, right femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.452A	Pathological fracture, left femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.453A	Pathological fracture, unspecified femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.459A	Pathological fracture, hip, unspecified, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.550A	Pathological fracture in neoplastic disease, pelvis, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.551A	Pathological fracture in neoplastic disease, right femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.552A	Pathological fracture in neoplastic disease, left femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.553A	Pathological fracture in neoplastic disease, unspecified femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.559A	Pathological fracture in neoplastic disease, hip, unspecified, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.650A	Pathological fracture in other disease, pelvis, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.651A	Pathological fracture in other disease, right femur, initial encounter for fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M84.652A	Pathological fracture in other disease, left femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.653A	Pathological fracture in other disease, unspecified femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M84.659A	Pathological fracture in other disease, hip, unspecified, initial encounter for fracture	Diagnosis	ICD-10-CM
M97.01XA	Periprosthetic fracture around internal prosthetic right hip joint, initial encounter	Diagnosis	ICD-10-CM
M97.02XA	Periprosthetic fracture around internal prosthetic left hip joint, initial encounter	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 fracture	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

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
S32.9XXB	Fracture of unspecified parts of lumbosacral spine and pelvis, initial encounter for open 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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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

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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 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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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

Hyperlipidemia

E78.0	Pure hypercholesterolemia	Diagnosis	ICD-10-CM
E78.00	Pure hypercholesterolemia, unspecified	Diagnosis	ICD-10-CM
E78.01	Familial hypercholesterolemia	Diagnosis	ICD-10-CM
E78.1	Pure hyperglyceridemia	Diagnosis	ICD-10-CM
E78.2	Mixed hyperlipidemia	Diagnosis	ICD-10-CM
E78.3	Hyperchylomicronemia	Diagnosis	ICD-10-CM
E78.4	Other hyperlipidemia	Diagnosis	ICD-10-CM
E78.41	Elevated lipoprotein(A)	Diagnosis	ICD-10-CM
E78.49	Other hyperlipidemia	Diagnosis	ICD-10-CM
E78.5	Hyperlipidemia, unspecified	Diagnosis	ICD-10-CM

Hypertension - FDA Chronic Conditions Warehouse Definition

H35.031	Hypertensive retinopathy, right eye	Diagnosis	ICD-10-CM
H35.032	Hypertensive retinopathy, left eye	Diagnosis	ICD-10-CM
H35.033	Hypertensive retinopathy, bilateral	Diagnosis	ICD-10-CM
H35.039	Hypertensive retinopathy, unspecified eye	Diagnosis	ICD-10-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

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Code	Description	Code Category	Code Type
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
I67.4	Hypertensive encephalopathy	Diagnosis	ICD-10-CM
N26.2	Page kidney	Diagnosis	ICD-10-CM
Hypothyroidism			
E00.0	Congenital iodine-deficiency syndrome, neurological type	Diagnosis	ICD-10-CM
E00.1	Congenital iodine-deficiency syndrome, myxedematous type	Diagnosis	ICD-10-CM
E00.2	Congenital iodine-deficiency syndrome, mixed type	Diagnosis	ICD-10-CM
E00.9	Congenital iodine-deficiency syndrome, unspecified	Diagnosis	ICD-10-CM
E01.8	Other iodine-deficiency related thyroid disorders and allied conditions	Diagnosis	ICD-10-CM
E02	Subclinical iodine-deficiency hypothyroidism	Diagnosis	ICD-10-CM
E03.0	Congenital hypothyroidism with diffuse goiter	Diagnosis	ICD-10-CM
E03.1	Congenital hypothyroidism without goiter	Diagnosis	ICD-10-CM
E03.2	Hypothyroidism due to medicaments and other exogenous substances	Diagnosis	ICD-10-CM
E03.3	Postinfectious hypothyroidism	Diagnosis	ICD-10-CM
E03.4	Atrophy of thyroid (acquired)	Diagnosis	ICD-10-CM
E03.8	Other specified hypothyroidism	Diagnosis	ICD-10-CM
E03.9	Hypothyroidism, unspecified	Diagnosis	ICD-10-CM
E89.0	Postprocedural hypothyroidism	Diagnosis	ICD-10-CM
Ischemic Heart Disease			
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
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
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
I25.710	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

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Code	Description	Code Category	Code Type
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
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

Non-Alzheimers Dementia

F01.50	Vascular dementia without behavioral disturbance	Diagnosis	ICD-10-CM
F01.51	Vascular dementia with behavioral disturbance	Diagnosis	ICD-10-CM
F02.80	Dementia in other diseases classified elsewhere without behavioral disturbance	Diagnosis	ICD-10-CM
F02.81	Dementia in other diseases classified elsewhere with behavioral disturbance	Diagnosis	ICD-10-CM
F03.90	Unspecified dementia without behavioral disturbance	Diagnosis	ICD-10-CM
F03.91	Unspecified dementia with behavioral disturbance	Diagnosis	ICD-10-CM
F05	Delirium due to known physiological condition	Diagnosis	ICD-10-CM
G13.8	Systemic atrophy primarily affecting central nervous system in other diseases classified elsewhere	Diagnosis	ICD-10-CM
G31.01	Pick's disease	Diagnosis	ICD-10-CM
G31.09	Other frontotemporal dementia	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
G31.1	Senile degeneration of brain, not elsewhere classified	Diagnosis	ICD-10-CM
G31.2	Degeneration of nervous system due to alcohol	Diagnosis	ICD-10-CM
G31.83	Neurocognitive disorder with Lewy bodies	Diagnosis	ICD-10-CM
G94	Other disorders of brain in diseases classified elsewhere	Diagnosis	ICD-10-CM
R41.81	Age-related cognitive decline	Diagnosis	ICD-10-CM
Osteoporosis with or without pathological fracture			
M80.00XA	Age-related osteoporosis with current pathological fracture, unspecified site, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.011A	Age-related osteoporosis with current pathological fracture, right shoulder, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.012A	Age-related osteoporosis with current pathological fracture, left shoulder, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.019A	Age-related osteoporosis with current pathological fracture, unspecified shoulder, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.021A	Age-related osteoporosis with current pathological fracture, right humerus, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.022A	Age-related osteoporosis with current pathological fracture, left humerus, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.029A	Age-related osteoporosis with current pathological fracture, unspecified humerus, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.031A	Age-related osteoporosis with current pathological fracture, right forearm, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.032A	Age-related osteoporosis with current pathological fracture, left forearm, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.039A	Age-related osteoporosis with current pathological fracture, unspecified forearm, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.041A	Age-related osteoporosis with current pathological fracture, right hand, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.042A	Age-related osteoporosis with current pathological fracture, left hand, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.049A	Age-related osteoporosis with current pathological fracture, unspecified hand, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.051A	Age-related osteoporosis with current pathological fracture, right femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.052A	Age-related osteoporosis with current pathological fracture, left femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.059A	Age-related osteoporosis with current pathological fracture, unspecified femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.061A	Age-related osteoporosis with current pathological fracture, right lower leg, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.062A	Age-related osteoporosis with current pathological fracture, left lower leg, initial encounter for fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M80.069A	Age-related osteoporosis with current pathological fracture, unspecified lower leg, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.071A	Age-related osteoporosis with current pathological fracture, right ankle and foot, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.072A	Age-related osteoporosis with current pathological fracture, left ankle and foot, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.079A	Age-related osteoporosis with current pathological fracture, unspecified ankle and foot, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.08XA	Age-related osteoporosis with current pathological fracture, vertebra(e), initial encounter for fracture	Diagnosis	ICD-10-CM
M80.0AXA	Age-related osteoporosis with current pathological fracture, other site, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.80XA	Other osteoporosis with current pathological fracture, unspecified site, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.811A	Other osteoporosis with current pathological fracture, right shoulder, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.812A	Other osteoporosis with current pathological fracture, left shoulder, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.819A	Other osteoporosis with current pathological fracture, unspecified shoulder, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.821A	Other osteoporosis with current pathological fracture, right humerus, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.822A	Other osteoporosis with current pathological fracture, left humerus, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.829A	Other osteoporosis with current pathological fracture, unspecified humerus, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.831A	Other osteoporosis with current pathological fracture, right forearm, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.832A	Other osteoporosis with current pathological fracture, left forearm, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.839A	Other osteoporosis with current pathological fracture, unspecified forearm, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.841A	Other osteoporosis with current pathological fracture, right hand, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.842A	Other osteoporosis with current pathological fracture, left hand, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.849A	Other osteoporosis with current pathological fracture, unspecified hand, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.851A	Other osteoporosis with current pathological fracture, right femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.852A	Other osteoporosis with current pathological fracture, left femur, initial encounter for fracture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M80.859A	Other osteoporosis with current pathological fracture, unspecified femur, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.861A	Other osteoporosis with current pathological fracture, right lower leg, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.862A	Other osteoporosis with current pathological fracture, left lower leg, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.869A	Other osteoporosis with current pathological fracture, unspecified lower leg, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.871A	Other osteoporosis with current pathological fracture, right ankle and foot, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.872A	Other osteoporosis with current pathological fracture, left ankle and foot, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.879A	Other osteoporosis with current pathological fracture, unspecified ankle and foot, initial encounter for fracture	Diagnosis	ICD-10-CM
M80.88XA	Other osteoporosis with current pathological fracture, vertebra(e), initial encounter for fracture	Diagnosis	ICD-10-CM
M80.8AXA	Other osteoporosis with current pathological fracture, other site, initial encounter for fracture	Diagnosis	ICD-10-CM
M81.0	Age-related osteoporosis without current pathological fracture	Diagnosis	ICD-10-CM
M81.6	Localized osteoporosis [Lequesne]	Diagnosis	ICD-10-CM
M81.8	Other osteoporosis without current pathological fracture	Diagnosis	ICD-10-CM

Parkinsons Disease and Secondary Parkinsonism

G20	Parkinson's disease	Diagnosis	ICD-10-CM
G21.11	Neuroleptic induced parkinsonism	Diagnosis	ICD-10-CM
G21.19	Other drug induced secondary parkinsonism	Diagnosis	ICD-10-CM
G21.3	Postencephalitic parkinsonism	Diagnosis	ICD-10-CM
G21.4	Vascular parkinsonism	Diagnosis	ICD-10-CM
G21.8	Other secondary parkinsonism	Diagnosis	ICD-10-CM
G21.9	Secondary parkinsonism, unspecified	Diagnosis	ICD-10-CM
G31.83	Neurocognitive disorder with Lewy bodies	Diagnosis	ICD-10-CM

Rheumatoid Arthritis/Osteoarthritis

L40.50	Arthropathic psoriasis, unspecified	Diagnosis	ICD-10-CM
L40.51	Distal interphalangeal psoriatic arthropathy	Diagnosis	ICD-10-CM
L40.54	Psoriatic juvenile arthropathy	Diagnosis	ICD-10-CM
L40.59	Other psoriatic arthropathy	Diagnosis	ICD-10-CM
M05.00	Felty's syndrome, unspecified site	Diagnosis	ICD-10-CM
M05.011	Felty's syndrome, right shoulder	Diagnosis	ICD-10-CM
M05.012	Felty's syndrome, left shoulder	Diagnosis	ICD-10-CM
M05.019	Felty's syndrome, unspecified shoulder	Diagnosis	ICD-10-CM
M05.021	Felty's syndrome, right elbow	Diagnosis	ICD-10-CM
M05.022	Felty's syndrome, left elbow	Diagnosis	ICD-10-CM
M05.029	Felty's syndrome, unspecified elbow	Diagnosis	ICD-10-CM
M05.031	Felty's syndrome, right wrist	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M05.032	Felty's syndrome, left wrist	Diagnosis	ICD-10-CM
M05.039	Felty's syndrome, unspecified wrist	Diagnosis	ICD-10-CM
M05.041	Felty's syndrome, right hand	Diagnosis	ICD-10-CM
M05.042	Felty's syndrome, left hand	Diagnosis	ICD-10-CM
M05.049	Felty's syndrome, unspecified hand	Diagnosis	ICD-10-CM
M05.051	Felty's syndrome, right hip	Diagnosis	ICD-10-CM
M05.052	Felty's syndrome, left hip	Diagnosis	ICD-10-CM
M05.059	Felty's syndrome, unspecified hip	Diagnosis	ICD-10-CM
M05.061	Felty's syndrome, right knee	Diagnosis	ICD-10-CM
M05.062	Felty's syndrome, left knee	Diagnosis	ICD-10-CM
M05.069	Felty's syndrome, unspecified knee	Diagnosis	ICD-10-CM
M05.071	Felty's syndrome, right ankle and foot	Diagnosis	ICD-10-CM
M05.072	Felty's syndrome, left ankle and foot	Diagnosis	ICD-10-CM
M05.079	Felty's syndrome, unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.09	Felty's syndrome, multiple sites	Diagnosis	ICD-10-CM
M05.10	Rheumatoid lung disease with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.111	Rheumatoid lung disease with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.112	Rheumatoid lung disease with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.119	Rheumatoid lung disease with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.121	Rheumatoid lung disease with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.122	Rheumatoid lung disease with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.129	Rheumatoid lung disease with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.131	Rheumatoid lung disease with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.132	Rheumatoid lung disease with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.139	Rheumatoid lung disease with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.141	Rheumatoid lung disease with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.142	Rheumatoid lung disease with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.149	Rheumatoid lung disease with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.151	Rheumatoid lung disease with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.152	Rheumatoid lung disease with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M05.159	Rheumatoid lung disease with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.161	Rheumatoid lung disease with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.162	Rheumatoid lung disease with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.169	Rheumatoid lung disease with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.171	Rheumatoid lung disease with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.172	Rheumatoid lung disease with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.179	Rheumatoid lung disease with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.19	Rheumatoid lung disease with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.20	Rheumatoid vasculitis with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.211	Rheumatoid vasculitis with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.212	Rheumatoid vasculitis with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.219	Rheumatoid vasculitis with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.221	Rheumatoid vasculitis with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.222	Rheumatoid vasculitis with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.229	Rheumatoid vasculitis with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.231	Rheumatoid vasculitis with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.232	Rheumatoid vasculitis with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.239	Rheumatoid vasculitis with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.241	Rheumatoid vasculitis with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.242	Rheumatoid vasculitis with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.249	Rheumatoid vasculitis with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.251	Rheumatoid vasculitis with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.252	Rheumatoid vasculitis with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M05.259	Rheumatoid vasculitis with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.261	Rheumatoid vasculitis with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.262	Rheumatoid vasculitis with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.269	Rheumatoid vasculitis with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.271	Rheumatoid vasculitis with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.272	Rheumatoid vasculitis with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.279	Rheumatoid vasculitis with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.29	Rheumatoid vasculitis with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.30	Rheumatoid heart disease with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.311	Rheumatoid heart disease with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.312	Rheumatoid heart disease with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.319	Rheumatoid heart disease with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.321	Rheumatoid heart disease with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.322	Rheumatoid heart disease with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.329	Rheumatoid heart disease with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.331	Rheumatoid heart disease with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.332	Rheumatoid heart disease with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.339	Rheumatoid heart disease with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.341	Rheumatoid heart disease with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.342	Rheumatoid heart disease with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.349	Rheumatoid heart disease with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.351	Rheumatoid heart disease with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M05.352	Rheumatoid heart disease with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.359	Rheumatoid heart disease with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.361	Rheumatoid heart disease with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.362	Rheumatoid heart disease with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.369	Rheumatoid heart disease with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.371	Rheumatoid heart disease with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.372	Rheumatoid heart disease with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.379	Rheumatoid heart disease with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.39	Rheumatoid heart disease with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.40	Rheumatoid myopathy with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.411	Rheumatoid myopathy with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.412	Rheumatoid myopathy with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.419	Rheumatoid myopathy with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.421	Rheumatoid myopathy with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.422	Rheumatoid myopathy with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.429	Rheumatoid myopathy with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.431	Rheumatoid myopathy with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.432	Rheumatoid myopathy with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.439	Rheumatoid myopathy with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.441	Rheumatoid myopathy with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.442	Rheumatoid myopathy with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM
M05.449	Rheumatoid myopathy with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M05.451	Rheumatoid myopathy with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.452	Rheumatoid myopathy with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.459	Rheumatoid myopathy with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.461	Rheumatoid myopathy with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.462	Rheumatoid myopathy with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.469	Rheumatoid myopathy with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.471	Rheumatoid myopathy with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.472	Rheumatoid myopathy with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.479	Rheumatoid myopathy with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.49	Rheumatoid myopathy with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.50	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M05.511	Rheumatoid polyneuropathy with rheumatoid arthritis of right shoulder	Diagnosis	ICD-10-CM
M05.512	Rheumatoid polyneuropathy with rheumatoid arthritis of left shoulder	Diagnosis	ICD-10-CM
M05.519	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified shoulder	Diagnosis	ICD-10-CM
M05.521	Rheumatoid polyneuropathy with rheumatoid arthritis of right elbow	Diagnosis	ICD-10-CM
M05.522	Rheumatoid polyneuropathy with rheumatoid arthritis of left elbow	Diagnosis	ICD-10-CM
M05.529	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified elbow	Diagnosis	ICD-10-CM
M05.531	Rheumatoid polyneuropathy with rheumatoid arthritis of right wrist	Diagnosis	ICD-10-CM
M05.532	Rheumatoid polyneuropathy with rheumatoid arthritis of left wrist	Diagnosis	ICD-10-CM
M05.539	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified wrist	Diagnosis	ICD-10-CM
M05.541	Rheumatoid polyneuropathy with rheumatoid arthritis of right hand	Diagnosis	ICD-10-CM
M05.542	Rheumatoid polyneuropathy with rheumatoid arthritis of left hand	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M05.549	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hand	Diagnosis	ICD-10-CM
M05.551	Rheumatoid polyneuropathy with rheumatoid arthritis of right hip	Diagnosis	ICD-10-CM
M05.552	Rheumatoid polyneuropathy with rheumatoid arthritis of left hip	Diagnosis	ICD-10-CM
M05.559	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified hip	Diagnosis	ICD-10-CM
M05.561	Rheumatoid polyneuropathy with rheumatoid arthritis of right knee	Diagnosis	ICD-10-CM
M05.562	Rheumatoid polyneuropathy with rheumatoid arthritis of left knee	Diagnosis	ICD-10-CM
M05.569	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified knee	Diagnosis	ICD-10-CM
M05.571	Rheumatoid polyneuropathy with rheumatoid arthritis of right ankle and foot	Diagnosis	ICD-10-CM
M05.572	Rheumatoid polyneuropathy with rheumatoid arthritis of left ankle and foot	Diagnosis	ICD-10-CM
M05.579	Rheumatoid polyneuropathy with rheumatoid arthritis of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.59	Rheumatoid polyneuropathy with rheumatoid arthritis of multiple sites	Diagnosis	ICD-10-CM
M05.60	Rheumatoid arthritis of unspecified site with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.611	Rheumatoid arthritis of right shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.612	Rheumatoid arthritis of left shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.619	Rheumatoid arthritis of unspecified shoulder with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.621	Rheumatoid arthritis of right elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.622	Rheumatoid arthritis of left elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.629	Rheumatoid arthritis of unspecified elbow with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.631	Rheumatoid arthritis of right wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.632	Rheumatoid arthritis of left wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.639	Rheumatoid arthritis of unspecified wrist with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.641	Rheumatoid arthritis of right hand with involvement of other organs and systems	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M05.642	Rheumatoid arthritis of left hand with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.649	Rheumatoid arthritis of unspecified hand with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.651	Rheumatoid arthritis of right hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.652	Rheumatoid arthritis of left hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.659	Rheumatoid arthritis of unspecified hip with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.661	Rheumatoid arthritis of right knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.662	Rheumatoid arthritis of left knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.669	Rheumatoid arthritis of unspecified knee with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.671	Rheumatoid arthritis of right ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.672	Rheumatoid arthritis of left ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.679	Rheumatoid arthritis of unspecified ankle and foot with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.69	Rheumatoid arthritis of multiple sites with involvement of other organs and systems	Diagnosis	ICD-10-CM
M05.70	Rheumatoid arthritis with rheumatoid factor of unspecified site without organ or systems involvement	Diagnosis	ICD-10-CM
M05.711	Rheumatoid arthritis with rheumatoid factor of right shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.712	Rheumatoid arthritis with rheumatoid factor of left shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.719	Rheumatoid arthritis with rheumatoid factor of unspecified shoulder without organ or systems involvement	Diagnosis	ICD-10-CM
M05.721	Rheumatoid arthritis with rheumatoid factor of right elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.722	Rheumatoid arthritis with rheumatoid factor of left elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.729	Rheumatoid arthritis with rheumatoid factor of unspecified elbow without organ or systems involvement	Diagnosis	ICD-10-CM
M05.731	Rheumatoid arthritis with rheumatoid factor of right wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.732	Rheumatoid arthritis with rheumatoid factor of left wrist without organ or systems involvement	Diagnosis	ICD-10-CM
M05.739	Rheumatoid arthritis with rheumatoid factor of unspecified wrist without organ or systems involvement	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M05.741	Rheumatoid arthritis with rheumatoid factor of right hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.742	Rheumatoid arthritis with rheumatoid factor of left hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.749	Rheumatoid arthritis with rheumatoid factor of unspecified hand without organ or systems involvement	Diagnosis	ICD-10-CM
M05.751	Rheumatoid arthritis with rheumatoid factor of right hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.752	Rheumatoid arthritis with rheumatoid factor of left hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.759	Rheumatoid arthritis with rheumatoid factor of unspecified hip without organ or systems involvement	Diagnosis	ICD-10-CM
M05.761	Rheumatoid arthritis with rheumatoid factor of right knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.762	Rheumatoid arthritis with rheumatoid factor of left knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.769	Rheumatoid arthritis with rheumatoid factor of unspecified knee without organ or systems involvement	Diagnosis	ICD-10-CM
M05.771	Rheumatoid arthritis with rheumatoid factor of right ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.772	Rheumatoid arthritis with rheumatoid factor of left ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.779	Rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot without organ or systems involvement	Diagnosis	ICD-10-CM
M05.79	Rheumatoid arthritis with rheumatoid factor of multiple sites without organ or systems involvement	Diagnosis	ICD-10-CM
M05.7A	Rheumatoid arthritis with rheumatoid factor of other specified site without organ or systems involvement	Diagnosis	ICD-10-CM
M05.80	Other rheumatoid arthritis with rheumatoid factor of unspecified site	Diagnosis	ICD-10-CM
M05.811	Other rheumatoid arthritis with rheumatoid factor of right shoulder	Diagnosis	ICD-10-CM
M05.812	Other rheumatoid arthritis with rheumatoid factor of left shoulder	Diagnosis	ICD-10-CM
M05.819	Other rheumatoid arthritis with rheumatoid factor of unspecified shoulder	Diagnosis	ICD-10-CM
M05.821	Other rheumatoid arthritis with rheumatoid factor of right elbow	Diagnosis	ICD-10-CM
M05.822	Other rheumatoid arthritis with rheumatoid factor of left elbow	Diagnosis	ICD-10-CM
M05.829	Other rheumatoid arthritis with rheumatoid factor of unspecified elbow	Diagnosis	ICD-10-CM
M05.831	Other rheumatoid arthritis with rheumatoid factor of right wrist	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M05.832	Other rheumatoid arthritis with rheumatoid factor of left wrist	Diagnosis	ICD-10-CM
M05.839	Other rheumatoid arthritis with rheumatoid factor of unspecified wrist	Diagnosis	ICD-10-CM
M05.841	Other rheumatoid arthritis with rheumatoid factor of right hand	Diagnosis	ICD-10-CM
M05.842	Other rheumatoid arthritis with rheumatoid factor of left hand	Diagnosis	ICD-10-CM
M05.849	Other rheumatoid arthritis with rheumatoid factor of unspecified hand	Diagnosis	ICD-10-CM
M05.851	Other rheumatoid arthritis with rheumatoid factor of right hip	Diagnosis	ICD-10-CM
M05.852	Other rheumatoid arthritis with rheumatoid factor of left hip	Diagnosis	ICD-10-CM
M05.859	Other rheumatoid arthritis with rheumatoid factor of unspecified hip	Diagnosis	ICD-10-CM
M05.861	Other rheumatoid arthritis with rheumatoid factor of right knee	Diagnosis	ICD-10-CM
M05.862	Other rheumatoid arthritis with rheumatoid factor of left knee	Diagnosis	ICD-10-CM
M05.869	Other rheumatoid arthritis with rheumatoid factor of unspecified knee	Diagnosis	ICD-10-CM
M05.871	Other rheumatoid arthritis with rheumatoid factor of right ankle and foot	Diagnosis	ICD-10-CM
M05.872	Other rheumatoid arthritis with rheumatoid factor of left ankle and foot	Diagnosis	ICD-10-CM
M05.879	Other rheumatoid arthritis with rheumatoid factor of unspecified ankle and foot	Diagnosis	ICD-10-CM
M05.89	Other rheumatoid arthritis with rheumatoid factor of multiple sites	Diagnosis	ICD-10-CM
M05.8A	Other rheumatoid arthritis with rheumatoid factor of other specified site	Diagnosis	ICD-10-CM
M05.9	Rheumatoid arthritis with rheumatoid factor, unspecified	Diagnosis	ICD-10-CM
M06.00	Rheumatoid arthritis without rheumatoid factor, unspecified site	Diagnosis	ICD-10-CM
M06.011	Rheumatoid arthritis without rheumatoid factor, right shoulder	Diagnosis	ICD-10-CM
M06.012	Rheumatoid arthritis without rheumatoid factor, left shoulder	Diagnosis	ICD-10-CM
M06.019	Rheumatoid arthritis without rheumatoid factor, unspecified shoulder	Diagnosis	ICD-10-CM
M06.021	Rheumatoid arthritis without rheumatoid factor, right elbow	Diagnosis	ICD-10-CM
M06.022	Rheumatoid arthritis without rheumatoid factor, left elbow	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M06.029	Rheumatoid arthritis without rheumatoid factor, unspecified elbow	Diagnosis	ICD-10-CM
M06.031	Rheumatoid arthritis without rheumatoid factor, right wrist	Diagnosis	ICD-10-CM
M06.032	Rheumatoid arthritis without rheumatoid factor, left wrist	Diagnosis	ICD-10-CM
M06.039	Rheumatoid arthritis without rheumatoid factor, unspecified wrist	Diagnosis	ICD-10-CM
M06.041	Rheumatoid arthritis without rheumatoid factor, right hand	Diagnosis	ICD-10-CM
M06.042	Rheumatoid arthritis without rheumatoid factor, left hand	Diagnosis	ICD-10-CM
M06.049	Rheumatoid arthritis without rheumatoid factor, unspecified hand	Diagnosis	ICD-10-CM
M06.051	Rheumatoid arthritis without rheumatoid factor, right hip	Diagnosis	ICD-10-CM
M06.052	Rheumatoid arthritis without rheumatoid factor, left hip	Diagnosis	ICD-10-CM
M06.059	Rheumatoid arthritis without rheumatoid factor, unspecified hip	Diagnosis	ICD-10-CM
M06.061	Rheumatoid arthritis without rheumatoid factor, right knee	Diagnosis	ICD-10-CM
M06.062	Rheumatoid arthritis without rheumatoid factor, left knee	Diagnosis	ICD-10-CM
M06.069	Rheumatoid arthritis without rheumatoid factor, unspecified knee	Diagnosis	ICD-10-CM
M06.071	Rheumatoid arthritis without rheumatoid factor, right ankle and foot	Diagnosis	ICD-10-CM
M06.072	Rheumatoid arthritis without rheumatoid factor, left ankle and foot	Diagnosis	ICD-10-CM
M06.079	Rheumatoid arthritis without rheumatoid factor, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.08	Rheumatoid arthritis without rheumatoid factor, vertebrae	Diagnosis	ICD-10-CM
M06.09	Rheumatoid arthritis without rheumatoid factor, multiple sites	Diagnosis	ICD-10-CM
M06.0A	Rheumatoid arthritis without rheumatoid factor, other specified site	Diagnosis	ICD-10-CM
M06.1	Adult-onset Still's disease	Diagnosis	ICD-10-CM
M06.20	Rheumatoid bursitis, unspecified site	Diagnosis	ICD-10-CM
M06.211	Rheumatoid bursitis, right shoulder	Diagnosis	ICD-10-CM
M06.212	Rheumatoid bursitis, left shoulder	Diagnosis	ICD-10-CM
M06.219	Rheumatoid bursitis, unspecified shoulder	Diagnosis	ICD-10-CM
M06.221	Rheumatoid bursitis, right elbow	Diagnosis	ICD-10-CM
M06.222	Rheumatoid bursitis, left elbow	Diagnosis	ICD-10-CM
M06.229	Rheumatoid bursitis, unspecified elbow	Diagnosis	ICD-10-CM
M06.231	Rheumatoid bursitis, right wrist	Diagnosis	ICD-10-CM
M06.232	Rheumatoid bursitis, left wrist	Diagnosis	ICD-10-CM
M06.239	Rheumatoid bursitis, unspecified wrist	Diagnosis	ICD-10-CM
M06.241	Rheumatoid bursitis, right hand	Diagnosis	ICD-10-CM
M06.242	Rheumatoid bursitis, left hand	Diagnosis	ICD-10-CM
M06.249	Rheumatoid bursitis, unspecified hand	Diagnosis	ICD-10-CM
M06.251	Rheumatoid bursitis, right hip	Diagnosis	ICD-10-CM
M06.252	Rheumatoid bursitis, left hip	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M06.259	Rheumatoid bursitis, unspecified hip	Diagnosis	ICD-10-CM
M06.261	Rheumatoid bursitis, right knee	Diagnosis	ICD-10-CM
M06.262	Rheumatoid bursitis, left knee	Diagnosis	ICD-10-CM
M06.269	Rheumatoid bursitis, unspecified knee	Diagnosis	ICD-10-CM
M06.271	Rheumatoid bursitis, right ankle and foot	Diagnosis	ICD-10-CM
M06.272	Rheumatoid bursitis, left ankle and foot	Diagnosis	ICD-10-CM
M06.279	Rheumatoid bursitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.28	Rheumatoid bursitis, vertebrae	Diagnosis	ICD-10-CM
M06.29	Rheumatoid bursitis, multiple sites	Diagnosis	ICD-10-CM
M06.30	Rheumatoid nodule, unspecified site	Diagnosis	ICD-10-CM
M06.311	Rheumatoid nodule, right shoulder	Diagnosis	ICD-10-CM
M06.312	Rheumatoid nodule, left shoulder	Diagnosis	ICD-10-CM
M06.319	Rheumatoid nodule, unspecified shoulder	Diagnosis	ICD-10-CM
M06.321	Rheumatoid nodule, right elbow	Diagnosis	ICD-10-CM
M06.322	Rheumatoid nodule, left elbow	Diagnosis	ICD-10-CM
M06.329	Rheumatoid nodule, unspecified elbow	Diagnosis	ICD-10-CM
M06.331	Rheumatoid nodule, right wrist	Diagnosis	ICD-10-CM
M06.332	Rheumatoid nodule, left wrist	Diagnosis	ICD-10-CM
M06.339	Rheumatoid nodule, unspecified wrist	Diagnosis	ICD-10-CM
M06.341	Rheumatoid nodule, right hand	Diagnosis	ICD-10-CM
M06.342	Rheumatoid nodule, left hand	Diagnosis	ICD-10-CM
M06.349	Rheumatoid nodule, unspecified hand	Diagnosis	ICD-10-CM
M06.351	Rheumatoid nodule, right hip	Diagnosis	ICD-10-CM
M06.352	Rheumatoid nodule, left hip	Diagnosis	ICD-10-CM
M06.359	Rheumatoid nodule, unspecified hip	Diagnosis	ICD-10-CM
M06.361	Rheumatoid nodule, right knee	Diagnosis	ICD-10-CM
M06.362	Rheumatoid nodule, left knee	Diagnosis	ICD-10-CM
M06.369	Rheumatoid nodule, unspecified knee	Diagnosis	ICD-10-CM
M06.371	Rheumatoid nodule, right ankle and foot	Diagnosis	ICD-10-CM
M06.372	Rheumatoid nodule, left ankle and foot	Diagnosis	ICD-10-CM
M06.379	Rheumatoid nodule, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.38	Rheumatoid nodule, vertebrae	Diagnosis	ICD-10-CM
M06.39	Rheumatoid nodule, multiple sites	Diagnosis	ICD-10-CM
M06.80	Other specified rheumatoid arthritis, unspecified site	Diagnosis	ICD-10-CM
M06.811	Other specified rheumatoid arthritis, right shoulder	Diagnosis	ICD-10-CM
M06.812	Other specified rheumatoid arthritis, left shoulder	Diagnosis	ICD-10-CM
M06.819	Other specified rheumatoid arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M06.821	Other specified rheumatoid arthritis, right elbow	Diagnosis	ICD-10-CM
M06.822	Other specified rheumatoid arthritis, left elbow	Diagnosis	ICD-10-CM
M06.829	Other specified rheumatoid arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M06.831	Other specified rheumatoid arthritis, right wrist	Diagnosis	ICD-10-CM
M06.832	Other specified rheumatoid arthritis, left wrist	Diagnosis	ICD-10-CM
M06.839	Other specified rheumatoid arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M06.841	Other specified rheumatoid arthritis, right hand	Diagnosis	ICD-10-CM
M06.842	Other specified rheumatoid arthritis, left hand	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M06.849	Other specified rheumatoid arthritis, unspecified hand	Diagnosis	ICD-10-CM
M06.851	Other specified rheumatoid arthritis, right hip	Diagnosis	ICD-10-CM
M06.852	Other specified rheumatoid arthritis, left hip	Diagnosis	ICD-10-CM
M06.859	Other specified rheumatoid arthritis, unspecified hip	Diagnosis	ICD-10-CM
M06.861	Other specified rheumatoid arthritis, right knee	Diagnosis	ICD-10-CM
M06.862	Other specified rheumatoid arthritis, left knee	Diagnosis	ICD-10-CM
M06.869	Other specified rheumatoid arthritis, unspecified knee	Diagnosis	ICD-10-CM
M06.871	Other specified rheumatoid arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M06.872	Other specified rheumatoid arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M06.879	Other specified rheumatoid arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M06.88	Other specified rheumatoid arthritis, vertebrae	Diagnosis	ICD-10-CM
M06.89	Other specified rheumatoid arthritis, multiple sites	Diagnosis	ICD-10-CM
M06.8A	Other specified rheumatoid arthritis, other specified site	Diagnosis	ICD-10-CM
M06.9	Rheumatoid arthritis, unspecified	Diagnosis	ICD-10-CM
M08.00	Unspecified juvenile rheumatoid arthritis of unspecified site	Diagnosis	ICD-10-CM
M08.011	Unspecified juvenile rheumatoid arthritis, right shoulder	Diagnosis	ICD-10-CM
M08.012	Unspecified juvenile rheumatoid arthritis, left shoulder	Diagnosis	ICD-10-CM
M08.019	Unspecified juvenile rheumatoid arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M08.021	Unspecified juvenile rheumatoid arthritis, right elbow	Diagnosis	ICD-10-CM
M08.022	Unspecified juvenile rheumatoid arthritis, left elbow	Diagnosis	ICD-10-CM
M08.029	Unspecified juvenile rheumatoid arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M08.031	Unspecified juvenile rheumatoid arthritis, right wrist	Diagnosis	ICD-10-CM
M08.032	Unspecified juvenile rheumatoid arthritis, left wrist	Diagnosis	ICD-10-CM
M08.039	Unspecified juvenile rheumatoid arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M08.041	Unspecified juvenile rheumatoid arthritis, right hand	Diagnosis	ICD-10-CM
M08.042	Unspecified juvenile rheumatoid arthritis, left hand	Diagnosis	ICD-10-CM
M08.049	Unspecified juvenile rheumatoid arthritis, unspecified hand	Diagnosis	ICD-10-CM
M08.051	Unspecified juvenile rheumatoid arthritis, right hip	Diagnosis	ICD-10-CM
M08.052	Unspecified juvenile rheumatoid arthritis, left hip	Diagnosis	ICD-10-CM
M08.059	Unspecified juvenile rheumatoid arthritis, unspecified hip	Diagnosis	ICD-10-CM
M08.061	Unspecified juvenile rheumatoid arthritis, right knee	Diagnosis	ICD-10-CM
M08.062	Unspecified juvenile rheumatoid arthritis, left knee	Diagnosis	ICD-10-CM
M08.069	Unspecified juvenile rheumatoid arthritis, unspecified knee	Diagnosis	ICD-10-CM
M08.071	Unspecified juvenile rheumatoid arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M08.072	Unspecified juvenile rheumatoid arthritis, left ankle and foot	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M08.079	Unspecified juvenile rheumatoid arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.08	Unspecified juvenile rheumatoid arthritis, vertebrae	Diagnosis	ICD-10-CM
M08.09	Unspecified juvenile rheumatoid arthritis, multiple sites	Diagnosis	ICD-10-CM
M08.0A	Unspecified juvenile rheumatoid arthritis, other specified site	Diagnosis	ICD-10-CM
M08.1	Juvenile ankylosing spondylitis	Diagnosis	ICD-10-CM
M08.20	Juvenile rheumatoid arthritis with systemic onset, unspecified site	Diagnosis	ICD-10-CM
M08.211	Juvenile rheumatoid arthritis with systemic onset, right shoulder	Diagnosis	ICD-10-CM
M08.212	Juvenile rheumatoid arthritis with systemic onset, left shoulder	Diagnosis	ICD-10-CM
M08.219	Juvenile rheumatoid arthritis with systemic onset, unspecified shoulder	Diagnosis	ICD-10-CM
M08.221	Juvenile rheumatoid arthritis with systemic onset, right elbow	Diagnosis	ICD-10-CM
M08.222	Juvenile rheumatoid arthritis with systemic onset, left elbow	Diagnosis	ICD-10-CM
M08.229	Juvenile rheumatoid arthritis with systemic onset, unspecified elbow	Diagnosis	ICD-10-CM
M08.231	Juvenile rheumatoid arthritis with systemic onset, right wrist	Diagnosis	ICD-10-CM
M08.232	Juvenile rheumatoid arthritis with systemic onset, left wrist	Diagnosis	ICD-10-CM
M08.239	Juvenile rheumatoid arthritis with systemic onset, unspecified wrist	Diagnosis	ICD-10-CM
M08.241	Juvenile rheumatoid arthritis with systemic onset, right hand	Diagnosis	ICD-10-CM
M08.242	Juvenile rheumatoid arthritis with systemic onset, left hand	Diagnosis	ICD-10-CM
M08.249	Juvenile rheumatoid arthritis with systemic onset, unspecified hand	Diagnosis	ICD-10-CM
M08.251	Juvenile rheumatoid arthritis with systemic onset, right hip	Diagnosis	ICD-10-CM
M08.252	Juvenile rheumatoid arthritis with systemic onset, left hip	Diagnosis	ICD-10-CM
M08.259	Juvenile rheumatoid arthritis with systemic onset, unspecified hip	Diagnosis	ICD-10-CM
M08.261	Juvenile rheumatoid arthritis with systemic onset, right knee	Diagnosis	ICD-10-CM
M08.262	Juvenile rheumatoid arthritis with systemic onset, left knee	Diagnosis	ICD-10-CM
M08.269	Juvenile rheumatoid arthritis with systemic onset, unspecified knee	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M08.271	Juvenile rheumatoid arthritis with systemic onset, right ankle and foot	Diagnosis	ICD-10-CM
M08.272	Juvenile rheumatoid arthritis with systemic onset, left ankle and foot	Diagnosis	ICD-10-CM
M08.279	Juvenile rheumatoid arthritis with systemic onset, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.28	Juvenile rheumatoid arthritis with systemic onset, vertebrae	Diagnosis	ICD-10-CM
M08.29	Juvenile rheumatoid arthritis with systemic onset, multiple sites	Diagnosis	ICD-10-CM
M08.2A	Juvenile rheumatoid arthritis with systemic onset, other specified site	Diagnosis	ICD-10-CM
M08.3	Juvenile rheumatoid polyarthritis (seronegative)	Diagnosis	ICD-10-CM
M08.40	Pauciarticular juvenile rheumatoid arthritis, unspecified site	Diagnosis	ICD-10-CM
M08.411	Pauciarticular juvenile rheumatoid arthritis, right shoulder	Diagnosis	ICD-10-CM
M08.412	Pauciarticular juvenile rheumatoid arthritis, left shoulder	Diagnosis	ICD-10-CM
M08.419	Pauciarticular juvenile rheumatoid arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M08.421	Pauciarticular juvenile rheumatoid arthritis, right elbow	Diagnosis	ICD-10-CM
M08.422	Pauciarticular juvenile rheumatoid arthritis, left elbow	Diagnosis	ICD-10-CM
M08.429	Pauciarticular juvenile rheumatoid arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M08.431	Pauciarticular juvenile rheumatoid arthritis, right wrist	Diagnosis	ICD-10-CM
M08.432	Pauciarticular juvenile rheumatoid arthritis, left wrist	Diagnosis	ICD-10-CM
M08.439	Pauciarticular juvenile rheumatoid arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M08.441	Pauciarticular juvenile rheumatoid arthritis, right hand	Diagnosis	ICD-10-CM
M08.442	Pauciarticular juvenile rheumatoid arthritis, left hand	Diagnosis	ICD-10-CM
M08.449	Pauciarticular juvenile rheumatoid arthritis, unspecified hand	Diagnosis	ICD-10-CM
M08.451	Pauciarticular juvenile rheumatoid arthritis, right hip	Diagnosis	ICD-10-CM
M08.452	Pauciarticular juvenile rheumatoid arthritis, left hip	Diagnosis	ICD-10-CM
M08.459	Pauciarticular juvenile rheumatoid arthritis, unspecified hip	Diagnosis	ICD-10-CM
M08.461	Pauciarticular juvenile rheumatoid arthritis, right knee	Diagnosis	ICD-10-CM
M08.462	Pauciarticular juvenile rheumatoid arthritis, left knee	Diagnosis	ICD-10-CM
M08.469	Pauciarticular juvenile rheumatoid arthritis, unspecified knee	Diagnosis	ICD-10-CM
M08.471	Pauciarticular juvenile rheumatoid arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M08.472	Pauciarticular juvenile rheumatoid arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M08.479	Pauciarticular juvenile rheumatoid arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M08.48	Pauciarticular juvenile rheumatoid arthritis, vertebrae	Diagnosis	ICD-10-CM
M08.4A	Pauciarticular juvenile rheumatoid arthritis, other specified site	Diagnosis	ICD-10-CM
M08.80	Other juvenile arthritis, unspecified site	Diagnosis	ICD-10-CM
M08.811	Other juvenile arthritis, right shoulder	Diagnosis	ICD-10-CM
M08.812	Other juvenile arthritis, left shoulder	Diagnosis	ICD-10-CM
M08.819	Other juvenile arthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M08.821	Other juvenile arthritis, right elbow	Diagnosis	ICD-10-CM
M08.822	Other juvenile arthritis, left elbow	Diagnosis	ICD-10-CM
M08.829	Other juvenile arthritis, unspecified elbow	Diagnosis	ICD-10-CM
M08.831	Other juvenile arthritis, right wrist	Diagnosis	ICD-10-CM
M08.832	Other juvenile arthritis, left wrist	Diagnosis	ICD-10-CM
M08.839	Other juvenile arthritis, unspecified wrist	Diagnosis	ICD-10-CM
M08.841	Other juvenile arthritis, right hand	Diagnosis	ICD-10-CM
M08.842	Other juvenile arthritis, left hand	Diagnosis	ICD-10-CM
M08.849	Other juvenile arthritis, unspecified hand	Diagnosis	ICD-10-CM
M08.851	Other juvenile arthritis, right hip	Diagnosis	ICD-10-CM
M08.852	Other juvenile arthritis, left hip	Diagnosis	ICD-10-CM
M08.859	Other juvenile arthritis, unspecified hip	Diagnosis	ICD-10-CM
M08.861	Other juvenile arthritis, right knee	Diagnosis	ICD-10-CM
M08.862	Other juvenile arthritis, left knee	Diagnosis	ICD-10-CM
M08.869	Other juvenile arthritis, unspecified knee	Diagnosis	ICD-10-CM
M08.871	Other juvenile arthritis, right ankle and foot	Diagnosis	ICD-10-CM
M08.872	Other juvenile arthritis, left ankle and foot	Diagnosis	ICD-10-CM
M08.879	Other juvenile arthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.88	Other juvenile arthritis, other specified site	Diagnosis	ICD-10-CM
M08.89	Other juvenile arthritis, multiple sites	Diagnosis	ICD-10-CM
M08.90	Juvenile arthritis, unspecified, unspecified site	Diagnosis	ICD-10-CM
M08.911	Juvenile arthritis, unspecified, right shoulder	Diagnosis	ICD-10-CM
M08.912	Juvenile arthritis, unspecified, left shoulder	Diagnosis	ICD-10-CM
M08.919	Juvenile arthritis, unspecified, unspecified shoulder	Diagnosis	ICD-10-CM
M08.921	Juvenile arthritis, unspecified, right elbow	Diagnosis	ICD-10-CM
M08.922	Juvenile arthritis, unspecified, left elbow	Diagnosis	ICD-10-CM
M08.929	Juvenile arthritis, unspecified, unspecified elbow	Diagnosis	ICD-10-CM
M08.931	Juvenile arthritis, unspecified, right wrist	Diagnosis	ICD-10-CM
M08.932	Juvenile arthritis, unspecified, left wrist	Diagnosis	ICD-10-CM
M08.939	Juvenile arthritis, unspecified, unspecified wrist	Diagnosis	ICD-10-CM
M08.941	Juvenile arthritis, unspecified, right hand	Diagnosis	ICD-10-CM
M08.942	Juvenile arthritis, unspecified, left hand	Diagnosis	ICD-10-CM
M08.949	Juvenile arthritis, unspecified, unspecified hand	Diagnosis	ICD-10-CM
M08.951	Juvenile arthritis, unspecified, right hip	Diagnosis	ICD-10-CM
M08.952	Juvenile arthritis, unspecified, left hip	Diagnosis	ICD-10-CM
M08.959	Juvenile arthritis, unspecified, unspecified hip	Diagnosis	ICD-10-CM
M08.961	Juvenile arthritis, unspecified, right knee	Diagnosis	ICD-10-CM
M08.962	Juvenile arthritis, unspecified, left knee	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M08.969	Juvenile arthritis, unspecified, unspecified knee	Diagnosis	ICD-10-CM
M08.971	Juvenile arthritis, unspecified, right ankle and foot	Diagnosis	ICD-10-CM
M08.972	Juvenile arthritis, unspecified, left ankle and foot	Diagnosis	ICD-10-CM
M08.979	Juvenile arthritis, unspecified, unspecified ankle and foot	Diagnosis	ICD-10-CM
M08.98	Juvenile arthritis, unspecified, vertebrae	Diagnosis	ICD-10-CM
M08.99	Juvenile arthritis, unspecified, multiple sites	Diagnosis	ICD-10-CM
M08.9A	Juvenile arthritis, unspecified, other specified site	Diagnosis	ICD-10-CM
M15.0	Primary generalized (osteo)arthritis	Diagnosis	ICD-10-CM
M15.1	Heberden's nodes (with arthropathy)	Diagnosis	ICD-10-CM
M15.2	Bouchard's nodes (with arthropathy)	Diagnosis	ICD-10-CM
M15.3	Secondary multiple arthritis	Diagnosis	ICD-10-CM
M15.4	Erosive (osteo)arthritis	Diagnosis	ICD-10-CM
M15.8	Other polyosteoarthritis	Diagnosis	ICD-10-CM
M15.9	Polyosteoarthritis, unspecified	Diagnosis	ICD-10-CM
M16.0	Bilateral primary osteoarthritis of hip	Diagnosis	ICD-10-CM
M16.10	Unilateral primary osteoarthritis, unspecified hip	Diagnosis	ICD-10-CM
M16.11	Unilateral primary osteoarthritis, right hip	Diagnosis	ICD-10-CM
M16.12	Unilateral primary osteoarthritis, left hip	Diagnosis	ICD-10-CM
M16.2	Bilateral osteoarthritis resulting from hip dysplasia	Diagnosis	ICD-10-CM
M16.30	Unilateral osteoarthritis resulting from hip dysplasia, unspecified hip	Diagnosis	ICD-10-CM
M16.31	Unilateral osteoarthritis resulting from hip dysplasia, right hip	Diagnosis	ICD-10-CM
M16.32	Unilateral osteoarthritis resulting from hip dysplasia, left hip	Diagnosis	ICD-10-CM
M16.4	Bilateral post-traumatic osteoarthritis of hip	Diagnosis	ICD-10-CM
M16.50	Unilateral post-traumatic osteoarthritis, unspecified hip	Diagnosis	ICD-10-CM
M16.51	Unilateral post-traumatic osteoarthritis, right hip	Diagnosis	ICD-10-CM
M16.52	Unilateral post-traumatic osteoarthritis, left hip	Diagnosis	ICD-10-CM
M16.6	Other bilateral secondary osteoarthritis of hip	Diagnosis	ICD-10-CM
M16.7	Other unilateral secondary osteoarthritis of hip	Diagnosis	ICD-10-CM
M16.9	Osteoarthritis of hip, unspecified	Diagnosis	ICD-10-CM
M17.0	Bilateral primary osteoarthritis of knee	Diagnosis	ICD-10-CM
M17.10	Unilateral primary osteoarthritis, unspecified knee	Diagnosis	ICD-10-CM
M17.11	Unilateral primary osteoarthritis, right knee	Diagnosis	ICD-10-CM
M17.12	Unilateral primary osteoarthritis, left knee	Diagnosis	ICD-10-CM
M17.2	Bilateral post-traumatic osteoarthritis of knee	Diagnosis	ICD-10-CM
M17.30	Unilateral post-traumatic osteoarthritis, unspecified knee	Diagnosis	ICD-10-CM
M17.31	Unilateral post-traumatic osteoarthritis, right knee	Diagnosis	ICD-10-CM
M17.32	Unilateral post-traumatic osteoarthritis, left knee	Diagnosis	ICD-10-CM
M17.4	Other bilateral secondary osteoarthritis of knee	Diagnosis	ICD-10-CM
M17.5	Other unilateral secondary osteoarthritis of knee	Diagnosis	ICD-10-CM
M17.9	Osteoarthritis of knee, unspecified	Diagnosis	ICD-10-CM
M18.0	Bilateral primary osteoarthritis of first carpometacarpal joints	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M18.10	Unilateral primary osteoarthritis of first carpometacarpal joint, unspecified hand	Diagnosis	ICD-10-CM
M18.11	Unilateral primary osteoarthritis of first carpometacarpal joint, right hand	Diagnosis	ICD-10-CM
M18.12	Unilateral primary osteoarthritis of first carpometacarpal joint, left hand	Diagnosis	ICD-10-CM
M18.2	Bilateral post-traumatic osteoarthritis of first carpometacarpal joints	Diagnosis	ICD-10-CM
M18.30	Unilateral post-traumatic osteoarthritis of first carpometacarpal joint, unspecified hand	Diagnosis	ICD-10-CM
M18.31	Unilateral post-traumatic osteoarthritis of first carpometacarpal joint, right hand	Diagnosis	ICD-10-CM
M18.32	Unilateral post-traumatic osteoarthritis of first carpometacarpal joint, left hand	Diagnosis	ICD-10-CM
M18.4	Other bilateral secondary osteoarthritis of first carpometacarpal joints	Diagnosis	ICD-10-CM
M18.50	Other unilateral secondary osteoarthritis of first carpometacarpal joint, unspecified hand	Diagnosis	ICD-10-CM
M18.51	Other unilateral secondary osteoarthritis of first carpometacarpal joint, right hand	Diagnosis	ICD-10-CM
M18.52	Other unilateral secondary osteoarthritis of first carpometacarpal joint, left hand	Diagnosis	ICD-10-CM
M18.9	Osteoarthritis of first carpometacarpal joint, unspecified	Diagnosis	ICD-10-CM
M19.011	Primary osteoarthritis, right shoulder	Diagnosis	ICD-10-CM
M19.012	Primary osteoarthritis, left shoulder	Diagnosis	ICD-10-CM
M19.019	Primary osteoarthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M19.021	Primary osteoarthritis, right elbow	Diagnosis	ICD-10-CM
M19.022	Primary osteoarthritis, left elbow	Diagnosis	ICD-10-CM
M19.029	Primary osteoarthritis, unspecified elbow	Diagnosis	ICD-10-CM
M19.031	Primary osteoarthritis, right wrist	Diagnosis	ICD-10-CM
M19.032	Primary osteoarthritis, left wrist	Diagnosis	ICD-10-CM
M19.039	Primary osteoarthritis, unspecified wrist	Diagnosis	ICD-10-CM
M19.041	Primary osteoarthritis, right hand	Diagnosis	ICD-10-CM
M19.042	Primary osteoarthritis, left hand	Diagnosis	ICD-10-CM
M19.049	Primary osteoarthritis, unspecified hand	Diagnosis	ICD-10-CM
M19.071	Primary osteoarthritis, right ankle and foot	Diagnosis	ICD-10-CM
M19.072	Primary osteoarthritis, left ankle and foot	Diagnosis	ICD-10-CM
M19.079	Primary osteoarthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M19.09	Primary osteoarthritis, other specified site	Diagnosis	ICD-10-CM
M19.111	Post-traumatic osteoarthritis, right shoulder	Diagnosis	ICD-10-CM
M19.112	Post-traumatic osteoarthritis, left shoulder	Diagnosis	ICD-10-CM
M19.119	Post-traumatic osteoarthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M19.121	Post-traumatic osteoarthritis, right elbow	Diagnosis	ICD-10-CM
M19.122	Post-traumatic osteoarthritis, left elbow	Diagnosis	ICD-10-CM
M19.129	Post-traumatic osteoarthritis, unspecified elbow	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M19.131	Post-traumatic osteoarthritis, right wrist	Diagnosis	ICD-10-CM
M19.132	Post-traumatic osteoarthritis, left wrist	Diagnosis	ICD-10-CM
M19.139	Post-traumatic osteoarthritis, unspecified wrist	Diagnosis	ICD-10-CM
M19.141	Post-traumatic osteoarthritis, right hand	Diagnosis	ICD-10-CM
M19.142	Post-traumatic osteoarthritis, left hand	Diagnosis	ICD-10-CM
M19.149	Post-traumatic osteoarthritis, unspecified hand	Diagnosis	ICD-10-CM
M19.171	Post-traumatic osteoarthritis, right ankle and foot	Diagnosis	ICD-10-CM
M19.172	Post-traumatic osteoarthritis, left ankle and foot	Diagnosis	ICD-10-CM
M19.179	Post-traumatic osteoarthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M19.19	Post-traumatic osteoarthritis, other specified site	Diagnosis	ICD-10-CM
M19.211	Secondary osteoarthritis, right shoulder	Diagnosis	ICD-10-CM
M19.212	Secondary osteoarthritis, left shoulder	Diagnosis	ICD-10-CM
M19.219	Secondary osteoarthritis, unspecified shoulder	Diagnosis	ICD-10-CM
M19.221	Secondary osteoarthritis, right elbow	Diagnosis	ICD-10-CM
M19.222	Secondary osteoarthritis, left elbow	Diagnosis	ICD-10-CM
M19.229	Secondary osteoarthritis, unspecified elbow	Diagnosis	ICD-10-CM
M19.231	Secondary osteoarthritis, right wrist	Diagnosis	ICD-10-CM
M19.232	Secondary osteoarthritis, left wrist	Diagnosis	ICD-10-CM
M19.239	Secondary osteoarthritis, unspecified wrist	Diagnosis	ICD-10-CM
M19.241	Secondary osteoarthritis, right hand	Diagnosis	ICD-10-CM
M19.242	Secondary osteoarthritis, left hand	Diagnosis	ICD-10-CM
M19.249	Secondary osteoarthritis, unspecified hand	Diagnosis	ICD-10-CM
M19.271	Secondary osteoarthritis, right ankle and foot	Diagnosis	ICD-10-CM
M19.272	Secondary osteoarthritis, left ankle and foot	Diagnosis	ICD-10-CM
M19.279	Secondary osteoarthritis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M19.29	Secondary osteoarthritis, other specified site	Diagnosis	ICD-10-CM
M19.90	Unspecified osteoarthritis, unspecified site	Diagnosis	ICD-10-CM
M19.91	Primary osteoarthritis, unspecified site	Diagnosis	ICD-10-CM
M19.92	Post-traumatic osteoarthritis, unspecified site	Diagnosis	ICD-10-CM
M19.93	Secondary osteoarthritis, unspecified site	Diagnosis	ICD-10-CM
M45.0	Ankylosing spondylitis of multiple sites in spine	Diagnosis	ICD-10-CM
M45.1	Ankylosing spondylitis of occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M45.2	Ankylosing spondylitis of cervical region	Diagnosis	ICD-10-CM
M45.3	Ankylosing spondylitis of cervicothoracic region	Diagnosis	ICD-10-CM
M45.4	Ankylosing spondylitis of thoracic region	Diagnosis	ICD-10-CM
M45.5	Ankylosing spondylitis of thoracolumbar region	Diagnosis	ICD-10-CM
M45.6	Ankylosing spondylitis lumbar region	Diagnosis	ICD-10-CM
M45.7	Ankylosing spondylitis of lumbosacral region	Diagnosis	ICD-10-CM
M45.8	Ankylosing spondylitis sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M45.9	Ankylosing spondylitis of unspecified sites in spine	Diagnosis	ICD-10-CM
M45.A0	Non-radiographic axial spondyloarthritis of unspecified sites in spine	Diagnosis	ICD-10-CM
M45.A1	Non-radiographic axial spondyloarthritis of occipito-atlanto-axial region	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M45.A2	Non-radiographic axial spondyloarthritis of cervical region	Diagnosis	ICD-10-CM
M45.A3	Non-radiographic axial spondyloarthritis of cervicothoracic region	Diagnosis	ICD-10-CM
M45.A4	Non-radiographic axial spondyloarthritis of thoracic region	Diagnosis	ICD-10-CM
M45.A5	Non-radiographic axial spondyloarthritis of thoracolumbar region	Diagnosis	ICD-10-CM
M45.A6	Non-radiographic axial spondyloarthritis of lumbar region	Diagnosis	ICD-10-CM
M45.A7	Non-radiographic axial spondyloarthritis of lumbosacral region	Diagnosis	ICD-10-CM
M45.A8	Non-radiographic axial spondyloarthritis of sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M45.AB	Non-radiographic axial spondyloarthritis of multiple sites in spine	Diagnosis	ICD-10-CM
M46.80	Other specified inflammatory spondylopathies, site unspecified	Diagnosis	ICD-10-CM
M46.81	Other specified inflammatory spondylopathies, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M46.82	Other specified inflammatory spondylopathies, cervical region	Diagnosis	ICD-10-CM
M46.83	Other specified inflammatory spondylopathies, cervicothoracic region	Diagnosis	ICD-10-CM
M46.84	Other specified inflammatory spondylopathies, thoracic region	Diagnosis	ICD-10-CM
M46.85	Other specified inflammatory spondylopathies, thoracolumbar region	Diagnosis	ICD-10-CM
M46.86	Other specified inflammatory spondylopathies, lumbar region	Diagnosis	ICD-10-CM
M46.87	Other specified inflammatory spondylopathies, lumbosacral region	Diagnosis	ICD-10-CM
M46.88	Other specified inflammatory spondylopathies, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M46.89	Other specified inflammatory spondylopathies, multiple sites in spine	Diagnosis	ICD-10-CM
M46.90	Unspecified inflammatory spondylopathy, site unspecified	Diagnosis	ICD-10-CM
M46.91	Unspecified inflammatory spondylopathy, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M46.92	Unspecified inflammatory spondylopathy, cervical region	Diagnosis	ICD-10-CM
M46.93	Unspecified inflammatory spondylopathy, cervicothoracic region	Diagnosis	ICD-10-CM
M46.94	Unspecified inflammatory spondylopathy, thoracic region	Diagnosis	ICD-10-CM
M46.95	Unspecified inflammatory spondylopathy, thoracolumbar region	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M46.96	Unspecified inflammatory spondylopathy, lumbar region	Diagnosis	ICD-10-CM
M46.97	Unspecified inflammatory spondylopathy, lumbosacral region	Diagnosis	ICD-10-CM
M46.98	Unspecified inflammatory spondylopathy, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M46.99	Unspecified inflammatory spondylopathy, multiple sites in spine	Diagnosis	ICD-10-CM
M47.011	Anterior spinal artery compression syndromes, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M47.012	Anterior spinal artery compression syndromes, cervical region	Diagnosis	ICD-10-CM
M47.013	Anterior spinal artery compression syndromes, cervicothoracic region	Diagnosis	ICD-10-CM
M47.014	Anterior spinal artery compression syndromes, thoracic region	Diagnosis	ICD-10-CM
M47.015	Anterior spinal artery compression syndromes, thoracolumbar region	Diagnosis	ICD-10-CM
M47.016	Anterior spinal artery compression syndromes, lumbar region	Diagnosis	ICD-10-CM
M47.019	Anterior spinal artery compression syndromes, site unspecified	Diagnosis	ICD-10-CM
M47.021	Vertebral artery compression syndromes, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M47.022	Vertebral artery compression syndromes, cervical region	Diagnosis	ICD-10-CM
M47.029	Vertebral artery compression syndromes, site unspecified	Diagnosis	ICD-10-CM
M47.10	Other spondylosis with myelopathy, site unspecified	Diagnosis	ICD-10-CM
M47.11	Other spondylosis with myelopathy, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M47.12	Other spondylosis with myelopathy, cervical region	Diagnosis	ICD-10-CM
M47.13	Other spondylosis with myelopathy, cervicothoracic region	Diagnosis	ICD-10-CM
M47.14	Other spondylosis with myelopathy, thoracic region	Diagnosis	ICD-10-CM
M47.15	Other spondylosis with myelopathy, thoracolumbar region	Diagnosis	ICD-10-CM
M47.16	Other spondylosis with myelopathy, lumbar region	Diagnosis	ICD-10-CM
M47.20	Other spondylosis with radiculopathy, site unspecified	Diagnosis	ICD-10-CM
M47.21	Other spondylosis with radiculopathy, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M47.22	Other spondylosis with radiculopathy, cervical region	Diagnosis	ICD-10-CM
M47.23	Other spondylosis with radiculopathy, cervicothoracic region	Diagnosis	ICD-10-CM
M47.24	Other spondylosis with radiculopathy, thoracic region	Diagnosis	ICD-10-CM
M47.25	Other spondylosis with radiculopathy, thoracolumbar region	Diagnosis	ICD-10-CM
M47.26	Other spondylosis with radiculopathy, lumbar region	Diagnosis	ICD-10-CM
M47.27	Other spondylosis with radiculopathy, lumbosacral region	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M47.28	Other spondylosis with radiculopathy, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M47.811	Spondylosis without myelopathy or radiculopathy, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M47.812	Spondylosis without myelopathy or radiculopathy, cervical region	Diagnosis	ICD-10-CM
M47.813	Spondylosis without myelopathy or radiculopathy, cervicothoracic region	Diagnosis	ICD-10-CM
M47.814	Spondylosis without myelopathy or radiculopathy, thoracic region	Diagnosis	ICD-10-CM
M47.815	Spondylosis without myelopathy or radiculopathy, thoracolumbar region	Diagnosis	ICD-10-CM
M47.816	Spondylosis without myelopathy or radiculopathy, lumbar region	Diagnosis	ICD-10-CM
M47.817	Spondylosis without myelopathy or radiculopathy, lumbosacral region	Diagnosis	ICD-10-CM
M47.818	Spondylosis without myelopathy or radiculopathy, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M47.819	Spondylosis without myelopathy or radiculopathy, site unspecified	Diagnosis	ICD-10-CM
M47.891	Other spondylosis, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M47.892	Other spondylosis, cervical region	Diagnosis	ICD-10-CM
M47.893	Other spondylosis, cervicothoracic region	Diagnosis	ICD-10-CM
M47.894	Other spondylosis, thoracic region	Diagnosis	ICD-10-CM
M47.895	Other spondylosis, thoracolumbar region	Diagnosis	ICD-10-CM
M47.896	Other spondylosis, lumbar region	Diagnosis	ICD-10-CM
M47.897	Other spondylosis, lumbosacral region	Diagnosis	ICD-10-CM
M47.898	Other spondylosis, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M47.899	Other spondylosis, site unspecified	Diagnosis	ICD-10-CM
M47.9	Spondylosis, unspecified	Diagnosis	ICD-10-CM
M48.8X1	Other specified spondylopathies, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M48.8X2	Other specified spondylopathies, cervical region	Diagnosis	ICD-10-CM
M48.8X3	Other specified spondylopathies, cervicothoracic region	Diagnosis	ICD-10-CM
M48.8X4	Other specified spondylopathies, thoracic region	Diagnosis	ICD-10-CM
M48.8X5	Other specified spondylopathies, thoracolumbar region	Diagnosis	ICD-10-CM
M48.8X6	Other specified spondylopathies, lumbar region	Diagnosis	ICD-10-CM
M48.8X7	Other specified spondylopathies, lumbosacral region	Diagnosis	ICD-10-CM
M48.8X8	Other specified spondylopathies, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M48.8X9	Other specified spondylopathies, site unspecified	Diagnosis	ICD-10-CM

Stroke/TIA - Inclusion Codes

G45.0	Vertebro-basilar artery syndrome	Diagnosis	ICD-10-CM
G45.1	Carotid artery syndrome (hemispheric)	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
G45.2	Multiple and bilateral precerebral artery syndromes	Diagnosis	ICD-10-CM
G45.3	Amaurosis fugax	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
G46.3	Brain stem stroke syndrome	Diagnosis	ICD-10-CM
G46.4	Cerebellar stroke syndrome	Diagnosis	ICD-10-CM
G46.5	Pure motor lacunar syndrome	Diagnosis	ICD-10-CM
G46.6	Pure sensory lacunar syndrome	Diagnosis	ICD-10-CM
G46.7	Other lacunar syndromes	Diagnosis	ICD-10-CM
G46.8	Other vascular syndromes of brain in cerebrovascular diseases	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
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
I60.20	Nontraumatic subarachnoid hemorrhage from unspecified anterior communicating artery	Diagnosis	ICD-10-CM
I60.21	Nontraumatic subarachnoid hemorrhage from right anterior communicating artery	Diagnosis	ICD-10-CM
I60.22	Nontraumatic subarachnoid hemorrhage from left 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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
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
I62.9	Nontraumatic intracranial 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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
I63.119	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 arteries	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

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Code	Description	Code Category	Code Type
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

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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

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Code	Description	Code Category	Code Type
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
I63.81	Other cerebral infarction due to occlusion or stenosis of small artery	Diagnosis	ICD-10-CM
I63.89	Other cerebral infarction	Diagnosis	ICD-10-CM
I63.9	Cerebral infarction, unspecified	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
I67.89	Other cerebrovascular disease	Diagnosis	ICD-10-CM
I97.810	Intraoperative cerebrovascular infarction during cardiac surgery	Diagnosis	ICD-10-CM
I97.811	Intraoperative cerebrovascular infarction during other surgery	Diagnosis	ICD-10-CM
I97.820	Postprocedural cerebrovascular infarction following cardiac surgery	Diagnosis	ICD-10-CM
I97.821	Postprocedural cerebrovascular infarction following other surgery	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
Stroke/TIA - Exclusion Codes			
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

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Code	Description	Code Category	Code Type
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
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 hours 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

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Code	Description	Code Category	Code Type
S06.370A	Contusion, laceration, and hemorrhage of cerebellum without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.371A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.372A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.373A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.374A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.375A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.376A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.377A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.378A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.379A	Contusion, laceration, and hemorrhage of cerebellum with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.380A	Contusion, laceration, and hemorrhage of brainstem without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.381A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.382A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.383A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
S06.384A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.385A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.386A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.387A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.388A	Contusion, laceration, and hemorrhage of brainstem with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.389A	Contusion, laceration, and hemorrhage of brainstem 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

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Code	Description	Code Category	Code Type
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
S06.810A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.811A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.812A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.813A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.814A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.815A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM
S06.816A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.817A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.818A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.819A	Injury of right internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of unspecified duration, initial encounter	Diagnosis	ICD-10-CM
S06.820A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified without loss of consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.821A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 30 minutes or less, initial encounter	Diagnosis	ICD-10-CM
S06.822A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 31 minutes to 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.823A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 1 hour to 5 hours 59 minutes, initial encounter	Diagnosis	ICD-10-CM
S06.824A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of 6 hours to 24 hours, initial encounter	Diagnosis	ICD-10-CM
S06.825A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours with return to pre-existing conscious level, initial encounter	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
S06.826A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness greater than 24 hours without return to pre-existing conscious level with patient surviving, initial encounter	Diagnosis	ICD-10-CM
S06.827A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to brain injury prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.828A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified with loss of consciousness of any duration with death due to other cause prior to regaining consciousness, initial encounter	Diagnosis	ICD-10-CM
S06.829A	Injury of left internal carotid artery, intracranial portion, not elsewhere classified 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
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

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Code	Description	Code Category	Code Type
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
S06.A0XA	Traumatic brain compression without herniation, initial encounter	Diagnosis	ICD-10-CM
S06.A1XA	Traumatic brain compression with herniation, initial encounter	Diagnosis	ICD-10-CM
Metastatic Cancer			
C45.9	Mesothelioma, unspecified	Diagnosis	ICD-10-CM
C77	Secondary and unspecified malignant neoplasm of lymph nodes	Diagnosis	ICD-10-CM
C77.0	Secondary and unspecified malignant neoplasm of lymph nodes of head, face and neck	Diagnosis	ICD-10-CM
C77.1	Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C77.2	Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C77.3	Secondary and unspecified malignant neoplasm of axilla and upper limb lymph nodes	Diagnosis	ICD-10-CM
C77.4	Secondary and unspecified malignant neoplasm of inguinal and lower limb lymph nodes	Diagnosis	ICD-10-CM
C77.5	Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C77.8	Secondary and unspecified malignant neoplasm of lymph nodes of multiple regions	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C77.9	Secondary and unspecified malignant neoplasm of lymph node, unspecified	Diagnosis	ICD-10-CM
C78	Secondary malignant neoplasm of respiratory and digestive organs	Diagnosis	ICD-10-CM
C78.0	Secondary malignant neoplasm of lung	Diagnosis	ICD-10-CM
C78.00	Secondary malignant neoplasm of unspecified lung	Diagnosis	ICD-10-CM
C78.01	Secondary malignant neoplasm of right lung	Diagnosis	ICD-10-CM
C78.02	Secondary malignant neoplasm of left lung	Diagnosis	ICD-10-CM
C78.1	Secondary malignant neoplasm of mediastinum	Diagnosis	ICD-10-CM
C78.2	Secondary malignant neoplasm of pleura	Diagnosis	ICD-10-CM
C78.3	Secondary malignant neoplasm of other and unspecified respiratory organs	Diagnosis	ICD-10-CM
C78.30	Secondary malignant neoplasm of unspecified respiratory organ	Diagnosis	ICD-10-CM
C78.39	Secondary malignant neoplasm of other respiratory organs	Diagnosis	ICD-10-CM
C78.4	Secondary malignant neoplasm of small intestine	Diagnosis	ICD-10-CM
C78.5	Secondary malignant neoplasm of large intestine and rectum	Diagnosis	ICD-10-CM
C78.6	Secondary malignant neoplasm of retroperitoneum and peritoneum	Diagnosis	ICD-10-CM
C78.7	Secondary malignant neoplasm of liver and intrahepatic bile duct	Diagnosis	ICD-10-CM
C78.8	Secondary malignant neoplasm of other and unspecified digestive organs	Diagnosis	ICD-10-CM
C78.80	Secondary malignant neoplasm of unspecified digestive organ	Diagnosis	ICD-10-CM
C78.89	Secondary malignant neoplasm of other digestive organs	Diagnosis	ICD-10-CM
C79	Secondary malignant neoplasm of other and unspecified sites	Diagnosis	ICD-10-CM
C79.0	Secondary malignant neoplasm of kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.00	Secondary malignant neoplasm of unspecified kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.01	Secondary malignant neoplasm of right kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.02	Secondary malignant neoplasm of left kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.1	Secondary malignant neoplasm of bladder and other and unspecified urinary organs	Diagnosis	ICD-10-CM
C79.10	Secondary malignant neoplasm of unspecified urinary organs	Diagnosis	ICD-10-CM
C79.11	Secondary malignant neoplasm of bladder	Diagnosis	ICD-10-CM
C79.19	Secondary malignant neoplasm of other urinary organs	Diagnosis	ICD-10-CM
C79.2	Secondary malignant neoplasm of skin	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C79.3	Secondary malignant neoplasm of brain and cerebral meninges	Diagnosis	ICD-10-CM
C79.31	Secondary malignant neoplasm of brain	Diagnosis	ICD-10-CM
C79.32	Secondary malignant neoplasm of cerebral meninges	Diagnosis	ICD-10-CM
C79.4	Secondary malignant neoplasm of other and unspecified parts of nervous system	Diagnosis	ICD-10-CM
C79.40	Secondary malignant neoplasm of unspecified part of nervous system	Diagnosis	ICD-10-CM
C79.49	Secondary malignant neoplasm of other parts of nervous system	Diagnosis	ICD-10-CM
C79.5	Secondary malignant neoplasm of bone and bone marrow	Diagnosis	ICD-10-CM
C79.51	Secondary malignant neoplasm of bone	Diagnosis	ICD-10-CM
C79.52	Secondary malignant neoplasm of bone marrow	Diagnosis	ICD-10-CM
C79.6	Secondary malignant neoplasm of ovary	Diagnosis	ICD-10-CM
C79.60	Secondary malignant neoplasm of unspecified ovary	Diagnosis	ICD-10-CM
C79.61	Secondary malignant neoplasm of right ovary	Diagnosis	ICD-10-CM
C79.62	Secondary malignant neoplasm of left ovary	Diagnosis	ICD-10-CM
C79.7	Secondary malignant neoplasm of adrenal gland	Diagnosis	ICD-10-CM
C79.70	Secondary malignant neoplasm of unspecified adrenal gland	Diagnosis	ICD-10-CM
C79.71	Secondary malignant neoplasm of right adrenal gland	Diagnosis	ICD-10-CM
C79.72	Secondary malignant neoplasm of left adrenal gland	Diagnosis	ICD-10-CM
C79.8	Secondary malignant neoplasm of other specified sites	Diagnosis	ICD-10-CM
C79.81	Secondary malignant neoplasm of breast	Diagnosis	ICD-10-CM
C79.82	Secondary malignant neoplasm of genital organs	Diagnosis	ICD-10-CM
C79.89	Secondary malignant neoplasm of other specified sites	Diagnosis	ICD-10-CM
C79.9	Secondary malignant neoplasm of unspecified site	Diagnosis	ICD-10-CM
C7A	Malignant neuroendocrine tumors	Diagnosis	ICD-10-CM
C7A.0	Malignant carcinoid tumors	Diagnosis	ICD-10-CM
C7A.00	Malignant carcinoid tumor of unspecified site	Diagnosis	ICD-10-CM
C7A.01	Malignant carcinoid tumors of the small intestine	Diagnosis	ICD-10-CM
C7A.010	Malignant carcinoid tumor of the duodenum	Diagnosis	ICD-10-CM
C7A.011	Malignant carcinoid tumor of the jejunum	Diagnosis	ICD-10-CM
C7A.012	Malignant carcinoid tumor of the ileum	Diagnosis	ICD-10-CM
C7A.019	Malignant carcinoid tumor of the small intestine, unspecified portion	Diagnosis	ICD-10-CM
C7A.02	Malignant carcinoid tumors of the appendix, large intestine, and rectum	Diagnosis	ICD-10-CM
C7A.020	Malignant carcinoid tumor of the appendix	Diagnosis	ICD-10-CM
C7A.021	Malignant carcinoid tumor of the cecum	Diagnosis	ICD-10-CM
C7A.022	Malignant carcinoid tumor of the ascending colon	Diagnosis	ICD-10-CM
C7A.023	Malignant carcinoid tumor of the transverse colon	Diagnosis	ICD-10-CM
C7A.024	Malignant carcinoid tumor of the descending colon	Diagnosis	ICD-10-CM
C7A.025	Malignant carcinoid tumor of the sigmoid colon	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C7A.026	Malignant carcinoid tumor of the rectum	Diagnosis	ICD-10-CM
C7A.029	Malignant carcinoid tumor of the large intestine, unspecified portion	Diagnosis	ICD-10-CM
C7A.09	Malignant carcinoid tumors of other sites	Diagnosis	ICD-10-CM
C7A.090	Malignant carcinoid tumor of the bronchus and lung	Diagnosis	ICD-10-CM
C7A.091	Malignant carcinoid tumor of the thymus	Diagnosis	ICD-10-CM
C7A.092	Malignant carcinoid tumor of the stomach	Diagnosis	ICD-10-CM
C7A.093	Malignant carcinoid tumor of the kidney	Diagnosis	ICD-10-CM
C7A.094	Malignant carcinoid tumor of the foregut, unspecified	Diagnosis	ICD-10-CM
C7A.095	Malignant carcinoid tumor of the midgut, unspecified	Diagnosis	ICD-10-CM
C7A.096	Malignant carcinoid tumor of the hindgut, unspecified	Diagnosis	ICD-10-CM
C7A.098	Malignant carcinoid tumors of other sites	Diagnosis	ICD-10-CM
C7A.1	Malignant poorly differentiated neuroendocrine tumors	Diagnosis	ICD-10-CM
C7A.8	Other malignant neuroendocrine tumors	Diagnosis	ICD-10-CM
C7B	Secondary neuroendocrine tumors	Diagnosis	ICD-10-CM
C7B.0	Secondary carcinoid tumors	Diagnosis	ICD-10-CM
C7B.00	Secondary carcinoid tumors, unspecified site	Diagnosis	ICD-10-CM
C7B.01	Secondary carcinoid tumors of distant lymph nodes	Diagnosis	ICD-10-CM
C7B.02	Secondary carcinoid tumors of liver	Diagnosis	ICD-10-CM
C7B.03	Secondary carcinoid tumors of bone	Diagnosis	ICD-10-CM
C7B.04	Secondary carcinoid tumors of peritoneum	Diagnosis	ICD-10-CM
C7B.09	Secondary carcinoid tumors of other sites	Diagnosis	ICD-10-CM
C7B.1	Secondary Merkel cell carcinoma	Diagnosis	ICD-10-CM
C7B.8	Other secondary neuroendocrine tumors	Diagnosis	ICD-10-CM
C80	Malignant neoplasm without specification of site	Diagnosis	ICD-10-CM
C80.0	Disseminated malignant neoplasm, unspecified	Diagnosis	ICD-10-CM
C80.1	Malignant (primary) neoplasm, unspecified	Diagnosis	ICD-10-CM
C80.2	Malignant neoplasm associated with transplanted organ	Diagnosis	ICD-10-CM
Congestive Heart Failure			
A18.84	Tuberculosis of heart	Diagnosis	ICD-10-CM
I09.9	Rheumatic heart disease, unspecified	Diagnosis	ICD-10-CM
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
I25.5	Ischemic cardiomyopathy	Diagnosis	ICD-10-CM
I42	Cardiomyopathy	Diagnosis	ICD-10-CM
I42.0	Dilated cardiomyopathy	Diagnosis	ICD-10-CM
I42.1	Obstructive hypertrophic cardiomyopathy	Diagnosis	ICD-10-CM
I42.2	Other hypertrophic cardiomyopathy	Diagnosis	ICD-10-CM
I42.3	Endomyocardial (eosinophilic) disease	Diagnosis	ICD-10-CM
I42.4	Endocardial fibroelastosis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I42.5	Other restrictive cardiomyopathy	Diagnosis	ICD-10-CM
I42.6	Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
I42.7	Cardiomyopathy due to drug and external agent	Diagnosis	ICD-10-CM
I42.8	Other cardiomyopathies	Diagnosis	ICD-10-CM
I42.9	Cardiomyopathy, unspecified	Diagnosis	ICD-10-CM
I43	Cardiomyopathy in diseases classified elsewhere	Diagnosis	ICD-10-CM
I50	Heart failure	Diagnosis	ICD-10-CM
I50.1	Left ventricular failure, unspecified	Diagnosis	ICD-10-CM
I50.2	Systolic (congestive) heart failure	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
I50.3	Diastolic (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
I50.4	Combined systolic (congestive) and 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
I50.8	Other heart failure	Diagnosis	ICD-10-CM
I50.81	Right 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
I51.7	Cardiomegaly	Diagnosis	ICD-10-CM
P29.0	Neonatal cardiac failure	Diagnosis	ICD-10-CM
Dementia			
F01	Vascular dementia	Diagnosis	ICD-10-CM
F01.5	Vascular dementia	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F01.50	Vascular dementia without behavioral disturbance	Diagnosis	ICD-10-CM
F01.51	Vascular dementia with behavioral disturbance	Diagnosis	ICD-10-CM
F02	Dementia in other diseases classified elsewhere	Diagnosis	ICD-10-CM
F02.8	Dementia in other diseases classified elsewhere	Diagnosis	ICD-10-CM
F02.80	Dementia in other diseases classified elsewhere without behavioral disturbance	Diagnosis	ICD-10-CM
F02.81	Dementia in other diseases classified elsewhere with behavioral disturbance	Diagnosis	ICD-10-CM
F03	Unspecified dementia	Diagnosis	ICD-10-CM
F03.9	Unspecified dementia	Diagnosis	ICD-10-CM
F03.90	Unspecified dementia without behavioral disturbance	Diagnosis	ICD-10-CM
F03.91	Unspecified dementia with behavioral disturbance	Diagnosis	ICD-10-CM
F05	Delirium due to known physiological condition	Diagnosis	ICD-10-CM
G30	Alzheimer's disease	Diagnosis	ICD-10-CM
G30.0	Alzheimer's disease with early onset	Diagnosis	ICD-10-CM
G30.1	Alzheimer's disease with late onset	Diagnosis	ICD-10-CM
G30.8	Other Alzheimer's disease	Diagnosis	ICD-10-CM
G30.9	Alzheimer's disease, unspecified	Diagnosis	ICD-10-CM
G31.01	Pick's disease	Diagnosis	ICD-10-CM
G31.09	Other frontotemporal dementia	Diagnosis	ICD-10-CM
G31.1	Senile degeneration of brain, not elsewhere classified	Diagnosis	ICD-10-CM
Renal Failure			
I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease	Diagnosis	ICD-10-CM
I13	Hypertensive heart and 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
I13.1	Hypertensive heart and chronic kidney disease without heart failure	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
N03.2	Chronic nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N03.3	Chronic nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
N03.4	Chronic nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N03.5	Chronic nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N03.6	Chronic nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N03.7	Chronic nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N05.2	Unspecified nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N05.3	Unspecified nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N05.4	Unspecified nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N05.5	Unspecified nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N05.6	Unspecified nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N05.7	Unspecified nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N18	Chronic kidney disease (CKD)	Diagnosis	ICD-10-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
N18.30	Chronic kidney disease, stage 3 unspecified	Diagnosis	ICD-10-CM
N18.31	Chronic kidney disease, stage 3a	Diagnosis	ICD-10-CM
N18.32	Chronic kidney disease, stage 3b	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
N25.0	Renal osteodystrophy	Diagnosis	ICD-10-CM
Z48.22	Encounter for aftercare following kidney transplant	Diagnosis	ICD-10-CM
Z49.0	Preparatory care for renal dialysis	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
Z91.15	Patient's noncompliance with renal dialysis	Diagnosis	ICD-10-CM
Z94.0	Kidney transplant status	Diagnosis	ICD-10-CM
Z99.2	Dependence on renal dialysis	Diagnosis	ICD-10-CM
Weight Loss			
E40	Kwashiorkor	Diagnosis	ICD-10-CM
E41	Nutritional marasmus	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E42	Marasmic kwashiorkor	Diagnosis	ICD-10-CM
E43	Unspecified severe protein-calorie malnutrition	Diagnosis	ICD-10-CM
E44	Protein-calorie malnutrition of moderate and mild degree	Diagnosis	ICD-10-CM
E44.0	Moderate protein-calorie malnutrition	Diagnosis	ICD-10-CM
E44.1	Mild protein-calorie malnutrition	Diagnosis	ICD-10-CM
E45	Retarded development following protein-calorie malnutrition	Diagnosis	ICD-10-CM
E46	Unspecified protein-calorie malnutrition	Diagnosis	ICD-10-CM
E64.0	Sequelae of protein-calorie malnutrition	Diagnosis	ICD-10-CM
R63.4	Abnormal weight loss	Diagnosis	ICD-10-CM
R64	Cachexia	Diagnosis	ICD-10-CM
Hemiplegia			
G04.1	Tropical spastic paraplegia	Diagnosis	ICD-10-CM
G11.4	Hereditary spastic paraplegia	Diagnosis	ICD-10-CM
G80.1	Spastic diplegic cerebral palsy	Diagnosis	ICD-10-CM
G80.2	Spastic hemiplegic cerebral palsy	Diagnosis	ICD-10-CM
G81	Hemiplegia and hemiparesis	Diagnosis	ICD-10-CM
G81.0	Flaccid hemiplegia	Diagnosis	ICD-10-CM
G81.00	Flaccid hemiplegia affecting unspecified side	Diagnosis	ICD-10-CM
G81.01	Flaccid hemiplegia affecting right dominant side	Diagnosis	ICD-10-CM
G81.02	Flaccid hemiplegia affecting left dominant side	Diagnosis	ICD-10-CM
G81.03	Flaccid hemiplegia affecting right nondominant side	Diagnosis	ICD-10-CM
G81.04	Flaccid hemiplegia affecting left nondominant side	Diagnosis	ICD-10-CM
G81.1	Spastic hemiplegia	Diagnosis	ICD-10-CM
G81.10	Spastic hemiplegia affecting unspecified side	Diagnosis	ICD-10-CM
G81.11	Spastic hemiplegia affecting right dominant side	Diagnosis	ICD-10-CM
G81.12	Spastic hemiplegia affecting left dominant side	Diagnosis	ICD-10-CM
G81.13	Spastic hemiplegia affecting right nondominant side	Diagnosis	ICD-10-CM
G81.14	Spastic hemiplegia affecting left nondominant side	Diagnosis	ICD-10-CM
G81.9	Hemiplegia, unspecified	Diagnosis	ICD-10-CM
G81.90	Hemiplegia, unspecified affecting unspecified side	Diagnosis	ICD-10-CM
G81.91	Hemiplegia, unspecified affecting right dominant side	Diagnosis	ICD-10-CM
G81.92	Hemiplegia, unspecified affecting left dominant side	Diagnosis	ICD-10-CM
G81.93	Hemiplegia, unspecified affecting right nondominant side	Diagnosis	ICD-10-CM
G81.94	Hemiplegia, unspecified affecting left nondominant side	Diagnosis	ICD-10-CM
G82	Paraplegia (paraparesis) and quadriplegia (quadriparesis)	Diagnosis	ICD-10-CM
G82.2	Paraplegia	Diagnosis	ICD-10-CM
G82.20	Paraplegia, unspecified	Diagnosis	ICD-10-CM
G82.21	Paraplegia, complete	Diagnosis	ICD-10-CM
G82.22	Paraplegia, incomplete	Diagnosis	ICD-10-CM
G82.5	Quadriplegia	Diagnosis	ICD-10-CM
G82.50	Quadriplegia, unspecified	Diagnosis	ICD-10-CM
G82.51	Quadriplegia, C1-C4 complete	Diagnosis	ICD-10-CM
G82.52	Quadriplegia, C1-C4 incomplete	Diagnosis	ICD-10-CM
G82.53	Quadriplegia, C5-C7 complete	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
G82.54	Quadriplegia, C5-C7 incomplete	Diagnosis	ICD-10-CM
G83	Other paralytic syndromes	Diagnosis	ICD-10-CM
G83.0	Diplegia of upper limbs	Diagnosis	ICD-10-CM
G83.1	Monoplegia of lower limb	Diagnosis	ICD-10-CM
G83.10	Monoplegia of lower limb affecting unspecified side	Diagnosis	ICD-10-CM
G83.11	Monoplegia of lower limb affecting right dominant side	Diagnosis	ICD-10-CM
G83.12	Monoplegia of lower limb affecting left dominant side	Diagnosis	ICD-10-CM
G83.13	Monoplegia of lower limb affecting right nondominant side	Diagnosis	ICD-10-CM
G83.14	Monoplegia of lower limb affecting left nondominant side	Diagnosis	ICD-10-CM
G83.2	Monoplegia of upper limb	Diagnosis	ICD-10-CM
G83.20	Monoplegia of upper limb affecting unspecified side	Diagnosis	ICD-10-CM
G83.21	Monoplegia of upper limb affecting right dominant side	Diagnosis	ICD-10-CM
G83.22	Monoplegia of upper limb affecting left dominant side	Diagnosis	ICD-10-CM
G83.23	Monoplegia of upper limb affecting right nondominant side	Diagnosis	ICD-10-CM
G83.24	Monoplegia of upper limb affecting left nondominant side	Diagnosis	ICD-10-CM
G83.3	Monoplegia, unspecified	Diagnosis	ICD-10-CM
G83.30	Monoplegia, unspecified affecting unspecified side	Diagnosis	ICD-10-CM
G83.31	Monoplegia, unspecified affecting right dominant side	Diagnosis	ICD-10-CM
G83.32	Monoplegia, unspecified affecting left dominant side	Diagnosis	ICD-10-CM
G83.33	Monoplegia, unspecified affecting right nondominant side	Diagnosis	ICD-10-CM
G83.34	Monoplegia, unspecified affecting left nondominant side	Diagnosis	ICD-10-CM
G83.4	Cauda equina syndrome	Diagnosis	ICD-10-CM
G83.5	Locked-in state	Diagnosis	ICD-10-CM
G83.8	Other specified paralytic syndromes	Diagnosis	ICD-10-CM
G83.81	Brown-Sequard syndrome	Diagnosis	ICD-10-CM
G83.82	Anterior cord syndrome	Diagnosis	ICD-10-CM
G83.83	Posterior cord syndrome	Diagnosis	ICD-10-CM
G83.84	Todd's paralysis (postepileptic)	Diagnosis	ICD-10-CM
G83.89	Other specified paralytic syndromes	Diagnosis	ICD-10-CM
G83.9	Paralytic syndrome, unspecified	Diagnosis	ICD-10-CM
Alcohol Abuse			
E52	Niacin deficiency [pellagra]	Diagnosis	ICD-10-CM
F10	Alcohol related disorders	Diagnosis	ICD-10-CM
F10.1	Alcohol abuse	Diagnosis	ICD-10-CM
F10.10	Alcohol abuse, uncomplicated	Diagnosis	ICD-10-CM
F10.11	Alcohol abuse, in remission	Diagnosis	ICD-10-CM
F10.12	Alcohol abuse with intoxication	Diagnosis	ICD-10-CM
F10.120	Alcohol abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.121	Alcohol abuse with intoxication delirium	Diagnosis	ICD-10-CM
F10.129	Alcohol abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.13	Alcohol abuse, with withdrawal	Diagnosis	ICD-10-CM
F10.130	Alcohol abuse with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.131	Alcohol abuse with withdrawal delirium	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F10.132	Alcohol abuse with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.139	Alcohol abuse with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.14	Alcohol abuse with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.15	Alcohol abuse with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.150	Alcohol abuse with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.151	Alcohol abuse with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.159	Alcohol abuse with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.18	Alcohol abuse with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.180	Alcohol abuse with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.181	Alcohol abuse with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.182	Alcohol abuse with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.188	Alcohol abuse with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.19	Alcohol abuse with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.2	Alcohol dependence	Diagnosis	ICD-10-CM
F10.20	Alcohol dependence, uncomplicated	Diagnosis	ICD-10-CM
F10.21	Alcohol dependence, in remission	Diagnosis	ICD-10-CM
F10.22	Alcohol dependence with intoxication	Diagnosis	ICD-10-CM
F10.220	Alcohol dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.221	Alcohol dependence with intoxication delirium	Diagnosis	ICD-10-CM
F10.229	Alcohol dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.23	Alcohol dependence with withdrawal	Diagnosis	ICD-10-CM
F10.230	Alcohol dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.231	Alcohol dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F10.232	Alcohol dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.239	Alcohol dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.24	Alcohol dependence with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.25	Alcohol dependence with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.250	Alcohol dependence with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.251	Alcohol dependence with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.259	Alcohol dependence with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.26	Alcohol dependence with alcohol-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F10.27	Alcohol dependence with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.28	Alcohol dependence with other alcohol-induced disorders	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F10.280	Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.281	Alcohol dependence with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.282	Alcohol dependence with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.288	Alcohol dependence with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.29	Alcohol dependence with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.9	Alcohol use, unspecified	Diagnosis	ICD-10-CM
F10.92	Alcohol use, unspecified with intoxication	Diagnosis	ICD-10-CM
F10.920	Alcohol use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.921	Alcohol use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F10.929	Alcohol use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.93	Alcohol use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F10.930	Alcohol use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.931	Alcohol use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F10.932	Alcohol use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.939	Alcohol use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.94	Alcohol use, unspecified with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.95	Alcohol use, unspecified with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.950	Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.951	Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.959	Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.96	Alcohol use, unspecified with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F10.97	Alcohol use, unspecified with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.98	Alcohol use, unspecified with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.980	Alcohol use, unspecified with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.981	Alcohol use, unspecified with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.982	Alcohol use, unspecified with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.988	Alcohol use, unspecified with other alcohol-induced disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F10.99	Alcohol use, unspecified with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
G62.1	Alcoholic polyneuropathy	Diagnosis	ICD-10-CM
I42.6	Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
K29.2	Alcoholic gastritis	Diagnosis	ICD-10-CM
K29.20	Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.21	Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K70.0	Alcoholic fatty liver	Diagnosis	ICD-10-CM
K70.3	Alcoholic cirrhosis of liver	Diagnosis	ICD-10-CM
K70.30	Alcoholic cirrhosis of liver without ascites	Diagnosis	ICD-10-CM
K70.31	Alcoholic cirrhosis of liver with ascites	Diagnosis	ICD-10-CM
K70.9	Alcoholic liver disease, unspecified	Diagnosis	ICD-10-CM
T51	Toxic effect of alcohol	Diagnosis	ICD-10-CM
T51.0	Toxic effect of ethanol	Diagnosis	ICD-10-CM
T51.0X	Toxic effect of ethanol	Diagnosis	ICD-10-CM
T51.0X1	Toxic effect of ethanol, accidental (unintentional)	Diagnosis	ICD-10-CM
T51.0X1A	Toxic effect of ethanol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.0X1D	Toxic effect of ethanol, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T51.0X1S	Toxic effect of ethanol, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T51.0X2	Toxic effect of ethanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.0X2A	Toxic effect of ethanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.0X2D	Toxic effect of ethanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.0X2S	Toxic effect of ethanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.0X3	Toxic effect of ethanol, assault	Diagnosis	ICD-10-CM
T51.0X3A	Toxic effect of ethanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.0X3D	Toxic effect of ethanol, assault, subsequent encounter	Diagnosis	ICD-10-CM
T51.0X3S	Toxic effect of ethanol, assault, sequela	Diagnosis	ICD-10-CM
T51.0X4	Toxic effect of ethanol, undetermined	Diagnosis	ICD-10-CM
T51.0X4A	Toxic effect of ethanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.0X4D	Toxic effect of ethanol, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T51.0X4S	Toxic effect of ethanol, undetermined, sequela	Diagnosis	ICD-10-CM
T51.1	Toxic effect of methanol	Diagnosis	ICD-10-CM
T51.1X	Toxic effect of methanol	Diagnosis	ICD-10-CM
T51.1X1	Toxic effect of methanol, accidental (unintentional)	Diagnosis	ICD-10-CM
T51.1X1A	Toxic effect of methanol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.1X1D	Toxic effect of methanol, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T51.1X1S	Toxic effect of methanol, accidental (unintentional), sequela	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
T51.1X2	Toxic effect of methanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.1X2A	Toxic effect of methanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.1X2D	Toxic effect of methanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.1X2S	Toxic effect of methanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.1X3	Toxic effect of methanol, assault	Diagnosis	ICD-10-CM
T51.1X3A	Toxic effect of methanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.1X3D	Toxic effect of methanol, assault, subsequent encounter	Diagnosis	ICD-10-CM
T51.1X3S	Toxic effect of methanol, assault, sequela	Diagnosis	ICD-10-CM
T51.1X4	Toxic effect of methanol, undetermined	Diagnosis	ICD-10-CM
T51.1X4A	Toxic effect of methanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.1X4D	Toxic effect of methanol, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T51.1X4S	Toxic effect of methanol, undetermined, sequela	Diagnosis	ICD-10-CM
T51.2	Toxic effect of 2-Propanol	Diagnosis	ICD-10-CM
T51.2X	Toxic effect of 2-Propanol	Diagnosis	ICD-10-CM
T51.2X1	Toxic effect of 2-Propanol, accidental (unintentional)	Diagnosis	ICD-10-CM
T51.2X1A	Toxic effect of 2-Propanol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.2X1D	Toxic effect of 2-Propanol, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T51.2X1S	Toxic effect of 2-Propanol, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T51.2X2	Toxic effect of 2-Propanol, intentional self-harm	Diagnosis	ICD-10-CM
T51.2X2A	Toxic effect of 2-Propanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.2X2D	Toxic effect of 2-Propanol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.2X2S	Toxic effect of 2-Propanol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.2X3	Toxic effect of 2-Propanol, assault	Diagnosis	ICD-10-CM
T51.2X3A	Toxic effect of 2-Propanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.2X3D	Toxic effect of 2-Propanol, assault, subsequent encounter	Diagnosis	ICD-10-CM
T51.2X3S	Toxic effect of 2-Propanol, assault, sequela	Diagnosis	ICD-10-CM
T51.2X4	Toxic effect of 2-Propanol, undetermined	Diagnosis	ICD-10-CM
T51.2X4A	Toxic effect of 2-Propanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.2X4D	Toxic effect of 2-Propanol, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T51.2X4S	Toxic effect of 2-Propanol, undetermined, sequela	Diagnosis	ICD-10-CM
T51.3	Toxic effect of fusel oil	Diagnosis	ICD-10-CM
T51.3X	Toxic effect of fusel oil	Diagnosis	ICD-10-CM
T51.3X1	Toxic effect of fusel oil, accidental (unintentional)	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
T51.3X1A	Toxic effect of fusel oil, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.3X1D	Toxic effect of fusel oil, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T51.3X1S	Toxic effect of fusel oil, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T51.3X2	Toxic effect of fusel oil, intentional self-harm	Diagnosis	ICD-10-CM
T51.3X2A	Toxic effect of fusel oil, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.3X2D	Toxic effect of fusel oil, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.3X2S	Toxic effect of fusel oil, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.3X3	Toxic effect of fusel oil, assault	Diagnosis	ICD-10-CM
T51.3X3A	Toxic effect of fusel oil, assault, initial encounter	Diagnosis	ICD-10-CM
T51.3X3D	Toxic effect of fusel oil, assault, subsequent encounter	Diagnosis	ICD-10-CM
T51.3X3S	Toxic effect of fusel oil, assault, sequela	Diagnosis	ICD-10-CM
T51.3X4	Toxic effect of fusel oil, undetermined	Diagnosis	ICD-10-CM
T51.3X4A	Toxic effect of fusel oil, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.3X4D	Toxic effect of fusel oil, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T51.3X4S	Toxic effect of fusel oil, undetermined, sequela	Diagnosis	ICD-10-CM
T51.8	Toxic effect of other alcohols	Diagnosis	ICD-10-CM
T51.8X	Toxic effect of other alcohols	Diagnosis	ICD-10-CM
T51.8X1	Toxic effect of other alcohols, accidental (unintentional)	Diagnosis	ICD-10-CM
T51.8X1A	Toxic effect of other alcohols, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.8X1D	Toxic effect of other alcohols, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T51.8X1S	Toxic effect of other alcohols, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T51.8X2	Toxic effect of other alcohols, intentional self-harm	Diagnosis	ICD-10-CM
T51.8X2A	Toxic effect of other alcohols, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.8X2D	Toxic effect of other alcohols, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X2S	Toxic effect of other alcohols, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.8X3	Toxic effect of other alcohols, assault	Diagnosis	ICD-10-CM
T51.8X3A	Toxic effect of other alcohols, assault, initial encounter	Diagnosis	ICD-10-CM
T51.8X3D	Toxic effect of other alcohols, assault, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X3S	Toxic effect of other alcohols, assault, sequela	Diagnosis	ICD-10-CM
T51.8X4	Toxic effect of other alcohols, undetermined	Diagnosis	ICD-10-CM
T51.8X4A	Toxic effect of other alcohols, undetermined, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
T51.8X4D	Toxic effect of other alcohols, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T51.8X4S	Toxic effect of other alcohols, undetermined, sequela	Diagnosis	ICD-10-CM
T51.9	Toxic effect of unspecified alcohol	Diagnosis	ICD-10-CM
T51.91	Toxic effect of unspecified alcohol, accidental (unintentional)	Diagnosis	ICD-10-CM
T51.91XA	Toxic effect of unspecified alcohol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.91XD	Toxic effect of unspecified alcohol, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T51.91XS	Toxic effect of unspecified alcohol, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T51.92	Toxic effect of unspecified alcohol, intentional self-harm	Diagnosis	ICD-10-CM
T51.92XA	Toxic effect of unspecified alcohol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.92XD	Toxic effect of unspecified alcohol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T51.92XS	Toxic effect of unspecified alcohol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T51.93	Toxic effect of unspecified alcohol, assault	Diagnosis	ICD-10-CM
T51.93XA	Toxic effect of unspecified alcohol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.93XD	Toxic effect of unspecified alcohol, assault, subsequent encounter	Diagnosis	ICD-10-CM
T51.93XS	Toxic effect of unspecified alcohol, assault, sequela	Diagnosis	ICD-10-CM
T51.94	Toxic effect of unspecified alcohol, undetermined	Diagnosis	ICD-10-CM
T51.94XA	Toxic effect of unspecified alcohol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T51.94XD	Toxic effect of unspecified alcohol, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T51.94XS	Toxic effect of unspecified alcohol, undetermined, sequela	Diagnosis	ICD-10-CM
Z65.8	Other specified problems related to psychosocial circumstances	Diagnosis	ICD-10-CM
Z71.4	Alcohol abuse counseling and surveillance	Diagnosis	ICD-10-CM
Z71.41	Alcohol abuse counseling and surveillance of alcoholic	Diagnosis	ICD-10-CM
Z71.42	Counseling for family member of alcoholic	Diagnosis	ICD-10-CM
Any Tumor			
C00	Malignant neoplasm of lip	Diagnosis	ICD-10-CM
C00.0	Malignant neoplasm of external upper lip	Diagnosis	ICD-10-CM
C00.1	Malignant neoplasm of external lower lip	Diagnosis	ICD-10-CM
C00.2	Malignant neoplasm of external lip, unspecified	Diagnosis	ICD-10-CM
C00.3	Malignant neoplasm of upper lip, inner aspect	Diagnosis	ICD-10-CM
C00.4	Malignant neoplasm of lower lip, inner aspect	Diagnosis	ICD-10-CM
C00.5	Malignant neoplasm of lip, unspecified, inner aspect	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C00.6	Malignant neoplasm of commissure of lip, unspecified	Diagnosis	ICD-10-CM
C00.8	Malignant neoplasm of overlapping sites of lip	Diagnosis	ICD-10-CM
C00.9	Malignant neoplasm of lip, unspecified	Diagnosis	ICD-10-CM
C01	Malignant neoplasm of base of tongue	Diagnosis	ICD-10-CM
C02	Malignant neoplasm of other and unspecified parts of tongue	Diagnosis	ICD-10-CM
C02.0	Malignant neoplasm of dorsal surface of tongue	Diagnosis	ICD-10-CM
C02.1	Malignant neoplasm of border of tongue	Diagnosis	ICD-10-CM
C02.2	Malignant neoplasm of ventral surface of tongue	Diagnosis	ICD-10-CM
C02.3	Malignant neoplasm of anterior two-thirds of tongue, part unspecified	Diagnosis	ICD-10-CM
C02.4	Malignant neoplasm of lingual tonsil	Diagnosis	ICD-10-CM
C02.8	Malignant neoplasm of overlapping sites of tongue	Diagnosis	ICD-10-CM
C02.9	Malignant neoplasm of tongue, unspecified	Diagnosis	ICD-10-CM
C03	Malignant neoplasm of gum	Diagnosis	ICD-10-CM
C03.0	Malignant neoplasm of upper gum	Diagnosis	ICD-10-CM
C03.1	Malignant neoplasm of lower gum	Diagnosis	ICD-10-CM
C03.9	Malignant neoplasm of gum, unspecified	Diagnosis	ICD-10-CM
C04	Malignant neoplasm of floor of mouth	Diagnosis	ICD-10-CM
C04.0	Malignant neoplasm of anterior floor of mouth	Diagnosis	ICD-10-CM
C04.1	Malignant neoplasm of lateral floor of mouth	Diagnosis	ICD-10-CM
C04.8	Malignant neoplasm of overlapping sites of floor of mouth	Diagnosis	ICD-10-CM
C04.9	Malignant neoplasm of floor of mouth, unspecified	Diagnosis	ICD-10-CM
C05	Malignant neoplasm of palate	Diagnosis	ICD-10-CM
C05.0	Malignant neoplasm of hard palate	Diagnosis	ICD-10-CM
C05.1	Malignant neoplasm of soft palate	Diagnosis	ICD-10-CM
C05.2	Malignant neoplasm of uvula	Diagnosis	ICD-10-CM
C05.8	Malignant neoplasm of overlapping sites of palate	Diagnosis	ICD-10-CM
C05.9	Malignant neoplasm of palate, unspecified	Diagnosis	ICD-10-CM
C06	Malignant neoplasm of other and unspecified parts of mouth	Diagnosis	ICD-10-CM
C06.0	Malignant neoplasm of cheek mucosa	Diagnosis	ICD-10-CM
C06.1	Malignant neoplasm of vestibule of mouth	Diagnosis	ICD-10-CM
C06.2	Malignant neoplasm of retromolar area	Diagnosis	ICD-10-CM
C06.8	Malignant neoplasm of overlapping sites of other and unspecified parts of mouth	Diagnosis	ICD-10-CM
C06.80	Malignant neoplasm of overlapping sites of unspecified parts of mouth	Diagnosis	ICD-10-CM
C06.89	Malignant neoplasm of overlapping sites of other parts of mouth	Diagnosis	ICD-10-CM
C06.9	Malignant neoplasm of mouth, unspecified	Diagnosis	ICD-10-CM
C07	Malignant neoplasm of parotid gland	Diagnosis	ICD-10-CM
C08	Malignant neoplasm of other and unspecified major salivary glands	Diagnosis	ICD-10-CM
C08.0	Malignant neoplasm of submandibular gland	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C08.1	Malignant neoplasm of sublingual gland	Diagnosis	ICD-10-CM
C08.9	Malignant neoplasm of major salivary gland, unspecified	Diagnosis	ICD-10-CM
C09	Malignant neoplasm of tonsil	Diagnosis	ICD-10-CM
C09.0	Malignant neoplasm of tonsillar fossa	Diagnosis	ICD-10-CM
C09.1	Malignant neoplasm of tonsillar pillar (anterior) (posterior)	Diagnosis	ICD-10-CM
C09.8	Malignant neoplasm of overlapping sites of tonsil	Diagnosis	ICD-10-CM
C09.9	Malignant neoplasm of tonsil, unspecified	Diagnosis	ICD-10-CM
C10	Malignant neoplasm of oropharynx	Diagnosis	ICD-10-CM
C10.0	Malignant neoplasm of vallecula	Diagnosis	ICD-10-CM
C10.1	Malignant neoplasm of anterior surface of epiglottis	Diagnosis	ICD-10-CM
C10.2	Malignant neoplasm of lateral wall of oropharynx	Diagnosis	ICD-10-CM
C10.3	Malignant neoplasm of posterior wall of oropharynx	Diagnosis	ICD-10-CM
C10.4	Malignant neoplasm of branchial cleft	Diagnosis	ICD-10-CM
C10.8	Malignant neoplasm of overlapping sites of oropharynx	Diagnosis	ICD-10-CM
C10.9	Malignant neoplasm of oropharynx, unspecified	Diagnosis	ICD-10-CM
C11	Malignant neoplasm of nasopharynx	Diagnosis	ICD-10-CM
C11.0	Malignant neoplasm of superior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.1	Malignant neoplasm of posterior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.2	Malignant neoplasm of lateral wall of nasopharynx	Diagnosis	ICD-10-CM
C11.3	Malignant neoplasm of anterior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.8	Malignant neoplasm of overlapping sites of nasopharynx	Diagnosis	ICD-10-CM
C11.9	Malignant neoplasm of nasopharynx, unspecified	Diagnosis	ICD-10-CM
C12	Malignant neoplasm of pyriform sinus	Diagnosis	ICD-10-CM
C13	Malignant neoplasm of hypopharynx	Diagnosis	ICD-10-CM
C13.0	Malignant neoplasm of postcricoid region	Diagnosis	ICD-10-CM
C13.1	Malignant neoplasm of aryepiglottic fold, hypopharyngeal aspect	Diagnosis	ICD-10-CM
C13.2	Malignant neoplasm of posterior wall of hypopharynx	Diagnosis	ICD-10-CM
C13.8	Malignant neoplasm of overlapping sites of hypopharynx	Diagnosis	ICD-10-CM
C13.9	Malignant neoplasm of hypopharynx, unspecified	Diagnosis	ICD-10-CM
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	Diagnosis	ICD-10-CM
C14.0	Malignant neoplasm of pharynx, unspecified	Diagnosis	ICD-10-CM
C14.2	Malignant neoplasm of Waldeyer's ring	Diagnosis	ICD-10-CM
C14.8	Malignant neoplasm of overlapping sites of lip, oral cavity and pharynx	Diagnosis	ICD-10-CM
C15	Malignant neoplasm of esophagus	Diagnosis	ICD-10-CM
C15.3	Malignant neoplasm of upper third of esophagus	Diagnosis	ICD-10-CM
C15.4	Malignant neoplasm of middle third of esophagus	Diagnosis	ICD-10-CM
C15.5	Malignant neoplasm of lower third of esophagus	Diagnosis	ICD-10-CM
C15.8	Malignant neoplasm of overlapping sites of esophagus	Diagnosis	ICD-10-CM
C15.9	Malignant neoplasm of esophagus, unspecified	Diagnosis	ICD-10-CM
C16	Malignant neoplasm of stomach	Diagnosis	ICD-10-CM
C16.0	Malignant neoplasm of cardia	Diagnosis	ICD-10-CM
C16.1	Malignant neoplasm of fundus of stomach	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C16.2	Malignant neoplasm of body of stomach	Diagnosis	ICD-10-CM
C16.3	Malignant neoplasm of pyloric antrum	Diagnosis	ICD-10-CM
C16.4	Malignant neoplasm of pylorus	Diagnosis	ICD-10-CM
C16.5	Malignant neoplasm of lesser curvature of stomach, unspecified	Diagnosis	ICD-10-CM
C16.6	Malignant neoplasm of greater curvature of stomach, unspecified	Diagnosis	ICD-10-CM
C16.8	Malignant neoplasm of overlapping sites of stomach	Diagnosis	ICD-10-CM
C16.9	Malignant neoplasm of stomach, unspecified	Diagnosis	ICD-10-CM
C17	Malignant neoplasm of small intestine	Diagnosis	ICD-10-CM
C17.0	Malignant neoplasm of duodenum	Diagnosis	ICD-10-CM
C17.1	Malignant neoplasm of jejunum	Diagnosis	ICD-10-CM
C17.2	Malignant neoplasm of ileum	Diagnosis	ICD-10-CM
C17.3	Meckel's diverticulum, malignant	Diagnosis	ICD-10-CM
C17.8	Malignant neoplasm of overlapping sites of small intestine	Diagnosis	ICD-10-CM
C17.9	Malignant neoplasm of small intestine, unspecified	Diagnosis	ICD-10-CM
C18	Malignant neoplasm of colon	Diagnosis	ICD-10-CM
C18.0	Malignant neoplasm of cecum	Diagnosis	ICD-10-CM
C18.1	Malignant neoplasm of appendix	Diagnosis	ICD-10-CM
C18.2	Malignant neoplasm of ascending colon	Diagnosis	ICD-10-CM
C18.3	Malignant neoplasm of hepatic flexure	Diagnosis	ICD-10-CM
C18.4	Malignant neoplasm of transverse colon	Diagnosis	ICD-10-CM
C18.5	Malignant neoplasm of splenic flexure	Diagnosis	ICD-10-CM
C18.6	Malignant neoplasm of descending colon	Diagnosis	ICD-10-CM
C18.7	Malignant neoplasm of sigmoid colon	Diagnosis	ICD-10-CM
C18.8	Malignant neoplasm of overlapping sites of colon	Diagnosis	ICD-10-CM
C18.9	Malignant neoplasm of colon, unspecified	Diagnosis	ICD-10-CM
C19	Malignant neoplasm of rectosigmoid junction	Diagnosis	ICD-10-CM
C20	Malignant neoplasm of rectum	Diagnosis	ICD-10-CM
C21	Malignant neoplasm of anus and anal canal	Diagnosis	ICD-10-CM
C21.0	Malignant neoplasm of anus, unspecified	Diagnosis	ICD-10-CM
C21.1	Malignant neoplasm of anal canal	Diagnosis	ICD-10-CM
C21.2	Malignant neoplasm of cloacogenic zone	Diagnosis	ICD-10-CM
C21.8	Malignant neoplasm of overlapping sites of rectum, anus and anal canal	Diagnosis	ICD-10-CM
C22	Malignant neoplasm of liver and intrahepatic bile ducts	Diagnosis	ICD-10-CM
C22.0	Liver cell carcinoma	Diagnosis	ICD-10-CM
C22.1	Intrahepatic bile duct carcinoma	Diagnosis	ICD-10-CM
C22.2	Hepatoblastoma	Diagnosis	ICD-10-CM
C22.3	Angiosarcoma of liver	Diagnosis	ICD-10-CM
C22.4	Other sarcomas of liver	Diagnosis	ICD-10-CM
C22.7	Other specified carcinomas of liver	Diagnosis	ICD-10-CM
C22.8	Malignant neoplasm of liver, primary, unspecified as to type	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C22.9	Malignant neoplasm of liver, not specified as primary or secondary	Diagnosis	ICD-10-CM
C23	Malignant neoplasm of gallbladder	Diagnosis	ICD-10-CM
C24	Malignant neoplasm of other and unspecified parts of biliary tract	Diagnosis	ICD-10-CM
C24.0	Malignant neoplasm of extrahepatic bile duct	Diagnosis	ICD-10-CM
C24.1	Malignant neoplasm of ampulla of Vater	Diagnosis	ICD-10-CM
C24.8	Malignant neoplasm of overlapping sites of biliary tract	Diagnosis	ICD-10-CM
C24.9	Malignant neoplasm of biliary tract, unspecified	Diagnosis	ICD-10-CM
C25	Malignant neoplasm of pancreas	Diagnosis	ICD-10-CM
C25.0	Malignant neoplasm of head of pancreas	Diagnosis	ICD-10-CM
C25.1	Malignant neoplasm of body of pancreas	Diagnosis	ICD-10-CM
C25.2	Malignant neoplasm of tail of pancreas	Diagnosis	ICD-10-CM
C25.3	Malignant neoplasm of pancreatic duct	Diagnosis	ICD-10-CM
C25.4	Malignant neoplasm of endocrine pancreas	Diagnosis	ICD-10-CM
C25.7	Malignant neoplasm of other parts of pancreas	Diagnosis	ICD-10-CM
C25.8	Malignant neoplasm of overlapping sites of pancreas	Diagnosis	ICD-10-CM
C25.9	Malignant neoplasm of pancreas, unspecified	Diagnosis	ICD-10-CM
C26	Malignant neoplasm of other and ill-defined digestive organs	Diagnosis	ICD-10-CM
C26.0	Malignant neoplasm of intestinal tract, part unspecified	Diagnosis	ICD-10-CM
C26.1	Malignant neoplasm of spleen	Diagnosis	ICD-10-CM
C26.9	Malignant neoplasm of ill-defined sites within the digestive system	Diagnosis	ICD-10-CM
C30	Malignant neoplasm of nasal cavity and middle ear	Diagnosis	ICD-10-CM
C30.0	Malignant neoplasm of nasal cavity	Diagnosis	ICD-10-CM
C30.1	Malignant neoplasm of middle ear	Diagnosis	ICD-10-CM
C31	Malignant neoplasm of accessory sinuses	Diagnosis	ICD-10-CM
C31.0	Malignant neoplasm of maxillary sinus	Diagnosis	ICD-10-CM
C31.1	Malignant neoplasm of ethmoidal sinus	Diagnosis	ICD-10-CM
C31.2	Malignant neoplasm of frontal sinus	Diagnosis	ICD-10-CM
C31.3	Malignant neoplasm of sphenoid sinus	Diagnosis	ICD-10-CM
C31.8	Malignant neoplasm of overlapping sites of accessory sinuses	Diagnosis	ICD-10-CM
C31.9	Malignant neoplasm of accessory sinus, unspecified	Diagnosis	ICD-10-CM
C32	Malignant neoplasm of larynx	Diagnosis	ICD-10-CM
C32.0	Malignant neoplasm of glottis	Diagnosis	ICD-10-CM
C32.1	Malignant neoplasm of supraglottis	Diagnosis	ICD-10-CM
C32.2	Malignant neoplasm of subglottis	Diagnosis	ICD-10-CM
C32.3	Malignant neoplasm of laryngeal cartilage	Diagnosis	ICD-10-CM
C32.8	Malignant neoplasm of overlapping sites of larynx	Diagnosis	ICD-10-CM
C32.9	Malignant neoplasm of larynx, unspecified	Diagnosis	ICD-10-CM
C33	Malignant neoplasm of trachea	Diagnosis	ICD-10-CM
C34	Malignant neoplasm of bronchus and lung	Diagnosis	ICD-10-CM
C34.0	Malignant neoplasm of main bronchus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C34.00	Malignant neoplasm of unspecified main bronchus	Diagnosis	ICD-10-CM
C34.01	Malignant neoplasm of right main bronchus	Diagnosis	ICD-10-CM
C34.02	Malignant neoplasm of left main bronchus	Diagnosis	ICD-10-CM
C34.1	Malignant neoplasm of upper lobe, bronchus or lung	Diagnosis	ICD-10-CM
C34.10	Malignant neoplasm of upper lobe, unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.11	Malignant neoplasm of upper lobe, right bronchus or lung	Diagnosis	ICD-10-CM
C34.12	Malignant neoplasm of upper lobe, left bronchus or lung	Diagnosis	ICD-10-CM
C34.2	Malignant neoplasm of middle lobe, bronchus or lung	Diagnosis	ICD-10-CM
C34.3	Malignant neoplasm of lower lobe, bronchus or lung	Diagnosis	ICD-10-CM
C34.30	Malignant neoplasm of lower lobe, unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.31	Malignant neoplasm of lower lobe, right bronchus or lung	Diagnosis	ICD-10-CM
C34.32	Malignant neoplasm of lower lobe, left bronchus or lung	Diagnosis	ICD-10-CM
C34.8	Malignant neoplasm of overlapping sites of bronchus and lung	Diagnosis	ICD-10-CM
C34.80	Malignant neoplasm of overlapping sites of unspecified bronchus and lung	Diagnosis	ICD-10-CM
C34.81	Malignant neoplasm of overlapping sites of right bronchus and lung	Diagnosis	ICD-10-CM
C34.82	Malignant neoplasm of overlapping sites of left bronchus and lung	Diagnosis	ICD-10-CM
C34.9	Malignant neoplasm of unspecified part of bronchus or lung	Diagnosis	ICD-10-CM
C34.90	Malignant neoplasm of unspecified part of unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.91	Malignant neoplasm of unspecified part of right bronchus or lung	Diagnosis	ICD-10-CM
C34.92	Malignant neoplasm of unspecified part of left bronchus or lung	Diagnosis	ICD-10-CM
C37	Malignant neoplasm of thymus	Diagnosis	ICD-10-CM
C38	Malignant neoplasm of heart, mediastinum and pleura	Diagnosis	ICD-10-CM
C38.0	Malignant neoplasm of heart	Diagnosis	ICD-10-CM
C38.1	Malignant neoplasm of anterior mediastinum	Diagnosis	ICD-10-CM
C38.2	Malignant neoplasm of posterior mediastinum	Diagnosis	ICD-10-CM
C38.3	Malignant neoplasm of mediastinum, part unspecified	Diagnosis	ICD-10-CM
C38.4	Malignant neoplasm of pleura	Diagnosis	ICD-10-CM
C38.8	Malignant neoplasm of overlapping sites of heart, mediastinum and pleura	Diagnosis	ICD-10-CM
C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	Diagnosis	ICD-10-CM
C39.0	Malignant neoplasm of upper respiratory tract, part unspecified	Diagnosis	ICD-10-CM
C39.9	Malignant neoplasm of lower respiratory tract, part unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C40	Malignant neoplasm of bone and articular cartilage of limbs	Diagnosis	ICD-10-CM
C40.0	Malignant neoplasm of scapula and long bones of upper limb	Diagnosis	ICD-10-CM
C40.00	Malignant neoplasm of scapula and long bones of unspecified upper limb	Diagnosis	ICD-10-CM
C40.01	Malignant neoplasm of scapula and long bones of right upper limb	Diagnosis	ICD-10-CM
C40.02	Malignant neoplasm of scapula and long bones of left upper limb	Diagnosis	ICD-10-CM
C40.1	Malignant neoplasm of short bones of upper limb	Diagnosis	ICD-10-CM
C40.10	Malignant neoplasm of short bones of unspecified upper limb	Diagnosis	ICD-10-CM
C40.11	Malignant neoplasm of short bones of right upper limb	Diagnosis	ICD-10-CM
C40.12	Malignant neoplasm of short bones of left upper limb	Diagnosis	ICD-10-CM
C40.2	Malignant neoplasm of long bones of lower limb	Diagnosis	ICD-10-CM
C40.20	Malignant neoplasm of long bones of unspecified lower limb	Diagnosis	ICD-10-CM
C40.21	Malignant neoplasm of long bones of right lower limb	Diagnosis	ICD-10-CM
C40.22	Malignant neoplasm of long bones of left lower limb	Diagnosis	ICD-10-CM
C40.3	Malignant neoplasm of short bones of lower limb	Diagnosis	ICD-10-CM
C40.30	Malignant neoplasm of short bones of unspecified lower limb	Diagnosis	ICD-10-CM
C40.31	Malignant neoplasm of short bones of right lower limb	Diagnosis	ICD-10-CM
C40.32	Malignant neoplasm of short bones of left lower limb	Diagnosis	ICD-10-CM
C40.8	Malignant neoplasm of overlapping sites of bone and articular cartilage of limb	Diagnosis	ICD-10-CM
C40.80	Malignant neoplasm of overlapping sites of bone and articular cartilage of unspecified limb	Diagnosis	ICD-10-CM
C40.81	Malignant neoplasm of overlapping sites of bone and articular cartilage of right limb	Diagnosis	ICD-10-CM
C40.82	Malignant neoplasm of overlapping sites of bone and articular cartilage of left limb	Diagnosis	ICD-10-CM
C40.9	Malignant neoplasm of unspecified bones and articular cartilage of limb	Diagnosis	ICD-10-CM
C40.90	Malignant neoplasm of unspecified bones and articular cartilage of unspecified limb	Diagnosis	ICD-10-CM
C40.91	Malignant neoplasm of unspecified bones and articular cartilage of right limb	Diagnosis	ICD-10-CM
C40.92	Malignant neoplasm of unspecified bones and articular cartilage of left limb	Diagnosis	ICD-10-CM
C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites	Diagnosis	ICD-10-CM
C41.0	Malignant neoplasm of bones of skull and face	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C41.1	Malignant neoplasm of mandible	Diagnosis	ICD-10-CM
C41.2	Malignant neoplasm of vertebral column	Diagnosis	ICD-10-CM
C41.3	Malignant neoplasm of ribs, sternum and clavicle	Diagnosis	ICD-10-CM
C41.4	Malignant neoplasm of pelvic bones, sacrum and coccyx	Diagnosis	ICD-10-CM
C41.9	Malignant neoplasm of bone and articular cartilage, unspecified	Diagnosis	ICD-10-CM
C43	Malignant melanoma of skin	Diagnosis	ICD-10-CM
C43.0	Malignant melanoma of lip	Diagnosis	ICD-10-CM
C43.1	Malignant melanoma of eyelid, including canthus	Diagnosis	ICD-10-CM
C43.10	Malignant melanoma of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
C43.11	Malignant melanoma of right eyelid, including canthus	Diagnosis	ICD-10-CM
C43.12	Malignant melanoma of left eyelid, including canthus	Diagnosis	ICD-10-CM
C43.2	Malignant melanoma of ear and external auricular canal	Diagnosis	ICD-10-CM
C43.20	Malignant melanoma of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
C43.21	Malignant melanoma of right ear and external auricular canal	Diagnosis	ICD-10-CM
C43.22	Malignant melanoma of left ear and external auricular canal	Diagnosis	ICD-10-CM
C43.3	Malignant melanoma of other and unspecified parts of face	Diagnosis	ICD-10-CM
C43.30	Malignant melanoma of unspecified part of face	Diagnosis	ICD-10-CM
C43.31	Malignant melanoma of nose	Diagnosis	ICD-10-CM
C43.39	Malignant melanoma of other parts of face	Diagnosis	ICD-10-CM
C43.4	Malignant melanoma of scalp and neck	Diagnosis	ICD-10-CM
C43.5	Malignant melanoma of trunk	Diagnosis	ICD-10-CM
C43.51	Malignant melanoma of anal skin	Diagnosis	ICD-10-CM
C43.52	Malignant melanoma of skin of breast	Diagnosis	ICD-10-CM
C43.59	Malignant melanoma of other part of trunk	Diagnosis	ICD-10-CM
C43.6	Malignant melanoma of upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.60	Malignant melanoma of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.61	Malignant melanoma of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.62	Malignant melanoma of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.7	Malignant melanoma of lower limb, including hip	Diagnosis	ICD-10-CM
C43.70	Malignant melanoma of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C43.71	Malignant melanoma of right lower limb, including hip	Diagnosis	ICD-10-CM
C43.72	Malignant melanoma of left lower limb, including hip	Diagnosis	ICD-10-CM
C43.8	Malignant melanoma of overlapping sites of skin	Diagnosis	ICD-10-CM
C43.9	Malignant melanoma of skin, unspecified	Diagnosis	ICD-10-CM
C45	Mesothelioma	Diagnosis	ICD-10-CM
C45.0	Mesothelioma of pleura	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C45.1	Mesothelioma of peritoneum	Diagnosis	ICD-10-CM
C45.2	Mesothelioma of pericardium	Diagnosis	ICD-10-CM
C45.7	Mesothelioma of other sites	Diagnosis	ICD-10-CM
C45.9	Mesothelioma, unspecified	Diagnosis	ICD-10-CM
C46	Kaposi's sarcoma	Diagnosis	ICD-10-CM
C46.0	Kaposi's sarcoma of skin	Diagnosis	ICD-10-CM
C46.1	Kaposi's sarcoma of soft tissue	Diagnosis	ICD-10-CM
C46.2	Kaposi's sarcoma of palate	Diagnosis	ICD-10-CM
C46.3	Kaposi's sarcoma of lymph nodes	Diagnosis	ICD-10-CM
C46.4	Kaposi's sarcoma of gastrointestinal sites	Diagnosis	ICD-10-CM
C46.5	Kaposi's sarcoma of lung	Diagnosis	ICD-10-CM
C46.50	Kaposi's sarcoma of unspecified lung	Diagnosis	ICD-10-CM
C46.51	Kaposi's sarcoma of right lung	Diagnosis	ICD-10-CM
C46.52	Kaposi's sarcoma of left lung	Diagnosis	ICD-10-CM
C46.7	Kaposi's sarcoma of other sites	Diagnosis	ICD-10-CM
C46.9	Kaposi's sarcoma, unspecified	Diagnosis	ICD-10-CM
C47	Malignant neoplasm of peripheral nerves and autonomic nervous system	Diagnosis	ICD-10-CM
C47.0	Malignant neoplasm of peripheral nerves of head, face and neck	Diagnosis	ICD-10-CM
C47.1	Malignant neoplasm of peripheral nerves of upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.10	Malignant neoplasm of peripheral nerves of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.11	Malignant neoplasm of peripheral nerves of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.12	Malignant neoplasm of peripheral nerves of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.2	Malignant neoplasm of peripheral nerves of lower limb, including hip	Diagnosis	ICD-10-CM
C47.20	Malignant neoplasm of peripheral nerves of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C47.21	Malignant neoplasm of peripheral nerves of right lower limb, including hip	Diagnosis	ICD-10-CM
C47.22	Malignant neoplasm of peripheral nerves of left lower limb, including hip	Diagnosis	ICD-10-CM
C47.3	Malignant neoplasm of peripheral nerves of thorax	Diagnosis	ICD-10-CM
C47.4	Malignant neoplasm of peripheral nerves of abdomen	Diagnosis	ICD-10-CM
C47.5	Malignant neoplasm of peripheral nerves of pelvis	Diagnosis	ICD-10-CM
C47.6	Malignant neoplasm of peripheral nerves of trunk, unspecified	Diagnosis	ICD-10-CM
C47.8	Malignant neoplasm of overlapping sites of peripheral nerves and autonomic nervous system	Diagnosis	ICD-10-CM
C47.9	Malignant neoplasm of peripheral nerves and autonomic nervous system, unspecified	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C48	Malignant neoplasm of retroperitoneum and peritoneum	Diagnosis	ICD-10-CM
C48.0	Malignant neoplasm of retroperitoneum	Diagnosis	ICD-10-CM
C48.1	Malignant neoplasm of specified parts of peritoneum	Diagnosis	ICD-10-CM
C48.2	Malignant neoplasm of peritoneum, unspecified	Diagnosis	ICD-10-CM
C48.8	Malignant neoplasm of overlapping sites of retroperitoneum and peritoneum	Diagnosis	ICD-10-CM
C49	Malignant neoplasm of other connective and soft tissue	Diagnosis	ICD-10-CM
C49.0	Malignant neoplasm of connective and soft tissue of head, face and neck	Diagnosis	ICD-10-CM
C49.1	Malignant neoplasm of connective and soft tissue of upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.10	Malignant neoplasm of connective and soft tissue of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.11	Malignant neoplasm of connective and soft tissue of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.12	Malignant neoplasm of connective and soft tissue of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.2	Malignant neoplasm of connective and soft tissue of lower limb, including hip	Diagnosis	ICD-10-CM
C49.20	Malignant neoplasm of connective and soft tissue of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C49.21	Malignant neoplasm of connective and soft tissue of right lower limb, including hip	Diagnosis	ICD-10-CM
C49.22	Malignant neoplasm of connective and soft tissue of left lower limb, including hip	Diagnosis	ICD-10-CM
C49.3	Malignant neoplasm of connective and soft tissue of thorax	Diagnosis	ICD-10-CM
C49.4	Malignant neoplasm of connective and soft tissue of abdomen	Diagnosis	ICD-10-CM
C49.5	Malignant neoplasm of connective and soft tissue of pelvis	Diagnosis	ICD-10-CM
C49.6	Malignant neoplasm of connective and soft tissue of trunk, unspecified	Diagnosis	ICD-10-CM
C49.8	Malignant neoplasm of overlapping sites of connective and soft tissue	Diagnosis	ICD-10-CM
C49.9	Malignant neoplasm of connective and soft tissue, unspecified	Diagnosis	ICD-10-CM
C49.A	Gastrointestinal stromal tumor	Diagnosis	ICD-10-CM
C49.A0	Gastrointestinal stromal tumor, unspecified site	Diagnosis	ICD-10-CM
C49.A1	Gastrointestinal stromal tumor of esophagus	Diagnosis	ICD-10-CM
C49.A2	Gastrointestinal stromal tumor of stomach	Diagnosis	ICD-10-CM
C49.A3	Gastrointestinal stromal tumor of small intestine	Diagnosis	ICD-10-CM
C49.A4	Gastrointestinal stromal tumor of large intestine	Diagnosis	ICD-10-CM
C49.A5	Gastrointestinal stromal tumor of rectum	Diagnosis	ICD-10-CM
C49.A9	Gastrointestinal stromal tumor of other sites	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C4A	Merkel cell carcinoma	Diagnosis	ICD-10-CM
C4A.0	Merkel cell carcinoma of lip	Diagnosis	ICD-10-CM
C4A.1	Merkel cell carcinoma of eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.10	Merkel cell carcinoma of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.11	Merkel cell carcinoma of right eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.12	Merkel cell carcinoma of left eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.2	Merkel cell carcinoma of ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.20	Merkel cell carcinoma of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.21	Merkel cell carcinoma of right ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.22	Merkel cell carcinoma of left ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.3	Merkel cell carcinoma of other and unspecified parts of face	Diagnosis	ICD-10-CM
C4A.30	Merkel cell carcinoma of unspecified part of face	Diagnosis	ICD-10-CM
C4A.31	Merkel cell carcinoma of nose	Diagnosis	ICD-10-CM
C4A.39	Merkel cell carcinoma of other parts of face	Diagnosis	ICD-10-CM
C4A.4	Merkel cell carcinoma of scalp and neck	Diagnosis	ICD-10-CM
C4A.5	Merkel cell carcinoma of trunk	Diagnosis	ICD-10-CM
C4A.51	Merkel cell carcinoma of anal skin	Diagnosis	ICD-10-CM
C4A.52	Merkel cell carcinoma of skin of breast	Diagnosis	ICD-10-CM
C4A.59	Merkel cell carcinoma of other part of trunk	Diagnosis	ICD-10-CM
C4A.6	Merkel cell carcinoma of upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.60	Merkel cell carcinoma of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.61	Merkel cell carcinoma of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.62	Merkel cell carcinoma of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.7	Merkel cell carcinoma of lower limb, including hip	Diagnosis	ICD-10-CM
C4A.70	Merkel cell carcinoma of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C4A.71	Merkel cell carcinoma of right lower limb, including hip	Diagnosis	ICD-10-CM
C4A.72	Merkel cell carcinoma of left lower limb, including hip	Diagnosis	ICD-10-CM
C4A.8	Merkel cell carcinoma of overlapping sites	Diagnosis	ICD-10-CM
C4A.9	Merkel cell carcinoma, unspecified	Diagnosis	ICD-10-CM
C50	Malignant neoplasm of breast	Diagnosis	ICD-10-CM
C50.0	Malignant neoplasm of nipple and areola	Diagnosis	ICD-10-CM
C50.01	Malignant neoplasm of nipple and areola, female	Diagnosis	ICD-10-CM
C50.011	Malignant neoplasm of nipple and areola, right female breast	Diagnosis	ICD-10-CM
C50.012	Malignant neoplasm of nipple and areola, left female breast	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C50.019	Malignant neoplasm of nipple and areola, unspecified female breast	Diagnosis	ICD-10-CM
C50.02	Malignant neoplasm of nipple and areola, male	Diagnosis	ICD-10-CM
C50.021	Malignant neoplasm of nipple and areola, right male breast	Diagnosis	ICD-10-CM
C50.022	Malignant neoplasm of nipple and areola, left male breast	Diagnosis	ICD-10-CM
C50.029	Malignant neoplasm of nipple and areola, unspecified male breast	Diagnosis	ICD-10-CM
C50.1	Malignant neoplasm of central portion of breast	Diagnosis	ICD-10-CM
C50.11	Malignant neoplasm of central portion of breast, female	Diagnosis	ICD-10-CM
C50.111	Malignant neoplasm of central portion of right female breast	Diagnosis	ICD-10-CM
C50.112	Malignant neoplasm of central portion of left female breast	Diagnosis	ICD-10-CM
C50.119	Malignant neoplasm of central portion of unspecified female breast	Diagnosis	ICD-10-CM
C50.12	Malignant neoplasm of central portion of breast, male	Diagnosis	ICD-10-CM
C50.121	Malignant neoplasm of central portion of right male breast	Diagnosis	ICD-10-CM
C50.122	Malignant neoplasm of central portion of left male breast	Diagnosis	ICD-10-CM
C50.129	Malignant neoplasm of central portion of unspecified male breast	Diagnosis	ICD-10-CM
C50.2	Malignant neoplasm of upper-inner quadrant of breast	Diagnosis	ICD-10-CM
C50.21	Malignant neoplasm of upper-inner quadrant of breast, female	Diagnosis	ICD-10-CM
C50.211	Malignant neoplasm of upper-inner quadrant of right female breast	Diagnosis	ICD-10-CM
C50.212	Malignant neoplasm of upper-inner quadrant of left female breast	Diagnosis	ICD-10-CM
C50.219	Malignant neoplasm of upper-inner quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.22	Malignant neoplasm of upper-inner quadrant of breast, male	Diagnosis	ICD-10-CM
C50.221	Malignant neoplasm of upper-inner quadrant of right male breast	Diagnosis	ICD-10-CM
C50.222	Malignant neoplasm of upper-inner quadrant of left male breast	Diagnosis	ICD-10-CM
C50.229	Malignant neoplasm of upper-inner quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.3	Malignant neoplasm of lower-inner quadrant of breast	Diagnosis	ICD-10-CM
C50.31	Malignant neoplasm of lower-inner quadrant of breast, female	Diagnosis	ICD-10-CM
C50.311	Malignant neoplasm of lower-inner quadrant of right female breast	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C50.312	Malignant neoplasm of lower-inner quadrant of left female breast	Diagnosis	ICD-10-CM
C50.319	Malignant neoplasm of lower-inner quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.32	Malignant neoplasm of lower-inner quadrant of breast, male	Diagnosis	ICD-10-CM
C50.321	Malignant neoplasm of lower-inner quadrant of right male breast	Diagnosis	ICD-10-CM
C50.322	Malignant neoplasm of lower-inner quadrant of left male breast	Diagnosis	ICD-10-CM
C50.329	Malignant neoplasm of lower-inner quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.4	Malignant neoplasm of upper-outer quadrant of breast	Diagnosis	ICD-10-CM
C50.41	Malignant neoplasm of upper-outer quadrant of breast, female	Diagnosis	ICD-10-CM
C50.411	Malignant neoplasm of upper-outer quadrant of right female breast	Diagnosis	ICD-10-CM
C50.412	Malignant neoplasm of upper-outer quadrant of left female breast	Diagnosis	ICD-10-CM
C50.419	Malignant neoplasm of upper-outer quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.42	Malignant neoplasm of upper-outer quadrant of breast, male	Diagnosis	ICD-10-CM
C50.421	Malignant neoplasm of upper-outer quadrant of right male breast	Diagnosis	ICD-10-CM
C50.422	Malignant neoplasm of upper-outer quadrant of left male breast	Diagnosis	ICD-10-CM
C50.429	Malignant neoplasm of upper-outer quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.5	Malignant neoplasm of lower-outer quadrant of breast	Diagnosis	ICD-10-CM
C50.51	Malignant neoplasm of lower-outer quadrant of breast, female	Diagnosis	ICD-10-CM
C50.511	Malignant neoplasm of lower-outer quadrant of right female breast	Diagnosis	ICD-10-CM
C50.512	Malignant neoplasm of lower-outer quadrant of left female breast	Diagnosis	ICD-10-CM
C50.519	Malignant neoplasm of lower-outer quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.52	Malignant neoplasm of lower-outer quadrant of breast, male	Diagnosis	ICD-10-CM
C50.521	Malignant neoplasm of lower-outer quadrant of right male breast	Diagnosis	ICD-10-CM
C50.522	Malignant neoplasm of lower-outer quadrant of left male breast	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C50.529	Malignant neoplasm of lower-outer quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.6	Malignant neoplasm of axillary tail of breast	Diagnosis	ICD-10-CM
C50.61	Malignant neoplasm of axillary tail of breast, female	Diagnosis	ICD-10-CM
C50.611	Malignant neoplasm of axillary tail of right female breast	Diagnosis	ICD-10-CM
C50.612	Malignant neoplasm of axillary tail of left female breast	Diagnosis	ICD-10-CM
C50.619	Malignant neoplasm of axillary tail of unspecified female breast	Diagnosis	ICD-10-CM
C50.62	Malignant neoplasm of axillary tail of breast, male	Diagnosis	ICD-10-CM
C50.621	Malignant neoplasm of axillary tail of right male breast	Diagnosis	ICD-10-CM
C50.622	Malignant neoplasm of axillary tail of left male breast	Diagnosis	ICD-10-CM
C50.629	Malignant neoplasm of axillary tail of unspecified male breast	Diagnosis	ICD-10-CM
C50.8	Malignant neoplasm of overlapping sites of breast	Diagnosis	ICD-10-CM
C50.81	Malignant neoplasm of overlapping sites of breast, female	Diagnosis	ICD-10-CM
C50.811	Malignant neoplasm of overlapping sites of right female breast	Diagnosis	ICD-10-CM
C50.812	Malignant neoplasm of overlapping sites of left female breast	Diagnosis	ICD-10-CM
C50.819	Malignant neoplasm of overlapping sites of unspecified female breast	Diagnosis	ICD-10-CM
C50.82	Malignant neoplasm of overlapping sites of breast, male	Diagnosis	ICD-10-CM
C50.821	Malignant neoplasm of overlapping sites of right male breast	Diagnosis	ICD-10-CM
C50.822	Malignant neoplasm of overlapping sites of left male breast	Diagnosis	ICD-10-CM
C50.829	Malignant neoplasm of overlapping sites of unspecified male breast	Diagnosis	ICD-10-CM
C50.9	Malignant neoplasm of breast of unspecified site	Diagnosis	ICD-10-CM
C50.91	Malignant neoplasm of breast of unspecified site, female	Diagnosis	ICD-10-CM
C50.911	Malignant neoplasm of unspecified site of right female breast	Diagnosis	ICD-10-CM
C50.912	Malignant neoplasm of unspecified site of left female breast	Diagnosis	ICD-10-CM
C50.919	Malignant neoplasm of unspecified site of unspecified female breast	Diagnosis	ICD-10-CM
C50.92	Malignant neoplasm of breast of unspecified site, male	Diagnosis	ICD-10-CM
C50.921	Malignant neoplasm of unspecified site of right male breast	Diagnosis	ICD-10-CM
C50.922	Malignant neoplasm of unspecified site of left male breast	Diagnosis	ICD-10-CM
C50.929	Malignant neoplasm of unspecified site of unspecified male breast	Diagnosis	ICD-10-CM
C51	Malignant neoplasm of vulva	Diagnosis	ICD-10-CM
C51.0	Malignant neoplasm of labium majus	Diagnosis	ICD-10-CM
C51.1	Malignant neoplasm of labium minus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C51.2	Malignant neoplasm of clitoris	Diagnosis	ICD-10-CM
C51.8	Malignant neoplasm of overlapping sites of vulva	Diagnosis	ICD-10-CM
C51.9	Malignant neoplasm of vulva, unspecified	Diagnosis	ICD-10-CM
C52	Malignant neoplasm of vagina	Diagnosis	ICD-10-CM
C53	Malignant neoplasm of cervix uteri	Diagnosis	ICD-10-CM
C53.0	Malignant neoplasm of endocervix	Diagnosis	ICD-10-CM
C53.1	Malignant neoplasm of exocervix	Diagnosis	ICD-10-CM
C53.8	Malignant neoplasm of overlapping sites of cervix uteri	Diagnosis	ICD-10-CM
C53.9	Malignant neoplasm of cervix uteri, unspecified	Diagnosis	ICD-10-CM
C54	Malignant neoplasm of corpus uteri	Diagnosis	ICD-10-CM
C54.0	Malignant neoplasm of isthmus uteri	Diagnosis	ICD-10-CM
C54.1	Malignant neoplasm of endometrium	Diagnosis	ICD-10-CM
C54.2	Malignant neoplasm of myometrium	Diagnosis	ICD-10-CM
C54.3	Malignant neoplasm of fundus uteri	Diagnosis	ICD-10-CM
C54.8	Malignant neoplasm of overlapping sites of corpus uteri	Diagnosis	ICD-10-CM
C54.9	Malignant neoplasm of corpus uteri, unspecified	Diagnosis	ICD-10-CM
C55	Malignant neoplasm of uterus, part unspecified	Diagnosis	ICD-10-CM
C56	Malignant neoplasm of ovary	Diagnosis	ICD-10-CM
C56.1	Malignant neoplasm of right ovary	Diagnosis	ICD-10-CM
C56.2	Malignant neoplasm of left ovary	Diagnosis	ICD-10-CM
C56.9	Malignant neoplasm of unspecified ovary	Diagnosis	ICD-10-CM
C57	Malignant neoplasm of other and unspecified female genital organs	Diagnosis	ICD-10-CM
C57.0	Malignant neoplasm of fallopian tube	Diagnosis	ICD-10-CM
C57.00	Malignant neoplasm of unspecified fallopian tube	Diagnosis	ICD-10-CM
C57.01	Malignant neoplasm of right fallopian tube	Diagnosis	ICD-10-CM
C57.02	Malignant neoplasm of left fallopian tube	Diagnosis	ICD-10-CM
C57.1	Malignant neoplasm of broad ligament	Diagnosis	ICD-10-CM
C57.10	Malignant neoplasm of unspecified broad ligament	Diagnosis	ICD-10-CM
C57.11	Malignant neoplasm of right broad ligament	Diagnosis	ICD-10-CM
C57.12	Malignant neoplasm of left broad ligament	Diagnosis	ICD-10-CM
C57.2	Malignant neoplasm of round ligament	Diagnosis	ICD-10-CM
C57.20	Malignant neoplasm of unspecified round ligament	Diagnosis	ICD-10-CM
C57.21	Malignant neoplasm of right round ligament	Diagnosis	ICD-10-CM
C57.22	Malignant neoplasm of left round ligament	Diagnosis	ICD-10-CM
C57.3	Malignant neoplasm of parametrium	Diagnosis	ICD-10-CM
C57.4	Malignant neoplasm of uterine adnexa, unspecified	Diagnosis	ICD-10-CM
C57.7	Malignant neoplasm of other specified female genital organs	Diagnosis	ICD-10-CM
C57.8	Malignant neoplasm of overlapping sites of female genital organs	Diagnosis	ICD-10-CM
C57.9	Malignant neoplasm of female genital organ, unspecified	Diagnosis	ICD-10-CM
C58	Malignant neoplasm of placenta	Diagnosis	ICD-10-CM
C60	Malignant neoplasm of penis	Diagnosis	ICD-10-CM
C60.0	Malignant neoplasm of prepuce	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C60.1	Malignant neoplasm of glans penis	Diagnosis	ICD-10-CM
C60.2	Malignant neoplasm of body of penis	Diagnosis	ICD-10-CM
C60.8	Malignant neoplasm of overlapping sites of penis	Diagnosis	ICD-10-CM
C60.9	Malignant neoplasm of penis, unspecified	Diagnosis	ICD-10-CM
C61	Malignant neoplasm of prostate	Diagnosis	ICD-10-CM
C62	Malignant neoplasm of testis	Diagnosis	ICD-10-CM
C62.0	Malignant neoplasm of undescended testis	Diagnosis	ICD-10-CM
C62.00	Malignant neoplasm of unspecified undescended testis	Diagnosis	ICD-10-CM
C62.01	Malignant neoplasm of undescended right testis	Diagnosis	ICD-10-CM
C62.02	Malignant neoplasm of undescended left testis	Diagnosis	ICD-10-CM
C62.1	Malignant neoplasm of descended testis	Diagnosis	ICD-10-CM
C62.10	Malignant neoplasm of unspecified descended testis	Diagnosis	ICD-10-CM
C62.11	Malignant neoplasm of descended right testis	Diagnosis	ICD-10-CM
C62.12	Malignant neoplasm of descended left testis	Diagnosis	ICD-10-CM
C62.9	Malignant neoplasm of testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C62.90	Malignant neoplasm of unspecified testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C62.91	Malignant neoplasm of right testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C62.92	Malignant neoplasm of left testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C63	Malignant neoplasm of other and unspecified male genital organs	Diagnosis	ICD-10-CM
C63.0	Malignant neoplasm of epididymis	Diagnosis	ICD-10-CM
C63.00	Malignant neoplasm of unspecified epididymis	Diagnosis	ICD-10-CM
C63.01	Malignant neoplasm of right epididymis	Diagnosis	ICD-10-CM
C63.02	Malignant neoplasm of left epididymis	Diagnosis	ICD-10-CM
C63.1	Malignant neoplasm of spermatic cord	Diagnosis	ICD-10-CM
C63.10	Malignant neoplasm of unspecified spermatic cord	Diagnosis	ICD-10-CM
C63.11	Malignant neoplasm of right spermatic cord	Diagnosis	ICD-10-CM
C63.12	Malignant neoplasm of left spermatic cord	Diagnosis	ICD-10-CM
C63.2	Malignant neoplasm of scrotum	Diagnosis	ICD-10-CM
C63.7	Malignant neoplasm of other specified male genital organs	Diagnosis	ICD-10-CM
C63.8	Malignant neoplasm of overlapping sites of male genital organs	Diagnosis	ICD-10-CM
C63.9	Malignant neoplasm of male genital organ, unspecified	Diagnosis	ICD-10-CM
C64	Malignant neoplasm of kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.1	Malignant neoplasm of right kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.2	Malignant neoplasm of left kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.9	Malignant neoplasm of unspecified kidney, except renal pelvis	Diagnosis	ICD-10-CM
C65	Malignant neoplasm of renal pelvis	Diagnosis	ICD-10-CM
C65.1	Malignant neoplasm of right renal pelvis	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C65.2	Malignant neoplasm of left renal pelvis	Diagnosis	ICD-10-CM
C65.9	Malignant neoplasm of unspecified renal pelvis	Diagnosis	ICD-10-CM
C66	Malignant neoplasm of ureter	Diagnosis	ICD-10-CM
C66.1	Malignant neoplasm of right ureter	Diagnosis	ICD-10-CM
C66.2	Malignant neoplasm of left ureter	Diagnosis	ICD-10-CM
C66.9	Malignant neoplasm of unspecified ureter	Diagnosis	ICD-10-CM
C67	Malignant neoplasm of bladder	Diagnosis	ICD-10-CM
C67.0	Malignant neoplasm of trigone of bladder	Diagnosis	ICD-10-CM
C67.1	Malignant neoplasm of dome of bladder	Diagnosis	ICD-10-CM
C67.2	Malignant neoplasm of lateral wall of bladder	Diagnosis	ICD-10-CM
C67.3	Malignant neoplasm of anterior wall of bladder	Diagnosis	ICD-10-CM
C67.4	Malignant neoplasm of posterior wall of bladder	Diagnosis	ICD-10-CM
C67.5	Malignant neoplasm of bladder neck	Diagnosis	ICD-10-CM
C67.6	Malignant neoplasm of ureteric orifice	Diagnosis	ICD-10-CM
C67.7	Malignant neoplasm of urachus	Diagnosis	ICD-10-CM
C67.8	Malignant neoplasm of overlapping sites of bladder	Diagnosis	ICD-10-CM
C67.9	Malignant neoplasm of bladder, unspecified	Diagnosis	ICD-10-CM
C68	Malignant neoplasm of other and unspecified urinary organs	Diagnosis	ICD-10-CM
C68.0	Malignant neoplasm of urethra	Diagnosis	ICD-10-CM
C68.1	Malignant neoplasm of paraurethral glands	Diagnosis	ICD-10-CM
C68.8	Malignant neoplasm of overlapping sites of urinary organs	Diagnosis	ICD-10-CM
C68.9	Malignant neoplasm of urinary organ, unspecified	Diagnosis	ICD-10-CM
C69	Malignant neoplasm of eye and adnexa	Diagnosis	ICD-10-CM
C69.0	Malignant neoplasm of conjunctiva	Diagnosis	ICD-10-CM
C69.00	Malignant neoplasm of unspecified conjunctiva	Diagnosis	ICD-10-CM
C69.01	Malignant neoplasm of right conjunctiva	Diagnosis	ICD-10-CM
C69.02	Malignant neoplasm of left conjunctiva	Diagnosis	ICD-10-CM
C69.1	Malignant neoplasm of cornea	Diagnosis	ICD-10-CM
C69.10	Malignant neoplasm of unspecified cornea	Diagnosis	ICD-10-CM
C69.11	Malignant neoplasm of right cornea	Diagnosis	ICD-10-CM
C69.12	Malignant neoplasm of left cornea	Diagnosis	ICD-10-CM
C69.2	Malignant neoplasm of retina	Diagnosis	ICD-10-CM
C69.20	Malignant neoplasm of unspecified retina	Diagnosis	ICD-10-CM
C69.21	Malignant neoplasm of right retina	Diagnosis	ICD-10-CM
C69.22	Malignant neoplasm of left retina	Diagnosis	ICD-10-CM
C69.3	Malignant neoplasm of choroid	Diagnosis	ICD-10-CM
C69.30	Malignant neoplasm of unspecified choroid	Diagnosis	ICD-10-CM
C69.31	Malignant neoplasm of right choroid	Diagnosis	ICD-10-CM
C69.32	Malignant neoplasm of left choroid	Diagnosis	ICD-10-CM
C69.4	Malignant neoplasm of ciliary body	Diagnosis	ICD-10-CM
C69.40	Malignant neoplasm of unspecified ciliary body	Diagnosis	ICD-10-CM
C69.41	Malignant neoplasm of right ciliary body	Diagnosis	ICD-10-CM
C69.42	Malignant neoplasm of left ciliary body	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C69.5	Malignant neoplasm of lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.50	Malignant neoplasm of unspecified lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.51	Malignant neoplasm of right lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.52	Malignant neoplasm of left lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.6	Malignant neoplasm of orbit	Diagnosis	ICD-10-CM
C69.60	Malignant neoplasm of unspecified orbit	Diagnosis	ICD-10-CM
C69.61	Malignant neoplasm of right orbit	Diagnosis	ICD-10-CM
C69.62	Malignant neoplasm of left orbit	Diagnosis	ICD-10-CM
C69.8	Malignant neoplasm of overlapping sites of eye and adnexa	Diagnosis	ICD-10-CM
C69.80	Malignant neoplasm of overlapping sites of unspecified eye and adnexa	Diagnosis	ICD-10-CM
C69.81	Malignant neoplasm of overlapping sites of right eye and adnexa	Diagnosis	ICD-10-CM
C69.82	Malignant neoplasm of overlapping sites of left eye and adnexa	Diagnosis	ICD-10-CM
C69.9	Malignant neoplasm of unspecified site of eye	Diagnosis	ICD-10-CM
C69.90	Malignant neoplasm of unspecified site of unspecified eye	Diagnosis	ICD-10-CM
C69.91	Malignant neoplasm of unspecified site of right eye	Diagnosis	ICD-10-CM
C69.92	Malignant neoplasm of unspecified site of left eye	Diagnosis	ICD-10-CM
C70	Malignant neoplasm of meninges	Diagnosis	ICD-10-CM
C70.0	Malignant neoplasm of cerebral meninges	Diagnosis	ICD-10-CM
C70.1	Malignant neoplasm of spinal meninges	Diagnosis	ICD-10-CM
C70.9	Malignant neoplasm of meninges, unspecified	Diagnosis	ICD-10-CM
C71	Malignant neoplasm of brain	Diagnosis	ICD-10-CM
C71.0	Malignant neoplasm of cerebrum, except lobes and ventricles	Diagnosis	ICD-10-CM
C71.1	Malignant neoplasm of frontal lobe	Diagnosis	ICD-10-CM
C71.2	Malignant neoplasm of temporal lobe	Diagnosis	ICD-10-CM
C71.3	Malignant neoplasm of parietal lobe	Diagnosis	ICD-10-CM
C71.4	Malignant neoplasm of occipital lobe	Diagnosis	ICD-10-CM
C71.5	Malignant neoplasm of cerebral ventricle	Diagnosis	ICD-10-CM
C71.6	Malignant neoplasm of cerebellum	Diagnosis	ICD-10-CM
C71.7	Malignant neoplasm of brain stem	Diagnosis	ICD-10-CM
C71.8	Malignant neoplasm of overlapping sites of brain	Diagnosis	ICD-10-CM
C71.9	Malignant neoplasm of brain, unspecified	Diagnosis	ICD-10-CM
C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	Diagnosis	ICD-10-CM
C72.0	Malignant neoplasm of spinal cord	Diagnosis	ICD-10-CM
C72.1	Malignant neoplasm of cauda equina	Diagnosis	ICD-10-CM
C72.2	Malignant neoplasm of olfactory nerve	Diagnosis	ICD-10-CM
C72.20	Malignant neoplasm of unspecified olfactory nerve	Diagnosis	ICD-10-CM
C72.21	Malignant neoplasm of right olfactory nerve	Diagnosis	ICD-10-CM
C72.22	Malignant neoplasm of left olfactory nerve	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C72.3	Malignant neoplasm of optic nerve	Diagnosis	ICD-10-CM
C72.30	Malignant neoplasm of unspecified optic nerve	Diagnosis	ICD-10-CM
C72.31	Malignant neoplasm of right optic nerve	Diagnosis	ICD-10-CM
C72.32	Malignant neoplasm of left optic nerve	Diagnosis	ICD-10-CM
C72.4	Malignant neoplasm of acoustic nerve	Diagnosis	ICD-10-CM
C72.40	Malignant neoplasm of unspecified acoustic nerve	Diagnosis	ICD-10-CM
C72.41	Malignant neoplasm of right acoustic nerve	Diagnosis	ICD-10-CM
C72.42	Malignant neoplasm of left acoustic nerve	Diagnosis	ICD-10-CM
C72.5	Malignant neoplasm of other and unspecified cranial nerves	Diagnosis	ICD-10-CM
C72.50	Malignant neoplasm of unspecified cranial nerve	Diagnosis	ICD-10-CM
C72.59	Malignant neoplasm of other cranial nerves	Diagnosis	ICD-10-CM
C72.9	Malignant neoplasm of central nervous system, unspecified	Diagnosis	ICD-10-CM
C73	Malignant neoplasm of thyroid gland	Diagnosis	ICD-10-CM
C74	Malignant neoplasm of adrenal gland	Diagnosis	ICD-10-CM
C74.0	Malignant neoplasm of cortex of adrenal gland	Diagnosis	ICD-10-CM
C74.00	Malignant neoplasm of cortex of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.01	Malignant neoplasm of cortex of right adrenal gland	Diagnosis	ICD-10-CM
C74.02	Malignant neoplasm of cortex of left adrenal gland	Diagnosis	ICD-10-CM
C74.1	Malignant neoplasm of medulla of adrenal gland	Diagnosis	ICD-10-CM
C74.10	Malignant neoplasm of medulla of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.11	Malignant neoplasm of medulla of right adrenal gland	Diagnosis	ICD-10-CM
C74.12	Malignant neoplasm of medulla of left adrenal gland	Diagnosis	ICD-10-CM
C74.9	Malignant neoplasm of unspecified part of adrenal gland	Diagnosis	ICD-10-CM
C74.90	Malignant neoplasm of unspecified part of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.91	Malignant neoplasm of unspecified part of right adrenal gland	Diagnosis	ICD-10-CM
C74.92	Malignant neoplasm of unspecified part of left adrenal gland	Diagnosis	ICD-10-CM
C75	Malignant neoplasm of other endocrine glands and related structures	Diagnosis	ICD-10-CM
C75.0	Malignant neoplasm of parathyroid gland	Diagnosis	ICD-10-CM
C75.1	Malignant neoplasm of pituitary gland	Diagnosis	ICD-10-CM
C75.2	Malignant neoplasm of craniopharyngeal duct	Diagnosis	ICD-10-CM
C75.3	Malignant neoplasm of pineal gland	Diagnosis	ICD-10-CM
C75.4	Malignant neoplasm of carotid body	Diagnosis	ICD-10-CM
C75.5	Malignant neoplasm of aortic body and other paraganglia	Diagnosis	ICD-10-CM
C75.8	Malignant neoplasm with pluriglandular involvement, unspecified	Diagnosis	ICD-10-CM
C75.9	Malignant neoplasm of endocrine gland, unspecified	Diagnosis	ICD-10-CM
C76	Malignant neoplasm of other and ill-defined sites	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C76.0	Malignant neoplasm of head, face and neck	Diagnosis	ICD-10-CM
C76.1	Malignant neoplasm of thorax	Diagnosis	ICD-10-CM
C76.2	Malignant neoplasm of abdomen	Diagnosis	ICD-10-CM
C76.3	Malignant neoplasm of pelvis	Diagnosis	ICD-10-CM
C76.4	Malignant neoplasm of upper limb	Diagnosis	ICD-10-CM
C76.40	Malignant neoplasm of unspecified upper limb	Diagnosis	ICD-10-CM
C76.41	Malignant neoplasm of right upper limb	Diagnosis	ICD-10-CM
C76.42	Malignant neoplasm of left upper limb	Diagnosis	ICD-10-CM
C76.5	Malignant neoplasm of lower limb	Diagnosis	ICD-10-CM
C76.50	Malignant neoplasm of unspecified lower limb	Diagnosis	ICD-10-CM
C76.51	Malignant neoplasm of right lower limb	Diagnosis	ICD-10-CM
C76.52	Malignant neoplasm of left lower limb	Diagnosis	ICD-10-CM
C76.8	Malignant neoplasm of other specified ill-defined sites	Diagnosis	ICD-10-CM
C81.0	Nodular lymphocyte predominant Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.00	Nodular lymphocyte predominant Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.01	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.02	Nodular lymphocyte predominant Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.03	Nodular lymphocyte predominant Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.04	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.05	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.06	Nodular lymphocyte predominant Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.07	Nodular lymphocyte predominant Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.08	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.09	Nodular lymphocyte predominant Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.1	Nodular sclerosis Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.10	Nodular sclerosis Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.11	Nodular sclerosis Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.12	Nodular sclerosis Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.13	Nodular sclerosis Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.14	Nodular sclerosis Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C81.15	Nodular sclerosis Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.16	Nodular sclerosis Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.17	Nodular sclerosis Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.18	Nodular sclerosis Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.19	Nodular sclerosis Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.2	Mixed cellularity Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.20	Mixed cellularity Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.21	Mixed cellularity Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.22	Mixed cellularity Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.23	Mixed cellularity Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.24	Mixed cellularity Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.25	Mixed cellularity Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.26	Mixed cellularity Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.27	Mixed cellularity Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.28	Mixed cellularity Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.29	Mixed cellularity Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.3	Lymphocyte depleted Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.30	Lymphocyte depleted Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.31	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.32	Lymphocyte depleted Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.33	Lymphocyte depleted Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.34	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.35	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.36	Lymphocyte depleted Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.37	Lymphocyte depleted Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C81.38	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.39	Lymphocyte depleted Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.4	Lymphocyte-rich Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.40	Lymphocyte-rich Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.41	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.42	Lymphocyte-rich Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.43	Lymphocyte-rich Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.44	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.45	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.46	Lymphocyte-rich Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.47	Lymphocyte-rich Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.48	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.49	Lymphocyte-rich Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.7	Other Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.70	Other Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.71	Other Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.72	Other Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.73	Other Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.74	Other Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.75	Other Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.76	Other Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.77	Other Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.78	Other Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.79	Other Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.9	Hodgkin lymphoma, unspecified	Diagnosis	ICD-10-CM
C81.90	Hodgkin lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C81.91	Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.92	Hodgkin lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C81.93	Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.94	Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.95	Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.96	Hodgkin lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.97	Hodgkin lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C81.98	Hodgkin lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.99	Hodgkin lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.0	Follicular lymphoma grade I	Diagnosis	ICD-10-CM
C82.00	Follicular lymphoma grade I, unspecified site	Diagnosis	ICD-10-CM
C82.01	Follicular lymphoma grade I, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.02	Follicular lymphoma grade I, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.03	Follicular lymphoma grade I, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.04	Follicular lymphoma grade I, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.05	Follicular lymphoma grade I, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.06	Follicular lymphoma grade I, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.07	Follicular lymphoma grade I, spleen	Diagnosis	ICD-10-CM
C82.08	Follicular lymphoma grade I, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.09	Follicular lymphoma grade I, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.1	Follicular lymphoma grade II	Diagnosis	ICD-10-CM
C82.10	Follicular lymphoma grade II, unspecified site	Diagnosis	ICD-10-CM
C82.11	Follicular lymphoma grade II, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.12	Follicular lymphoma grade II, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.13	Follicular lymphoma grade II, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.14	Follicular lymphoma grade II, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.15	Follicular lymphoma grade II, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.16	Follicular lymphoma grade II, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.17	Follicular lymphoma grade II, spleen	Diagnosis	ICD-10-CM
C82.18	Follicular lymphoma grade II, lymph nodes of multiple sites	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C82.19	Follicular lymphoma grade II, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.2	Follicular lymphoma grade III, unspecified	Diagnosis	ICD-10-CM
C82.20	Follicular lymphoma grade III, unspecified, unspecified site	Diagnosis	ICD-10-CM
C82.21	Follicular lymphoma grade III, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.22	Follicular lymphoma grade III, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.23	Follicular lymphoma grade III, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.24	Follicular lymphoma grade III, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.25	Follicular lymphoma grade III, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.26	Follicular lymphoma grade III, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.27	Follicular lymphoma grade III, unspecified, spleen	Diagnosis	ICD-10-CM
C82.28	Follicular lymphoma grade III, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.29	Follicular lymphoma grade III, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.3	Follicular lymphoma grade IIIa	Diagnosis	ICD-10-CM
C82.30	Follicular lymphoma grade IIIa, unspecified site	Diagnosis	ICD-10-CM
C82.31	Follicular lymphoma grade IIIa, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.32	Follicular lymphoma grade IIIa, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.33	Follicular lymphoma grade IIIa, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.34	Follicular lymphoma grade IIIa, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.35	Follicular lymphoma grade IIIa, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.36	Follicular lymphoma grade IIIa, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.37	Follicular lymphoma grade IIIa, spleen	Diagnosis	ICD-10-CM
C82.38	Follicular lymphoma grade IIIa, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.39	Follicular lymphoma grade IIIa, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.4	Follicular lymphoma grade IIIb	Diagnosis	ICD-10-CM
C82.40	Follicular lymphoma grade IIIb, unspecified site	Diagnosis	ICD-10-CM
C82.41	Follicular lymphoma grade IIIb, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.42	Follicular lymphoma grade IIIb, intrathoracic lymph nodes	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C82.43	Follicular lymphoma grade IIIb, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.44	Follicular lymphoma grade IIIb, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.45	Follicular lymphoma grade IIIb, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.46	Follicular lymphoma grade IIIb, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.47	Follicular lymphoma grade IIIb, spleen	Diagnosis	ICD-10-CM
C82.48	Follicular lymphoma grade IIIb, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.49	Follicular lymphoma grade IIIb, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.5	Diffuse follicle center lymphoma	Diagnosis	ICD-10-CM
C82.50	Diffuse follicle center lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.51	Diffuse follicle center lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.52	Diffuse follicle center lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.53	Diffuse follicle center lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.54	Diffuse follicle center lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.55	Diffuse follicle center lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.56	Diffuse follicle center lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.57	Diffuse follicle center lymphoma, spleen	Diagnosis	ICD-10-CM
C82.58	Diffuse follicle center lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.59	Diffuse follicle center lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.6	Cutaneous follicle center lymphoma	Diagnosis	ICD-10-CM
C82.60	Cutaneous follicle center lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.61	Cutaneous follicle center lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.62	Cutaneous follicle center lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.63	Cutaneous follicle center lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.64	Cutaneous follicle center lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.65	Cutaneous follicle center lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.66	Cutaneous follicle center lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C82.67	Cutaneous follicle center lymphoma, spleen	Diagnosis	ICD-10-CM
C82.68	Cutaneous follicle center lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.69	Cutaneous follicle center lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.8	Other types of follicular lymphoma	Diagnosis	ICD-10-CM
C82.80	Other types of follicular lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.81	Other types of follicular lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.82	Other types of follicular lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.83	Other types of follicular lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.84	Other types of follicular lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.85	Other types of follicular lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.86	Other types of follicular lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.87	Other types of follicular lymphoma, spleen	Diagnosis	ICD-10-CM
C82.88	Other types of follicular lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.89	Other types of follicular lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.9	Follicular lymphoma, unspecified	Diagnosis	ICD-10-CM
C82.90	Follicular lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C82.91	Follicular lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.92	Follicular lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.93	Follicular lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.94	Follicular lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.95	Follicular lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.96	Follicular lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.97	Follicular lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C82.98	Follicular lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.99	Follicular lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.0	Small cell B-cell lymphoma	Diagnosis	ICD-10-CM
C83.00	Small cell B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C83.01	Small cell B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.02	Small cell B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.03	Small cell B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.04	Small cell B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.05	Small cell B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.06	Small cell B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.07	Small cell B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.08	Small cell B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.09	Small cell B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.1	Mantle cell lymphoma	Diagnosis	ICD-10-CM
C83.10	Mantle cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.11	Mantle cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.12	Mantle cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.13	Mantle cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.14	Mantle cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.15	Mantle cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.16	Mantle cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.17	Mantle cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.18	Mantle cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.19	Mantle cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.3	Diffuse large B-cell lymphoma	Diagnosis	ICD-10-CM
C83.30	Diffuse large B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.31	Diffuse large B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.32	Diffuse large B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.33	Diffuse large B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.34	Diffuse large B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.35	Diffuse large B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.36	Diffuse large B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.37	Diffuse large B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.38	Diffuse large B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.39	Diffuse large B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C83.5	Lymphoblastic (diffuse) lymphoma	Diagnosis	ICD-10-CM
C83.50	Lymphoblastic (diffuse) lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.51	Lymphoblastic (diffuse) lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.52	Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.53	Lymphoblastic (diffuse) lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.54	Lymphoblastic (diffuse) lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.55	Lymphoblastic (diffuse) lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.56	Lymphoblastic (diffuse) lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.57	Lymphoblastic (diffuse) lymphoma, spleen	Diagnosis	ICD-10-CM
C83.58	Lymphoblastic (diffuse) lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.59	Lymphoblastic (diffuse) lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.7	Burkitt lymphoma	Diagnosis	ICD-10-CM
C83.70	Burkitt lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.71	Burkitt lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.72	Burkitt lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.73	Burkitt lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.74	Burkitt lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.75	Burkitt lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.76	Burkitt lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.77	Burkitt lymphoma, spleen	Diagnosis	ICD-10-CM
C83.78	Burkitt lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.79	Burkitt lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.8	Other non-follicular lymphoma	Diagnosis	ICD-10-CM
C83.80	Other non-follicular lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.81	Other non-follicular lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.82	Other non-follicular lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.83	Other non-follicular lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.84	Other non-follicular lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.85	Other non-follicular lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.86	Other non-follicular lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.87	Other non-follicular lymphoma, spleen	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C83.88	Other non-follicular lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.89	Other non-follicular lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.9	Non-follicular (diffuse) lymphoma, unspecified	Diagnosis	ICD-10-CM
C83.90	Non-follicular (diffuse) lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C83.91	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.92	Non-follicular (diffuse) lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.93	Non-follicular (diffuse) lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.94	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.95	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.96	Non-follicular (diffuse) lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.97	Non-follicular (diffuse) lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C83.98	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.99	Non-follicular (diffuse) lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.0	Mycosis fungoides	Diagnosis	ICD-10-CM
C84.00	Mycosis fungoides, unspecified site	Diagnosis	ICD-10-CM
C84.01	Mycosis fungoides, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.02	Mycosis fungoides, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.03	Mycosis fungoides, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.04	Mycosis fungoides, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.05	Mycosis fungoides, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.06	Mycosis fungoides, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.07	Mycosis fungoides, spleen	Diagnosis	ICD-10-CM
C84.08	Mycosis fungoides, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.09	Mycosis fungoides, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.1	Sezary disease	Diagnosis	ICD-10-CM
C84.10	Sezary disease, unspecified site	Diagnosis	ICD-10-CM
C84.11	Sezary disease, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.12	Sezary disease, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.13	Sezary disease, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.14	Sezary disease, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.15	Sezary disease, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.16	Sezary disease, intrapelvic lymph nodes	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C84.17	Sezary disease, spleen	Diagnosis	ICD-10-CM
C84.18	Sezary disease, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.19	Sezary disease, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.4	Peripheral T-cell lymphoma, not classified	Diagnosis	ICD-10-CM
C84.40	Peripheral T-cell lymphoma, not classified, unspecified site	Diagnosis	ICD-10-CM
C84.41	Peripheral T-cell lymphoma, not classified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.42	Peripheral T-cell lymphoma, not classified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.43	Peripheral T-cell lymphoma, not classified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.44	Peripheral T-cell lymphoma, not classified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.45	Peripheral T-cell lymphoma, not classified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.46	Peripheral T-cell lymphoma, not classified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.47	Peripheral T-cell lymphoma, not classified, spleen	Diagnosis	ICD-10-CM
C84.48	Peripheral T-cell lymphoma, not classified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.49	Peripheral T-cell lymphoma, not classified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.6	Anaplastic large cell lymphoma, ALK-positive	Diagnosis	ICD-10-CM
C84.60	Anaplastic large cell lymphoma, ALK-positive, unspecified site	Diagnosis	ICD-10-CM
C84.61	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.62	Anaplastic large cell lymphoma, ALK-positive, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.63	Anaplastic large cell lymphoma, ALK-positive, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.64	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.65	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.66	Anaplastic large cell lymphoma, ALK-positive, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.67	Anaplastic large cell lymphoma, ALK-positive, spleen	Diagnosis	ICD-10-CM
C84.68	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.69	Anaplastic large cell lymphoma, ALK-positive, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.7	Anaplastic large cell lymphoma, ALK-negative	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C84.70	Anaplastic large cell lymphoma, ALK-negative, unspecified site	Diagnosis	ICD-10-CM
C84.71	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.72	Anaplastic large cell lymphoma, ALK-negative, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.73	Anaplastic large cell lymphoma, ALK-negative, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.74	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.75	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.76	Anaplastic large cell lymphoma, ALK-negative, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.77	Anaplastic large cell lymphoma, ALK-negative, spleen	Diagnosis	ICD-10-CM
C84.78	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.79	Anaplastic large cell lymphoma, ALK-negative, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.9	Mature T/NK-cell lymphomas, unspecified	Diagnosis	ICD-10-CM
C84.90	Mature T/NK-cell lymphomas, unspecified, unspecified site	Diagnosis	ICD-10-CM
C84.91	Mature T/NK-cell lymphomas, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.92	Mature T/NK-cell lymphomas, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.93	Mature T/NK-cell lymphomas, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.94	Mature T/NK-cell lymphomas, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.95	Mature T/NK-cell lymphomas, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.96	Mature T/NK-cell lymphomas, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.97	Mature T/NK-cell lymphomas, unspecified, spleen	Diagnosis	ICD-10-CM
C84.98	Mature T/NK-cell lymphomas, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.99	Mature T/NK-cell lymphomas, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.A	Cutaneous T-cell lymphoma, unspecified	Diagnosis	ICD-10-CM
C84.A0	Cutaneous T-cell lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C84.A1	Cutaneous T-cell lymphoma, unspecified lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C84.A2	Cutaneous T-cell lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.A3	Cutaneous T-cell lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.A4	Cutaneous T-cell lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.A5	Cutaneous T-cell lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.A6	Cutaneous T-cell lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.A7	Cutaneous T-cell lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C84.A8	Cutaneous T-cell lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.A9	Cutaneous T-cell lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.Z	Other mature T/NK-cell lymphomas	Diagnosis	ICD-10-CM
C84.Z0	Other mature T/NK-cell lymphomas, unspecified site	Diagnosis	ICD-10-CM
C84.Z1	Other mature T/NK-cell lymphomas, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.Z2	Other mature T/NK-cell lymphomas, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.Z3	Other mature T/NK-cell lymphomas, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.Z4	Other mature T/NK-cell lymphomas, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.Z5	Other mature T/NK-cell lymphomas, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.Z6	Other mature T/NK-cell lymphomas, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.Z7	Other mature T/NK-cell lymphomas, spleen	Diagnosis	ICD-10-CM
C84.Z8	Other mature T/NK-cell lymphomas, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.Z9	Other mature T/NK-cell lymphomas, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.1	Unspecified B-cell lymphoma	Diagnosis	ICD-10-CM
C85.10	Unspecified B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.11	Unspecified B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.12	Unspecified B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.13	Unspecified B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.14	Unspecified B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C85.15	Unspecified B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.16	Unspecified B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.17	Unspecified B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C85.18	Unspecified B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.19	Unspecified B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.2	Mediastinal (thymic) large B-cell lymphoma	Diagnosis	ICD-10-CM
C85.20	Mediastinal (thymic) large B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.21	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.22	Mediastinal (thymic) large B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.23	Mediastinal (thymic) large B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.24	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.25	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.26	Mediastinal (thymic) large B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.27	Mediastinal (thymic) large B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C85.28	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.29	Mediastinal (thymic) large B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.8	Other specified types of non-Hodgkin lymphoma	Diagnosis	ICD-10-CM
C85.80	Other specified types of non-Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.81	Other specified types of non-Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.82	Other specified types of non-Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.83	Other specified types of non-Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.84	Other specified types of non-Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.85	Other specified types of non-Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.86	Other specified types of non-Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.87	Other specified types of non-Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C85.88	Other specified types of non-Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.89	Other specified types of non-Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.9	Non-Hodgkin lymphoma, unspecified	Diagnosis	ICD-10-CM
C85.90	Non-Hodgkin lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C85.91	Non-Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.92	Non-Hodgkin lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.93	Non-Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.94	Non-Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.95	Non-Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.96	Non-Hodgkin lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.97	Non-Hodgkin lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C85.98	Non-Hodgkin lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.99	Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C86.0	Extranodal NK/T-cell lymphoma, nasal type	Diagnosis	ICD-10-CM
C86.1	Hepatosplenic T-cell lymphoma	Diagnosis	ICD-10-CM
C86.2	Enteropathy-type (intestinal) T-cell lymphoma	Diagnosis	ICD-10-CM
C86.3	Subcutaneous panniculitis-like T-cell lymphoma	Diagnosis	ICD-10-CM
C86.4	Blastic NK-cell lymphoma	Diagnosis	ICD-10-CM
C86.5	Angioimmunoblastic T-cell lymphoma	Diagnosis	ICD-10-CM
C86.6	Primary cutaneous CD30-positive T-cell proliferations	Diagnosis	ICD-10-CM
C88.0	Waldenstrom macroglobulinemia	Diagnosis	ICD-10-CM
C88.2	Heavy chain disease	Diagnosis	ICD-10-CM
C88.3	Immunoproliferative small intestinal disease	Diagnosis	ICD-10-CM
C88.4	Extranodal marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue [MALT-lymphoma]	Diagnosis	ICD-10-CM
C88.8	Other malignant immunoproliferative diseases	Diagnosis	ICD-10-CM
C88.9	Malignant immunoproliferative disease, unspecified	Diagnosis	ICD-10-CM
C90.0	Multiple myeloma	Diagnosis	ICD-10-CM
C90.00	Multiple myeloma not having achieved remission	Diagnosis	ICD-10-CM
C90.01	Multiple myeloma in remission	Diagnosis	ICD-10-CM
C90.02	Multiple myeloma in relapse	Diagnosis	ICD-10-CM
C90.1	Plasma cell leukemia	Diagnosis	ICD-10-CM
C90.10	Plasma cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C90.11	Plasma cell leukemia in remission	Diagnosis	ICD-10-CM
C90.12	Plasma cell leukemia in relapse	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C90.2	Extramedullary plasmacytoma	Diagnosis	ICD-10-CM
C90.20	Extramedullary plasmacytoma not having achieved remission	Diagnosis	ICD-10-CM
C90.21	Extramedullary plasmacytoma in remission	Diagnosis	ICD-10-CM
C90.22	Extramedullary plasmacytoma in relapse	Diagnosis	ICD-10-CM
C90.3	Solitary plasmacytoma	Diagnosis	ICD-10-CM
C90.30	Solitary plasmacytoma not having achieved remission	Diagnosis	ICD-10-CM
C90.31	Solitary plasmacytoma in remission	Diagnosis	ICD-10-CM
C90.32	Solitary plasmacytoma in relapse	Diagnosis	ICD-10-CM
C91.0	Acute lymphoblastic leukemia [ALL]	Diagnosis	ICD-10-CM
C91.00	Acute lymphoblastic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.01	Acute lymphoblastic leukemia, in remission	Diagnosis	ICD-10-CM
C91.02	Acute lymphoblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C91.1	Chronic lymphocytic leukemia of B-cell type	Diagnosis	ICD-10-CM
C91.10	Chronic lymphocytic leukemia of B-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.11	Chronic lymphocytic leukemia of B-cell type in remission	Diagnosis	ICD-10-CM
C91.12	Chronic lymphocytic leukemia of B-cell type in relapse	Diagnosis	ICD-10-CM
C91.3	Polymphocytic leukemia of B-cell type	Diagnosis	ICD-10-CM
C91.30	Polymphocytic leukemia of B-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.31	Polymphocytic leukemia of B-cell type, in remission	Diagnosis	ICD-10-CM
C91.32	Polymphocytic leukemia of B-cell type, in relapse	Diagnosis	ICD-10-CM
C91.4	Hairy cell leukemia	Diagnosis	ICD-10-CM
C91.40	Hairy cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.41	Hairy cell leukemia, in remission	Diagnosis	ICD-10-CM
C91.42	Hairy cell leukemia, in relapse	Diagnosis	ICD-10-CM
C91.5	Adult T-cell lymphoma/leukemia (HTLV-1-associated)	Diagnosis	ICD-10-CM
C91.50	Adult T-cell lymphoma/leukemia (HTLV-1-associated) not having achieved remission	Diagnosis	ICD-10-CM
C91.51	Adult T-cell lymphoma/leukemia (HTLV-1-associated), in remission	Diagnosis	ICD-10-CM
C91.52	Adult T-cell lymphoma/leukemia (HTLV-1-associated), in relapse	Diagnosis	ICD-10-CM
C91.6	Polymphocytic leukemia of T-cell type	Diagnosis	ICD-10-CM
C91.60	Polymphocytic leukemia of T-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.61	Polymphocytic leukemia of T-cell type, in remission	Diagnosis	ICD-10-CM
C91.62	Polymphocytic leukemia of T-cell type, in relapse	Diagnosis	ICD-10-CM
C91.9	Lymphoid leukemia, unspecified	Diagnosis	ICD-10-CM
C91.90	Lymphoid leukemia, unspecified not having achieved remission	Diagnosis	ICD-10-CM
C91.91	Lymphoid leukemia, unspecified, in remission	Diagnosis	ICD-10-CM
C91.92	Lymphoid leukemia, unspecified, in relapse	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C91.A	Mature B-cell leukemia Burkitt-type	Diagnosis	ICD-10-CM
C91.A0	Mature B-cell leukemia Burkitt-type not having achieved remission	Diagnosis	ICD-10-CM
C91.A1	Mature B-cell leukemia Burkitt-type, in remission	Diagnosis	ICD-10-CM
C91.A2	Mature B-cell leukemia Burkitt-type, in relapse	Diagnosis	ICD-10-CM
C91.Z	Other lymphoid leukemia	Diagnosis	ICD-10-CM
C91.Z0	Other lymphoid leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.Z1	Other lymphoid leukemia, in remission	Diagnosis	ICD-10-CM
C91.Z2	Other lymphoid leukemia, in relapse	Diagnosis	ICD-10-CM
C92.0	Acute myeloblastic leukemia	Diagnosis	ICD-10-CM
C92.00	Acute myeloblastic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C92.01	Acute myeloblastic leukemia, in remission	Diagnosis	ICD-10-CM
C92.02	Acute myeloblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.1	Chronic myeloid leukemia, BCR/ABL-positive	Diagnosis	ICD-10-CM
C92.10	Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission	Diagnosis	ICD-10-CM
C92.11	Chronic myeloid leukemia, BCR/ABL-positive, in remission	Diagnosis	ICD-10-CM
C92.12	Chronic myeloid leukemia, BCR/ABL-positive, in relapse	Diagnosis	ICD-10-CM
C92.2	Atypical chronic myeloid leukemia, BCR/ABL-negative	Diagnosis	ICD-10-CM
C92.20	Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission	Diagnosis	ICD-10-CM
C92.21	Atypical chronic myeloid leukemia, BCR/ABL-negative, in remission	Diagnosis	ICD-10-CM
C92.22	Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse	Diagnosis	ICD-10-CM
C92.3	Myeloid sarcoma	Diagnosis	ICD-10-CM
C92.30	Myeloid sarcoma, not having achieved remission	Diagnosis	ICD-10-CM
C92.31	Myeloid sarcoma, in remission	Diagnosis	ICD-10-CM
C92.32	Myeloid sarcoma, in relapse	Diagnosis	ICD-10-CM
C92.4	Acute promyelocytic leukemia	Diagnosis	ICD-10-CM
C92.40	Acute promyelocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C92.41	Acute promyelocytic leukemia, in remission	Diagnosis	ICD-10-CM
C92.42	Acute promyelocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.5	Acute myelomonocytic leukemia	Diagnosis	ICD-10-CM
C92.50	Acute myelomonocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C92.51	Acute myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM
C92.52	Acute myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.6	Acute myeloid leukemia with 11q23-abnormality	Diagnosis	ICD-10-CM
C92.60	Acute myeloid leukemia with 11q23-abnormality not having achieved remission	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C92.61	Acute myeloid leukemia with 11q23-abnormality in remission	Diagnosis	ICD-10-CM
C92.62	Acute myeloid leukemia with 11q23-abnormality in relapse	Diagnosis	ICD-10-CM
C92.9	Myeloid leukemia, unspecified	Diagnosis	ICD-10-CM
C92.90	Myeloid leukemia, unspecified, not having achieved remission	Diagnosis	ICD-10-CM
C92.91	Myeloid leukemia, unspecified in remission	Diagnosis	ICD-10-CM
C92.92	Myeloid leukemia, unspecified in relapse	Diagnosis	ICD-10-CM
C92.A	Acute myeloid leukemia with multilineage dysplasia	Diagnosis	ICD-10-CM
C92.A0	Acute myeloid leukemia with multilineage dysplasia, not having achieved remission	Diagnosis	ICD-10-CM
C92.A1	Acute myeloid leukemia with multilineage dysplasia, in remission	Diagnosis	ICD-10-CM
C92.A2	Acute myeloid leukemia with multilineage dysplasia, in relapse	Diagnosis	ICD-10-CM
C92.Z	Other myeloid leukemia	Diagnosis	ICD-10-CM
C92.Z0	Other myeloid leukemia not having achieved remission	Diagnosis	ICD-10-CM
C92.Z1	Other myeloid leukemia, in remission	Diagnosis	ICD-10-CM
C92.Z2	Other myeloid leukemia, in relapse	Diagnosis	ICD-10-CM
C93.0	Acute monoblastic/monocytic leukemia	Diagnosis	ICD-10-CM
C93.00	Acute monoblastic/monocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.01	Acute monoblastic/monocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.02	Acute monoblastic/monocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.1	Chronic myelomonocytic leukemia	Diagnosis	ICD-10-CM
C93.10	Chronic myelomonocytic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C93.11	Chronic myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.12	Chronic myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.3	Juvenile myelomonocytic leukemia	Diagnosis	ICD-10-CM
C93.30	Juvenile myelomonocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.31	Juvenile myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.32	Juvenile myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.9	Monocytic leukemia, unspecified	Diagnosis	ICD-10-CM
C93.90	Monocytic leukemia, unspecified, not having achieved remission	Diagnosis	ICD-10-CM
C93.91	Monocytic leukemia, unspecified in remission	Diagnosis	ICD-10-CM
C93.92	Monocytic leukemia, unspecified in relapse	Diagnosis	ICD-10-CM
C93.Z	Other monocytic leukemia	Diagnosis	ICD-10-CM
C93.Z0	Other monocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.Z1	Other monocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.Z2	Other monocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C94.0	Acute erythroid leukemia	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C94.00	Acute erythroid leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C94.01	Acute erythroid leukemia, in remission	Diagnosis	ICD-10-CM
C94.02	Acute erythroid leukemia, in relapse	Diagnosis	ICD-10-CM
C94.2	Acute megakaryoblastic leukemia	Diagnosis	ICD-10-CM
C94.20	Acute megakaryoblastic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C94.21	Acute megakaryoblastic leukemia, in remission	Diagnosis	ICD-10-CM
C94.22	Acute megakaryoblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C94.3	Mast cell leukemia	Diagnosis	ICD-10-CM
C94.30	Mast cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C94.31	Mast cell leukemia, in remission	Diagnosis	ICD-10-CM
C94.32	Mast cell leukemia, in relapse	Diagnosis	ICD-10-CM
C94.8	Other specified leukemias	Diagnosis	ICD-10-CM
C94.80	Other specified leukemias not having achieved remission	Diagnosis	ICD-10-CM
C94.81	Other specified leukemias, in remission	Diagnosis	ICD-10-CM
C94.82	Other specified leukemias, in relapse	Diagnosis	ICD-10-CM
C95	Leukemia of unspecified cell type	Diagnosis	ICD-10-CM
C95.0	Acute leukemia of unspecified cell type	Diagnosis	ICD-10-CM
C95.00	Acute leukemia of unspecified cell type not having achieved remission	Diagnosis	ICD-10-CM
C95.01	Acute leukemia of unspecified cell type, in remission	Diagnosis	ICD-10-CM
C95.02	Acute leukemia of unspecified cell type, in relapse	Diagnosis	ICD-10-CM
C95.1	Chronic leukemia of unspecified cell type	Diagnosis	ICD-10-CM
C95.10	Chronic leukemia of unspecified cell type not having achieved remission	Diagnosis	ICD-10-CM
C95.11	Chronic leukemia of unspecified cell type, in remission	Diagnosis	ICD-10-CM
C95.12	Chronic leukemia of unspecified cell type, in relapse	Diagnosis	ICD-10-CM
C95.9	Leukemia, unspecified	Diagnosis	ICD-10-CM
C95.90	Leukemia, unspecified not having achieved remission	Diagnosis	ICD-10-CM
C95.91	Leukemia, unspecified, in remission	Diagnosis	ICD-10-CM
C95.92	Leukemia, unspecified, in relapse	Diagnosis	ICD-10-CM
C96.0	Multifocal and multisystemic (disseminated) Langerhans-cell histiocytosis	Diagnosis	ICD-10-CM
C96.2	Malignant mast cell neoplasm	Diagnosis	ICD-10-CM
C96.4	Sarcoma of dendritic cells (accessory cells)	Diagnosis	ICD-10-CM
C96.9	Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified	Diagnosis	ICD-10-CM
C96.A	Histiocytic sarcoma	Diagnosis	ICD-10-CM
C96.Z	Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue	Diagnosis	ICD-10-CM
D45	Polycythemia vera	Diagnosis	ICD-10-CM
D89	Other disorders involving the immune mechanism, not elsewhere classified	Diagnosis	ICD-10-CM
D89.0	Polyclonal hypergammaglobulinemia	Diagnosis	ICD-10-CM
D89.1	Cryoglobulinemia	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
D89.2	Hypergammaglobulinemia, unspecified	Diagnosis	ICD-10-CM
D89.3	Immune reconstitution syndrome	Diagnosis	ICD-10-CM
D89.4	Mast cell activation syndrome and related disorders	Diagnosis	ICD-10-CM
D89.40	Mast cell activation, unspecified	Diagnosis	ICD-10-CM
D89.41	Monoclonal mast cell activation syndrome	Diagnosis	ICD-10-CM
D89.42	Idiopathic mast cell activation syndrome	Diagnosis	ICD-10-CM
D89.43	Secondary mast cell activation	Diagnosis	ICD-10-CM
D89.49	Other mast cell activation disorder	Diagnosis	ICD-10-CM
D89.8	Other specified disorders involving the immune mechanism, not elsewhere classified	Diagnosis	ICD-10-CM
D89.81	Graft-versus-host disease	Diagnosis	ICD-10-CM
D89.810	Acute graft-versus-host disease	Diagnosis	ICD-10-CM
D89.811	Chronic graft-versus-host disease	Diagnosis	ICD-10-CM
D89.812	Acute on chronic graft-versus-host disease	Diagnosis	ICD-10-CM
D89.813	Graft-versus-host disease, unspecified	Diagnosis	ICD-10-CM
D89.82	Autoimmune lymphoproliferative syndrome [ALPS]	Diagnosis	ICD-10-CM
D89.89	Other specified disorders involving the immune mechanism, not elsewhere classified	Diagnosis	ICD-10-CM
D89.9	Disorder involving the immune mechanism, unspecified	Diagnosis	ICD-10-CM
Z85.46	Personal history of malignant neoplasm of prostate	Diagnosis	ICD-10-CM
Cardiac Arrhythmias			
I44.0	Atrioventricular block, first degree	Diagnosis	ICD-10-CM
I44.1	Atrioventricular block, second degree	Diagnosis	ICD-10-CM
I44.3	Other and unspecified atrioventricular block	Diagnosis	ICD-10-CM
I44.30	Unspecified atrioventricular block	Diagnosis	ICD-10-CM
I44.39	Other atrioventricular block	Diagnosis	ICD-10-CM
I44.4	Left anterior fascicular block	Diagnosis	ICD-10-CM
I44.5	Left posterior fascicular block	Diagnosis	ICD-10-CM
I44.6	Other and unspecified fascicular block	Diagnosis	ICD-10-CM
I44.60	Unspecified fascicular block	Diagnosis	ICD-10-CM
I44.69	Other fascicular block	Diagnosis	ICD-10-CM
I44.7	Left bundle-branch block, unspecified	Diagnosis	ICD-10-CM
I45.0	Right fascicular block	Diagnosis	ICD-10-CM
I45.1	Other and unspecified right bundle-branch block	Diagnosis	ICD-10-CM
I45.10	Unspecified right bundle-branch block	Diagnosis	ICD-10-CM
I45.19	Other right bundle-branch block	Diagnosis	ICD-10-CM
I45.2	Bifascicular block	Diagnosis	ICD-10-CM
I45.4	Nonspecific intraventricular block	Diagnosis	ICD-10-CM
I45.5	Other specified heart block	Diagnosis	ICD-10-CM
I45.6	Pre-excitation syndrome	Diagnosis	ICD-10-CM
I45.8	Other specified conduction disorders	Diagnosis	ICD-10-CM
I45.81	Long QT syndrome	Diagnosis	ICD-10-CM
I45.89	Other specified conduction disorders	Diagnosis	ICD-10-CM
I45.9	Conduction disorder, unspecified	Diagnosis	ICD-10-CM
I47	Paroxysmal tachycardia	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I47.0	Re-entry ventricular arrhythmia	Diagnosis	ICD-10-CM
I47.1	Supraventricular tachycardia	Diagnosis	ICD-10-CM
I47.2	Ventricular tachycardia	Diagnosis	ICD-10-CM
I47.9	Paroxysmal tachycardia, unspecified	Diagnosis	ICD-10-CM
I48	Atrial fibrillation and flutter	Diagnosis	ICD-10-CM
I48.0	Paroxysmal atrial fibrillation	Diagnosis	ICD-10-CM
I48.1	Persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.11	Longstanding persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.19	Other persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.2	Chronic atrial fibrillation	Diagnosis	ICD-10-CM
I48.20	Chronic atrial fibrillation, unspecified	Diagnosis	ICD-10-CM
I48.21	Permanent atrial fibrillation	Diagnosis	ICD-10-CM
I48.3	Typical atrial flutter	Diagnosis	ICD-10-CM
I48.4	Atypical atrial flutter	Diagnosis	ICD-10-CM
I48.9	Unspecified atrial fibrillation and atrial flutter	Diagnosis	ICD-10-CM
I48.91	Unspecified atrial fibrillation	Diagnosis	ICD-10-CM
I48.92	Unspecified atrial flutter	Diagnosis	ICD-10-CM
I49	Other cardiac arrhythmias	Diagnosis	ICD-10-CM
I49.0	Ventricular fibrillation and flutter	Diagnosis	ICD-10-CM
I49.01	Ventricular fibrillation	Diagnosis	ICD-10-CM
I49.02	Ventricular flutter	Diagnosis	ICD-10-CM
I49.1	Atrial premature depolarization	Diagnosis	ICD-10-CM
I49.2	Junctional premature depolarization	Diagnosis	ICD-10-CM
I49.3	Ventricular premature depolarization	Diagnosis	ICD-10-CM
I49.4	Other and unspecified premature depolarization	Diagnosis	ICD-10-CM
I49.40	Unspecified premature depolarization	Diagnosis	ICD-10-CM
I49.49	Other premature depolarization	Diagnosis	ICD-10-CM
I49.5	Sick sinus syndrome	Diagnosis	ICD-10-CM
I49.8	Other specified cardiac arrhythmias	Diagnosis	ICD-10-CM
I49.9	Cardiac arrhythmia, unspecified	Diagnosis	ICD-10-CM
R00.0	Tachycardia, unspecified	Diagnosis	ICD-10-CM
R00.1	Bradycardia, unspecified	Diagnosis	ICD-10-CM
R00.8	Other abnormalities of heart beat	Diagnosis	ICD-10-CM
T82.1	Mechanical complication of cardiac electronic device	Diagnosis	ICD-10-CM
T82.11	Breakdown (mechanical) of cardiac electronic device	Diagnosis	ICD-10-CM
T82.110	Breakdown (mechanical) of cardiac electrode	Diagnosis	ICD-10-CM
T82.110A	Breakdown (mechanical) of cardiac electrode, initial encounter	Diagnosis	ICD-10-CM
T82.110D	Breakdown (mechanical) of cardiac electrode, subsequent encounter	Diagnosis	ICD-10-CM
T82.110S	Breakdown (mechanical) of cardiac electrode, sequela	Diagnosis	ICD-10-CM
T82.111	Breakdown (mechanical) of cardiac pulse generator (battery)	Diagnosis	ICD-10-CM
T82.111A	Breakdown (mechanical) of cardiac pulse generator (battery), initial encounter	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T82.111D	Breakdown (mechanical) of cardiac pulse generator (battery), subsequent encounter	Diagnosis	ICD-10-CM
T82.111S	Breakdown (mechanical) of cardiac pulse generator (battery), sequela	Diagnosis	ICD-10-CM
T82.118	Breakdown (mechanical) of other cardiac electronic device	Diagnosis	ICD-10-CM
T82.118A	Breakdown (mechanical) of other cardiac electronic device, initial encounter	Diagnosis	ICD-10-CM
T82.118D	Breakdown (mechanical) of other cardiac electronic device, subsequent encounter	Diagnosis	ICD-10-CM
T82.118S	Breakdown (mechanical) of other cardiac electronic device, sequela	Diagnosis	ICD-10-CM
T82.119	Breakdown (mechanical) of unspecified cardiac electronic device	Diagnosis	ICD-10-CM
T82.119A	Breakdown (mechanical) of unspecified cardiac electronic device, initial encounter	Diagnosis	ICD-10-CM
T82.119D	Breakdown (mechanical) of unspecified cardiac electronic device, subsequent encounter	Diagnosis	ICD-10-CM
T82.119S	Breakdown (mechanical) of unspecified cardiac electronic device, sequela	Diagnosis	ICD-10-CM
T82.12	Displacement of cardiac electronic device	Diagnosis	ICD-10-CM
T82.120	Displacement of cardiac electrode	Diagnosis	ICD-10-CM
T82.120A	Displacement of cardiac electrode, initial encounter	Diagnosis	ICD-10-CM
T82.120D	Displacement of cardiac electrode, subsequent encounter	Diagnosis	ICD-10-CM
T82.120S	Displacement of cardiac electrode, sequela	Diagnosis	ICD-10-CM
T82.121	Displacement of cardiac pulse generator (battery)	Diagnosis	ICD-10-CM
T82.121A	Displacement of cardiac pulse generator (battery), initial encounter	Diagnosis	ICD-10-CM
T82.121D	Displacement of cardiac pulse generator (battery), subsequent encounter	Diagnosis	ICD-10-CM
T82.121S	Displacement of cardiac pulse generator (battery), sequela	Diagnosis	ICD-10-CM
T82.128	Displacement of other cardiac electronic device	Diagnosis	ICD-10-CM
T82.128A	Displacement of other cardiac electronic device, initial encounter	Diagnosis	ICD-10-CM
T82.128D	Displacement of other cardiac electronic device, subsequent encounter	Diagnosis	ICD-10-CM
T82.128S	Displacement of other cardiac electronic device, sequela	Diagnosis	ICD-10-CM
T82.129	Displacement of unspecified cardiac electronic device	Diagnosis	ICD-10-CM
T82.129A	Displacement of unspecified cardiac electronic device, initial encounter	Diagnosis	ICD-10-CM
T82.129D	Displacement of unspecified cardiac electronic device, subsequent encounter	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T82.129S	Displacement of unspecified cardiac electronic device, sequela	Diagnosis	ICD-10-CM
T82.19	Other mechanical complication of cardiac electronic device	Diagnosis	ICD-10-CM
T82.190	Other mechanical complication of cardiac electrode	Diagnosis	ICD-10-CM
T82.190A	Other mechanical complication of cardiac electrode, initial encounter	Diagnosis	ICD-10-CM
T82.190D	Other mechanical complication of cardiac electrode, subsequent encounter	Diagnosis	ICD-10-CM
T82.190S	Other mechanical complication of cardiac electrode, sequela	Diagnosis	ICD-10-CM
T82.191	Other mechanical complication of cardiac pulse generator (battery)	Diagnosis	ICD-10-CM
T82.191A	Other mechanical complication of cardiac pulse generator (battery), initial encounter	Diagnosis	ICD-10-CM
T82.191D	Other mechanical complication of cardiac pulse generator (battery), subsequent encounter	Diagnosis	ICD-10-CM
T82.191S	Other mechanical complication of cardiac pulse generator (battery), sequela	Diagnosis	ICD-10-CM
T82.198	Other mechanical complication of other cardiac electronic device	Diagnosis	ICD-10-CM
T82.198A	Other mechanical complication of other cardiac electronic device, initial encounter	Diagnosis	ICD-10-CM
T82.198D	Other mechanical complication of other cardiac electronic device, subsequent encounter	Diagnosis	ICD-10-CM
T82.198S	Other mechanical complication of other cardiac electronic device, sequela	Diagnosis	ICD-10-CM
T82.199	Other mechanical complication of unspecified cardiac device	Diagnosis	ICD-10-CM
T82.199A	Other mechanical complication of unspecified cardiac device, initial encounter	Diagnosis	ICD-10-CM
T82.199D	Other mechanical complication of unspecified cardiac device, subsequent encounter	Diagnosis	ICD-10-CM
T82.199S	Other mechanical complication of unspecified cardiac device, sequela	Diagnosis	ICD-10-CM
Z45.0	Encounter for adjustment and management of cardiac device	Diagnosis	ICD-10-CM
Z45.01	Encounter for adjustment and management of cardiac pacemaker	Diagnosis	ICD-10-CM
Z45.010	Encounter for checking and testing of cardiac pacemaker pulse generator [battery]	Diagnosis	ICD-10-CM
Z45.018	Encounter for adjustment and management of other part of cardiac pacemaker	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
Z45.02	Encounter for adjustment and management of automatic implantable cardiac defibrillator	Diagnosis	ICD-10-CM
Z45.09	Encounter for adjustment and management of other cardiac device	Diagnosis	ICD-10-CM
Z95.0	Presence of cardiac pacemaker	Diagnosis	ICD-10-CM
Z95.810	Presence of automatic (implantable) cardiac defibrillator	Diagnosis	ICD-10-CM
Z95.818	Presence of other cardiac implants and grafts	Diagnosis	ICD-10-CM
Z95.9	Presence of cardiac and vascular implant and graft, unspecified	Diagnosis	ICD-10-CM
Chronic Pulmonary Disease			
I26.0	Pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.01	Septic pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.02	Saddle embolus of pulmonary artery with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.09	Other pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I27.2	Other secondary pulmonary hypertension	Diagnosis	ICD-10-CM
I27.20	Pulmonary hypertension, unspecified	Diagnosis	ICD-10-CM
I27.21	Secondary pulmonary arterial hypertension	Diagnosis	ICD-10-CM
I27.22	Pulmonary hypertension due to left heart disease	Diagnosis	ICD-10-CM
I27.23	Pulmonary hypertension due to lung diseases and hypoxia	Diagnosis	ICD-10-CM
I27.24	Chronic thromboembolic pulmonary hypertension	Diagnosis	ICD-10-CM
I27.29	Other secondary pulmonary hypertension	Diagnosis	ICD-10-CM
I27.8	Other specified pulmonary heart diseases	Diagnosis	ICD-10-CM
I27.81	Cor pulmonale (chronic)	Diagnosis	ICD-10-CM
I27.82	Chronic pulmonary embolism	Diagnosis	ICD-10-CM
I27.89	Other specified pulmonary heart diseases	Diagnosis	ICD-10-CM
I27.9	Pulmonary heart disease, unspecified	Diagnosis	ICD-10-CM
J40	Bronchitis, not specified as acute or chronic	Diagnosis	ICD-10-CM
J41	Simple and mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J41.0	Simple chronic bronchitis	Diagnosis	ICD-10-CM
J41.1	Mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J41.8	Mixed simple and mucopurulent chronic bronchitis	Diagnosis	ICD-10-CM
J42	Unspecified chronic bronchitis	Diagnosis	ICD-10-CM
J43	Emphysema	Diagnosis	ICD-10-CM
J43.0	Unilateral pulmonary emphysema [MacLeod's syndrome]	Diagnosis	ICD-10-CM
J43.1	Panlobular emphysema	Diagnosis	ICD-10-CM
J43.2	Centrilobular emphysema	Diagnosis	ICD-10-CM
J43.8	Other emphysema	Diagnosis	ICD-10-CM
J43.9	Emphysema, unspecified	Diagnosis	ICD-10-CM
J44	Other chronic obstructive pulmonary disease	Diagnosis	ICD-10-CM
J44.0	Chronic obstructive pulmonary disease with (acute) lower respiratory infection	Diagnosis	ICD-10-CM
J44.1	Chronic obstructive pulmonary disease with (acute) exacerbation	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
J44.9	Chronic obstructive pulmonary disease, unspecified	Diagnosis	ICD-10-CM
J45	Asthma	Diagnosis	ICD-10-CM
J45.2	Mild intermittent asthma	Diagnosis	ICD-10-CM
J45.20	Mild intermittent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.21	Mild intermittent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.22	Mild intermittent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.3	Mild persistent asthma	Diagnosis	ICD-10-CM
J45.30	Mild persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.31	Mild persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.32	Mild persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.4	Moderate persistent asthma	Diagnosis	ICD-10-CM
J45.40	Moderate persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.41	Moderate persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.42	Moderate persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.5	Severe persistent asthma	Diagnosis	ICD-10-CM
J45.50	Severe persistent asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.51	Severe persistent asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.52	Severe persistent asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.9	Other and unspecified asthma	Diagnosis	ICD-10-CM
J45.90	Unspecified asthma	Diagnosis	ICD-10-CM
J45.901	Unspecified asthma with (acute) exacerbation	Diagnosis	ICD-10-CM
J45.902	Unspecified asthma with status asthmaticus	Diagnosis	ICD-10-CM
J45.909	Unspecified asthma, uncomplicated	Diagnosis	ICD-10-CM
J45.99	Other asthma	Diagnosis	ICD-10-CM
J45.990	Exercise induced bronchospasm	Diagnosis	ICD-10-CM
J45.991	Cough variant asthma	Diagnosis	ICD-10-CM
J45.998	Other asthma	Diagnosis	ICD-10-CM
J47	Bronchiectasis	Diagnosis	ICD-10-CM
J47.0	Bronchiectasis with acute lower respiratory infection	Diagnosis	ICD-10-CM
J47.1	Bronchiectasis with (acute) exacerbation	Diagnosis	ICD-10-CM
J47.9	Bronchiectasis, uncomplicated	Diagnosis	ICD-10-CM
J60	Coalworker's pneumoconiosis	Diagnosis	ICD-10-CM
J61	Pneumoconiosis due to asbestos and other mineral fibers	Diagnosis	ICD-10-CM
J62	Pneumoconiosis due to dust containing silica	Diagnosis	ICD-10-CM
J62.0	Pneumoconiosis due to talc dust	Diagnosis	ICD-10-CM
J62.8	Pneumoconiosis due to other dust containing silica	Diagnosis	ICD-10-CM
J63	Pneumoconiosis due to other inorganic dusts	Diagnosis	ICD-10-CM
J63.0	Aluminosis (of lung)	Diagnosis	ICD-10-CM
J63.1	Bauxite fibrosis (of lung)	Diagnosis	ICD-10-CM
J63.2	Berylliosis	Diagnosis	ICD-10-CM
J63.3	Graphite fibrosis (of lung)	Diagnosis	ICD-10-CM
J63.4	Siderosis	Diagnosis	ICD-10-CM
J63.5	Stannosis	Diagnosis	ICD-10-CM
J63.6	Pneumoconiosis due to other specified inorganic dusts	Diagnosis	ICD-10-CM
J64	Unspecified pneumoconiosis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
J65	Pneumoconiosis associated with tuberculosis	Diagnosis	ICD-10-CM
J66	Airway disease due to specific organic dust	Diagnosis	ICD-10-CM
J66.0	Byssinosis	Diagnosis	ICD-10-CM
J66.1	Flax-dressers' disease	Diagnosis	ICD-10-CM
J66.2	Cannabinosis	Diagnosis	ICD-10-CM
J66.8	Airway disease due to other specific organic dusts	Diagnosis	ICD-10-CM
J67	Hypersensitivity pneumonitis due to organic dust	Diagnosis	ICD-10-CM
J67.0	Farmer's lung	Diagnosis	ICD-10-CM
J67.1	Bagassosis	Diagnosis	ICD-10-CM
J67.2	Bird fancier's lung	Diagnosis	ICD-10-CM
J67.3	Suberosis	Diagnosis	ICD-10-CM
J67.4	Maltworker's lung	Diagnosis	ICD-10-CM
J67.5	Mushroom-worker's lung	Diagnosis	ICD-10-CM
J67.6	Maple-bark-stripper's lung	Diagnosis	ICD-10-CM
J67.7	Air conditioner and humidifier lung	Diagnosis	ICD-10-CM
J67.8	Hypersensitivity pneumonitis due to other organic dusts	Diagnosis	ICD-10-CM
J67.9	Hypersensitivity pneumonitis due to unspecified organic dust	Diagnosis	ICD-10-CM
J68.4	Chronic respiratory conditions due to chemicals, gases, fumes and vapors	Diagnosis	ICD-10-CM
J70.1	Chronic and other pulmonary manifestations due to radiation	Diagnosis	ICD-10-CM
J70.3	Chronic drug-induced interstitial lung disorders	Diagnosis	ICD-10-CM
Coagulopathy			
D65	Disseminated intravascular coagulation [defibrination syndrome]	Diagnosis	ICD-10-CM
D66	Hereditary factor VIII deficiency	Diagnosis	ICD-10-CM
D67	Hereditary factor IX deficiency	Diagnosis	ICD-10-CM
D68	Other coagulation defects	Diagnosis	ICD-10-CM
D68.0	Von Willebrand's disease	Diagnosis	ICD-10-CM
D68.1	Hereditary factor XI deficiency	Diagnosis	ICD-10-CM
D68.2	Hereditary deficiency of other clotting factors	Diagnosis	ICD-10-CM
D68.3	Hemorrhagic disorder due to circulating anticoagulants	Diagnosis	ICD-10-CM
D68.31	Hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors	Diagnosis	ICD-10-CM
D68.311	Acquired hemophilia	Diagnosis	ICD-10-CM
D68.312	Antiphospholipid antibody with hemorrhagic disorder	Diagnosis	ICD-10-CM
D68.318	Other hemorrhagic disorder due to intrinsic circulating anticoagulants, antibodies, or inhibitors	Diagnosis	ICD-10-CM
D68.32	Hemorrhagic disorder due to extrinsic circulating anticoagulants	Diagnosis	ICD-10-CM
D68.4	Acquired coagulation factor deficiency	Diagnosis	ICD-10-CM
D68.5	Primary thrombophilia	Diagnosis	ICD-10-CM
D68.51	Activated protein C resistance	Diagnosis	ICD-10-CM
D68.52	Prothrombin gene mutation	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
D68.59	Other primary thrombophilia	Diagnosis	ICD-10-CM
D68.6	Other thrombophilia	Diagnosis	ICD-10-CM
D68.61	Antiphospholipid syndrome	Diagnosis	ICD-10-CM
D68.62	Lupus anticoagulant syndrome	Diagnosis	ICD-10-CM
D68.69	Other thrombophilia	Diagnosis	ICD-10-CM
D68.8	Other specified coagulation defects	Diagnosis	ICD-10-CM
D68.9	Coagulation defect, unspecified	Diagnosis	ICD-10-CM
D69.1	Qualitative platelet defects	Diagnosis	ICD-10-CM
D69.3	Immune thrombocytopenic purpura	Diagnosis	ICD-10-CM
D69.4	Other primary thrombocytopenia	Diagnosis	ICD-10-CM
D69.41	Evans syndrome	Diagnosis	ICD-10-CM
D69.42	Congenital and hereditary thrombocytopenia purpura	Diagnosis	ICD-10-CM
D69.49	Other primary thrombocytopenia	Diagnosis	ICD-10-CM
D69.5	Secondary thrombocytopenia	Diagnosis	ICD-10-CM
D69.51	Posttransfusion purpura	Diagnosis	ICD-10-CM
D69.59	Other secondary thrombocytopenia	Diagnosis	ICD-10-CM
D69.6	Thrombocytopenia, unspecified	Diagnosis	ICD-10-CM
Complicated Diabetes			
E10.2	Type 1 diabetes mellitus with kidney complications	Diagnosis	ICD-10-CM
E10.21	Type 1 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E10.29	Type 1 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E10.3	Type 1 diabetes mellitus with ophthalmic complications	Diagnosis	ICD-10-CM
E10.31	Type 1 diabetes mellitus with unspecified diabetic retinopathy	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
E10.32	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E10.321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	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
E10.329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E10.33	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E10.331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
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
E10.339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	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
E10.34	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E10.341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E10.349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	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
E10.35	Type 1 diabetes mellitus with proliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E10.351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.3511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	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, bilateral	Diagnosis	ICD-10-CM
E10.3519	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.352	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula	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
E10.3529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.353	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
E10.354	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment	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
E10.355	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy	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
E10.359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E10.36	Type 1 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E10.37	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment	Diagnosis	ICD-10-CM
E10.37X1	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	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, bilateral	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
E10.4	Type 1 diabetes mellitus with neurological complications	Diagnosis	ICD-10-CM
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
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
E10.5	Type 1 diabetes mellitus with circulatory complications	Diagnosis	ICD-10-CM
E10.51	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	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
E10.6	Type 1 diabetes mellitus with other specified complications	Diagnosis	ICD-10-CM
E10.61	Type 1 diabetes mellitus with diabetic arthropathy	Diagnosis	ICD-10-CM
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E10.618	Type 1 diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E10.62	Type 1 diabetes mellitus with skin complications	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
E10.63	Type 1 diabetes mellitus with oral 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
E10.64	Type 1 diabetes mellitus with hypoglycemia	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E10.641	Type 1 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E10.649	Type 1 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E10.65	Type 1 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E10.69	Type 1 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E10.8	Type 1 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E11.2	Type 2 diabetes mellitus with kidney complications	Diagnosis	ICD-10-CM
E11.21	Type 2 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E11.3	Type 2 diabetes mellitus with ophthalmic complications	Diagnosis	ICD-10-CM
E11.31	Type 2 diabetes mellitus with unspecified diabetic retinopathy	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
E11.32	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E11.321	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	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
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
E11.329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	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
E11.33	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E11.331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	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
E11.339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	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
E11.34	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E11.341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	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
E11.349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	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
E11.3499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E11.35	Type 2 diabetes mellitus with proliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E11.351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema	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, bilateral	Diagnosis	ICD-10-CM
E11.3519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.352	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula	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
E11.353	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E11.354	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment	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
E11.355	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy	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
E11.359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema	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
E11.36	Type 2 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E11.37	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment	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, bilateral	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E11.37X9	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E11.39	Type 2 diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E11.4	Type 2 diabetes mellitus with neurological complications	Diagnosis	ICD-10-CM
E11.40	Type 2 diabetes mellitus with diabetic neuropathy, unspecified	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
E11.5	Type 2 diabetes mellitus with circulatory complications	Diagnosis	ICD-10-CM
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene	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
E11.6	Type 2 diabetes mellitus with other specified complications	Diagnosis	ICD-10-CM
E11.61	Type 2 diabetes mellitus with diabetic arthropathy	Diagnosis	ICD-10-CM
E11.610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E11.62	Type 2 diabetes mellitus with skin complications	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
E11.63	Type 2 diabetes mellitus with oral 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
E11.64	Type 2 diabetes mellitus with hypoglycemia	Diagnosis	ICD-10-CM
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E11.65	Type 2 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E11.69	Type 2 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E11.8	Type 2 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E13.2	Other specified diabetes mellitus with kidney complications	Diagnosis	ICD-10-CM
E13.21	Other specified diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
E13.3	Other specified diabetes mellitus with ophthalmic complications	Diagnosis	ICD-10-CM
E13.31	Other specified diabetes mellitus with unspecified diabetic retinopathy	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
E13.32	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.321	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
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
E13.329	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E13.33	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.331	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	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
E13.339	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	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
E13.34	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.341	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	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

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
E13.3419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.349	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
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
E13.35	Other specified diabetes mellitus with proliferative diabetic retinopathy	Diagnosis	ICD-10-CM
E13.351	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema	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
E13.352	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula	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

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Code	Description	Code Category	Code Type
E13.3529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E13.353	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula	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
E13.354	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment	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
E13.355	Other specified diabetes mellitus with stable proliferative diabetic retinopathy	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

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Code	Description	Code Category	Code Type
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
E13.359	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
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
E13.36	Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E13.37	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment	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
E13.4	Other specified diabetes mellitus with neurological complications	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
E13.5	Other specified diabetes mellitus with circulatory complications	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E13.6	Other specified diabetes mellitus with other specified complications	Diagnosis	ICD-10-CM
E13.61	Other specified diabetes mellitus with diabetic arthropathy	Diagnosis	ICD-10-CM
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E13.618	Other specified diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E13.62	Other specified diabetes mellitus with skin complications	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
E13.63	Other specified diabetes mellitus with oral 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
E13.64	Other specified diabetes mellitus with hypoglycemia	Diagnosis	ICD-10-CM
E13.641	Other specified diabetes mellitus with hypoglycemia with coma	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
Deficiency Anemias			
D50.1	Sideropenic dysphagia	Diagnosis	ICD-10-CM
D50.8	Other iron deficiency anemias	Diagnosis	ICD-10-CM
D50.9	Iron deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D51	Vitamin B12 deficiency anemia	Diagnosis	ICD-10-CM
D51.0	Vitamin B12 deficiency anemia due to intrinsic factor deficiency	Diagnosis	ICD-10-CM
D51.1	Vitamin B12 deficiency anemia due to selective vitamin B12 malabsorption with proteinuria	Diagnosis	ICD-10-CM
D51.2	Transcobalamin II deficiency	Diagnosis	ICD-10-CM
D51.3	Other dietary vitamin B12 deficiency anemia	Diagnosis	ICD-10-CM
D51.8	Other vitamin B12 deficiency anemias	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
D51.9	Vitamin B12 deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D52	Folate deficiency anemia	Diagnosis	ICD-10-CM
D52.0	Dietary folate deficiency anemia	Diagnosis	ICD-10-CM
D52.1	Drug-induced folate deficiency anemia	Diagnosis	ICD-10-CM
D52.8	Other folate deficiency anemias	Diagnosis	ICD-10-CM
D52.9	Folate deficiency anemia, unspecified	Diagnosis	ICD-10-CM
D53	Other nutritional anemias	Diagnosis	ICD-10-CM
D53.0	Protein deficiency anemia	Diagnosis	ICD-10-CM
D53.1	Other megaloblastic anemias, not elsewhere classified	Diagnosis	ICD-10-CM
D53.2	Scorbutic anemia	Diagnosis	ICD-10-CM
D53.8	Other specified nutritional anemias	Diagnosis	ICD-10-CM
D53.9	Nutritional anemia, unspecified	Diagnosis	ICD-10-CM
D64.9	Anemia, unspecified	Diagnosis	ICD-10-CM
Fluid and Electrolyte Disorders			
E22.2	Syndrome of inappropriate secretion of antidiuretic hormone	Diagnosis	ICD-10-CM
E86	Volume depletion	Diagnosis	ICD-10-CM
E86.0	Dehydration	Diagnosis	ICD-10-CM
E86.1	Hypovolemia	Diagnosis	ICD-10-CM
E86.9	Volume depletion, unspecified	Diagnosis	ICD-10-CM
E87	Other disorders of fluid, electrolyte and acid-base balance	Diagnosis	ICD-10-CM
E87.0	Hyperosmolality and hypernatremia	Diagnosis	ICD-10-CM
E87.1	Hypo-osmolality and hyponatremia	Diagnosis	ICD-10-CM
E87.2	Acidosis	Diagnosis	ICD-10-CM
E87.3	Alkalosis	Diagnosis	ICD-10-CM
E87.4	Mixed disorder of acid-base balance	Diagnosis	ICD-10-CM
E87.5	Hyperkalemia	Diagnosis	ICD-10-CM
E87.6	Hypokalemia	Diagnosis	ICD-10-CM
E87.7	Fluid overload	Diagnosis	ICD-10-CM
E87.70	Fluid overload, unspecified	Diagnosis	ICD-10-CM
E87.71	Transfusion associated circulatory overload	Diagnosis	ICD-10-CM
E87.79	Other fluid overload	Diagnosis	ICD-10-CM
E87.8	Other disorders of electrolyte and fluid balance, not elsewhere classified	Diagnosis	ICD-10-CM
Liver Disease			
B18	Chronic viral hepatitis	Diagnosis	ICD-10-CM
B18.0	Chronic viral hepatitis B with delta-agent	Diagnosis	ICD-10-CM
B18.1	Chronic viral hepatitis B without delta-agent	Diagnosis	ICD-10-CM
B18.2	Chronic viral hepatitis C	Diagnosis	ICD-10-CM
B18.8	Other chronic viral hepatitis	Diagnosis	ICD-10-CM
B18.9	Chronic viral hepatitis, unspecified	Diagnosis	ICD-10-CM
I85	Esophageal varices	Diagnosis	ICD-10-CM
I85.0	Esophageal varices	Diagnosis	ICD-10-CM
I85.00	Esophageal varices without bleeding	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I85.01	Esophageal varices with bleeding	Diagnosis	ICD-10-CM
I85.1	Secondary esophageal varices	Diagnosis	ICD-10-CM
I85.10	Secondary esophageal varices without bleeding	Diagnosis	ICD-10-CM
I85.11	Secondary esophageal varices with bleeding	Diagnosis	ICD-10-CM
I86.4	Gastric varices	Diagnosis	ICD-10-CM
K70	Alcoholic liver disease	Diagnosis	ICD-10-CM
K70.0	Alcoholic fatty liver	Diagnosis	ICD-10-CM
K70.1	Alcoholic hepatitis	Diagnosis	ICD-10-CM
K70.10	Alcoholic hepatitis without ascites	Diagnosis	ICD-10-CM
K70.11	Alcoholic hepatitis with ascites	Diagnosis	ICD-10-CM
K70.2	Alcoholic fibrosis and sclerosis of liver	Diagnosis	ICD-10-CM
K70.3	Alcoholic cirrhosis of liver	Diagnosis	ICD-10-CM
K70.30	Alcoholic cirrhosis of liver without ascites	Diagnosis	ICD-10-CM
K70.31	Alcoholic cirrhosis of liver with ascites	Diagnosis	ICD-10-CM
K70.4	Alcoholic hepatic failure	Diagnosis	ICD-10-CM
K70.40	Alcoholic hepatic failure without coma	Diagnosis	ICD-10-CM
K70.41	Alcoholic hepatic failure with coma	Diagnosis	ICD-10-CM
K70.9	Alcoholic liver disease, unspecified	Diagnosis	ICD-10-CM
K71.1	Toxic liver disease with hepatic necrosis	Diagnosis	ICD-10-CM
K71.10	Toxic liver disease with hepatic necrosis, without coma	Diagnosis	ICD-10-CM
K71.11	Toxic liver disease with hepatic necrosis, with coma	Diagnosis	ICD-10-CM
K71.3	Toxic liver disease with chronic persistent hepatitis	Diagnosis	ICD-10-CM
K71.4	Toxic liver disease with chronic lobular hepatitis	Diagnosis	ICD-10-CM
K71.5	Toxic liver disease with chronic active hepatitis	Diagnosis	ICD-10-CM
K71.50	Toxic liver disease with chronic active hepatitis without ascites	Diagnosis	ICD-10-CM
K71.51	Toxic liver disease with chronic active hepatitis with ascites	Diagnosis	ICD-10-CM
K71.7	Toxic liver disease with fibrosis and cirrhosis of liver	Diagnosis	ICD-10-CM
K72.1	Chronic hepatic failure	Diagnosis	ICD-10-CM
K72.10	Chronic hepatic failure without coma	Diagnosis	ICD-10-CM
K72.11	Chronic hepatic failure with coma	Diagnosis	ICD-10-CM
K72.9	Hepatic failure, unspecified	Diagnosis	ICD-10-CM
K72.90	Hepatic failure, unspecified without coma	Diagnosis	ICD-10-CM
K72.91	Hepatic failure, unspecified with coma	Diagnosis	ICD-10-CM
K73	Chronic hepatitis, not elsewhere classified	Diagnosis	ICD-10-CM
K73.0	Chronic persistent hepatitis, not elsewhere classified	Diagnosis	ICD-10-CM
K73.1	Chronic lobular hepatitis, not elsewhere classified	Diagnosis	ICD-10-CM
K73.2	Chronic active hepatitis, not elsewhere classified	Diagnosis	ICD-10-CM
K73.8	Other chronic hepatitis, not elsewhere classified	Diagnosis	ICD-10-CM
K73.9	Chronic hepatitis, unspecified	Diagnosis	ICD-10-CM
K74	Fibrosis and cirrhosis of liver	Diagnosis	ICD-10-CM
K74.0	Hepatic fibrosis	Diagnosis	ICD-10-CM
K74.00	Hepatic fibrosis, unspecified	Diagnosis	ICD-10-CM
K74.01	Hepatic fibrosis, early fibrosis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K74.02	Hepatic fibrosis, advanced fibrosis	Diagnosis	ICD-10-CM
K74.1	Hepatic sclerosis	Diagnosis	ICD-10-CM
K74.2	Hepatic fibrosis with hepatic sclerosis	Diagnosis	ICD-10-CM
K74.3	Primary biliary cirrhosis	Diagnosis	ICD-10-CM
K74.4	Secondary biliary cirrhosis	Diagnosis	ICD-10-CM
K74.5	Biliary cirrhosis, unspecified	Diagnosis	ICD-10-CM
K74.6	Other and unspecified cirrhosis of liver	Diagnosis	ICD-10-CM
K74.60	Unspecified cirrhosis of liver	Diagnosis	ICD-10-CM
K74.69	Other cirrhosis of liver	Diagnosis	ICD-10-CM
K75.4	Autoimmune hepatitis	Diagnosis	ICD-10-CM
K75.81	Nonalcoholic steatohepatitis (NASH)	Diagnosis	ICD-10-CM
K76.0	Fatty (change of) liver, not elsewhere classified	Diagnosis	ICD-10-CM
K76.2	Central hemorrhagic necrosis of liver	Diagnosis	ICD-10-CM
K76.3	Infarction of liver	Diagnosis	ICD-10-CM
K76.4	Peliosis hepatis	Diagnosis	ICD-10-CM
K76.5	Hepatic veno-occlusive disease	Diagnosis	ICD-10-CM
K76.6	Portal hypertension	Diagnosis	ICD-10-CM
K76.7	Hepatorenal syndrome	Diagnosis	ICD-10-CM
K76.8	Other specified diseases of liver	Diagnosis	ICD-10-CM
K76.81	Hepatopulmonary syndrome	Diagnosis	ICD-10-CM
K76.89	Other specified diseases of liver	Diagnosis	ICD-10-CM
K76.9	Liver disease, unspecified	Diagnosis	ICD-10-CM
Z48.23	Encounter for aftercare following liver transplant	Diagnosis	ICD-10-CM
Z94.4	Liver transplant status	Diagnosis	ICD-10-CM
Peripheral Vascular Disorder			
E08.51	Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E08.52	Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E09.51	Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E09.52	Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E10.51	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E11.51	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E11.52	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E13.51	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
I67.0	Dissection of cerebral arteries, nonruptured	Diagnosis	ICD-10-CM
I70	Atherosclerosis	Diagnosis	ICD-10-CM
I70.0	Atherosclerosis of aorta	Diagnosis	ICD-10-CM
I70.1	Atherosclerosis of renal artery	Diagnosis	ICD-10-CM
I70.2	Atherosclerosis of native arteries of the extremities	Diagnosis	ICD-10-CM
I70.20	Unspecified atherosclerosis of native arteries of extremities	Diagnosis	ICD-10-CM
I70.201	Unspecified atherosclerosis of native arteries of extremities, right leg	Diagnosis	ICD-10-CM
I70.202	Unspecified atherosclerosis of native arteries of extremities, left leg	Diagnosis	ICD-10-CM
I70.203	Unspecified atherosclerosis of native arteries of extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.208	Unspecified atherosclerosis of native arteries of extremities, other extremity	Diagnosis	ICD-10-CM
I70.209	Unspecified atherosclerosis of native arteries of extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.21	Atherosclerosis of native arteries of extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.211	Atherosclerosis of native arteries of extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.212	Atherosclerosis of native arteries of extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.213	Atherosclerosis of native arteries of extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.218	Atherosclerosis of native arteries of extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.219	Atherosclerosis of native arteries of extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.22	Atherosclerosis of native arteries of extremities with rest pain	Diagnosis	ICD-10-CM
I70.221	Atherosclerosis of native arteries of extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.222	Atherosclerosis of native arteries of extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.223	Atherosclerosis of native arteries of extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.228	Atherosclerosis of native arteries of extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.229	Atherosclerosis of native arteries of extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.23	Atherosclerosis of native arteries of right leg with ulceration	Diagnosis	ICD-10-CM
I70.231	Atherosclerosis of native arteries of right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.232	Atherosclerosis of native arteries of right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.233	Atherosclerosis of native arteries of right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.234	Atherosclerosis of native arteries of right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.235	Atherosclerosis of native arteries of right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.238	Atherosclerosis of native arteries of right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.239	Atherosclerosis of native arteries of right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.24	Atherosclerosis of native arteries of left leg with ulceration	Diagnosis	ICD-10-CM
I70.241	Atherosclerosis of native arteries of left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.242	Atherosclerosis of native arteries of left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.243	Atherosclerosis of native arteries of left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.244	Atherosclerosis of native arteries of left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.245	Atherosclerosis of native arteries of left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.248	Atherosclerosis of native arteries of left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.249	Atherosclerosis of native arteries of left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.25	Atherosclerosis of native arteries of other extremities with ulceration	Diagnosis	ICD-10-CM
I70.26	Atherosclerosis of native arteries of extremities with gangrene	Diagnosis	ICD-10-CM
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.268	Atherosclerosis of native arteries of extremities with gangrene, other extremity	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.269	Atherosclerosis of native arteries of extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.29	Other atherosclerosis of native arteries of extremities	Diagnosis	ICD-10-CM
I70.291	Other atherosclerosis of native arteries of extremities, right leg	Diagnosis	ICD-10-CM
I70.292	Other atherosclerosis of native arteries of extremities, left leg	Diagnosis	ICD-10-CM
I70.293	Other atherosclerosis of native arteries of extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.298	Other atherosclerosis of native arteries of extremities, other extremity	Diagnosis	ICD-10-CM
I70.299	Other atherosclerosis of native arteries of extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.3	Atherosclerosis of unspecified type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.30	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.301	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.302	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.303	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.308	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.309	Unspecified atherosclerosis of unspecified type of bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.31	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.311	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.312	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.313	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.318	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.319	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.32	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.321	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.322	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.323	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.328	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.329	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.33	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.331	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.332	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.333	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.334	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.335	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.338	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.339	Atherosclerosis of unspecified type of bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.34	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.341	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.342	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.343	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.344	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.345	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.348	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.349	Atherosclerosis of unspecified type of bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.35	Atherosclerosis of unspecified type of bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.36	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.361	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.362	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.363	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.368	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.369	Atherosclerosis of unspecified type of bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.39	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.391	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.392	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.393	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.398	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.399	Other atherosclerosis of unspecified type of bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.4	Atherosclerosis of autologous vein bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.40	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.401	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.402	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.403	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.408	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.409	Unspecified atherosclerosis of autologous vein bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.41	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.411	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.412	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.413	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.418	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.419	Atherosclerosis of autologous vein bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.42	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.421	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.422	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.423	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.428	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.429	Atherosclerosis of autologous vein bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.43	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.431	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.432	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.433	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.434	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.435	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.438	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.439	Atherosclerosis of autologous vein bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.44	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.441	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.442	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.443	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.444	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.445	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.448	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.449	Atherosclerosis of autologous vein bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.45	Atherosclerosis of autologous vein bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.46	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.461	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.462	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.463	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.468	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.469	Atherosclerosis of autologous vein bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.49	Other atherosclerosis of autologous vein bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.491	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.492	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.493	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.498	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.499	Other atherosclerosis of autologous vein bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.5	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.50	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.501	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.502	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.503	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.508	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.509	Unspecified atherosclerosis of nonautologous biological bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.51	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities intermittent claudication	Diagnosis	ICD-10-CM
I70.511	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.512	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.513	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.518	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.519	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.52	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.521	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.522	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.523	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.528	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.529	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.53	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.531	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.532	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.533	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.534	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.535	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.538	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.539	Atherosclerosis of nonautologous biological bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.54	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.541	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.542	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.543	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.544	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.545	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.548	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.549	Atherosclerosis of nonautologous biological bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.55	Atherosclerosis of nonautologous biological bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.56	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.561	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.562	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.563	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.568	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.569	Atherosclerosis of nonautologous biological bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.59	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.591	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.592	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.593	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.598	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.599	Other atherosclerosis of nonautologous biological bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.6	Atherosclerosis of nonbiological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.60	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.601	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.602	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.603	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.608	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.609	Unspecified atherosclerosis of nonbiological bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.61	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.611	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.612	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.613	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.618	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM
I70.619	Atherosclerosis of nonbiological bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.62	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.621	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.622	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.623	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.628	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.629	Atherosclerosis of nonbiological bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.63	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.631	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.632	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.633	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.634	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.635	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.638	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.639	Atherosclerosis of nonbiological bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.64	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.641	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.642	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.643	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.644	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.645	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.648	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.649	Atherosclerosis of nonbiological bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.65	Atherosclerosis of nonbiological bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.66	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.661	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.662	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
I70.663	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.668	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.669	Atherosclerosis of nonbiological bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.69	Other atherosclerosis of nonbiological bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.691	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.692	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.693	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.698	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.699	Other atherosclerosis of nonbiological bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.7	Atherosclerosis of other type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.70	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.701	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.702	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.703	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.708	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.709	Unspecified atherosclerosis of other type of bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.71	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication	Diagnosis	ICD-10-CM
I70.711	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, right leg	Diagnosis	ICD-10-CM
I70.712	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, left leg	Diagnosis	ICD-10-CM
I70.713	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, bilateral legs	Diagnosis	ICD-10-CM
I70.718	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, other extremity	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.719	Atherosclerosis of other type of bypass graft(s) of the extremities with intermittent claudication, unspecified extremity	Diagnosis	ICD-10-CM
I70.72	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain	Diagnosis	ICD-10-CM
I70.721	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, right leg	Diagnosis	ICD-10-CM
I70.722	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, left leg	Diagnosis	ICD-10-CM
I70.723	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, bilateral legs	Diagnosis	ICD-10-CM
I70.728	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, other extremity	Diagnosis	ICD-10-CM
I70.729	Atherosclerosis of other type of bypass graft(s) of the extremities with rest pain, unspecified extremity	Diagnosis	ICD-10-CM
I70.73	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration	Diagnosis	ICD-10-CM
I70.731	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.732	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.733	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.734	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.735	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of foot	Diagnosis	ICD-10-CM
I70.738	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.739	Atherosclerosis of other type of bypass graft(s) of the right leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.74	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration	Diagnosis	ICD-10-CM
I70.741	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of thigh	Diagnosis	ICD-10-CM
I70.742	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of calf	Diagnosis	ICD-10-CM
I70.743	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of ankle	Diagnosis	ICD-10-CM
I70.744	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of heel and midfoot	Diagnosis	ICD-10-CM
I70.745	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of foot	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I70.748	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of other part of lower leg	Diagnosis	ICD-10-CM
I70.749	Atherosclerosis of other type of bypass graft(s) of the left leg with ulceration of unspecified site	Diagnosis	ICD-10-CM
I70.75	Atherosclerosis of other type of bypass graft(s) of other extremity with ulceration	Diagnosis	ICD-10-CM
I70.76	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene	Diagnosis	ICD-10-CM
I70.761	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.762	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.763	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.768	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.769	Atherosclerosis of other type of bypass graft(s) of the extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I70.79	Other atherosclerosis of other type of bypass graft(s) of the extremities	Diagnosis	ICD-10-CM
I70.791	Other atherosclerosis of other type of bypass graft(s) of the extremities, right leg	Diagnosis	ICD-10-CM
I70.792	Other atherosclerosis of other type of bypass graft(s) of the extremities, left leg	Diagnosis	ICD-10-CM
I70.793	Other atherosclerosis of other type of bypass graft(s) of the extremities, bilateral legs	Diagnosis	ICD-10-CM
I70.798	Other atherosclerosis of other type of bypass graft(s) of the extremities, other extremity	Diagnosis	ICD-10-CM
I70.799	Other atherosclerosis of other type of bypass graft(s) of the extremities, unspecified extremity	Diagnosis	ICD-10-CM
I70.8	Atherosclerosis of other arteries	Diagnosis	ICD-10-CM
I70.9	Other and unspecified atherosclerosis	Diagnosis	ICD-10-CM
I70.90	Unspecified atherosclerosis	Diagnosis	ICD-10-CM
I70.91	Generalized atherosclerosis	Diagnosis	ICD-10-CM
I70.92	Chronic total occlusion of artery of the extremities	Diagnosis	ICD-10-CM
I71	Aortic aneurysm and dissection	Diagnosis	ICD-10-CM
I71.0	Dissection of aorta	Diagnosis	ICD-10-CM
I71.00	Dissection of unspecified site of aorta	Diagnosis	ICD-10-CM
I71.01	Dissection of thoracic aorta	Diagnosis	ICD-10-CM
I71.02	Dissection of abdominal aorta	Diagnosis	ICD-10-CM
I71.03	Dissection of thoracoabdominal aorta	Diagnosis	ICD-10-CM
I71.1	Thoracic aortic aneurysm, ruptured	Diagnosis	ICD-10-CM
I71.2	Thoracic aortic aneurysm, without rupture	Diagnosis	ICD-10-CM
I71.3	Abdominal aortic aneurysm, ruptured	Diagnosis	ICD-10-CM
I71.4	Abdominal aortic aneurysm, without rupture	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I71.5	Thoracoabdominal aortic aneurysm, ruptured	Diagnosis	ICD-10-CM
I71.6	Thoracoabdominal aortic aneurysm, without rupture	Diagnosis	ICD-10-CM
I71.8	Aortic aneurysm of unspecified site, ruptured	Diagnosis	ICD-10-CM
I71.9	Aortic aneurysm of unspecified site, without rupture	Diagnosis	ICD-10-CM
I73.1	Thromboangiitis obliterans [Buerger's disease]	Diagnosis	ICD-10-CM
I73.8	Other specified peripheral vascular diseases	Diagnosis	ICD-10-CM
I73.81	Erythromelalgia	Diagnosis	ICD-10-CM
I73.89	Other specified peripheral vascular diseases	Diagnosis	ICD-10-CM
I73.9	Peripheral vascular disease, unspecified	Diagnosis	ICD-10-CM
I77.1	Stricture of artery	Diagnosis	ICD-10-CM
I77.71	Dissection of carotid artery	Diagnosis	ICD-10-CM
I77.72	Dissection of iliac artery	Diagnosis	ICD-10-CM
I77.73	Dissection of renal artery	Diagnosis	ICD-10-CM
I77.74	Dissection of vertebral artery	Diagnosis	ICD-10-CM
I77.79	Dissection of other specified artery	Diagnosis	ICD-10-CM
I79	Disorders of arteries, arterioles and capillaries in diseases classified elsewhere	Diagnosis	ICD-10-CM
I79.0	Aneurysm of aorta in diseases classified elsewhere	Diagnosis	ICD-10-CM
I79.1	Aortitis in diseases classified elsewhere	Diagnosis	ICD-10-CM
I79.8	Other disorders of arteries, arterioles and capillaries in diseases classified elsewhere	Diagnosis	ICD-10-CM
K55.1	Chronic vascular disorders of intestine	Diagnosis	ICD-10-CM
K55.8	Other vascular disorders of intestine	Diagnosis	ICD-10-CM
K55.9	Vascular disorder of intestine, unspecified	Diagnosis	ICD-10-CM
Z95.82	Presence of other vascular implants and grafts	Diagnosis	ICD-10-CM
Z95.820	Peripheral vascular angioplasty status with implants and grafts	Diagnosis	ICD-10-CM
Z95.828	Presence of other vascular implants and grafts	Diagnosis	ICD-10-CM
Z95.9	Presence of cardiac and vascular implant and graft, unspecified	Diagnosis	ICD-10-CM
Psychosis			
F20	Schizophrenia	Diagnosis	ICD-10-CM
F20.0	Paranoid schizophrenia	Diagnosis	ICD-10-CM
F20.1	Disorganized schizophrenia	Diagnosis	ICD-10-CM
F20.2	Catatonic schizophrenia	Diagnosis	ICD-10-CM
F20.3	Undifferentiated schizophrenia	Diagnosis	ICD-10-CM
F20.5	Residual schizophrenia	Diagnosis	ICD-10-CM
F20.8	Other schizophrenia	Diagnosis	ICD-10-CM
F20.81	Schizophreniform disorder	Diagnosis	ICD-10-CM
F20.89	Other schizophrenia	Diagnosis	ICD-10-CM
F20.9	Schizophrenia, unspecified	Diagnosis	ICD-10-CM
F22	Delusional disorders	Diagnosis	ICD-10-CM
F23	Brief psychotic disorder	Diagnosis	ICD-10-CM
F24	Shared psychotic disorder	Diagnosis	ICD-10-CM
F25	Schizoaffective disorders	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F25.0	Schizoaffective disorder, bipolar type	Diagnosis	ICD-10-CM
F25.1	Schizoaffective disorder, depressive type	Diagnosis	ICD-10-CM
F25.8	Other schizoaffective disorders	Diagnosis	ICD-10-CM
F25.9	Schizoaffective disorder, unspecified	Diagnosis	ICD-10-CM
F28	Other psychotic disorder not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F29	Unspecified psychosis not due to a substance or known physiological condition	Diagnosis	ICD-10-CM
F30	Manic episode	Diagnosis	ICD-10-CM
F30.1	Manic episode without psychotic symptoms	Diagnosis	ICD-10-CM
F30.10	Manic episode without psychotic symptoms, unspecified	Diagnosis	ICD-10-CM
F30.11	Manic episode without psychotic symptoms, mild	Diagnosis	ICD-10-CM
F30.12	Manic episode without psychotic symptoms, moderate	Diagnosis	ICD-10-CM
F30.13	Manic episode, severe, without psychotic symptoms	Diagnosis	ICD-10-CM
F30.2	Manic episode, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F30.3	Manic episode in partial remission	Diagnosis	ICD-10-CM
F30.4	Manic episode in full remission	Diagnosis	ICD-10-CM
F30.8	Other manic episodes	Diagnosis	ICD-10-CM
F30.9	Manic episode, unspecified	Diagnosis	ICD-10-CM
F31	Bipolar disorder	Diagnosis	ICD-10-CM
F31.0	Bipolar disorder, current episode hypomanic	Diagnosis	ICD-10-CM
F31.1	Bipolar disorder, current episode manic without psychotic features	Diagnosis	ICD-10-CM
F31.10	Bipolar disorder, current episode manic without psychotic features, unspecified	Diagnosis	ICD-10-CM
F31.11	Bipolar disorder, current episode manic without psychotic features, mild	Diagnosis	ICD-10-CM
F31.12	Bipolar disorder, current episode manic without psychotic features, moderate	Diagnosis	ICD-10-CM
F31.13	Bipolar disorder, current episode manic without psychotic features, severe	Diagnosis	ICD-10-CM
F31.2	Bipolar disorder, current episode manic severe with psychotic features	Diagnosis	ICD-10-CM
F31.3	Bipolar disorder, current episode depressed, mild or moderate severity	Diagnosis	ICD-10-CM
F31.30	Bipolar disorder, current episode depressed, mild or moderate severity, unspecified	Diagnosis	ICD-10-CM
F31.31	Bipolar disorder, current episode depressed, mild	Diagnosis	ICD-10-CM
F31.32	Bipolar disorder, current episode depressed, moderate	Diagnosis	ICD-10-CM
F31.4	Bipolar disorder, current episode depressed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.5	Bipolar disorder, current episode depressed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.6	Bipolar disorder, current episode mixed	Diagnosis	ICD-10-CM
F31.60	Bipolar disorder, current episode mixed, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F31.61	Bipolar disorder, current episode mixed, mild	Diagnosis	ICD-10-CM
F31.62	Bipolar disorder, current episode mixed, moderate	Diagnosis	ICD-10-CM
F31.63	Bipolar disorder, current episode mixed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.64	Bipolar disorder, current episode mixed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.7	Bipolar disorder, currently in remission	Diagnosis	ICD-10-CM
F31.70	Bipolar disorder, currently in remission, most recent episode unspecified	Diagnosis	ICD-10-CM
F31.71	Bipolar disorder, in partial remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.72	Bipolar disorder, in full remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.73	Bipolar disorder, in partial remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.74	Bipolar disorder, in full remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.75	Bipolar disorder, in partial remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.76	Bipolar disorder, in full remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.77	Bipolar disorder, in partial remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.78	Bipolar disorder, in full remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.8	Other bipolar disorders	Diagnosis	ICD-10-CM
F31.81	Bipolar II disorder	Diagnosis	ICD-10-CM
F31.89	Other bipolar disorder	Diagnosis	ICD-10-CM
F31.9	Bipolar disorder, unspecified	Diagnosis	ICD-10-CM
F32	Depressive episode	Diagnosis	ICD-10-CM
F32.0	Major depressive disorder, single episode, mild	Diagnosis	ICD-10-CM
F32.1	Major depressive disorder, single episode, moderate	Diagnosis	ICD-10-CM
F32.2	Major depressive disorder, single episode, severe without psychotic features	Diagnosis	ICD-10-CM
F32.3	Major depressive disorder, single episode, severe with psychotic features	Diagnosis	ICD-10-CM
F32.4	Major depressive disorder, single episode, in partial remission	Diagnosis	ICD-10-CM
F32.5	Major depressive disorder, single episode, in full remission	Diagnosis	ICD-10-CM
F32.8	Other depressive episodes	Diagnosis	ICD-10-CM
F32.81	Premenstrual dysphoric disorder	Diagnosis	ICD-10-CM
F32.89	Other specified depressive episodes	Diagnosis	ICD-10-CM
F32.9	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-10-CM
F32.A	Depression, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F33	Major depressive disorder, recurrent	Diagnosis	ICD-10-CM
F33.0	Major depressive disorder, recurrent, mild	Diagnosis	ICD-10-CM
F33.1	Major depressive disorder, recurrent, moderate	Diagnosis	ICD-10-CM
F33.2	Major depressive disorder, recurrent severe without psychotic features	Diagnosis	ICD-10-CM
F33.3	Major depressive disorder, recurrent, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F33.4	Major depressive disorder, recurrent, in remission	Diagnosis	ICD-10-CM
F33.40	Major depressive disorder, recurrent, in remission, unspecified	Diagnosis	ICD-10-CM
F33.41	Major depressive disorder, recurrent, in partial remission	Diagnosis	ICD-10-CM
F33.42	Major depressive disorder, recurrent, in full remission	Diagnosis	ICD-10-CM
F33.8	Other recurrent depressive disorders	Diagnosis	ICD-10-CM
F33.9	Major depressive disorder, recurrent, unspecified	Diagnosis	ICD-10-CM
F34.8	Other persistent mood [affective] disorders	Diagnosis	ICD-10-CM
F34.81	Disruptive mood dysregulation disorder	Diagnosis	ICD-10-CM
F34.89	Other specified persistent mood disorders	Diagnosis	ICD-10-CM
F34.9	Persistent mood [affective] disorder, unspecified	Diagnosis	ICD-10-CM
F39	Unspecified mood [affective] disorder	Diagnosis	ICD-10-CM
F44.89	Other dissociative and conversion disorders	Diagnosis	ICD-10-CM
F84.3	Other childhood disintegrative disorder	Diagnosis	ICD-10-CM
Pulmonary Circulation Disorders			
I26	Pulmonary embolism	Diagnosis	ICD-10-CM
I26.0	Pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.01	Septic pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.02	Saddle embolus of pulmonary artery with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.09	Other pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.9	Pulmonary embolism without acute cor pulmonale	Diagnosis	ICD-10-CM
I26.90	Septic pulmonary embolism without acute cor pulmonale	Diagnosis	ICD-10-CM
I26.92	Saddle embolus of pulmonary artery without acute cor pulmonale	Diagnosis	ICD-10-CM
I26.93	Single subsegmental pulmonary embolism without acute cor pulmonale	Diagnosis	ICD-10-CM
I26.94	Multiple subsegmental pulmonary emboli without acute cor pulmonale	Diagnosis	ICD-10-CM
I26.99	Other pulmonary embolism without acute cor pulmonale	Diagnosis	ICD-10-CM
I27	Other pulmonary heart diseases	Diagnosis	ICD-10-CM
I27.0	Primary pulmonary hypertension	Diagnosis	ICD-10-CM
I27.1	Kyphoscoliotic heart disease	Diagnosis	ICD-10-CM
I27.2	Other secondary pulmonary hypertension	Diagnosis	ICD-10-CM
I27.20	Pulmonary hypertension, unspecified	Diagnosis	ICD-10-CM
I27.21	Secondary pulmonary arterial hypertension	Diagnosis	ICD-10-CM
I27.22	Pulmonary hypertension due to left heart disease	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
I27.23	Pulmonary hypertension due to lung diseases and hypoxia	Diagnosis	ICD-10-CM
I27.24	Chronic thromboembolic pulmonary hypertension	Diagnosis	ICD-10-CM
I27.29	Other secondary pulmonary hypertension	Diagnosis	ICD-10-CM
I27.8	Other specified pulmonary heart diseases	Diagnosis	ICD-10-CM
I27.81	Cor pulmonale (chronic)	Diagnosis	ICD-10-CM
I27.82	Chronic pulmonary embolism	Diagnosis	ICD-10-CM
I27.83	Eisenmenger's syndrome	Diagnosis	ICD-10-CM
I27.89	Other specified pulmonary heart diseases	Diagnosis	ICD-10-CM
I27.9	Pulmonary heart disease, unspecified	Diagnosis	ICD-10-CM
I28.0	Arteriovenous fistula of pulmonary vessels	Diagnosis	ICD-10-CM
I28.8	Other diseases of pulmonary vessels	Diagnosis	ICD-10-CM
I28.9	Disease of pulmonary vessels, unspecified	Diagnosis	ICD-10-CM
HIV/AIDS			
042	Human immunodeficiency virus [HIV]	Diagnosis	ICD-9-CM
B20	Human immunodeficiency virus [HIV] disease	Diagnosis	ICD-10-CM
Hypertension - Combined Comorbidity Score Definition			
I10	Essential (primary) hypertension	Diagnosis	ICD-10-CM
I11	Hypertensive heart disease	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	Hypertensive chronic kidney disease	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	Hypertensive heart and 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
I13.1	Hypertensive heart and chronic kidney disease without heart failure	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	Secondary hypertension	Diagnosis	ICD-10-CM
I15.0	Renovascular hypertension	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
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
N26.2	Page kidney	Diagnosis	ICD-10-CM
Alcohol or Drug Abuse			
E52	Niacin deficiency [pellagra]	Diagnosis	ICD-10-CM
F10	Alcohol related disorders	Diagnosis	ICD-10-CM
F10.1	Alcohol abuse	Diagnosis	ICD-10-CM
F10.10	Alcohol abuse, uncomplicated	Diagnosis	ICD-10-CM
F10.11	Alcohol abuse, in remission	Diagnosis	ICD-10-CM
F10.12	Alcohol abuse with intoxication	Diagnosis	ICD-10-CM
F10.120	Alcohol abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.121	Alcohol abuse with intoxication delirium	Diagnosis	ICD-10-CM
F10.129	Alcohol abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.13	Alcohol abuse, with withdrawal	Diagnosis	ICD-10-CM
F10.130	Alcohol abuse with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.131	Alcohol abuse with withdrawal delirium	Diagnosis	ICD-10-CM
F10.132	Alcohol abuse with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.139	Alcohol abuse with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.14	Alcohol abuse with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.15	Alcohol abuse with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.150	Alcohol abuse with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.151	Alcohol abuse with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.159	Alcohol abuse with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.18	Alcohol abuse with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.180	Alcohol abuse with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.181	Alcohol abuse with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.182	Alcohol abuse with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.188	Alcohol abuse with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.19	Alcohol abuse with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.2	Alcohol dependence	Diagnosis	ICD-10-CM
F10.20	Alcohol dependence, uncomplicated	Diagnosis	ICD-10-CM
F10.21	Alcohol dependence, in remission	Diagnosis	ICD-10-CM
F10.22	Alcohol dependence with intoxication	Diagnosis	ICD-10-CM
F10.220	Alcohol dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.221	Alcohol dependence with intoxication delirium	Diagnosis	ICD-10-CM
F10.229	Alcohol dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.23	Alcohol dependence with withdrawal	Diagnosis	ICD-10-CM
F10.230	Alcohol dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.231	Alcohol dependence with withdrawal delirium	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F10.232	Alcohol dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.239	Alcohol dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.24	Alcohol dependence with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.25	Alcohol dependence with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.250	Alcohol dependence with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.251	Alcohol dependence with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.259	Alcohol dependence with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.26	Alcohol dependence with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F10.27	Alcohol dependence with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.28	Alcohol dependence with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.280	Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.281	Alcohol dependence with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.282	Alcohol dependence with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.288	Alcohol dependence with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.29	Alcohol dependence with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.9	Alcohol use, unspecified	Diagnosis	ICD-10-CM
F10.92	Alcohol use, unspecified with intoxication	Diagnosis	ICD-10-CM
F10.920	Alcohol use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.921	Alcohol use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F10.929	Alcohol use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.93	Alcohol use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F10.930	Alcohol use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.931	Alcohol use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F10.932	Alcohol use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.939	Alcohol use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.94	Alcohol use, unspecified with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.95	Alcohol use, unspecified with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.950	Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.951	Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F10.959	Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.96	Alcohol use, unspecified with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F10.97	Alcohol use, unspecified with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.98	Alcohol use, unspecified with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.980	Alcohol use, unspecified with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.981	Alcohol use, unspecified with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.982	Alcohol use, unspecified with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.988	Alcohol use, unspecified with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.99	Alcohol use, unspecified with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F11.10	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
F11.11	Opioid abuse, in remission	Diagnosis	ICD-10-CM
F11.120	Opioid abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.121	Opioid abuse with intoxication delirium	Diagnosis	ICD-10-CM
F11.122	Opioid abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.129	Opioid abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.13	Opioid abuse with withdrawal	Diagnosis	ICD-10-CM
F11.14	Opioid abuse with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.181	Opioid abuse with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.182	Opioid abuse with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.188	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.19	Opioid abuse with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.20	Opioid dependence, uncomplicated	Diagnosis	ICD-10-CM
F11.220	Opioid dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.221	Opioid dependence with intoxication delirium	Diagnosis	ICD-10-CM
F11.222	Opioid dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.229	Opioid dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.23	Opioid dependence with withdrawal	Diagnosis	ICD-10-CM
F11.24	Opioid dependence with opioid-induced mood disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.281	Opioid dependence with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.282	Opioid dependence with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.288	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.29	Opioid dependence with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.90	Opioid use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F11.920	Opioid use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.921	Opioid use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.929	Opioid use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.93	Opioid use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F11.94	Opioid use, unspecified with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.982	Opioid use, unspecified with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.988	Opioid use, unspecified with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F12.10	Cannabis abuse, uncomplicated	Diagnosis	ICD-10-CM
F12.11	Cannabis abuse, in remission	Diagnosis	ICD-10-CM
F12.120	Cannabis abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.121	Cannabis abuse with intoxication delirium	Diagnosis	ICD-10-CM
F12.122	Cannabis abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.129	Cannabis abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.13	Cannabis abuse with withdrawal	Diagnosis	ICD-10-CM
F12.150	Cannabis abuse with psychotic disorder with delusions	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F12.151	Cannabis abuse with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.159	Cannabis abuse with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.180	Cannabis abuse with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.188	Cannabis abuse with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.19	Cannabis abuse with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.20	Cannabis dependence, uncomplicated	Diagnosis	ICD-10-CM
F12.220	Cannabis dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.221	Cannabis dependence with intoxication delirium	Diagnosis	ICD-10-CM
F12.222	Cannabis dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.229	Cannabis dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.250	Cannabis dependence with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.251	Cannabis dependence with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.259	Cannabis dependence with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.280	Cannabis dependence with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.288	Cannabis dependence with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.29	Cannabis dependence with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.90	Cannabis use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F12.920	Cannabis use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.921	Cannabis use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F12.922	Cannabis use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.929	Cannabis use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.950	Cannabis use, unspecified with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.951	Cannabis use, unspecified with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.959	Cannabis use, unspecified with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.980	Cannabis use, unspecified with anxiety disorder	Diagnosis	ICD-10-CM
F12.988	Cannabis use, unspecified with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.99	Cannabis use, unspecified with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F13.10	Sedative, hypnotic or anxiolytic abuse, uncomplicated	Diagnosis	ICD-10-CM
F13.11	Sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F13.120	Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.121	Sedative, hypnotic or anxiolytic abuse with intoxication delirium	Diagnosis	ICD-10-CM
F13.129	Sedative, hypnotic or anxiolytic abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.130	Sedative, hypnotic or anxiolytic abuse with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.131	Sedative, hypnotic or anxiolytic abuse with withdrawal delirium	Diagnosis	ICD-10-CM
F13.132	Sedative, hypnotic or anxiolytic abuse with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F13.139	Sedative, hypnotic or anxiolytic abuse with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.14	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.150	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.151	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.159	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.180	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.181	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.182	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.188	Sedative, hypnotic or anxiolytic abuse with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.19	Sedative, hypnotic or anxiolytic abuse with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.20	Sedative, hypnotic or anxiolytic dependence, uncomplicated	Diagnosis	ICD-10-CM
F13.220	Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.221	Sedative, hypnotic or anxiolytic dependence with intoxication delirium	Diagnosis	ICD-10-CM
F13.229	Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F13.230	Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.231	Sedative, hypnotic or anxiolytic dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F13.232	Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F13.239	Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.24	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.250	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.251	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.259	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.26	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F13.27	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.280	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.281	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.282	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.288	Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.29	Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.90	Sedative, hypnotic, or anxiolytic use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F13.920	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.921	Sedative, hypnotic or anxiolytic use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F13.929	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.930	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.931	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F13.932	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal with perceptual disturbances	Diagnosis	ICD-10-CM
F13.939	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.94	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.950	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.951	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.959	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.96	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F13.97	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.980	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.981	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.982	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.988	Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.99	Sedative, hypnotic or anxiolytic use, unspecified with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F14.10	Cocaine abuse, uncomplicated	Diagnosis	ICD-10-CM
F14.11	Cocaine abuse, in remission	Diagnosis	ICD-10-CM
F14.120	Cocaine abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.121	Cocaine abuse with intoxication with delirium	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F14.122	Cocaine abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.129	Cocaine abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.13	Cocaine abuse, unspecified with withdrawal	Diagnosis	ICD-10-CM
F14.14	Cocaine abuse with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.150	Cocaine abuse with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.151	Cocaine abuse with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.159	Cocaine abuse with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.180	Cocaine abuse with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.181	Cocaine abuse with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.182	Cocaine abuse with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.188	Cocaine abuse with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.19	Cocaine abuse with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.20	Cocaine dependence, uncomplicated	Diagnosis	ICD-10-CM
F14.220	Cocaine dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.221	Cocaine dependence with intoxication delirium	Diagnosis	ICD-10-CM
F14.222	Cocaine dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.229	Cocaine dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.23	Cocaine dependence with withdrawal	Diagnosis	ICD-10-CM
F14.24	Cocaine dependence with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.250	Cocaine dependence with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.251	Cocaine dependence with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.259	Cocaine dependence with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.280	Cocaine dependence with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.281	Cocaine dependence with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.282	Cocaine dependence with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.288	Cocaine dependence with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.29	Cocaine dependence with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.90	Cocaine use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F14.920	Cocaine use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.921	Cocaine use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F14.922	Cocaine use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.929	Cocaine use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.93	Cocaine use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F14.94	Cocaine use, unspecified with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.950	Cocaine use, unspecified with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.951	Cocaine use, unspecified with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.959	Cocaine use, unspecified with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.980	Cocaine use, unspecified with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.981	Cocaine use, unspecified with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.982	Cocaine use, unspecified with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.988	Cocaine use, unspecified with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.99	Cocaine use, unspecified with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F15.10	Other stimulant abuse, uncomplicated	Diagnosis	ICD-10-CM
F15.11	Other stimulant abuse, in remission	Diagnosis	ICD-10-CM
F15.120	Other stimulant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.121	Other stimulant abuse with intoxication delirium	Diagnosis	ICD-10-CM
F15.122	Other stimulant abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.129	Other stimulant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.13	Other stimulant abuse with withdrawal	Diagnosis	ICD-10-CM
F15.14	Other stimulant abuse with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.150	Other stimulant abuse with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.151	Other stimulant abuse with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.159	Other stimulant abuse with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.180	Other stimulant abuse with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.181	Other stimulant abuse with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.182	Other stimulant abuse with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F15.188	Other stimulant abuse with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.19	Other stimulant abuse with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.20	Other stimulant dependence, uncomplicated	Diagnosis	ICD-10-CM
F15.220	Other stimulant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.221	Other stimulant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F15.222	Other stimulant dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.229	Other stimulant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.23	Other stimulant dependence with withdrawal	Diagnosis	ICD-10-CM
F15.24	Other stimulant dependence with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.250	Other stimulant dependence with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.251	Other stimulant dependence with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.259	Other stimulant dependence with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.280	Other stimulant dependence with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.281	Other stimulant dependence with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.282	Other stimulant dependence with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.288	Other stimulant dependence with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.29	Other stimulant dependence with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.90	Other stimulant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F15.920	Other stimulant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.921	Other stimulant use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F15.922	Other stimulant use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.929	Other stimulant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.93	Other stimulant use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F15.94	Other stimulant use, unspecified with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.950	Other stimulant use, unspecified with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F15.951	Other stimulant use, unspecified with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.959	Other stimulant use, unspecified with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.980	Other stimulant use, unspecified with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.981	Other stimulant use, unspecified with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.982	Other stimulant use, unspecified with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.988	Other stimulant use, unspecified with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.99	Other stimulant use, unspecified with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F16.10	Hallucinogen abuse, uncomplicated	Diagnosis	ICD-10-CM
F16.11	Hallucinogen abuse, in remission	Diagnosis	ICD-10-CM
F16.120	Hallucinogen abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.121	Hallucinogen abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F16.122	Hallucinogen abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F16.129	Hallucinogen abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.14	Hallucinogen abuse with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.150	Hallucinogen abuse with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.151	Hallucinogen abuse with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.159	Hallucinogen abuse with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.180	Hallucinogen abuse with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.183	Hallucinogen abuse with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.188	Hallucinogen abuse with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.19	Hallucinogen abuse with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.20	Hallucinogen dependence, uncomplicated	Diagnosis	ICD-10-CM
F16.220	Hallucinogen dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.221	Hallucinogen dependence with intoxication with delirium	Diagnosis	ICD-10-CM
F16.229	Hallucinogen dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.24	Hallucinogen dependence with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F16.250	Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.251	Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.259	Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.280	Hallucinogen dependence with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.283	Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.288	Hallucinogen dependence with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.29	Hallucinogen dependence with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.90	Hallucinogen use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F16.920	Hallucinogen use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.921	Hallucinogen use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F16.929	Hallucinogen use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.94	Hallucinogen use, unspecified with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.950	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.951	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.959	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.980	Hallucinogen use, unspecified with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.983	Hallucinogen use, unspecified with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.988	Hallucinogen use, unspecified with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.99	Hallucinogen use, unspecified with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F17.203	Nicotine dependence unspecified, with withdrawal	Diagnosis	ICD-10-CM
F17.208	Nicotine dependence, unspecified, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.209	Nicotine dependence, unspecified, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.213	Nicotine dependence, cigarettes, with withdrawal	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F17.218	Nicotine dependence, cigarettes, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.219	Nicotine dependence, cigarettes, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.223	Nicotine dependence, chewing tobacco, with withdrawal	Diagnosis	ICD-10-CM
F17.228	Nicotine dependence, chewing tobacco, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.229	Nicotine dependence, chewing tobacco, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.293	Nicotine dependence, other tobacco product, with withdrawal	Diagnosis	ICD-10-CM
F17.298	Nicotine dependence, other tobacco product, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.299	Nicotine dependence, other tobacco product, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F18.10	Inhalant abuse, uncomplicated	Diagnosis	ICD-10-CM
F18.11	Inhalant abuse, in remission	Diagnosis	ICD-10-CM
F18.120	Inhalant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.121	Inhalant abuse with intoxication delirium	Diagnosis	ICD-10-CM
F18.129	Inhalant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.14	Inhalant abuse with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.150	Inhalant abuse with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.151	Inhalant abuse with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.159	Inhalant abuse with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.17	Inhalant abuse with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18.180	Inhalant abuse with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.188	Inhalant abuse with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.19	Inhalant abuse with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.20	Inhalant dependence, uncomplicated	Diagnosis	ICD-10-CM
F18.220	Inhalant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.221	Inhalant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F18.229	Inhalant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.24	Inhalant dependence with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.250	Inhalant dependence with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.251	Inhalant dependence with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.259	Inhalant dependence with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.27	Inhalant dependence with inhalant-induced dementia	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
F18.280	Inhalant dependence with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.288	Inhalant dependence with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.29	Inhalant dependence with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.90	Inhalant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F18.920	Inhalant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.921	Inhalant use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F18.929	Inhalant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.94	Inhalant use, unspecified with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.950	Inhalant use, unspecified with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.951	Inhalant use, unspecified with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.959	Inhalant use, unspecified with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.97	Inhalant use, unspecified with inhalant-induced persisting dementia	Diagnosis	ICD-10-CM
F18.980	Inhalant use, unspecified with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.988	Inhalant use, unspecified with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.99	Inhalant use, unspecified with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F19.10	Other psychoactive substance abuse, uncomplicated	Diagnosis	ICD-10-CM
F19.11	Other psychoactive substance abuse, in remission	Diagnosis	ICD-10-CM
F19.120	Other psychoactive substance abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.121	Other psychoactive substance abuse with intoxication delirium	Diagnosis	ICD-10-CM
F19.122	Other psychoactive substance abuse with intoxication with perceptual disturbances	Diagnosis	ICD-10-CM
F19.129	Other psychoactive substance abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.130	Other psychoactive substance abuse with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.131	Other psychoactive substance abuse with withdrawal delirium	Diagnosis	ICD-10-CM
F19.132	Other psychoactive substance abuse with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.139	Other psychoactive substance abuse with withdrawal, unspecified	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F19.14	Other psychoactive substance abuse with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.150	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.151	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.159	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.16	Other psychoactive substance abuse with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.17	Other psychoactive substance abuse with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.180	Other psychoactive substance abuse with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.181	Other psychoactive substance abuse with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.182	Other psychoactive substance abuse with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.188	Other psychoactive substance abuse with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.19	Other psychoactive substance abuse with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.20	Other psychoactive substance dependence, uncomplicated	Diagnosis	ICD-10-CM
F19.21	Other psychoactive substance dependence, in remission	Diagnosis	ICD-10-CM
F19.220	Other psychoactive substance dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.221	Other psychoactive substance dependence with intoxication delirium	Diagnosis	ICD-10-CM
F19.222	Other psychoactive substance dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.229	Other psychoactive substance dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.230	Other psychoactive substance dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.231	Other psychoactive substance dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F19.232	Other psychoactive substance dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.239	Other psychoactive substance dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.24	Other psychoactive substance dependence with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F19.250	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.251	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.259	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.26	Other psychoactive substance dependence with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.27	Other psychoactive substance dependence with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.280	Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.281	Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.282	Other psychoactive substance dependence with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.288	Other psychoactive substance dependence with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.29	Other psychoactive substance dependence with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.90	Other psychoactive substance use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F19.920	Other psychoactive substance use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.921	Other psychoactive substance use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F19.922	Other psychoactive substance use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.929	Other psychoactive substance use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.930	Other psychoactive substance use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.931	Other psychoactive substance use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F19.932	Other psychoactive substance use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.939	Other psychoactive substance use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.94	Other psychoactive substance use, unspecified with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F19.950	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.951	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.959	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.96	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F19.97	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.980	Other psychoactive substance use, unspecified with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.981	Other psychoactive substance use, unspecified with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.982	Other psychoactive substance use, unspecified with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.988	Other psychoactive substance use, unspecified with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.99	Other psychoactive substance use, unspecified with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F55.0	Abuse of antacids	Diagnosis	ICD-10-CM
F55.1	Abuse of herbal or folk remedies	Diagnosis	ICD-10-CM
F55.2	Abuse of laxatives	Diagnosis	ICD-10-CM
F55.3	Abuse of steroids or hormones	Diagnosis	ICD-10-CM
F55.4	Abuse of vitamins	Diagnosis	ICD-10-CM
F55.8	Abuse of other non-psychoactive substances	Diagnosis	ICD-10-CM
G62.1	Alcoholic polyneuropathy	Diagnosis	ICD-10-CM
HZZZZZ	Detoxification Services for Substance Abuse Treatment	Procedure	ICD-10-PCS
HZ30ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ31ZZZ	Individual Counseling for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ32ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ33ZZZ	Individual Counseling for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ34ZZZ	Individual Counseling for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
HZ35ZZZ	Individual Counseling for Substance Abuse Treatment, Vocational	Procedure	ICD-10-PCS
HZ36ZZZ	Individual Counseling for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ37ZZZ	Individual Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ38ZZZ	Individual Counseling for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ39ZZZ	Individual Counseling for Substance Abuse Treatment, Continuing Care	Procedure	ICD-10-PCS
HZ3BZZZ	Individual Counseling for Substance Abuse Treatment, Spiritual	Procedure	ICD-10-PCS
HZ40ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ93ZZZ	Pharmacotherapy for Substance Abuse Treatment, Antabuse	Procedure	ICD-10-PCS
HZ96ZZZ	Pharmacotherapy for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
I42.6	Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
K29.2	Alcoholic gastritis	Diagnosis	ICD-10-CM
K29.20	Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.21	Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K70.0	Alcoholic fatty liver	Diagnosis	ICD-10-CM
K70.10	Alcoholic hepatitis without ascites	Diagnosis	ICD-10-CM
K70.11	Alcoholic hepatitis with ascites	Diagnosis	ICD-10-CM
K70.2	Alcoholic fibrosis and sclerosis of liver	Diagnosis	ICD-10-CM
K70.3	Alcoholic cirrhosis of liver	Diagnosis	ICD-10-CM
K70.30	Alcoholic cirrhosis of liver without ascites	Diagnosis	ICD-10-CM
K70.31	Alcoholic cirrhosis of liver with ascites	Diagnosis	ICD-10-CM
K70.40	Alcoholic hepatic failure without coma	Diagnosis	ICD-10-CM
K70.41	Alcoholic hepatic failure with coma	Diagnosis	ICD-10-CM
K70.9	Alcoholic liver disease, unspecified	Diagnosis	ICD-10-CM
O35.5XX0	Maternal care for (suspected) damage to fetus by drugs, not applicable or unspecified	Diagnosis	ICD-10-CM
O35.5XX1	Maternal care for (suspected) damage to fetus by drugs, fetus 1	Diagnosis	ICD-10-CM
O35.5XX2	Maternal care for (suspected) damage to fetus by drugs, fetus 2	Diagnosis	ICD-10-CM
O35.5XX3	Maternal care for (suspected) damage to fetus by drugs, fetus 3	Diagnosis	ICD-10-CM
O35.5XX4	Maternal care for (suspected) damage to fetus by drugs, fetus 4	Diagnosis	ICD-10-CM
O35.5XX5	Maternal care for (suspected) damage to fetus by drugs, fetus 5	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
O35.5XX9	Maternal care for (suspected) damage to fetus by drugs, other fetus	Diagnosis	ICD-10-CM
O99.320	Drug use complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.321	Drug use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.322	Drug use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.323	Drug use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
O99.325	Drug use complicating the puerperium	Diagnosis	ICD-10-CM
P04.3	Newborn affected by maternal use of alcohol	Diagnosis	ICD-10-CM
P04.41	Newborn affected by maternal use of cocaine	Diagnosis	ICD-10-CM
P04.49	Newborn affected by maternal use of other drugs of addiction	Diagnosis	ICD-10-CM
P96.1	Neonatal withdrawal symptoms from maternal use of drugs of addiction	Diagnosis	ICD-10-CM
P96.2	Withdrawal symptoms from therapeutic use of drugs in newborn	Diagnosis	ICD-10-CM
Q86.0	Fetal alcohol syndrome (dysmorphic)	Diagnosis	ICD-10-CM
T40.0X1A	Poisoning by opium, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.0X1D	Poisoning by opium, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.0X1S	Poisoning by opium, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.0X2A	Poisoning by opium, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.0X2D	Poisoning by opium, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X2S	Poisoning by opium, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.0X3A	Poisoning by opium, assault, initial encounter	Diagnosis	ICD-10-CM
T40.0X3D	Poisoning by opium, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X3S	Poisoning by opium, assault, sequela	Diagnosis	ICD-10-CM
T40.0X4A	Poisoning by opium, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.0X4D	Poisoning by opium, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X4S	Poisoning by opium, undetermined, sequela	Diagnosis	ICD-10-CM
T40.0X5A	Adverse effect of opium, initial encounter	Diagnosis	ICD-10-CM
T40.0X5D	Adverse effect of opium, subsequent encounter	Diagnosis	ICD-10-CM
T40.0X5S	Adverse effect of opium, sequela	Diagnosis	ICD-10-CM
T40.1X1A	Poisoning by heroin, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.1X1D	Poisoning by heroin, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.1X1S	Poisoning by heroin, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.1X2A	Poisoning by heroin, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.1X2D	Poisoning by heroin, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X2S	Poisoning by heroin, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.1X3A	Poisoning by heroin, assault, initial encounter	Diagnosis	ICD-10-CM
T40.1X3D	Poisoning by heroin, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X3S	Poisoning by heroin, assault, sequela	Diagnosis	ICD-10-CM
T40.1X4A	Poisoning by heroin, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.1X4D	Poisoning by heroin, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.1X4S	Poisoning by heroin, undetermined, sequela	Diagnosis	ICD-10-CM
T40.2X1A	Poisoning by other opioids, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.2X1D	Poisoning by other opioids, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.2X1S	Poisoning by other opioids, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.2X2A	Poisoning by other opioids, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.2X2D	Poisoning by other opioids, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X2S	Poisoning by other opioids, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.2X3A	Poisoning by other opioids, assault, initial encounter	Diagnosis	ICD-10-CM
T40.2X3D	Poisoning by other opioids, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X3S	Poisoning by other opioids, assault, sequela	Diagnosis	ICD-10-CM
T40.2X4A	Poisoning by other opioids, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.2X4D	Poisoning by other opioids, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X4S	Poisoning by other opioids, undetermined, sequela	Diagnosis	ICD-10-CM
T40.2X5A	Adverse effect of other opioids, initial encounter	Diagnosis	ICD-10-CM
T40.2X5D	Adverse effect of other opioids, subsequent encounter	Diagnosis	ICD-10-CM
T40.2X5S	Adverse effect of other opioids, sequela	Diagnosis	ICD-10-CM
T40.3X1A	Poisoning by methadone, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.3X1D	Poisoning by methadone, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.3X1S	Poisoning by methadone, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.3X2A	Poisoning by methadone, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.3X2D	Poisoning by methadone, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X2S	Poisoning by methadone, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.3X3A	Poisoning by methadone, assault, initial encounter	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.3X3D	Poisoning by methadone, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X3S	Poisoning by methadone, assault, sequela	Diagnosis	ICD-10-CM
T40.3X4A	Poisoning by methadone, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.3X4D	Poisoning by methadone, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X4S	Poisoning by methadone, undetermined, sequela	Diagnosis	ICD-10-CM
T40.3X5A	Adverse effect of methadone, initial encounter	Diagnosis	ICD-10-CM
T40.3X5D	Adverse effect of methadone, subsequent encounter	Diagnosis	ICD-10-CM
T40.3X5S	Adverse effect of methadone, sequela	Diagnosis	ICD-10-CM
T40.411A	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.411D	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.411S	Poisoning by fentanyl or fentanyl analogs, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.412A	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.412D	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.412S	Poisoning by fentanyl or fentanyl analogs, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.413A	Poisoning by fentanyl or fentanyl analogs, assault, initial encounter	Diagnosis	ICD-10-CM
T40.413D	Poisoning by fentanyl or fentanyl analogs, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.413S	Poisoning by fentanyl or fentanyl analogs, assault, sequela	Diagnosis	ICD-10-CM
T40.414A	Poisoning by fentanyl or fentanyl analogs, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.414D	Poisoning by fentanyl or fentanyl analogs, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.414S	Poisoning by fentanyl or fentanyl analogs, undetermined, sequela	Diagnosis	ICD-10-CM
T40.415A	Adverse effect of fentanyl or fentanyl analogs, initial encounter	Diagnosis	ICD-10-CM
T40.415D	Adverse effect of fentanyl or fentanyl analogs, subsequent encounter	Diagnosis	ICD-10-CM
T40.415S	Adverse effect of fentanyl or fentanyl analogs, sequela	Diagnosis	ICD-10-CM
T40.421A	Poisoning by tramadol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.421D	Poisoning by tramadol, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.421S	Poisoning by tramadol, accidental (unintentional), sequela	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.422A	Poisoning by tramadol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.422D	Poisoning by tramadol, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.422S	Poisoning by tramadol, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.423A	Poisoning by tramadol, assault, initial encounter	Diagnosis	ICD-10-CM
T40.423D	Poisoning by tramadol, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.423S	Poisoning by tramadol, assault, sequela	Diagnosis	ICD-10-CM
T40.424A	Poisoning by tramadol, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.424D	Poisoning by tramadol, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.424S	Poisoning by tramadol, undetermined, sequela	Diagnosis	ICD-10-CM
T40.425A	Adverse effect of tramadol, initial encounter	Diagnosis	ICD-10-CM
T40.425D	Adverse effect of tramadol, subsequent encounter	Diagnosis	ICD-10-CM
T40.425S	Adverse effect of tramadol, sequela	Diagnosis	ICD-10-CM
T40.491A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.491D	Poisoning by other synthetic narcotics, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.491S	Poisoning by other synthetic narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.492A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.492D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.492S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.493A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.493D	Poisoning by other synthetic narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.493S	Poisoning by other synthetic narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.494A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.494D	Poisoning by other synthetic narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.494S	Poisoning by other synthetic narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.495A	Adverse effect of other synthetic narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.495D	Adverse effect of other synthetic narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.495S	Adverse effect of other synthetic narcotics, sequela	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.4X1A	Poisoning by other synthetic narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.4X1D	Poisoning by other synthetic narcotics, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.4X1S	Poisoning by other synthetic narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.4X2A	Poisoning by other synthetic narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.4X2D	Poisoning by other synthetic narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X2S	Poisoning by other synthetic narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.4X3A	Poisoning by other synthetic narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.4X3D	Poisoning by other synthetic narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X3S	Poisoning by other synthetic narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.4X4A	Poisoning by other synthetic narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.4X4D	Poisoning by other synthetic narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X4S	Poisoning by other synthetic narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.4X5A	Adverse effect of other synthetic narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.4X5D	Adverse effect of other synthetic narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.4X5S	Adverse effect of other synthetic narcotics, sequela	Diagnosis	ICD-10-CM
T40.601A	Poisoning by unspecified narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.601D	Poisoning by unspecified narcotics, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.601S	Poisoning by unspecified narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.602A	Poisoning by unspecified narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.602D	Poisoning by unspecified narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.602S	Poisoning by unspecified narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.603A	Poisoning by unspecified narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.603D	Poisoning by unspecified narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.603S	Poisoning by unspecified narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.604A	Poisoning by unspecified narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.604D	Poisoning by unspecified narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.604S	Poisoning by unspecified narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.605A	Adverse effect of unspecified narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.605D	Adverse effect of unspecified narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.605S	Adverse effect of unspecified narcotics, sequela	Diagnosis	ICD-10-CM
T40.691A	Poisoning by other narcotics, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.691D	Poisoning by other narcotics, accidental (unintentional), subsequent encounter	Diagnosis	ICD-10-CM
T40.691S	Poisoning by other narcotics, accidental (unintentional), sequela	Diagnosis	ICD-10-CM
T40.692A	Poisoning by other narcotics, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T40.692D	Poisoning by other narcotics, intentional self-harm, subsequent encounter	Diagnosis	ICD-10-CM
T40.692S	Poisoning by other narcotics, intentional self-harm, sequela	Diagnosis	ICD-10-CM
T40.693A	Poisoning by other narcotics, assault, initial encounter	Diagnosis	ICD-10-CM
T40.693D	Poisoning by other narcotics, assault, subsequent encounter	Diagnosis	ICD-10-CM
T40.693S	Poisoning by other narcotics, assault, sequela	Diagnosis	ICD-10-CM
T40.694A	Poisoning by other narcotics, undetermined, initial encounter	Diagnosis	ICD-10-CM
T40.694D	Poisoning by other narcotics, undetermined, subsequent encounter	Diagnosis	ICD-10-CM
T40.694S	Poisoning by other narcotics, undetermined, sequela	Diagnosis	ICD-10-CM
T40.695A	Adverse effect of other narcotics, initial encounter	Diagnosis	ICD-10-CM
T40.695D	Adverse effect of other narcotics, subsequent encounter	Diagnosis	ICD-10-CM
T40.695S	Adverse effect of other narcotics, sequela	Diagnosis	ICD-10-CM
T40.711A	Poisoning by cannabis, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.721A	Poisoning by synthetic cannabinoids, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.7X1A	Poisoning by cannabis (derivatives), accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.8X1A	Poisoning by lysergide [LSD], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
T40.901A	Poisoning by unspecified psychodysleptics [hallucinogens], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T40.991A	Poisoning by other psychodysleptics [hallucinogens], accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.0X1A	Toxic effect of ethanol, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T51.0X2A	Toxic effect of ethanol, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T51.0X3A	Toxic effect of ethanol, assault, initial encounter	Diagnosis	ICD-10-CM
T51.0X4A	Toxic effect of ethanol, undetermined, initial encounter	Diagnosis	ICD-10-CM
Z65.8	Other specified problems related to psychosocial circumstances	Diagnosis	ICD-10-CM
Z71.4	Alcohol abuse counseling and surveillance	Diagnosis	ICD-10-CM
Z71.41	Alcohol abuse counseling and surveillance of alcoholic	Diagnosis	ICD-10-CM
Z71.51	Drug abuse counseling and surveillance of drug abuser	Diagnosis	ICD-10-CM
Cancer - History of			
C00	Malignant neoplasm of lip	Diagnosis	ICD-10-CM
C00.0	Malignant neoplasm of external upper lip	Diagnosis	ICD-10-CM
C00.1	Malignant neoplasm of external lower lip	Diagnosis	ICD-10-CM
C00.2	Malignant neoplasm of external lip, unspecified	Diagnosis	ICD-10-CM
C00.3	Malignant neoplasm of upper lip, inner aspect	Diagnosis	ICD-10-CM
C00.4	Malignant neoplasm of lower lip, inner aspect	Diagnosis	ICD-10-CM
C00.5	Malignant neoplasm of lip, unspecified, inner aspect	Diagnosis	ICD-10-CM
C00.6	Malignant neoplasm of commissure of lip, unspecified	Diagnosis	ICD-10-CM
C00.8	Malignant neoplasm of overlapping sites of lip	Diagnosis	ICD-10-CM
C00.9	Malignant neoplasm of lip, unspecified	Diagnosis	ICD-10-CM
C01	Malignant neoplasm of base of tongue	Diagnosis	ICD-10-CM
C02	Malignant neoplasm of other and unspecified parts of tongue	Diagnosis	ICD-10-CM
C02.0	Malignant neoplasm of dorsal surface of tongue	Diagnosis	ICD-10-CM
C02.1	Malignant neoplasm of border of tongue	Diagnosis	ICD-10-CM
C02.2	Malignant neoplasm of ventral surface of tongue	Diagnosis	ICD-10-CM
C02.3	Malignant neoplasm of anterior two-thirds of tongue, part unspecified	Diagnosis	ICD-10-CM
C02.4	Malignant neoplasm of lingual tonsil	Diagnosis	ICD-10-CM
C02.8	Malignant neoplasm of overlapping sites of tongue	Diagnosis	ICD-10-CM
C02.9	Malignant neoplasm of tongue, unspecified	Diagnosis	ICD-10-CM
C03	Malignant neoplasm of gum	Diagnosis	ICD-10-CM
C03.0	Malignant neoplasm of upper gum	Diagnosis	ICD-10-CM
C03.1	Malignant neoplasm of lower gum	Diagnosis	ICD-10-CM
C03.9	Malignant neoplasm of gum, unspecified	Diagnosis	ICD-10-CM
C04	Malignant neoplasm of floor of mouth	Diagnosis	ICD-10-CM
C04.0	Malignant neoplasm of anterior floor of mouth	Diagnosis	ICD-10-CM
C04.1	Malignant neoplasm of lateral floor of mouth	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C04.8	Malignant neoplasm of overlapping sites of floor of mouth	Diagnosis	ICD-10-CM
C04.9	Malignant neoplasm of floor of mouth, unspecified	Diagnosis	ICD-10-CM
C05	Malignant neoplasm of palate	Diagnosis	ICD-10-CM
C05.0	Malignant neoplasm of hard palate	Diagnosis	ICD-10-CM
C05.1	Malignant neoplasm of soft palate	Diagnosis	ICD-10-CM
C05.2	Malignant neoplasm of uvula	Diagnosis	ICD-10-CM
C05.8	Malignant neoplasm of overlapping sites of palate	Diagnosis	ICD-10-CM
C05.9	Malignant neoplasm of palate, unspecified	Diagnosis	ICD-10-CM
C06	Malignant neoplasm of other and unspecified parts of mouth	Diagnosis	ICD-10-CM
C06.0	Malignant neoplasm of cheek mucosa	Diagnosis	ICD-10-CM
C06.1	Malignant neoplasm of vestibule of mouth	Diagnosis	ICD-10-CM
C06.2	Malignant neoplasm of retromolar area	Diagnosis	ICD-10-CM
C06.8	Malignant neoplasm of overlapping sites of other and unspecified parts of mouth	Diagnosis	ICD-10-CM
C06.80	Malignant neoplasm of overlapping sites of unspecified parts of mouth	Diagnosis	ICD-10-CM
C06.89	Malignant neoplasm of overlapping sites of other parts of mouth	Diagnosis	ICD-10-CM
C06.9	Malignant neoplasm of mouth, unspecified	Diagnosis	ICD-10-CM
C07	Malignant neoplasm of parotid gland	Diagnosis	ICD-10-CM
C08	Malignant neoplasm of other and unspecified major salivary glands	Diagnosis	ICD-10-CM
C08.0	Malignant neoplasm of submandibular gland	Diagnosis	ICD-10-CM
C08.1	Malignant neoplasm of sublingual gland	Diagnosis	ICD-10-CM
C08.9	Malignant neoplasm of major salivary gland, unspecified	Diagnosis	ICD-10-CM
C09	Malignant neoplasm of tonsil	Diagnosis	ICD-10-CM
C09.0	Malignant neoplasm of tonsillar fossa	Diagnosis	ICD-10-CM
C09.1	Malignant neoplasm of tonsillar pillar (anterior) (posterior)	Diagnosis	ICD-10-CM
C09.8	Malignant neoplasm of overlapping sites of tonsil	Diagnosis	ICD-10-CM
C09.9	Malignant neoplasm of tonsil, unspecified	Diagnosis	ICD-10-CM
C10	Malignant neoplasm of oropharynx	Diagnosis	ICD-10-CM
C10.0	Malignant neoplasm of vallecula	Diagnosis	ICD-10-CM
C10.1	Malignant neoplasm of anterior surface of epiglottis	Diagnosis	ICD-10-CM
C10.2	Malignant neoplasm of lateral wall of oropharynx	Diagnosis	ICD-10-CM
C10.3	Malignant neoplasm of posterior wall of oropharynx	Diagnosis	ICD-10-CM
C10.4	Malignant neoplasm of branchial cleft	Diagnosis	ICD-10-CM
C10.8	Malignant neoplasm of overlapping sites of oropharynx	Diagnosis	ICD-10-CM
C10.9	Malignant neoplasm of oropharynx, unspecified	Diagnosis	ICD-10-CM
C11	Malignant neoplasm of nasopharynx	Diagnosis	ICD-10-CM
C11.0	Malignant neoplasm of superior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.1	Malignant neoplasm of posterior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.2	Malignant neoplasm of lateral wall of nasopharynx	Diagnosis	ICD-10-CM
C11.3	Malignant neoplasm of anterior wall of nasopharynx	Diagnosis	ICD-10-CM
C11.8	Malignant neoplasm of overlapping sites of nasopharynx	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C11.9	Malignant neoplasm of nasopharynx, unspecified	Diagnosis	ICD-10-CM
C12	Malignant neoplasm of pyriform sinus	Diagnosis	ICD-10-CM
C13	Malignant neoplasm of hypopharynx	Diagnosis	ICD-10-CM
C13.0	Malignant neoplasm of postcricoid region	Diagnosis	ICD-10-CM
C13.1	Malignant neoplasm of aryepiglottic fold, hypopharyngeal aspect	Diagnosis	ICD-10-CM
C13.2	Malignant neoplasm of posterior wall of hypopharynx	Diagnosis	ICD-10-CM
C13.8	Malignant neoplasm of overlapping sites of hypopharynx	Diagnosis	ICD-10-CM
C13.9	Malignant neoplasm of hypopharynx, unspecified	Diagnosis	ICD-10-CM
C14	Malignant neoplasm of other and ill-defined sites in the lip, oral cavity and pharynx	Diagnosis	ICD-10-CM
C14.0	Malignant neoplasm of pharynx, unspecified	Diagnosis	ICD-10-CM
C14.2	Malignant neoplasm of Waldeyer's ring	Diagnosis	ICD-10-CM
C14.8	Malignant neoplasm of overlapping sites of lip, oral cavity and pharynx	Diagnosis	ICD-10-CM
C15	Malignant neoplasm of esophagus	Diagnosis	ICD-10-CM
C15.3	Malignant neoplasm of upper third of esophagus	Diagnosis	ICD-10-CM
C15.4	Malignant neoplasm of middle third of esophagus	Diagnosis	ICD-10-CM
C15.5	Malignant neoplasm of lower third of esophagus	Diagnosis	ICD-10-CM
C15.8	Malignant neoplasm of overlapping sites of esophagus	Diagnosis	ICD-10-CM
C15.9	Malignant neoplasm of esophagus, unspecified	Diagnosis	ICD-10-CM
C16	Malignant neoplasm of stomach	Diagnosis	ICD-10-CM
C16.0	Malignant neoplasm of cardia	Diagnosis	ICD-10-CM
C16.1	Malignant neoplasm of fundus of stomach	Diagnosis	ICD-10-CM
C16.2	Malignant neoplasm of body of stomach	Diagnosis	ICD-10-CM
C16.3	Malignant neoplasm of pyloric antrum	Diagnosis	ICD-10-CM
C16.4	Malignant neoplasm of pylorus	Diagnosis	ICD-10-CM
C16.5	Malignant neoplasm of lesser curvature of stomach, unspecified	Diagnosis	ICD-10-CM
C16.6	Malignant neoplasm of greater curvature of stomach, unspecified	Diagnosis	ICD-10-CM
C16.8	Malignant neoplasm of overlapping sites of stomach	Diagnosis	ICD-10-CM
C16.9	Malignant neoplasm of stomach, unspecified	Diagnosis	ICD-10-CM
C17	Malignant neoplasm of small intestine	Diagnosis	ICD-10-CM
C17.0	Malignant neoplasm of duodenum	Diagnosis	ICD-10-CM
C17.1	Malignant neoplasm of jejunum	Diagnosis	ICD-10-CM
C17.2	Malignant neoplasm of ileum	Diagnosis	ICD-10-CM
C17.3	Meckel's diverticulum, malignant	Diagnosis	ICD-10-CM
C17.8	Malignant neoplasm of overlapping sites of small intestine	Diagnosis	ICD-10-CM
C17.9	Malignant neoplasm of small intestine, unspecified	Diagnosis	ICD-10-CM
C18	Malignant neoplasm of colon	Diagnosis	ICD-10-CM
C18.0	Malignant neoplasm of cecum	Diagnosis	ICD-10-CM
C18.1	Malignant neoplasm of appendix	Diagnosis	ICD-10-CM
C18.2	Malignant neoplasm of ascending colon	Diagnosis	ICD-10-CM
C18.3	Malignant neoplasm of hepatic flexure	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C18.4	Malignant neoplasm of transverse colon	Diagnosis	ICD-10-CM
C18.5	Malignant neoplasm of splenic flexure	Diagnosis	ICD-10-CM
C18.6	Malignant neoplasm of descending colon	Diagnosis	ICD-10-CM
C18.7	Malignant neoplasm of sigmoid colon	Diagnosis	ICD-10-CM
C18.8	Malignant neoplasm of overlapping sites of colon	Diagnosis	ICD-10-CM
C18.9	Malignant neoplasm of colon, unspecified	Diagnosis	ICD-10-CM
C19	Malignant neoplasm of rectosigmoid junction	Diagnosis	ICD-10-CM
C20	Malignant neoplasm of rectum	Diagnosis	ICD-10-CM
C21	Malignant neoplasm of anus and anal canal	Diagnosis	ICD-10-CM
C21.0	Malignant neoplasm of anus, unspecified	Diagnosis	ICD-10-CM
C21.1	Malignant neoplasm of anal canal	Diagnosis	ICD-10-CM
C21.2	Malignant neoplasm of cloacogenic zone	Diagnosis	ICD-10-CM
C21.8	Malignant neoplasm of overlapping sites of rectum, anus and anal canal	Diagnosis	ICD-10-CM
C22	Malignant neoplasm of liver and intrahepatic bile ducts	Diagnosis	ICD-10-CM
C22.0	Liver cell carcinoma	Diagnosis	ICD-10-CM
C22.1	Intrahepatic bile duct carcinoma	Diagnosis	ICD-10-CM
C22.2	Hepatoblastoma	Diagnosis	ICD-10-CM
C22.3	Angiosarcoma of liver	Diagnosis	ICD-10-CM
C22.4	Other sarcomas of liver	Diagnosis	ICD-10-CM
C22.7	Other specified carcinomas of liver	Diagnosis	ICD-10-CM
C22.8	Malignant neoplasm of liver, primary, unspecified as to type	Diagnosis	ICD-10-CM
C22.9	Malignant neoplasm of liver, not specified as primary or secondary	Diagnosis	ICD-10-CM
C23	Malignant neoplasm of gallbladder	Diagnosis	ICD-10-CM
C24	Malignant neoplasm of other and unspecified parts of biliary tract	Diagnosis	ICD-10-CM
C24.0	Malignant neoplasm of extrahepatic bile duct	Diagnosis	ICD-10-CM
C24.1	Malignant neoplasm of ampulla of Vater	Diagnosis	ICD-10-CM
C24.8	Malignant neoplasm of overlapping sites of biliary tract	Diagnosis	ICD-10-CM
C24.9	Malignant neoplasm of biliary tract, unspecified	Diagnosis	ICD-10-CM
C25	Malignant neoplasm of pancreas	Diagnosis	ICD-10-CM
C25.0	Malignant neoplasm of head of pancreas	Diagnosis	ICD-10-CM
C25.1	Malignant neoplasm of body of pancreas	Diagnosis	ICD-10-CM
C25.2	Malignant neoplasm of tail of pancreas	Diagnosis	ICD-10-CM
C25.3	Malignant neoplasm of pancreatic duct	Diagnosis	ICD-10-CM
C25.4	Malignant neoplasm of endocrine pancreas	Diagnosis	ICD-10-CM
C25.7	Malignant neoplasm of other parts of pancreas	Diagnosis	ICD-10-CM
C25.8	Malignant neoplasm of overlapping sites of pancreas	Diagnosis	ICD-10-CM
C25.9	Malignant neoplasm of pancreas, unspecified	Diagnosis	ICD-10-CM
C26	Malignant neoplasm of other and ill-defined digestive organs	Diagnosis	ICD-10-CM
C26.0	Malignant neoplasm of intestinal tract, part unspecified	Diagnosis	ICD-10-CM
C26.1	Malignant neoplasm of spleen	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C26.9	Malignant neoplasm of ill-defined sites within the digestive system	Diagnosis	ICD-10-CM
C30	Malignant neoplasm of nasal cavity and middle ear	Diagnosis	ICD-10-CM
C30.0	Malignant neoplasm of nasal cavity	Diagnosis	ICD-10-CM
C30.1	Malignant neoplasm of middle ear	Diagnosis	ICD-10-CM
C31	Malignant neoplasm of accessory sinuses	Diagnosis	ICD-10-CM
C31.0	Malignant neoplasm of maxillary sinus	Diagnosis	ICD-10-CM
C31.1	Malignant neoplasm of ethmoidal sinus	Diagnosis	ICD-10-CM
C31.2	Malignant neoplasm of frontal sinus	Diagnosis	ICD-10-CM
C31.3	Malignant neoplasm of sphenoid sinus	Diagnosis	ICD-10-CM
C31.8	Malignant neoplasm of overlapping sites of accessory sinuses	Diagnosis	ICD-10-CM
C31.9	Malignant neoplasm of accessory sinus, unspecified	Diagnosis	ICD-10-CM
C32	Malignant neoplasm of larynx	Diagnosis	ICD-10-CM
C32.0	Malignant neoplasm of glottis	Diagnosis	ICD-10-CM
C32.1	Malignant neoplasm of supraglottis	Diagnosis	ICD-10-CM
C32.2	Malignant neoplasm of subglottis	Diagnosis	ICD-10-CM
C32.3	Malignant neoplasm of laryngeal cartilage	Diagnosis	ICD-10-CM
C32.8	Malignant neoplasm of overlapping sites of larynx	Diagnosis	ICD-10-CM
C32.9	Malignant neoplasm of larynx, unspecified	Diagnosis	ICD-10-CM
C33	Malignant neoplasm of trachea	Diagnosis	ICD-10-CM
C34	Malignant neoplasm of bronchus and lung	Diagnosis	ICD-10-CM
C34.0	Malignant neoplasm of main bronchus	Diagnosis	ICD-10-CM
C34.00	Malignant neoplasm of unspecified main bronchus	Diagnosis	ICD-10-CM
C34.01	Malignant neoplasm of right main bronchus	Diagnosis	ICD-10-CM
C34.02	Malignant neoplasm of left main bronchus	Diagnosis	ICD-10-CM
C34.1	Malignant neoplasm of upper lobe, bronchus or lung	Diagnosis	ICD-10-CM
C34.10	Malignant neoplasm of upper lobe, unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.11	Malignant neoplasm of upper lobe, right bronchus or lung	Diagnosis	ICD-10-CM
C34.12	Malignant neoplasm of upper lobe, left bronchus or lung	Diagnosis	ICD-10-CM
C34.2	Malignant neoplasm of middle lobe, bronchus or lung	Diagnosis	ICD-10-CM
C34.3	Malignant neoplasm of lower lobe, bronchus or lung	Diagnosis	ICD-10-CM
C34.30	Malignant neoplasm of lower lobe, unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.31	Malignant neoplasm of lower lobe, right bronchus or lung	Diagnosis	ICD-10-CM
C34.32	Malignant neoplasm of lower lobe, left bronchus or lung	Diagnosis	ICD-10-CM
C34.8	Malignant neoplasm of overlapping sites of bronchus and lung	Diagnosis	ICD-10-CM
C34.80	Malignant neoplasm of overlapping sites of unspecified bronchus and lung	Diagnosis	ICD-10-CM
C34.81	Malignant neoplasm of overlapping sites of right bronchus and lung	Diagnosis	ICD-10-CM
C34.82	Malignant neoplasm of overlapping sites of left bronchus and lung	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C34.9	Malignant neoplasm of unspecified part of bronchus or lung	Diagnosis	ICD-10-CM
C34.90	Malignant neoplasm of unspecified part of unspecified bronchus or lung	Diagnosis	ICD-10-CM
C34.91	Malignant neoplasm of unspecified part of right bronchus or lung	Diagnosis	ICD-10-CM
C34.92	Malignant neoplasm of unspecified part of left bronchus or lung	Diagnosis	ICD-10-CM
C37	Malignant neoplasm of thymus	Diagnosis	ICD-10-CM
C38	Malignant neoplasm of heart, mediastinum and pleura	Diagnosis	ICD-10-CM
C38.0	Malignant neoplasm of heart	Diagnosis	ICD-10-CM
C38.1	Malignant neoplasm of anterior mediastinum	Diagnosis	ICD-10-CM
C38.2	Malignant neoplasm of posterior mediastinum	Diagnosis	ICD-10-CM
C38.3	Malignant neoplasm of mediastinum, part unspecified	Diagnosis	ICD-10-CM
C38.4	Malignant neoplasm of pleura	Diagnosis	ICD-10-CM
C38.8	Malignant neoplasm of overlapping sites of heart, mediastinum and pleura	Diagnosis	ICD-10-CM
C39	Malignant neoplasm of other and ill-defined sites in the respiratory system and intrathoracic organs	Diagnosis	ICD-10-CM
C39.0	Malignant neoplasm of upper respiratory tract, part unspecified	Diagnosis	ICD-10-CM
C39.9	Malignant neoplasm of lower respiratory tract, part unspecified	Diagnosis	ICD-10-CM
C40	Malignant neoplasm of bone and articular cartilage of limbs	Diagnosis	ICD-10-CM
C40.0	Malignant neoplasm of scapula and long bones of upper limb	Diagnosis	ICD-10-CM
C40.00	Malignant neoplasm of scapula and long bones of unspecified upper limb	Diagnosis	ICD-10-CM
C40.01	Malignant neoplasm of scapula and long bones of right upper limb	Diagnosis	ICD-10-CM
C40.02	Malignant neoplasm of scapula and long bones of left upper limb	Diagnosis	ICD-10-CM
C40.1	Malignant neoplasm of short bones of upper limb	Diagnosis	ICD-10-CM
C40.10	Malignant neoplasm of short bones of unspecified upper limb	Diagnosis	ICD-10-CM
C40.11	Malignant neoplasm of short bones of right upper limb	Diagnosis	ICD-10-CM
C40.12	Malignant neoplasm of short bones of left upper limb	Diagnosis	ICD-10-CM
C40.2	Malignant neoplasm of long bones of lower limb	Diagnosis	ICD-10-CM
C40.20	Malignant neoplasm of long bones of unspecified lower limb	Diagnosis	ICD-10-CM
C40.21	Malignant neoplasm of long bones of right lower limb	Diagnosis	ICD-10-CM
C40.22	Malignant neoplasm of long bones of left lower limb	Diagnosis	ICD-10-CM
C40.3	Malignant neoplasm of short bones of lower limb	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C40.30	Malignant neoplasm of short bones of unspecified lower limb	Diagnosis	ICD-10-CM
C40.31	Malignant neoplasm of short bones of right lower limb	Diagnosis	ICD-10-CM
C40.32	Malignant neoplasm of short bones of left lower limb	Diagnosis	ICD-10-CM
C40.8	Malignant neoplasm of overlapping sites of bone and articular cartilage of limb	Diagnosis	ICD-10-CM
C40.80	Malignant neoplasm of overlapping sites of bone and articular cartilage of unspecified limb	Diagnosis	ICD-10-CM
C40.81	Malignant neoplasm of overlapping sites of bone and articular cartilage of right limb	Diagnosis	ICD-10-CM
C40.82	Malignant neoplasm of overlapping sites of bone and articular cartilage of left limb	Diagnosis	ICD-10-CM
C40.9	Malignant neoplasm of unspecified bones and articular cartilage of limb	Diagnosis	ICD-10-CM
C40.90	Malignant neoplasm of unspecified bones and articular cartilage of unspecified limb	Diagnosis	ICD-10-CM
C40.91	Malignant neoplasm of unspecified bones and articular cartilage of right limb	Diagnosis	ICD-10-CM
C40.92	Malignant neoplasm of unspecified bones and articular cartilage of left limb	Diagnosis	ICD-10-CM
C41	Malignant neoplasm of bone and articular cartilage of other and unspecified sites	Diagnosis	ICD-10-CM
C41.0	Malignant neoplasm of bones of skull and face	Diagnosis	ICD-10-CM
C41.1	Malignant neoplasm of mandible	Diagnosis	ICD-10-CM
C41.2	Malignant neoplasm of vertebral column	Diagnosis	ICD-10-CM
C41.3	Malignant neoplasm of ribs, sternum and clavicle	Diagnosis	ICD-10-CM
C41.4	Malignant neoplasm of pelvic bones, sacrum and coccyx	Diagnosis	ICD-10-CM
C41.9	Malignant neoplasm of bone and articular cartilage, unspecified	Diagnosis	ICD-10-CM
C43	Malignant melanoma of skin	Diagnosis	ICD-10-CM
C43.0	Malignant melanoma of lip	Diagnosis	ICD-10-CM
C43.1	Malignant melanoma of eyelid, including canthus	Diagnosis	ICD-10-CM
C43.10	Malignant melanoma of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
C43.11	Malignant melanoma of right eyelid, including canthus	Diagnosis	ICD-10-CM
C43.111	Malignant melanoma of right upper eyelid, including canthus	Diagnosis	ICD-10-CM
C43.112	Malignant melanoma of right lower eyelid, including canthus	Diagnosis	ICD-10-CM
C43.12	Malignant melanoma of left eyelid, including canthus	Diagnosis	ICD-10-CM
C43.121	Malignant melanoma of left upper eyelid, including canthus	Diagnosis	ICD-10-CM
C43.122	Malignant melanoma of left lower eyelid, including canthus	Diagnosis	ICD-10-CM
C43.2	Malignant melanoma of ear and external auricular canal	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C43.20	Malignant melanoma of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
C43.21	Malignant melanoma of right ear and external auricular canal	Diagnosis	ICD-10-CM
C43.22	Malignant melanoma of left ear and external auricular canal	Diagnosis	ICD-10-CM
C43.3	Malignant melanoma of other and unspecified parts of face	Diagnosis	ICD-10-CM
C43.30	Malignant melanoma of unspecified part of face	Diagnosis	ICD-10-CM
C43.31	Malignant melanoma of nose	Diagnosis	ICD-10-CM
C43.39	Malignant melanoma of other parts of face	Diagnosis	ICD-10-CM
C43.4	Malignant melanoma of scalp and neck	Diagnosis	ICD-10-CM
C43.5	Malignant melanoma of trunk	Diagnosis	ICD-10-CM
C43.51	Malignant melanoma of anal skin	Diagnosis	ICD-10-CM
C43.52	Malignant melanoma of skin of breast	Diagnosis	ICD-10-CM
C43.59	Malignant melanoma of other part of trunk	Diagnosis	ICD-10-CM
C43.6	Malignant melanoma of upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.60	Malignant melanoma of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.61	Malignant melanoma of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.62	Malignant melanoma of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C43.7	Malignant melanoma of lower limb, including hip	Diagnosis	ICD-10-CM
C43.70	Malignant melanoma of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C43.71	Malignant melanoma of right lower limb, including hip	Diagnosis	ICD-10-CM
C43.72	Malignant melanoma of left lower limb, including hip	Diagnosis	ICD-10-CM
C43.8	Malignant melanoma of overlapping sites of skin	Diagnosis	ICD-10-CM
C43.9	Malignant melanoma of skin, unspecified	Diagnosis	ICD-10-CM
C45	Mesothelioma	Diagnosis	ICD-10-CM
C45.0	Mesothelioma of pleura	Diagnosis	ICD-10-CM
C45.1	Mesothelioma of peritoneum	Diagnosis	ICD-10-CM
C45.2	Mesothelioma of pericardium	Diagnosis	ICD-10-CM
C45.7	Mesothelioma of other sites	Diagnosis	ICD-10-CM
C45.9	Mesothelioma, unspecified	Diagnosis	ICD-10-CM
C46	Kaposi's sarcoma	Diagnosis	ICD-10-CM
C46.0	Kaposi's sarcoma of skin	Diagnosis	ICD-10-CM
C46.1	Kaposi's sarcoma of soft tissue	Diagnosis	ICD-10-CM
C46.2	Kaposi's sarcoma of palate	Diagnosis	ICD-10-CM
C46.3	Kaposi's sarcoma of lymph nodes	Diagnosis	ICD-10-CM
C46.4	Kaposi's sarcoma of gastrointestinal sites	Diagnosis	ICD-10-CM
C46.5	Kaposi's sarcoma of lung	Diagnosis	ICD-10-CM
C46.50	Kaposi's sarcoma of unspecified lung	Diagnosis	ICD-10-CM
C46.51	Kaposi's sarcoma of right lung	Diagnosis	ICD-10-CM
C46.52	Kaposi's sarcoma of left lung	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C46.7	Kaposi's sarcoma of other sites	Diagnosis	ICD-10-CM
C46.9	Kaposi's sarcoma, unspecified	Diagnosis	ICD-10-CM
C47	Malignant neoplasm of peripheral nerves and autonomic nervous system	Diagnosis	ICD-10-CM
C47.0	Malignant neoplasm of peripheral nerves of head, face and neck	Diagnosis	ICD-10-CM
C47.1	Malignant neoplasm of peripheral nerves of upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.10	Malignant neoplasm of peripheral nerves of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.11	Malignant neoplasm of peripheral nerves of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.12	Malignant neoplasm of peripheral nerves of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C47.2	Malignant neoplasm of peripheral nerves of lower limb, including hip	Diagnosis	ICD-10-CM
C47.20	Malignant neoplasm of peripheral nerves of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C47.21	Malignant neoplasm of peripheral nerves of right lower limb, including hip	Diagnosis	ICD-10-CM
C47.22	Malignant neoplasm of peripheral nerves of left lower limb, including hip	Diagnosis	ICD-10-CM
C47.3	Malignant neoplasm of peripheral nerves of thorax	Diagnosis	ICD-10-CM
C47.4	Malignant neoplasm of peripheral nerves of abdomen	Diagnosis	ICD-10-CM
C47.5	Malignant neoplasm of peripheral nerves of pelvis	Diagnosis	ICD-10-CM
C47.6	Malignant neoplasm of peripheral nerves of trunk, unspecified	Diagnosis	ICD-10-CM
C47.8	Malignant neoplasm of overlapping sites of peripheral nerves and autonomic nervous system	Diagnosis	ICD-10-CM
C47.9	Malignant neoplasm of peripheral nerves and autonomic nervous system, unspecified	Diagnosis	ICD-10-CM
C48	Malignant neoplasm of retroperitoneum and peritoneum	Diagnosis	ICD-10-CM
C48.0	Malignant neoplasm of retroperitoneum	Diagnosis	ICD-10-CM
C48.1	Malignant neoplasm of specified parts of peritoneum	Diagnosis	ICD-10-CM
C48.2	Malignant neoplasm of peritoneum, unspecified	Diagnosis	ICD-10-CM
C48.8	Malignant neoplasm of overlapping sites of retroperitoneum and peritoneum	Diagnosis	ICD-10-CM
C49	Malignant neoplasm of other connective and soft tissue	Diagnosis	ICD-10-CM
C49.0	Malignant neoplasm of connective and soft tissue of head, face and neck	Diagnosis	ICD-10-CM
C49.1	Malignant neoplasm of connective and soft tissue of upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.10	Malignant neoplasm of connective and soft tissue of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C49.11	Malignant neoplasm of connective and soft tissue of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.12	Malignant neoplasm of connective and soft tissue of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C49.2	Malignant neoplasm of connective and soft tissue of lower limb, including hip	Diagnosis	ICD-10-CM
C49.20	Malignant neoplasm of connective and soft tissue of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C49.21	Malignant neoplasm of connective and soft tissue of right lower limb, including hip	Diagnosis	ICD-10-CM
C49.22	Malignant neoplasm of connective and soft tissue of left lower limb, including hip	Diagnosis	ICD-10-CM
C49.3	Malignant neoplasm of connective and soft tissue of thorax	Diagnosis	ICD-10-CM
C49.4	Malignant neoplasm of connective and soft tissue of abdomen	Diagnosis	ICD-10-CM
C49.5	Malignant neoplasm of connective and soft tissue of pelvis	Diagnosis	ICD-10-CM
C49.6	Malignant neoplasm of connective and soft tissue of trunk, unspecified	Diagnosis	ICD-10-CM
C49.8	Malignant neoplasm of overlapping sites of connective and soft tissue	Diagnosis	ICD-10-CM
C49.9	Malignant neoplasm of connective and soft tissue, unspecified	Diagnosis	ICD-10-CM
C49.A	Gastrointestinal stromal tumor	Diagnosis	ICD-10-CM
C49.A0	Gastrointestinal stromal tumor, unspecified site	Diagnosis	ICD-10-CM
C49.A1	Gastrointestinal stromal tumor of esophagus	Diagnosis	ICD-10-CM
C49.A2	Gastrointestinal stromal tumor of stomach	Diagnosis	ICD-10-CM
C49.A3	Gastrointestinal stromal tumor of small intestine	Diagnosis	ICD-10-CM
C49.A4	Gastrointestinal stromal tumor of large intestine	Diagnosis	ICD-10-CM
C49.A5	Gastrointestinal stromal tumor of rectum	Diagnosis	ICD-10-CM
C49.A9	Gastrointestinal stromal tumor of other sites	Diagnosis	ICD-10-CM
C4A	Merkel cell carcinoma	Diagnosis	ICD-10-CM
C4A.0	Merkel cell carcinoma of lip	Diagnosis	ICD-10-CM
C4A.1	Merkel cell carcinoma of eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.10	Merkel cell carcinoma of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.11	Merkel cell carcinoma of right eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.111	Merkel cell carcinoma of right upper eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.112	Merkel cell carcinoma of right lower eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.12	Merkel cell carcinoma of left eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.121	Merkel cell carcinoma of left upper eyelid, including canthus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C4A.122	Merkel cell carcinoma of left lower eyelid, including canthus	Diagnosis	ICD-10-CM
C4A.2	Merkel cell carcinoma of ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.20	Merkel cell carcinoma of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.21	Merkel cell carcinoma of right ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.22	Merkel cell carcinoma of left ear and external auricular canal	Diagnosis	ICD-10-CM
C4A.3	Merkel cell carcinoma of other and unspecified parts of face	Diagnosis	ICD-10-CM
C4A.30	Merkel cell carcinoma of unspecified part of face	Diagnosis	ICD-10-CM
C4A.31	Merkel cell carcinoma of nose	Diagnosis	ICD-10-CM
C4A.39	Merkel cell carcinoma of other parts of face	Diagnosis	ICD-10-CM
C4A.4	Merkel cell carcinoma of scalp and neck	Diagnosis	ICD-10-CM
C4A.5	Merkel cell carcinoma of trunk	Diagnosis	ICD-10-CM
C4A.51	Merkel cell carcinoma of anal skin	Diagnosis	ICD-10-CM
C4A.52	Merkel cell carcinoma of skin of breast	Diagnosis	ICD-10-CM
C4A.59	Merkel cell carcinoma of other part of trunk	Diagnosis	ICD-10-CM
C4A.6	Merkel cell carcinoma of upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.60	Merkel cell carcinoma of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.61	Merkel cell carcinoma of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.62	Merkel cell carcinoma of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C4A.7	Merkel cell carcinoma of lower limb, including hip	Diagnosis	ICD-10-CM
C4A.70	Merkel cell carcinoma of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C4A.71	Merkel cell carcinoma of right lower limb, including hip	Diagnosis	ICD-10-CM
C4A.72	Merkel cell carcinoma of left lower limb, including hip	Diagnosis	ICD-10-CM
C4A.8	Merkel cell carcinoma of overlapping sites	Diagnosis	ICD-10-CM
C4A.9	Merkel cell carcinoma, unspecified	Diagnosis	ICD-10-CM
C50	Malignant neoplasm of breast	Diagnosis	ICD-10-CM
C50.0	Malignant neoplasm of nipple and areola	Diagnosis	ICD-10-CM
C50.01	Malignant neoplasm of nipple and areola, female	Diagnosis	ICD-10-CM
C50.011	Malignant neoplasm of nipple and areola, right female breast	Diagnosis	ICD-10-CM
C50.012	Malignant neoplasm of nipple and areola, left female breast	Diagnosis	ICD-10-CM
C50.019	Malignant neoplasm of nipple and areola, unspecified female breast	Diagnosis	ICD-10-CM
C50.02	Malignant neoplasm of nipple and areola, male	Diagnosis	ICD-10-CM
C50.021	Malignant neoplasm of nipple and areola, right male breast	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C50.022	Malignant neoplasm of nipple and areola, left male breast	Diagnosis	ICD-10-CM
C50.029	Malignant neoplasm of nipple and areola, unspecified male breast	Diagnosis	ICD-10-CM
C50.1	Malignant neoplasm of central portion of breast	Diagnosis	ICD-10-CM
C50.11	Malignant neoplasm of central portion of breast, female	Diagnosis	ICD-10-CM
C50.111	Malignant neoplasm of central portion of right female breast	Diagnosis	ICD-10-CM
C50.112	Malignant neoplasm of central portion of left female breast	Diagnosis	ICD-10-CM
C50.119	Malignant neoplasm of central portion of unspecified female breast	Diagnosis	ICD-10-CM
C50.12	Malignant neoplasm of central portion of breast, male	Diagnosis	ICD-10-CM
C50.121	Malignant neoplasm of central portion of right male breast	Diagnosis	ICD-10-CM
C50.122	Malignant neoplasm of central portion of left male breast	Diagnosis	ICD-10-CM
C50.129	Malignant neoplasm of central portion of unspecified male breast	Diagnosis	ICD-10-CM
C50.2	Malignant neoplasm of upper-inner quadrant of breast	Diagnosis	ICD-10-CM
C50.21	Malignant neoplasm of upper-inner quadrant of breast, female	Diagnosis	ICD-10-CM
C50.211	Malignant neoplasm of upper-inner quadrant of right female breast	Diagnosis	ICD-10-CM
C50.212	Malignant neoplasm of upper-inner quadrant of left female breast	Diagnosis	ICD-10-CM
C50.219	Malignant neoplasm of upper-inner quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.22	Malignant neoplasm of upper-inner quadrant of breast, male	Diagnosis	ICD-10-CM
C50.221	Malignant neoplasm of upper-inner quadrant of right male breast	Diagnosis	ICD-10-CM
C50.222	Malignant neoplasm of upper-inner quadrant of left male breast	Diagnosis	ICD-10-CM
C50.229	Malignant neoplasm of upper-inner quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.3	Malignant neoplasm of lower-inner quadrant of breast	Diagnosis	ICD-10-CM
C50.31	Malignant neoplasm of lower-inner quadrant of breast, female	Diagnosis	ICD-10-CM
C50.311	Malignant neoplasm of lower-inner quadrant of right female breast	Diagnosis	ICD-10-CM
C50.312	Malignant neoplasm of lower-inner quadrant of left female breast	Diagnosis	ICD-10-CM
C50.319	Malignant neoplasm of lower-inner quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.32	Malignant neoplasm of lower-inner quadrant of breast, male	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C50.321	Malignant neoplasm of lower-inner quadrant of right male breast	Diagnosis	ICD-10-CM
C50.322	Malignant neoplasm of lower-inner quadrant of left male breast	Diagnosis	ICD-10-CM
C50.329	Malignant neoplasm of lower-inner quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.4	Malignant neoplasm of upper-outer quadrant of breast	Diagnosis	ICD-10-CM
C50.41	Malignant neoplasm of upper-outer quadrant of breast, female	Diagnosis	ICD-10-CM
C50.411	Malignant neoplasm of upper-outer quadrant of right female breast	Diagnosis	ICD-10-CM
C50.412	Malignant neoplasm of upper-outer quadrant of left female breast	Diagnosis	ICD-10-CM
C50.419	Malignant neoplasm of upper-outer quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.42	Malignant neoplasm of upper-outer quadrant of breast, male	Diagnosis	ICD-10-CM
C50.421	Malignant neoplasm of upper-outer quadrant of right male breast	Diagnosis	ICD-10-CM
C50.422	Malignant neoplasm of upper-outer quadrant of left male breast	Diagnosis	ICD-10-CM
C50.429	Malignant neoplasm of upper-outer quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.5	Malignant neoplasm of lower-outer quadrant of breast	Diagnosis	ICD-10-CM
C50.51	Malignant neoplasm of lower-outer quadrant of breast, female	Diagnosis	ICD-10-CM
C50.511	Malignant neoplasm of lower-outer quadrant of right female breast	Diagnosis	ICD-10-CM
C50.512	Malignant neoplasm of lower-outer quadrant of left female breast	Diagnosis	ICD-10-CM
C50.519	Malignant neoplasm of lower-outer quadrant of unspecified female breast	Diagnosis	ICD-10-CM
C50.52	Malignant neoplasm of lower-outer quadrant of breast, male	Diagnosis	ICD-10-CM
C50.521	Malignant neoplasm of lower-outer quadrant of right male breast	Diagnosis	ICD-10-CM
C50.522	Malignant neoplasm of lower-outer quadrant of left male breast	Diagnosis	ICD-10-CM
C50.529	Malignant neoplasm of lower-outer quadrant of unspecified male breast	Diagnosis	ICD-10-CM
C50.6	Malignant neoplasm of axillary tail of breast	Diagnosis	ICD-10-CM
C50.61	Malignant neoplasm of axillary tail of breast, female	Diagnosis	ICD-10-CM
C50.611	Malignant neoplasm of axillary tail of right female breast	Diagnosis	ICD-10-CM
C50.612	Malignant neoplasm of axillary tail of left female breast	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C50.619	Malignant neoplasm of axillary tail of unspecified female breast	Diagnosis	ICD-10-CM
C50.62	Malignant neoplasm of axillary tail of breast, male	Diagnosis	ICD-10-CM
C50.621	Malignant neoplasm of axillary tail of right male breast	Diagnosis	ICD-10-CM
C50.622	Malignant neoplasm of axillary tail of left male breast	Diagnosis	ICD-10-CM
C50.629	Malignant neoplasm of axillary tail of unspecified male breast	Diagnosis	ICD-10-CM
C50.8	Malignant neoplasm of overlapping sites of breast	Diagnosis	ICD-10-CM
C50.81	Malignant neoplasm of overlapping sites of breast, female	Diagnosis	ICD-10-CM
C50.811	Malignant neoplasm of overlapping sites of right female breast	Diagnosis	ICD-10-CM
C50.812	Malignant neoplasm of overlapping sites of left female breast	Diagnosis	ICD-10-CM
C50.819	Malignant neoplasm of overlapping sites of unspecified female breast	Diagnosis	ICD-10-CM
C50.82	Malignant neoplasm of overlapping sites of breast, male	Diagnosis	ICD-10-CM
C50.821	Malignant neoplasm of overlapping sites of right male breast	Diagnosis	ICD-10-CM
C50.822	Malignant neoplasm of overlapping sites of left male breast	Diagnosis	ICD-10-CM
C50.829	Malignant neoplasm of overlapping sites of unspecified male breast	Diagnosis	ICD-10-CM
C50.9	Malignant neoplasm of breast of unspecified site	Diagnosis	ICD-10-CM
C50.91	Malignant neoplasm of breast of unspecified site, female	Diagnosis	ICD-10-CM
C50.911	Malignant neoplasm of unspecified site of right female breast	Diagnosis	ICD-10-CM
C50.912	Malignant neoplasm of unspecified site of left female breast	Diagnosis	ICD-10-CM
C50.919	Malignant neoplasm of unspecified site of unspecified female breast	Diagnosis	ICD-10-CM
C50.92	Malignant neoplasm of breast of unspecified site, male	Diagnosis	ICD-10-CM
C50.921	Malignant neoplasm of unspecified site of right male breast	Diagnosis	ICD-10-CM
C50.922	Malignant neoplasm of unspecified site of left male breast	Diagnosis	ICD-10-CM
C50.929	Malignant neoplasm of unspecified site of unspecified male breast	Diagnosis	ICD-10-CM
C51	Malignant neoplasm of vulva	Diagnosis	ICD-10-CM
C51.0	Malignant neoplasm of labium majus	Diagnosis	ICD-10-CM
C51.1	Malignant neoplasm of labium minus	Diagnosis	ICD-10-CM
C51.2	Malignant neoplasm of clitoris	Diagnosis	ICD-10-CM
C51.8	Malignant neoplasm of overlapping sites of vulva	Diagnosis	ICD-10-CM
C51.9	Malignant neoplasm of vulva, unspecified	Diagnosis	ICD-10-CM
C52	Malignant neoplasm of vagina	Diagnosis	ICD-10-CM
C53	Malignant neoplasm of cervix uteri	Diagnosis	ICD-10-CM
C53.0	Malignant neoplasm of endocervix	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C53.1	Malignant neoplasm of exocervix	Diagnosis	ICD-10-CM
C53.8	Malignant neoplasm of overlapping sites of cervix uteri	Diagnosis	ICD-10-CM
C53.9	Malignant neoplasm of cervix uteri, unspecified	Diagnosis	ICD-10-CM
C54	Malignant neoplasm of corpus uteri	Diagnosis	ICD-10-CM
C54.0	Malignant neoplasm of isthmus uteri	Diagnosis	ICD-10-CM
C54.1	Malignant neoplasm of endometrium	Diagnosis	ICD-10-CM
C54.2	Malignant neoplasm of myometrium	Diagnosis	ICD-10-CM
C54.3	Malignant neoplasm of fundus uteri	Diagnosis	ICD-10-CM
C54.8	Malignant neoplasm of overlapping sites of corpus uteri	Diagnosis	ICD-10-CM
C54.9	Malignant neoplasm of corpus uteri, unspecified	Diagnosis	ICD-10-CM
C55	Malignant neoplasm of uterus, part unspecified	Diagnosis	ICD-10-CM
C56	Malignant neoplasm of ovary	Diagnosis	ICD-10-CM
C56.1	Malignant neoplasm of right ovary	Diagnosis	ICD-10-CM
C56.2	Malignant neoplasm of left ovary	Diagnosis	ICD-10-CM
C56.9	Malignant neoplasm of unspecified ovary	Diagnosis	ICD-10-CM
C57	Malignant neoplasm of other and unspecified female genital organs	Diagnosis	ICD-10-CM
C57.0	Malignant neoplasm of fallopian tube	Diagnosis	ICD-10-CM
C57.00	Malignant neoplasm of unspecified fallopian tube	Diagnosis	ICD-10-CM
C57.01	Malignant neoplasm of right fallopian tube	Diagnosis	ICD-10-CM
C57.02	Malignant neoplasm of left fallopian tube	Diagnosis	ICD-10-CM
C57.1	Malignant neoplasm of broad ligament	Diagnosis	ICD-10-CM
C57.10	Malignant neoplasm of unspecified broad ligament	Diagnosis	ICD-10-CM
C57.11	Malignant neoplasm of right broad ligament	Diagnosis	ICD-10-CM
C57.12	Malignant neoplasm of left broad ligament	Diagnosis	ICD-10-CM
C57.2	Malignant neoplasm of round ligament	Diagnosis	ICD-10-CM
C57.20	Malignant neoplasm of unspecified round ligament	Diagnosis	ICD-10-CM
C57.21	Malignant neoplasm of right round ligament	Diagnosis	ICD-10-CM
C57.22	Malignant neoplasm of left round ligament	Diagnosis	ICD-10-CM
C57.3	Malignant neoplasm of parametrium	Diagnosis	ICD-10-CM
C57.4	Malignant neoplasm of uterine adnexa, unspecified	Diagnosis	ICD-10-CM
C57.7	Malignant neoplasm of other specified female genital organs	Diagnosis	ICD-10-CM
C57.8	Malignant neoplasm of overlapping sites of female genital organs	Diagnosis	ICD-10-CM
C57.9	Malignant neoplasm of female genital organ, unspecified	Diagnosis	ICD-10-CM
C58	Malignant neoplasm of placenta	Diagnosis	ICD-10-CM
C60	Malignant neoplasm of penis	Diagnosis	ICD-10-CM
C60.0	Malignant neoplasm of prepuce	Diagnosis	ICD-10-CM
C60.1	Malignant neoplasm of glans penis	Diagnosis	ICD-10-CM
C60.2	Malignant neoplasm of body of penis	Diagnosis	ICD-10-CM
C60.8	Malignant neoplasm of overlapping sites of penis	Diagnosis	ICD-10-CM
C60.9	Malignant neoplasm of penis, unspecified	Diagnosis	ICD-10-CM
C61	Malignant neoplasm of prostate	Diagnosis	ICD-10-CM
C62	Malignant neoplasm of testis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C62.0	Malignant neoplasm of undescended testis	Diagnosis	ICD-10-CM
C62.00	Malignant neoplasm of unspecified undescended testis	Diagnosis	ICD-10-CM
C62.01	Malignant neoplasm of undescended right testis	Diagnosis	ICD-10-CM
C62.02	Malignant neoplasm of undescended left testis	Diagnosis	ICD-10-CM
C62.1	Malignant neoplasm of descended testis	Diagnosis	ICD-10-CM
C62.10	Malignant neoplasm of unspecified descended testis	Diagnosis	ICD-10-CM
C62.11	Malignant neoplasm of descended right testis	Diagnosis	ICD-10-CM
C62.12	Malignant neoplasm of descended left testis	Diagnosis	ICD-10-CM
C62.9	Malignant neoplasm of testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C62.90	Malignant neoplasm of unspecified testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C62.91	Malignant neoplasm of right testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C62.92	Malignant neoplasm of left testis, unspecified whether descended or undescended	Diagnosis	ICD-10-CM
C63	Malignant neoplasm of other and unspecified male genital organs	Diagnosis	ICD-10-CM
C63.0	Malignant neoplasm of epididymis	Diagnosis	ICD-10-CM
C63.00	Malignant neoplasm of unspecified epididymis	Diagnosis	ICD-10-CM
C63.01	Malignant neoplasm of right epididymis	Diagnosis	ICD-10-CM
C63.02	Malignant neoplasm of left epididymis	Diagnosis	ICD-10-CM
C63.1	Malignant neoplasm of spermatic cord	Diagnosis	ICD-10-CM
C63.10	Malignant neoplasm of unspecified spermatic cord	Diagnosis	ICD-10-CM
C63.11	Malignant neoplasm of right spermatic cord	Diagnosis	ICD-10-CM
C63.12	Malignant neoplasm of left spermatic cord	Diagnosis	ICD-10-CM
C63.2	Malignant neoplasm of scrotum	Diagnosis	ICD-10-CM
C63.7	Malignant neoplasm of other specified male genital organs	Diagnosis	ICD-10-CM
C63.8	Malignant neoplasm of overlapping sites of male genital organs	Diagnosis	ICD-10-CM
C63.9	Malignant neoplasm of male genital organ, unspecified	Diagnosis	ICD-10-CM
C64	Malignant neoplasm of kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.1	Malignant neoplasm of right kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.2	Malignant neoplasm of left kidney, except renal pelvis	Diagnosis	ICD-10-CM
C64.9	Malignant neoplasm of unspecified kidney, except renal pelvis	Diagnosis	ICD-10-CM
C65	Malignant neoplasm of renal pelvis	Diagnosis	ICD-10-CM
C65.1	Malignant neoplasm of right renal pelvis	Diagnosis	ICD-10-CM
C65.2	Malignant neoplasm of left renal pelvis	Diagnosis	ICD-10-CM
C65.9	Malignant neoplasm of unspecified renal pelvis	Diagnosis	ICD-10-CM
C66	Malignant neoplasm of ureter	Diagnosis	ICD-10-CM
C66.1	Malignant neoplasm of right ureter	Diagnosis	ICD-10-CM
C66.2	Malignant neoplasm of left ureter	Diagnosis	ICD-10-CM
C66.9	Malignant neoplasm of unspecified ureter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C67	Malignant neoplasm of bladder	Diagnosis	ICD-10-CM
C67.0	Malignant neoplasm of trigone of bladder	Diagnosis	ICD-10-CM
C67.1	Malignant neoplasm of dome of bladder	Diagnosis	ICD-10-CM
C67.2	Malignant neoplasm of lateral wall of bladder	Diagnosis	ICD-10-CM
C67.3	Malignant neoplasm of anterior wall of bladder	Diagnosis	ICD-10-CM
C67.4	Malignant neoplasm of posterior wall of bladder	Diagnosis	ICD-10-CM
C67.5	Malignant neoplasm of bladder neck	Diagnosis	ICD-10-CM
C67.6	Malignant neoplasm of ureteric orifice	Diagnosis	ICD-10-CM
C67.7	Malignant neoplasm of urachus	Diagnosis	ICD-10-CM
C67.8	Malignant neoplasm of overlapping sites of bladder	Diagnosis	ICD-10-CM
C67.9	Malignant neoplasm of bladder, unspecified	Diagnosis	ICD-10-CM
C68	Malignant neoplasm of other and unspecified urinary organs	Diagnosis	ICD-10-CM
C68.0	Malignant neoplasm of urethra	Diagnosis	ICD-10-CM
C68.1	Malignant neoplasm of paraurethral glands	Diagnosis	ICD-10-CM
C68.8	Malignant neoplasm of overlapping sites of urinary organs	Diagnosis	ICD-10-CM
C68.9	Malignant neoplasm of urinary organ, unspecified	Diagnosis	ICD-10-CM
C69	Malignant neoplasm of eye and adnexa	Diagnosis	ICD-10-CM
C69.0	Malignant neoplasm of conjunctiva	Diagnosis	ICD-10-CM
C69.00	Malignant neoplasm of unspecified conjunctiva	Diagnosis	ICD-10-CM
C69.01	Malignant neoplasm of right conjunctiva	Diagnosis	ICD-10-CM
C69.02	Malignant neoplasm of left conjunctiva	Diagnosis	ICD-10-CM
C69.1	Malignant neoplasm of cornea	Diagnosis	ICD-10-CM
C69.10	Malignant neoplasm of unspecified cornea	Diagnosis	ICD-10-CM
C69.11	Malignant neoplasm of right cornea	Diagnosis	ICD-10-CM
C69.12	Malignant neoplasm of left cornea	Diagnosis	ICD-10-CM
C69.2	Malignant neoplasm of retina	Diagnosis	ICD-10-CM
C69.20	Malignant neoplasm of unspecified retina	Diagnosis	ICD-10-CM
C69.21	Malignant neoplasm of right retina	Diagnosis	ICD-10-CM
C69.22	Malignant neoplasm of left retina	Diagnosis	ICD-10-CM
C69.3	Malignant neoplasm of choroid	Diagnosis	ICD-10-CM
C69.30	Malignant neoplasm of unspecified choroid	Diagnosis	ICD-10-CM
C69.31	Malignant neoplasm of right choroid	Diagnosis	ICD-10-CM
C69.32	Malignant neoplasm of left choroid	Diagnosis	ICD-10-CM
C69.4	Malignant neoplasm of ciliary body	Diagnosis	ICD-10-CM
C69.40	Malignant neoplasm of unspecified ciliary body	Diagnosis	ICD-10-CM
C69.41	Malignant neoplasm of right ciliary body	Diagnosis	ICD-10-CM
C69.42	Malignant neoplasm of left ciliary body	Diagnosis	ICD-10-CM
C69.5	Malignant neoplasm of lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.50	Malignant neoplasm of unspecified lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.51	Malignant neoplasm of right lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.52	Malignant neoplasm of left lacrimal gland and duct	Diagnosis	ICD-10-CM
C69.6	Malignant neoplasm of orbit	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C69.60	Malignant neoplasm of unspecified orbit	Diagnosis	ICD-10-CM
C69.61	Malignant neoplasm of right orbit	Diagnosis	ICD-10-CM
C69.62	Malignant neoplasm of left orbit	Diagnosis	ICD-10-CM
C69.8	Malignant neoplasm of overlapping sites of eye and adnexa	Diagnosis	ICD-10-CM
C69.80	Malignant neoplasm of overlapping sites of unspecified eye and adnexa	Diagnosis	ICD-10-CM
C69.81	Malignant neoplasm of overlapping sites of right eye and adnexa	Diagnosis	ICD-10-CM
C69.82	Malignant neoplasm of overlapping sites of left eye and adnexa	Diagnosis	ICD-10-CM
C69.9	Malignant neoplasm of unspecified site of eye	Diagnosis	ICD-10-CM
C69.90	Malignant neoplasm of unspecified site of unspecified eye	Diagnosis	ICD-10-CM
C69.91	Malignant neoplasm of unspecified site of right eye	Diagnosis	ICD-10-CM
C69.92	Malignant neoplasm of unspecified site of left eye	Diagnosis	ICD-10-CM
C70	Malignant neoplasm of meninges	Diagnosis	ICD-10-CM
C70.0	Malignant neoplasm of cerebral meninges	Diagnosis	ICD-10-CM
C70.1	Malignant neoplasm of spinal meninges	Diagnosis	ICD-10-CM
C70.9	Malignant neoplasm of meninges, unspecified	Diagnosis	ICD-10-CM
C71	Malignant neoplasm of brain	Diagnosis	ICD-10-CM
C71.0	Malignant neoplasm of cerebrum, except lobes and ventricles	Diagnosis	ICD-10-CM
C71.1	Malignant neoplasm of frontal lobe	Diagnosis	ICD-10-CM
C71.2	Malignant neoplasm of temporal lobe	Diagnosis	ICD-10-CM
C71.3	Malignant neoplasm of parietal lobe	Diagnosis	ICD-10-CM
C71.4	Malignant neoplasm of occipital lobe	Diagnosis	ICD-10-CM
C71.5	Malignant neoplasm of cerebral ventricle	Diagnosis	ICD-10-CM
C71.6	Malignant neoplasm of cerebellum	Diagnosis	ICD-10-CM
C71.7	Malignant neoplasm of brain stem	Diagnosis	ICD-10-CM
C71.8	Malignant neoplasm of overlapping sites of brain	Diagnosis	ICD-10-CM
C71.9	Malignant neoplasm of brain, unspecified	Diagnosis	ICD-10-CM
C72	Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system	Diagnosis	ICD-10-CM
C72.0	Malignant neoplasm of spinal cord	Diagnosis	ICD-10-CM
C72.1	Malignant neoplasm of cauda equina	Diagnosis	ICD-10-CM
C72.2	Malignant neoplasm of olfactory nerve	Diagnosis	ICD-10-CM
C72.20	Malignant neoplasm of unspecified olfactory nerve	Diagnosis	ICD-10-CM
C72.21	Malignant neoplasm of right olfactory nerve	Diagnosis	ICD-10-CM
C72.22	Malignant neoplasm of left olfactory nerve	Diagnosis	ICD-10-CM
C72.3	Malignant neoplasm of optic nerve	Diagnosis	ICD-10-CM
C72.30	Malignant neoplasm of unspecified optic nerve	Diagnosis	ICD-10-CM
C72.31	Malignant neoplasm of right optic nerve	Diagnosis	ICD-10-CM
C72.32	Malignant neoplasm of left optic nerve	Diagnosis	ICD-10-CM
C72.4	Malignant neoplasm of acoustic nerve	Diagnosis	ICD-10-CM
C72.40	Malignant neoplasm of unspecified acoustic nerve	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C72.41	Malignant neoplasm of right acoustic nerve	Diagnosis	ICD-10-CM
C72.42	Malignant neoplasm of left acoustic nerve	Diagnosis	ICD-10-CM
C72.5	Malignant neoplasm of other and unspecified cranial nerves	Diagnosis	ICD-10-CM
C72.50	Malignant neoplasm of unspecified cranial nerve	Diagnosis	ICD-10-CM
C72.59	Malignant neoplasm of other cranial nerves	Diagnosis	ICD-10-CM
C72.9	Malignant neoplasm of central nervous system, unspecified	Diagnosis	ICD-10-CM
C73	Malignant neoplasm of thyroid gland	Diagnosis	ICD-10-CM
C74	Malignant neoplasm of adrenal gland	Diagnosis	ICD-10-CM
C74.0	Malignant neoplasm of cortex of adrenal gland	Diagnosis	ICD-10-CM
C74.00	Malignant neoplasm of cortex of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.01	Malignant neoplasm of cortex of right adrenal gland	Diagnosis	ICD-10-CM
C74.02	Malignant neoplasm of cortex of left adrenal gland	Diagnosis	ICD-10-CM
C74.1	Malignant neoplasm of medulla of adrenal gland	Diagnosis	ICD-10-CM
C74.10	Malignant neoplasm of medulla of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.11	Malignant neoplasm of medulla of right adrenal gland	Diagnosis	ICD-10-CM
C74.12	Malignant neoplasm of medulla of left adrenal gland	Diagnosis	ICD-10-CM
C74.9	Malignant neoplasm of unspecified part of adrenal gland	Diagnosis	ICD-10-CM
C74.90	Malignant neoplasm of unspecified part of unspecified adrenal gland	Diagnosis	ICD-10-CM
C74.91	Malignant neoplasm of unspecified part of right adrenal gland	Diagnosis	ICD-10-CM
C74.92	Malignant neoplasm of unspecified part of left adrenal gland	Diagnosis	ICD-10-CM
C75	Malignant neoplasm of other endocrine glands and related structures	Diagnosis	ICD-10-CM
C75.0	Malignant neoplasm of parathyroid gland	Diagnosis	ICD-10-CM
C75.1	Malignant neoplasm of pituitary gland	Diagnosis	ICD-10-CM
C75.2	Malignant neoplasm of craniopharyngeal duct	Diagnosis	ICD-10-CM
C75.3	Malignant neoplasm of pineal gland	Diagnosis	ICD-10-CM
C75.4	Malignant neoplasm of carotid body	Diagnosis	ICD-10-CM
C75.5	Malignant neoplasm of aortic body and other paraganglia	Diagnosis	ICD-10-CM
C75.8	Malignant neoplasm with pluriglandular involvement, unspecified	Diagnosis	ICD-10-CM
C75.9	Malignant neoplasm of endocrine gland, unspecified	Diagnosis	ICD-10-CM
C76	Malignant neoplasm of other and ill-defined sites	Diagnosis	ICD-10-CM
C76.0	Malignant neoplasm of head, face and neck	Diagnosis	ICD-10-CM
C76.1	Malignant neoplasm of thorax	Diagnosis	ICD-10-CM
C76.2	Malignant neoplasm of abdomen	Diagnosis	ICD-10-CM
C76.3	Malignant neoplasm of pelvis	Diagnosis	ICD-10-CM
C76.4	Malignant neoplasm of upper limb	Diagnosis	ICD-10-CM
C76.40	Malignant neoplasm of unspecified upper limb	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C76.41	Malignant neoplasm of right upper limb	Diagnosis	ICD-10-CM
C76.42	Malignant neoplasm of left upper limb	Diagnosis	ICD-10-CM
C76.5	Malignant neoplasm of lower limb	Diagnosis	ICD-10-CM
C76.50	Malignant neoplasm of unspecified lower limb	Diagnosis	ICD-10-CM
C76.51	Malignant neoplasm of right lower limb	Diagnosis	ICD-10-CM
C76.52	Malignant neoplasm of left lower limb	Diagnosis	ICD-10-CM
C76.8	Malignant neoplasm of other specified ill-defined sites	Diagnosis	ICD-10-CM
C77	Secondary and unspecified malignant neoplasm of lymph nodes	Diagnosis	ICD-10-CM
C77.0	Secondary and unspecified malignant neoplasm of lymph nodes of head, face and neck	Diagnosis	ICD-10-CM
C77.1	Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C77.2	Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C77.3	Secondary and unspecified malignant neoplasm of axilla and upper limb lymph nodes	Diagnosis	ICD-10-CM
C77.4	Secondary and unspecified malignant neoplasm of inguinal and lower limb lymph nodes	Diagnosis	ICD-10-CM
C77.5	Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C77.8	Secondary and unspecified malignant neoplasm of lymph nodes of multiple regions	Diagnosis	ICD-10-CM
C77.9	Secondary and unspecified malignant neoplasm of lymph node, unspecified	Diagnosis	ICD-10-CM
C78	Secondary malignant neoplasm of respiratory and digestive organs	Diagnosis	ICD-10-CM
C78.0	Secondary malignant neoplasm of lung	Diagnosis	ICD-10-CM
C78.00	Secondary malignant neoplasm of unspecified lung	Diagnosis	ICD-10-CM
C78.01	Secondary malignant neoplasm of right lung	Diagnosis	ICD-10-CM
C78.02	Secondary malignant neoplasm of left lung	Diagnosis	ICD-10-CM
C78.1	Secondary malignant neoplasm of mediastinum	Diagnosis	ICD-10-CM
C78.2	Secondary malignant neoplasm of pleura	Diagnosis	ICD-10-CM
C78.3	Secondary malignant neoplasm of other and unspecified respiratory organs	Diagnosis	ICD-10-CM
C78.30	Secondary malignant neoplasm of unspecified respiratory organ	Diagnosis	ICD-10-CM
C78.39	Secondary malignant neoplasm of other respiratory organs	Diagnosis	ICD-10-CM
C78.4	Secondary malignant neoplasm of small intestine	Diagnosis	ICD-10-CM
C78.5	Secondary malignant neoplasm of large intestine and rectum	Diagnosis	ICD-10-CM
C78.6	Secondary malignant neoplasm of retroperitoneum and peritoneum	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C78.7	Secondary malignant neoplasm of liver and intrahepatic bile duct	Diagnosis	ICD-10-CM
C78.8	Secondary malignant neoplasm of other and unspecified digestive organs	Diagnosis	ICD-10-CM
C78.80	Secondary malignant neoplasm of unspecified digestive organ	Diagnosis	ICD-10-CM
C78.89	Secondary malignant neoplasm of other digestive organs	Diagnosis	ICD-10-CM
C79	Secondary malignant neoplasm of other and unspecified sites	Diagnosis	ICD-10-CM
C79.0	Secondary malignant neoplasm of kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.00	Secondary malignant neoplasm of unspecified kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.01	Secondary malignant neoplasm of right kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.02	Secondary malignant neoplasm of left kidney and renal pelvis	Diagnosis	ICD-10-CM
C79.1	Secondary malignant neoplasm of bladder and other and unspecified urinary organs	Diagnosis	ICD-10-CM
C79.10	Secondary malignant neoplasm of unspecified urinary organs	Diagnosis	ICD-10-CM
C79.11	Secondary malignant neoplasm of bladder	Diagnosis	ICD-10-CM
C79.19	Secondary malignant neoplasm of other urinary organs	Diagnosis	ICD-10-CM
C79.2	Secondary malignant neoplasm of skin	Diagnosis	ICD-10-CM
C79.3	Secondary malignant neoplasm of brain and cerebral meninges	Diagnosis	ICD-10-CM
C79.31	Secondary malignant neoplasm of brain	Diagnosis	ICD-10-CM
C79.32	Secondary malignant neoplasm of cerebral meninges	Diagnosis	ICD-10-CM
C79.4	Secondary malignant neoplasm of other and unspecified parts of nervous system	Diagnosis	ICD-10-CM
C79.40	Secondary malignant neoplasm of unspecified part of nervous system	Diagnosis	ICD-10-CM
C79.49	Secondary malignant neoplasm of other parts of nervous system	Diagnosis	ICD-10-CM
C79.5	Secondary malignant neoplasm of bone and bone marrow	Diagnosis	ICD-10-CM
C79.51	Secondary malignant neoplasm of bone	Diagnosis	ICD-10-CM
C79.52	Secondary malignant neoplasm of bone marrow	Diagnosis	ICD-10-CM
C79.6	Secondary malignant neoplasm of ovary	Diagnosis	ICD-10-CM
C79.60	Secondary malignant neoplasm of unspecified ovary	Diagnosis	ICD-10-CM
C79.61	Secondary malignant neoplasm of right ovary	Diagnosis	ICD-10-CM
C79.62	Secondary malignant neoplasm of left ovary	Diagnosis	ICD-10-CM
C79.7	Secondary malignant neoplasm of adrenal gland	Diagnosis	ICD-10-CM
C79.70	Secondary malignant neoplasm of unspecified adrenal gland	Diagnosis	ICD-10-CM
C79.71	Secondary malignant neoplasm of right adrenal gland	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C79.72	Secondary malignant neoplasm of left adrenal gland	Diagnosis	ICD-10-CM
C79.8	Secondary malignant neoplasm of other specified sites	Diagnosis	ICD-10-CM
C79.81	Secondary malignant neoplasm of breast	Diagnosis	ICD-10-CM
C79.82	Secondary malignant neoplasm of genital organs	Diagnosis	ICD-10-CM
C79.89	Secondary malignant neoplasm of other specified sites	Diagnosis	ICD-10-CM
C79.9	Secondary malignant neoplasm of unspecified site	Diagnosis	ICD-10-CM
C7A	Malignant neuroendocrine tumors	Diagnosis	ICD-10-CM
C7A.0	Malignant carcinoid tumors	Diagnosis	ICD-10-CM
C7A.00	Malignant carcinoid tumor of unspecified site	Diagnosis	ICD-10-CM
C7A.01	Malignant carcinoid tumors of the small intestine	Diagnosis	ICD-10-CM
C7A.010	Malignant carcinoid tumor of the duodenum	Diagnosis	ICD-10-CM
C7A.011	Malignant carcinoid tumor of the jejunum	Diagnosis	ICD-10-CM
C7A.012	Malignant carcinoid tumor of the ileum	Diagnosis	ICD-10-CM
C7A.019	Malignant carcinoid tumor of the small intestine, unspecified portion	Diagnosis	ICD-10-CM
C7A.02	Malignant carcinoid tumors of the appendix, large intestine, and rectum	Diagnosis	ICD-10-CM
C7A.020	Malignant carcinoid tumor of the appendix	Diagnosis	ICD-10-CM
C7A.021	Malignant carcinoid tumor of the cecum	Diagnosis	ICD-10-CM
C7A.022	Malignant carcinoid tumor of the ascending colon	Diagnosis	ICD-10-CM
C7A.023	Malignant carcinoid tumor of the transverse colon	Diagnosis	ICD-10-CM
C7A.024	Malignant carcinoid tumor of the descending colon	Diagnosis	ICD-10-CM
C7A.025	Malignant carcinoid tumor of the sigmoid colon	Diagnosis	ICD-10-CM
C7A.026	Malignant carcinoid tumor of the rectum	Diagnosis	ICD-10-CM
C7A.029	Malignant carcinoid tumor of the large intestine, unspecified portion	Diagnosis	ICD-10-CM
C7A.09	Malignant carcinoid tumors of other sites	Diagnosis	ICD-10-CM
C7A.090	Malignant carcinoid tumor of the bronchus and lung	Diagnosis	ICD-10-CM
C7A.091	Malignant carcinoid tumor of the thymus	Diagnosis	ICD-10-CM
C7A.092	Malignant carcinoid tumor of the stomach	Diagnosis	ICD-10-CM
C7A.093	Malignant carcinoid tumor of the kidney	Diagnosis	ICD-10-CM
C7A.094	Malignant carcinoid tumor of the foregut, unspecified	Diagnosis	ICD-10-CM
C7A.095	Malignant carcinoid tumor of the midgut, unspecified	Diagnosis	ICD-10-CM
C7A.096	Malignant carcinoid tumor of the hindgut, unspecified	Diagnosis	ICD-10-CM
C7A.098	Malignant carcinoid tumors of other sites	Diagnosis	ICD-10-CM
C7A.1	Malignant poorly differentiated neuroendocrine tumors	Diagnosis	ICD-10-CM
C7A.8	Other malignant neuroendocrine tumors	Diagnosis	ICD-10-CM
C7B	Secondary neuroendocrine tumors	Diagnosis	ICD-10-CM
C7B.0	Secondary carcinoid tumors	Diagnosis	ICD-10-CM
C7B.00	Secondary carcinoid tumors, unspecified site	Diagnosis	ICD-10-CM
C7B.01	Secondary carcinoid tumors of distant lymph nodes	Diagnosis	ICD-10-CM
C7B.02	Secondary carcinoid tumors of liver	Diagnosis	ICD-10-CM
C7B.03	Secondary carcinoid tumors of bone	Diagnosis	ICD-10-CM
C7B.04	Secondary carcinoid tumors of peritoneum	Diagnosis	ICD-10-CM
C7B.09	Secondary carcinoid tumors of other sites	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C7B.1	Secondary Merkel cell carcinoma	Diagnosis	ICD-10-CM
C7B.8	Other secondary neuroendocrine tumors	Diagnosis	ICD-10-CM
C80	Malignant neoplasm without specification of site	Diagnosis	ICD-10-CM
C80.0	Disseminated malignant neoplasm, unspecified	Diagnosis	ICD-10-CM
C80.1	Malignant (primary) neoplasm, unspecified	Diagnosis	ICD-10-CM
C80.2	Malignant neoplasm associated with transplanted organ	Diagnosis	ICD-10-CM
C81	Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.0	Nodular lymphocyte predominant Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.00	Nodular lymphocyte predominant Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.01	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.02	Nodular lymphocyte predominant Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.03	Nodular lymphocyte predominant Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.04	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.05	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.06	Nodular lymphocyte predominant Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.07	Nodular lymphocyte predominant Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.08	Nodular lymphocyte predominant Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.09	Nodular lymphocyte predominant Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.1	Nodular sclerosis Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.10	Nodular sclerosis Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.11	Nodular sclerosis Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.12	Nodular sclerosis Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.13	Nodular sclerosis Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.14	Nodular sclerosis Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.15	Nodular sclerosis Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.16	Nodular sclerosis Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.17	Nodular sclerosis Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C81.18	Nodular sclerosis Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.19	Nodular sclerosis Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.2	Mixed cellularity Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.20	Mixed cellularity Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.21	Mixed cellularity Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.22	Mixed cellularity Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.23	Mixed cellularity Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.24	Mixed cellularity Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.25	Mixed cellularity Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.26	Mixed cellularity Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.27	Mixed cellularity Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.28	Mixed cellularity Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.29	Mixed cellularity Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.3	Lymphocyte depleted Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.30	Lymphocyte depleted Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.31	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.32	Lymphocyte depleted Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.33	Lymphocyte depleted Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.34	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.35	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.36	Lymphocyte depleted Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.37	Lymphocyte depleted Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.38	Lymphocyte depleted Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.39	Lymphocyte depleted Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.4	Lymphocyte-rich Hodgkin lymphoma	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C81.40	Lymphocyte-rich Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.41	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.42	Lymphocyte-rich Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.43	Lymphocyte-rich Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.44	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.45	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.46	Lymphocyte-rich Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.47	Lymphocyte-rich Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.48	Lymphocyte-rich Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.49	Lymphocyte-rich Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.7	Other Hodgkin lymphoma	Diagnosis	ICD-10-CM
C81.70	Other Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C81.71	Other Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.72	Other Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.73	Other Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.74	Other Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C81.75	Other Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.76	Other Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.77	Other Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C81.78	Other Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.79	Other Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C81.9	Hodgkin lymphoma, unspecified	Diagnosis	ICD-10-CM
C81.90	Hodgkin lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C81.91	Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C81.92	Hodgkin lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C81.93	Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C81.94	Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C81.95	Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C81.96	Hodgkin lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C81.97	Hodgkin lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C81.98	Hodgkin lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C81.99	Hodgkin lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82	Follicular lymphoma	Diagnosis	ICD-10-CM
C82.0	Follicular lymphoma grade I	Diagnosis	ICD-10-CM
C82.00	Follicular lymphoma grade I, unspecified site	Diagnosis	ICD-10-CM
C82.01	Follicular lymphoma grade I, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.02	Follicular lymphoma grade I, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.03	Follicular lymphoma grade I, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.04	Follicular lymphoma grade I, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.05	Follicular lymphoma grade I, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.06	Follicular lymphoma grade I, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.07	Follicular lymphoma grade I, spleen	Diagnosis	ICD-10-CM
C82.08	Follicular lymphoma grade I, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.09	Follicular lymphoma grade I, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.1	Follicular lymphoma grade II	Diagnosis	ICD-10-CM
C82.10	Follicular lymphoma grade II, unspecified site	Diagnosis	ICD-10-CM
C82.11	Follicular lymphoma grade II, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.12	Follicular lymphoma grade II, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.13	Follicular lymphoma grade II, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.14	Follicular lymphoma grade II, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.15	Follicular lymphoma grade II, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.16	Follicular lymphoma grade II, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.17	Follicular lymphoma grade II, spleen	Diagnosis	ICD-10-CM
C82.18	Follicular lymphoma grade II, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.19	Follicular lymphoma grade II, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.2	Follicular lymphoma grade III, unspecified	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C82.20	Follicular lymphoma grade III, unspecified, unspecified site	Diagnosis	ICD-10-CM
C82.21	Follicular lymphoma grade III, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.22	Follicular lymphoma grade III, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.23	Follicular lymphoma grade III, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.24	Follicular lymphoma grade III, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.25	Follicular lymphoma grade III, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.26	Follicular lymphoma grade III, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.27	Follicular lymphoma grade III, unspecified, spleen	Diagnosis	ICD-10-CM
C82.28	Follicular lymphoma grade III, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.29	Follicular lymphoma grade III, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.3	Follicular lymphoma grade IIIa	Diagnosis	ICD-10-CM
C82.30	Follicular lymphoma grade IIIa, unspecified site	Diagnosis	ICD-10-CM
C82.31	Follicular lymphoma grade IIIa, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.32	Follicular lymphoma grade IIIa, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.33	Follicular lymphoma grade IIIa, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.34	Follicular lymphoma grade IIIa, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.35	Follicular lymphoma grade IIIa, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.36	Follicular lymphoma grade IIIa, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.37	Follicular lymphoma grade IIIa, spleen	Diagnosis	ICD-10-CM
C82.38	Follicular lymphoma grade IIIa, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.39	Follicular lymphoma grade IIIa, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.4	Follicular lymphoma grade IIIb	Diagnosis	ICD-10-CM
C82.40	Follicular lymphoma grade IIIb, unspecified site	Diagnosis	ICD-10-CM
C82.41	Follicular lymphoma grade IIIb, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.42	Follicular lymphoma grade IIIb, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.43	Follicular lymphoma grade IIIb, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C82.44	Follicular lymphoma grade IIIb, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.45	Follicular lymphoma grade IIIb, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.46	Follicular lymphoma grade IIIb, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.47	Follicular lymphoma grade IIIb, spleen	Diagnosis	ICD-10-CM
C82.48	Follicular lymphoma grade IIIb, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.49	Follicular lymphoma grade IIIb, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.5	Diffuse follicle center lymphoma	Diagnosis	ICD-10-CM
C82.50	Diffuse follicle center lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.51	Diffuse follicle center lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.52	Diffuse follicle center lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.53	Diffuse follicle center lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.54	Diffuse follicle center lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.55	Diffuse follicle center lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.56	Diffuse follicle center lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.57	Diffuse follicle center lymphoma, spleen	Diagnosis	ICD-10-CM
C82.58	Diffuse follicle center lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.59	Diffuse follicle center lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.6	Cutaneous follicle center lymphoma	Diagnosis	ICD-10-CM
C82.60	Cutaneous follicle center lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.61	Cutaneous follicle center lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.62	Cutaneous follicle center lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.63	Cutaneous follicle center lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.64	Cutaneous follicle center lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.65	Cutaneous follicle center lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.66	Cutaneous follicle center lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.67	Cutaneous follicle center lymphoma, spleen	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C82.68	Cutaneous follicle center lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.69	Cutaneous follicle center lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.8	Other types of follicular lymphoma	Diagnosis	ICD-10-CM
C82.80	Other types of follicular lymphoma, unspecified site	Diagnosis	ICD-10-CM
C82.81	Other types of follicular lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.82	Other types of follicular lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.83	Other types of follicular lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.84	Other types of follicular lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.85	Other types of follicular lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.86	Other types of follicular lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.87	Other types of follicular lymphoma, spleen	Diagnosis	ICD-10-CM
C82.88	Other types of follicular lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.89	Other types of follicular lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C82.9	Follicular lymphoma, unspecified	Diagnosis	ICD-10-CM
C82.90	Follicular lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C82.91	Follicular lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C82.92	Follicular lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C82.93	Follicular lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C82.94	Follicular lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C82.95	Follicular lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C82.96	Follicular lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C82.97	Follicular lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C82.98	Follicular lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C82.99	Follicular lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83	Non-follicular lymphoma	Diagnosis	ICD-10-CM
C83.0	Small cell B-cell lymphoma	Diagnosis	ICD-10-CM
C83.00	Small cell B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C83.01	Small cell B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.02	Small cell B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.03	Small cell B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.04	Small cell B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.05	Small cell B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.06	Small cell B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.07	Small cell B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.08	Small cell B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.09	Small cell B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.1	Mantle cell lymphoma	Diagnosis	ICD-10-CM
C83.10	Mantle cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.11	Mantle cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.12	Mantle cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.13	Mantle cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.14	Mantle cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.15	Mantle cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.16	Mantle cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.17	Mantle cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.18	Mantle cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.19	Mantle cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.3	Diffuse large B-cell lymphoma	Diagnosis	ICD-10-CM
C83.30	Diffuse large B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.31	Diffuse large B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.32	Diffuse large B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.33	Diffuse large B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.34	Diffuse large B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.35	Diffuse large B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.36	Diffuse large B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.37	Diffuse large B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C83.38	Diffuse large B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.39	Diffuse large B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C83.5	Lymphoblastic (diffuse) lymphoma	Diagnosis	ICD-10-CM
C83.50	Lymphoblastic (diffuse) lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.51	Lymphoblastic (diffuse) lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.52	Lymphoblastic (diffuse) lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.53	Lymphoblastic (diffuse) lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.54	Lymphoblastic (diffuse) lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.55	Lymphoblastic (diffuse) lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.56	Lymphoblastic (diffuse) lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.57	Lymphoblastic (diffuse) lymphoma, spleen	Diagnosis	ICD-10-CM
C83.58	Lymphoblastic (diffuse) lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.59	Lymphoblastic (diffuse) lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.7	Burkitt lymphoma	Diagnosis	ICD-10-CM
C83.70	Burkitt lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.71	Burkitt lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.72	Burkitt lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.73	Burkitt lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.74	Burkitt lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.75	Burkitt lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.76	Burkitt lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.77	Burkitt lymphoma, spleen	Diagnosis	ICD-10-CM
C83.78	Burkitt lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.79	Burkitt lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.8	Other non-follicular lymphoma	Diagnosis	ICD-10-CM
C83.80	Other non-follicular lymphoma, unspecified site	Diagnosis	ICD-10-CM
C83.81	Other non-follicular lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.82	Other non-follicular lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.83	Other non-follicular lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.84	Other non-follicular lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.85	Other non-follicular lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.86	Other non-follicular lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.87	Other non-follicular lymphoma, spleen	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C83.88	Other non-follicular lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.89	Other non-follicular lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C83.9	Non-follicular (diffuse) lymphoma, unspecified	Diagnosis	ICD-10-CM
C83.90	Non-follicular (diffuse) lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C83.91	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C83.92	Non-follicular (diffuse) lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C83.93	Non-follicular (diffuse) lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C83.94	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C83.95	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C83.96	Non-follicular (diffuse) lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C83.97	Non-follicular (diffuse) lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C83.98	Non-follicular (diffuse) lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C83.99	Non-follicular (diffuse) lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84	Mature T/NK-cell lymphomas	Diagnosis	ICD-10-CM
C84.0	Mycosis fungoides	Diagnosis	ICD-10-CM
C84.00	Mycosis fungoides, unspecified site	Diagnosis	ICD-10-CM
C84.01	Mycosis fungoides, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.02	Mycosis fungoides, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.03	Mycosis fungoides, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.04	Mycosis fungoides, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.05	Mycosis fungoides, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.06	Mycosis fungoides, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.07	Mycosis fungoides, spleen	Diagnosis	ICD-10-CM
C84.08	Mycosis fungoides, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.09	Mycosis fungoides, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.1	Sezary disease	Diagnosis	ICD-10-CM
C84.10	Sezary disease, unspecified site	Diagnosis	ICD-10-CM
C84.11	Sezary disease, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.12	Sezary disease, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.13	Sezary disease, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.14	Sezary disease, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.15	Sezary disease, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C84.16	Sezary disease, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.17	Sezary disease, spleen	Diagnosis	ICD-10-CM
C84.18	Sezary disease, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.19	Sezary disease, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.4	Peripheral T-cell lymphoma, not classified	Diagnosis	ICD-10-CM
C84.40	Peripheral T-cell lymphoma, not classified, unspecified site	Diagnosis	ICD-10-CM
C84.41	Peripheral T-cell lymphoma, not classified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.42	Peripheral T-cell lymphoma, not classified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.43	Peripheral T-cell lymphoma, not classified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.44	Peripheral T-cell lymphoma, not classified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.45	Peripheral T-cell lymphoma, not classified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.46	Peripheral T-cell lymphoma, not classified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.47	Peripheral T-cell lymphoma, not classified, spleen	Diagnosis	ICD-10-CM
C84.48	Peripheral T-cell lymphoma, not classified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.49	Peripheral T-cell lymphoma, not classified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.6	Anaplastic large cell lymphoma, ALK-positive	Diagnosis	ICD-10-CM
C84.60	Anaplastic large cell lymphoma, ALK-positive, unspecified site	Diagnosis	ICD-10-CM
C84.61	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.62	Anaplastic large cell lymphoma, ALK-positive, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.63	Anaplastic large cell lymphoma, ALK-positive, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.64	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.65	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.66	Anaplastic large cell lymphoma, ALK-positive, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.67	Anaplastic large cell lymphoma, ALK-positive, spleen	Diagnosis	ICD-10-CM
C84.68	Anaplastic large cell lymphoma, ALK-positive, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.69	Anaplastic large cell lymphoma, ALK-positive, extranodal and solid organ sites	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C84.7	Anaplastic large cell lymphoma, ALK-negative	Diagnosis	ICD-10-CM
C84.70	Anaplastic large cell lymphoma, ALK-negative, unspecified site	Diagnosis	ICD-10-CM
C84.71	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.72	Anaplastic large cell lymphoma, ALK-negative, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.73	Anaplastic large cell lymphoma, ALK-negative, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.74	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.75	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.76	Anaplastic large cell lymphoma, ALK-negative, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.77	Anaplastic large cell lymphoma, ALK-negative, spleen	Diagnosis	ICD-10-CM
C84.78	Anaplastic large cell lymphoma, ALK-negative, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.79	Anaplastic large cell lymphoma, ALK-negative, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.9	Mature T/NK-cell lymphomas, unspecified	Diagnosis	ICD-10-CM
C84.90	Mature T/NK-cell lymphomas, unspecified, unspecified site	Diagnosis	ICD-10-CM
C84.91	Mature T/NK-cell lymphomas, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.92	Mature T/NK-cell lymphomas, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.93	Mature T/NK-cell lymphomas, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.94	Mature T/NK-cell lymphomas, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.95	Mature T/NK-cell lymphomas, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.96	Mature T/NK-cell lymphomas, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.97	Mature T/NK-cell lymphomas, unspecified, spleen	Diagnosis	ICD-10-CM
C84.98	Mature T/NK-cell lymphomas, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.99	Mature T/NK-cell lymphomas, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.A	Cutaneous T-cell lymphoma, unspecified	Diagnosis	ICD-10-CM
C84.A0	Cutaneous T-cell lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C84.A1	Cutaneous T-cell lymphoma, unspecified lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.A2	Cutaneous T-cell lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.A3	Cutaneous T-cell lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.A4	Cutaneous T-cell lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.A5	Cutaneous T-cell lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.A6	Cutaneous T-cell lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.A7	Cutaneous T-cell lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C84.A8	Cutaneous T-cell lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.A9	Cutaneous T-cell lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C84.Z	Other mature T/NK-cell lymphomas	Diagnosis	ICD-10-CM
C84.Z0	Other mature T/NK-cell lymphomas, unspecified site	Diagnosis	ICD-10-CM
C84.Z1	Other mature T/NK-cell lymphomas, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C84.Z2	Other mature T/NK-cell lymphomas, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C84.Z3	Other mature T/NK-cell lymphomas, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C84.Z4	Other mature T/NK-cell lymphomas, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C84.Z5	Other mature T/NK-cell lymphomas, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C84.Z6	Other mature T/NK-cell lymphomas, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C84.Z7	Other mature T/NK-cell lymphomas, spleen	Diagnosis	ICD-10-CM
C84.Z8	Other mature T/NK-cell lymphomas, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C84.Z9	Other mature T/NK-cell lymphomas, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85	Other specified and unspecified types of non-Hodgkin lymphoma	Diagnosis	ICD-10-CM
C85.1	Unspecified B-cell lymphoma	Diagnosis	ICD-10-CM
C85.10	Unspecified B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.11	Unspecified B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.12	Unspecified B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C85.13	Unspecified B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.14	Unspecified B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.15	Unspecified B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.16	Unspecified B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.17	Unspecified B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C85.18	Unspecified B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.19	Unspecified B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.2	Mediastinal (thymic) large B-cell lymphoma	Diagnosis	ICD-10-CM
C85.20	Mediastinal (thymic) large B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.21	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.22	Mediastinal (thymic) large B-cell lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.23	Mediastinal (thymic) large B-cell lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.24	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.25	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.26	Mediastinal (thymic) large B-cell lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.27	Mediastinal (thymic) large B-cell lymphoma, spleen	Diagnosis	ICD-10-CM
C85.28	Mediastinal (thymic) large B-cell lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.29	Mediastinal (thymic) large B-cell lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.8	Other specified types of non-Hodgkin lymphoma	Diagnosis	ICD-10-CM
C85.80	Other specified types of non-Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM
C85.81	Other specified types of non-Hodgkin lymphoma, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.82	Other specified types of non-Hodgkin lymphoma, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.83	Other specified types of non-Hodgkin lymphoma, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.84	Other specified types of non-Hodgkin lymphoma, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C85.85	Other specified types of non-Hodgkin lymphoma, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.86	Other specified types of non-Hodgkin lymphoma, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.87	Other specified types of non-Hodgkin lymphoma, spleen	Diagnosis	ICD-10-CM
C85.88	Other specified types of non-Hodgkin lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.89	Other specified types of non-Hodgkin lymphoma, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C85.9	Non-Hodgkin lymphoma, unspecified	Diagnosis	ICD-10-CM
C85.90	Non-Hodgkin lymphoma, unspecified, unspecified site	Diagnosis	ICD-10-CM
C85.91	Non-Hodgkin lymphoma, unspecified, lymph nodes of head, face, and neck	Diagnosis	ICD-10-CM
C85.92	Non-Hodgkin lymphoma, unspecified, intrathoracic lymph nodes	Diagnosis	ICD-10-CM
C85.93	Non-Hodgkin lymphoma, unspecified, intra-abdominal lymph nodes	Diagnosis	ICD-10-CM
C85.94	Non-Hodgkin lymphoma, unspecified, lymph nodes of axilla and upper limb	Diagnosis	ICD-10-CM
C85.95	Non-Hodgkin lymphoma, unspecified, lymph nodes of inguinal region and lower limb	Diagnosis	ICD-10-CM
C85.96	Non-Hodgkin lymphoma, unspecified, intrapelvic lymph nodes	Diagnosis	ICD-10-CM
C85.97	Non-Hodgkin lymphoma, unspecified, spleen	Diagnosis	ICD-10-CM
C85.98	Non-Hodgkin lymphoma, unspecified, lymph nodes of multiple sites	Diagnosis	ICD-10-CM
C85.99	Non-Hodgkin lymphoma, unspecified, extranodal and solid organ sites	Diagnosis	ICD-10-CM
C86	Other specified types of T/NK-cell lymphoma	Diagnosis	ICD-10-CM
C86.0	Extranodal NK/T-cell lymphoma, nasal type	Diagnosis	ICD-10-CM
C86.1	Hepatosplenic T-cell lymphoma	Diagnosis	ICD-10-CM
C86.2	Enteropathy-type (intestinal) T-cell lymphoma	Diagnosis	ICD-10-CM
C86.3	Subcutaneous panniculitis-like T-cell lymphoma	Diagnosis	ICD-10-CM
C86.4	Blastic NK-cell lymphoma	Diagnosis	ICD-10-CM
C86.5	Angioimmunoblastic T-cell lymphoma	Diagnosis	ICD-10-CM
C86.6	Primary cutaneous CD30-positive T-cell proliferations	Diagnosis	ICD-10-CM
C88	Malignant immunoproliferative diseases and certain other B-cell lymphomas	Diagnosis	ICD-10-CM
C88.0	Waldenstrom macroglobulinemia	Diagnosis	ICD-10-CM
C88.2	Heavy chain disease	Diagnosis	ICD-10-CM
C88.3	Immunoproliferative small intestinal disease	Diagnosis	ICD-10-CM
C88.4	Extranodal marginal zone B-cell lymphoma of mucosa-associated lymphoid tissue [MALT-lymphoma]	Diagnosis	ICD-10-CM
C88.8	Other malignant immunoproliferative diseases	Diagnosis	ICD-10-CM
C88.9	Malignant immunoproliferative disease, unspecified	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C90	Multiple myeloma and malignant plasma cell neoplasms	Diagnosis	ICD-10-CM
C90.0	Multiple myeloma	Diagnosis	ICD-10-CM
C90.00	Multiple myeloma not having achieved remission	Diagnosis	ICD-10-CM
C90.01	Multiple myeloma in remission	Diagnosis	ICD-10-CM
C90.02	Multiple myeloma in relapse	Diagnosis	ICD-10-CM
C90.1	Plasma cell leukemia	Diagnosis	ICD-10-CM
C90.10	Plasma cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C90.11	Plasma cell leukemia in remission	Diagnosis	ICD-10-CM
C90.12	Plasma cell leukemia in relapse	Diagnosis	ICD-10-CM
C90.2	Extramedullary plasmacytoma	Diagnosis	ICD-10-CM
C90.20	Extramedullary plasmacytoma not having achieved remission	Diagnosis	ICD-10-CM
C90.21	Extramedullary plasmacytoma in remission	Diagnosis	ICD-10-CM
C90.22	Extramedullary plasmacytoma in relapse	Diagnosis	ICD-10-CM
C90.3	Solitary plasmacytoma	Diagnosis	ICD-10-CM
C90.30	Solitary plasmacytoma not having achieved remission	Diagnosis	ICD-10-CM
C90.31	Solitary plasmacytoma in remission	Diagnosis	ICD-10-CM
C90.32	Solitary plasmacytoma in relapse	Diagnosis	ICD-10-CM
C91	Lymphoid leukemia	Diagnosis	ICD-10-CM
C91.0	Acute lymphoblastic leukemia [ALL]	Diagnosis	ICD-10-CM
C91.00	Acute lymphoblastic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.01	Acute lymphoblastic leukemia, in remission	Diagnosis	ICD-10-CM
C91.02	Acute lymphoblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C91.1	Chronic lymphocytic leukemia of B-cell type	Diagnosis	ICD-10-CM
C91.10	Chronic lymphocytic leukemia of B-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.11	Chronic lymphocytic leukemia of B-cell type in remission	Diagnosis	ICD-10-CM
C91.12	Chronic lymphocytic leukemia of B-cell type in relapse	Diagnosis	ICD-10-CM
C91.3	Prolymphocytic leukemia of B-cell type	Diagnosis	ICD-10-CM
C91.30	Prolymphocytic leukemia of B-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.31	Prolymphocytic leukemia of B-cell type, in remission	Diagnosis	ICD-10-CM
C91.32	Prolymphocytic leukemia of B-cell type, in relapse	Diagnosis	ICD-10-CM
C91.4	Hairy cell leukemia	Diagnosis	ICD-10-CM
C91.40	Hairy cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.41	Hairy cell leukemia, in remission	Diagnosis	ICD-10-CM
C91.42	Hairy cell leukemia, in relapse	Diagnosis	ICD-10-CM
C91.5	Adult T-cell lymphoma/leukemia (HTLV-1-associated)	Diagnosis	ICD-10-CM
C91.50	Adult T-cell lymphoma/leukemia (HTLV-1-associated) not having achieved remission	Diagnosis	ICD-10-CM
C91.51	Adult T-cell lymphoma/leukemia (HTLV-1-associated), in remission	Diagnosis	ICD-10-CM
C91.52	Adult T-cell lymphoma/leukemia (HTLV-1-associated), in relapse	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C91.6	Prolymphocytic leukemia of T-cell type	Diagnosis	ICD-10-CM
C91.60	Prolymphocytic leukemia of T-cell type not having achieved remission	Diagnosis	ICD-10-CM
C91.61	Prolymphocytic leukemia of T-cell type, in remission	Diagnosis	ICD-10-CM
C91.62	Prolymphocytic leukemia of T-cell type, in relapse	Diagnosis	ICD-10-CM
C91.9	Lymphoid leukemia, unspecified	Diagnosis	ICD-10-CM
C91.90	Lymphoid leukemia, unspecified not having achieved remission	Diagnosis	ICD-10-CM
C91.91	Lymphoid leukemia, unspecified, in remission	Diagnosis	ICD-10-CM
C91.92	Lymphoid leukemia, unspecified, in relapse	Diagnosis	ICD-10-CM
C91.A	Mature B-cell leukemia Burkitt-type	Diagnosis	ICD-10-CM
C91.A0	Mature B-cell leukemia Burkitt-type not having achieved remission	Diagnosis	ICD-10-CM
C91.A1	Mature B-cell leukemia Burkitt-type, in remission	Diagnosis	ICD-10-CM
C91.A2	Mature B-cell leukemia Burkitt-type, in relapse	Diagnosis	ICD-10-CM
C91.Z	Other lymphoid leukemia	Diagnosis	ICD-10-CM
C91.Z0	Other lymphoid leukemia not having achieved remission	Diagnosis	ICD-10-CM
C91.Z1	Other lymphoid leukemia, in remission	Diagnosis	ICD-10-CM
C91.Z2	Other lymphoid leukemia, in relapse	Diagnosis	ICD-10-CM
C92	Myeloid leukemia	Diagnosis	ICD-10-CM
C92.0	Acute myeloblastic leukemia	Diagnosis	ICD-10-CM
C92.00	Acute myeloblastic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C92.01	Acute myeloblastic leukemia, in remission	Diagnosis	ICD-10-CM
C92.02	Acute myeloblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.1	Chronic myeloid leukemia, BCR/ABL-positive	Diagnosis	ICD-10-CM
C92.10	Chronic myeloid leukemia, BCR/ABL-positive, not having achieved remission	Diagnosis	ICD-10-CM
C92.11	Chronic myeloid leukemia, BCR/ABL-positive, in remission	Diagnosis	ICD-10-CM
C92.12	Chronic myeloid leukemia, BCR/ABL-positive, in relapse	Diagnosis	ICD-10-CM
C92.2	Atypical chronic myeloid leukemia, BCR/ABL-negative	Diagnosis	ICD-10-CM
C92.20	Atypical chronic myeloid leukemia, BCR/ABL-negative, not having achieved remission	Diagnosis	ICD-10-CM
C92.21	Atypical chronic myeloid leukemia, BCR/ABL-negative, in remission	Diagnosis	ICD-10-CM
C92.22	Atypical chronic myeloid leukemia, BCR/ABL-negative, in relapse	Diagnosis	ICD-10-CM
C92.3	Myeloid sarcoma	Diagnosis	ICD-10-CM
C92.30	Myeloid sarcoma, not having achieved remission	Diagnosis	ICD-10-CM
C92.31	Myeloid sarcoma, in remission	Diagnosis	ICD-10-CM
C92.32	Myeloid sarcoma, in relapse	Diagnosis	ICD-10-CM
C92.4	Acute promyelocytic leukemia	Diagnosis	ICD-10-CM
C92.40	Acute promyelocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C92.41	Acute promyelocytic leukemia, in remission	Diagnosis	ICD-10-CM
C92.42	Acute promyelocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.5	Acute myelomonocytic leukemia	Diagnosis	ICD-10-CM
C92.50	Acute myelomonocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C92.51	Acute myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM
C92.52	Acute myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C92.6	Acute myeloid leukemia with 11q23-abnormality	Diagnosis	ICD-10-CM
C92.60	Acute myeloid leukemia with 11q23-abnormality not having achieved remission	Diagnosis	ICD-10-CM
C92.61	Acute myeloid leukemia with 11q23-abnormality in remission	Diagnosis	ICD-10-CM
C92.62	Acute myeloid leukemia with 11q23-abnormality in relapse	Diagnosis	ICD-10-CM
C92.9	Myeloid leukemia, unspecified	Diagnosis	ICD-10-CM
C92.90	Myeloid leukemia, unspecified, not having achieved remission	Diagnosis	ICD-10-CM
C92.91	Myeloid leukemia, unspecified in remission	Diagnosis	ICD-10-CM
C92.92	Myeloid leukemia, unspecified in relapse	Diagnosis	ICD-10-CM
C92.A	Acute myeloid leukemia with multilineage dysplasia	Diagnosis	ICD-10-CM
C92.A0	Acute myeloid leukemia with multilineage dysplasia, not having achieved remission	Diagnosis	ICD-10-CM
C92.A1	Acute myeloid leukemia with multilineage dysplasia, in remission	Diagnosis	ICD-10-CM
C92.A2	Acute myeloid leukemia with multilineage dysplasia, in relapse	Diagnosis	ICD-10-CM
C92.Z	Other myeloid leukemia	Diagnosis	ICD-10-CM
C92.Z0	Other myeloid leukemia not having achieved remission	Diagnosis	ICD-10-CM
C92.Z1	Other myeloid leukemia, in remission	Diagnosis	ICD-10-CM
C92.Z2	Other myeloid leukemia, in relapse	Diagnosis	ICD-10-CM
C93	Monocytic leukemia	Diagnosis	ICD-10-CM
C93.0	Acute monoblastic/monocytic leukemia	Diagnosis	ICD-10-CM
C93.00	Acute monoblastic/monocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.01	Acute monoblastic/monocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.02	Acute monoblastic/monocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.1	Chronic myelomonocytic leukemia	Diagnosis	ICD-10-CM
C93.10	Chronic myelomonocytic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C93.11	Chronic myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.12	Chronic myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.3	Juvenile myelomonocytic leukemia	Diagnosis	ICD-10-CM
C93.30	Juvenile myelomonocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.31	Juvenile myelomonocytic leukemia, in remission	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
C93.32	Juvenile myelomonocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C93.9	Monocytic leukemia, unspecified	Diagnosis	ICD-10-CM
C93.90	Monocytic leukemia, unspecified, not having achieved remission	Diagnosis	ICD-10-CM
C93.91	Monocytic leukemia, unspecified in remission	Diagnosis	ICD-10-CM
C93.92	Monocytic leukemia, unspecified in relapse	Diagnosis	ICD-10-CM
C93.Z	Other monocytic leukemia	Diagnosis	ICD-10-CM
C93.Z0	Other monocytic leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C93.Z1	Other monocytic leukemia, in remission	Diagnosis	ICD-10-CM
C93.Z2	Other monocytic leukemia, in relapse	Diagnosis	ICD-10-CM
C94	Other leukemias of specified cell type	Diagnosis	ICD-10-CM
C94.0	Acute erythroid leukemia	Diagnosis	ICD-10-CM
C94.00	Acute erythroid leukemia, not having achieved remission	Diagnosis	ICD-10-CM
C94.01	Acute erythroid leukemia, in remission	Diagnosis	ICD-10-CM
C94.02	Acute erythroid leukemia, in relapse	Diagnosis	ICD-10-CM
C94.2	Acute megakaryoblastic leukemia	Diagnosis	ICD-10-CM
C94.20	Acute megakaryoblastic leukemia not having achieved remission	Diagnosis	ICD-10-CM
C94.21	Acute megakaryoblastic leukemia, in remission	Diagnosis	ICD-10-CM
C94.22	Acute megakaryoblastic leukemia, in relapse	Diagnosis	ICD-10-CM
C94.3	Mast cell leukemia	Diagnosis	ICD-10-CM
C94.30	Mast cell leukemia not having achieved remission	Diagnosis	ICD-10-CM
C94.31	Mast cell leukemia, in remission	Diagnosis	ICD-10-CM
C94.32	Mast cell leukemia, in relapse	Diagnosis	ICD-10-CM
C94.4	Acute panmyelosis with myelofibrosis	Diagnosis	ICD-10-CM
C94.40	Acute panmyelosis with myelofibrosis not having achieved remission	Diagnosis	ICD-10-CM
C94.41	Acute panmyelosis with myelofibrosis, in remission	Diagnosis	ICD-10-CM
C94.42	Acute panmyelosis with myelofibrosis, in relapse	Diagnosis	ICD-10-CM
C94.6	Myelodysplastic disease, not classified	Diagnosis	ICD-10-CM
C94.8	Other specified leukemias	Diagnosis	ICD-10-CM
C94.80	Other specified leukemias not having achieved remission	Diagnosis	ICD-10-CM
C94.81	Other specified leukemias, in remission	Diagnosis	ICD-10-CM
C94.82	Other specified leukemias, in relapse	Diagnosis	ICD-10-CM
C95	Leukemia of unspecified cell type	Diagnosis	ICD-10-CM
C95.0	Acute leukemia of unspecified cell type	Diagnosis	ICD-10-CM
C95.00	Acute leukemia of unspecified cell type not having achieved remission	Diagnosis	ICD-10-CM
C95.01	Acute leukemia of unspecified cell type, in remission	Diagnosis	ICD-10-CM
C95.02	Acute leukemia of unspecified cell type, in relapse	Diagnosis	ICD-10-CM
C95.1	Chronic leukemia of unspecified cell type	Diagnosis	ICD-10-CM
C95.10	Chronic leukemia of unspecified cell type not having achieved remission	Diagnosis	ICD-10-CM
C95.11	Chronic leukemia of unspecified cell type, in remission	Diagnosis	ICD-10-CM
C95.12	Chronic leukemia of unspecified cell type, in relapse	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
C95.9	Leukemia, unspecified	Diagnosis	ICD-10-CM
C95.90	Leukemia, unspecified not having achieved remission	Diagnosis	ICD-10-CM
C95.91	Leukemia, unspecified, in remission	Diagnosis	ICD-10-CM
C95.92	Leukemia, unspecified, in relapse	Diagnosis	ICD-10-CM
C96	Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue	Diagnosis	ICD-10-CM
C96.0	Multifocal and multisystemic (disseminated) Langerhans-cell histiocytosis	Diagnosis	ICD-10-CM
C96.2	Malignant mast cell neoplasm	Diagnosis	ICD-10-CM
C96.20	Malignant mast cell neoplasm, unspecified	Diagnosis	ICD-10-CM
C96.21	Aggressive systemic mastocytosis	Diagnosis	ICD-10-CM
C96.22	Mast cell sarcoma	Diagnosis	ICD-10-CM
C96.29	Other malignant mast cell neoplasm	Diagnosis	ICD-10-CM
C96.4	Sarcoma of dendritic cells (accessory cells)	Diagnosis	ICD-10-CM
C96.5	Multifocal and unisystemic Langerhans-cell histiocytosis	Diagnosis	ICD-10-CM
C96.6	Unifocal Langerhans-cell histiocytosis	Diagnosis	ICD-10-CM
C96.9	Malignant neoplasm of lymphoid, hematopoietic and related tissue, unspecified	Diagnosis	ICD-10-CM
C96.A	Histiocytic sarcoma	Diagnosis	ICD-10-CM
C96.Z	Other specified malignant neoplasms of lymphoid, hematopoietic and related tissue	Diagnosis	ICD-10-CM
D03.0	Melanoma in situ of lip	Diagnosis	ICD-10-CM
D03.10	Melanoma in situ of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
D03.11	Melanoma in situ of right eyelid, including canthus	Diagnosis	ICD-10-CM
D03.12	Melanoma in situ of left eyelid, including canthus	Diagnosis	ICD-10-CM
D03.20	Melanoma in situ of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
D03.21	Melanoma in situ of right ear and external auricular canal	Diagnosis	ICD-10-CM
D03.22	Melanoma in situ of left ear and external auricular canal	Diagnosis	ICD-10-CM
D03.30	Melanoma in situ of unspecified part of face	Diagnosis	ICD-10-CM
D03.39	Melanoma in situ of other parts of face	Diagnosis	ICD-10-CM
D03.4	Melanoma in situ of scalp and neck	Diagnosis	ICD-10-CM
D03.51	Melanoma in situ of anal skin	Diagnosis	ICD-10-CM
D03.52	Melanoma in situ of breast (skin) (soft tissue)	Diagnosis	ICD-10-CM
D03.59	Melanoma in situ of other part of trunk	Diagnosis	ICD-10-CM
D03.60	Melanoma in situ of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
D03.61	Melanoma in situ of right upper limb, including shoulder	Diagnosis	ICD-10-CM
D03.62	Melanoma in situ of left upper limb, including shoulder	Diagnosis	ICD-10-CM
D03.70	Melanoma in situ of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
D03.71	Melanoma in situ of right lower limb, including hip	Diagnosis	ICD-10-CM
D03.72	Melanoma in situ of left lower limb, including hip	Diagnosis	ICD-10-CM
D03.8	Melanoma in situ of other sites	Diagnosis	ICD-10-CM
D03.9	Melanoma in situ, unspecified	Diagnosis	ICD-10-CM
D45	Polycythemia vera	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
D47.1	Chronic myeloproliferative disease	Diagnosis	ICD-10-CM
D47.3	Essential (hemorrhagic) thrombocythemia	Diagnosis	ICD-10-CM
O9A.1	Malignant neoplasm complicating pregnancy, childbirth and the puerperium	Diagnosis	ICD-10-CM
O9A.11	Malignant neoplasm complicating pregnancy	Diagnosis	ICD-10-CM
O9A.111	Malignant neoplasm complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O9A.112	Malignant neoplasm complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O9A.113	Malignant neoplasm complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O9A.119	Malignant neoplasm complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O9A.12	Malignant neoplasm complicating childbirth	Diagnosis	ICD-10-CM
O9A.13	Malignant neoplasm complicating the puerperium	Diagnosis	ICD-10-CM
R97.21	Rising PSA following treatment for malignant neoplasm of prostate	Diagnosis	ICD-10-CM
Z85.46	Personal history of malignant neoplasm of prostate	Diagnosis	ICD-10-CM
Intestine - Fistula			
K31.6	Fistula of stomach and duodenum	Diagnosis	ICD-10-CM
K38.3	Fistula of appendix	Diagnosis	ICD-10-CM
K50.013	Crohn's disease of small intestine with fistula	Diagnosis	ICD-10-CM
K50.113	Crohn's disease of large intestine with fistula	Diagnosis	ICD-10-CM
K50.813	Crohn's disease of both small and large intestine with fistula	Diagnosis	ICD-10-CM
K50.913	Crohn's disease, unspecified, with fistula	Diagnosis	ICD-10-CM
K51.013	Ulcerative (chronic) pancolitis with fistula	Diagnosis	ICD-10-CM
K51.213	Ulcerative (chronic) proctitis with fistula	Diagnosis	ICD-10-CM
K51.313	Ulcerative (chronic) rectosigmoiditis with fistula	Diagnosis	ICD-10-CM
K51.413	Inflammatory polyps of colon with fistula	Diagnosis	ICD-10-CM
K51.513	Left sided colitis with fistula	Diagnosis	ICD-10-CM
K51.813	Other ulcerative colitis with fistula	Diagnosis	ICD-10-CM
K51.913	Ulcerative colitis, unspecified with fistula	Diagnosis	ICD-10-CM
K60	Fissure and fistula of anal and rectal regions	Diagnosis	ICD-10-CM
K60.3	Anal fistula	Diagnosis	ICD-10-CM
K60.4	Rectal fistula	Diagnosis	ICD-10-CM
K60.5	Anorectal fistula	Diagnosis	ICD-10-CM
K63.2	Fistula of intestine	Diagnosis	ICD-10-CM
K82.3	Fistula of gallbladder	Diagnosis	ICD-10-CM
K83.3	Fistula of bile duct	Diagnosis	ICD-10-CM
N32.1	Vesicointestinal fistula	Diagnosis	ICD-10-CM
N82.2	Fistula of vagina to small intestine	Diagnosis	ICD-10-CM
N82.3	Fistula of vagina to large intestine	Diagnosis	ICD-10-CM
N82.4	Other female intestinal-genital tract fistulae	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
Intestine - Obstruction			
K50.012	Crohn's disease of small intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.112	Crohn's disease of large intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.812	Crohn's disease of both small and large intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.912	Crohn's disease, unspecified, with intestinal obstruction	Diagnosis	ICD-10-CM
K51.012	Ulcerative (chronic) pancolitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.212	Ulcerative (chronic) proctitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.312	Ulcerative (chronic) rectosigmoiditis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.412	Inflammatory polyps of colon with intestinal obstruction	Diagnosis	ICD-10-CM
K51.512	Left sided colitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.812	Other ulcerative colitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.912	Ulcerative colitis, unspecified with intestinal obstruction	Diagnosis	ICD-10-CM
K56	Paralytic ileus and intestinal obstruction without hernia	Diagnosis	ICD-10-CM
K56.5	Intestinal adhesions [bands] with obstruction (postinfection)	Diagnosis	ICD-10-CM
K56.50	Intestinal adhesions [bands], unspecified as to partial versus complete obstruction	Diagnosis	ICD-10-CM
K56.51	Intestinal adhesions [bands], with partial obstruction	Diagnosis	ICD-10-CM
K56.52	Intestinal adhesions [bands] with complete obstruction	Diagnosis	ICD-10-CM
K56.6	Other and unspecified intestinal obstruction	Diagnosis	ICD-10-CM
K56.60	Unspecified intestinal obstruction	Diagnosis	ICD-10-CM
K56.600	Partial intestinal obstruction, unspecified as to cause	Diagnosis	ICD-10-CM
K56.601	Complete intestinal obstruction, unspecified as to cause	Diagnosis	ICD-10-CM
K56.609	Unspecified intestinal obstruction, unspecified as to partial versus complete obstruction	Diagnosis	ICD-10-CM
K56.69	Other intestinal obstruction	Diagnosis	ICD-10-CM
K56.690	Other partial intestinal obstruction	Diagnosis	ICD-10-CM
K56.691	Other complete intestinal obstruction	Diagnosis	ICD-10-CM
K56.699	Other intestinal obstruction unspecified as to partial versus complete obstruction	Diagnosis	ICD-10-CM
K91.3	Postprocedural intestinal obstruction	Diagnosis	ICD-10-CM
K91.30	Postprocedural intestinal obstruction, unspecified as to partial versus complete	Diagnosis	ICD-10-CM
K91.31	Postprocedural partial intestinal obstruction	Diagnosis	ICD-10-CM
K91.32	Postprocedural complete intestinal obstruction	Diagnosis	ICD-10-CM
Intestinal Perforation			
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
K28.5	Chronic or unspecified gastrojejunal ulcer with perforation	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K28.6	Chronic or unspecified gastrojejunal ulcer with both hemorrhage and perforation	Diagnosis	ICD-10-CM
K35.32	Acute appendicitis with perforation, localized peritonitis, and gangrene, without abscess	Diagnosis	ICD-10-CM
K35.33	Acute appendicitis with perforation, localized peritonitis, and gangrene, with abscess	Diagnosis	ICD-10-CM
K57.0	Diverticulitis of small intestine with perforation and abscess	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
K57.2	Diverticulitis of large intestine with perforation and abscess	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
K57.4	Diverticulitis of both small and large intestine with perforation and abscess	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
K57.8	Diverticulitis of intestine, part unspecified, with perforation and abscess	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
K63.1	Perforation of intestine (nontraumatic)	Diagnosis	ICD-10-CM
Surgical Intervention			
44120	Enterectomy, resection of small intestine; single resection and anastomosis	Procedure	CPT-4
44121	Enterectomy, resection of small intestine; each additional resection and anastomosis (List separately in addition to code for primary procedure)	Procedure	CPT-4
44125	Enterectomy, resection of small intestine; with enterostomy	Procedure	CPT-4
44130	Enteroenterostomy, anastomosis of intestine, with or without cutaneous enterostomy (separate procedure)	Procedure	CPT-4
44140	Colectomy, partial; with anastomosis	Procedure	CPT-4
44145	Colectomy, partial; with coloproctostomy (low pelvic anastomosis)	Procedure	CPT-4

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Code	Description	Code Category	Code Type
44202	Laparoscopy, surgical; enterectomy, resection of small intestine, single resection and anastomosis	Procedure	CPT-4
44203	Laparoscopy, surgical; each additional small intestine resection and anastomosis (List separately in addition to code for primary procedure)	Procedure	CPT-4
44204	Laparoscopy, surgical; colectomy, partial, with anastomosis	Procedure	CPT-4
44205	Laparoscopy, surgical; colectomy, partial, with removal of terminal ileum with ileocolostomy	Procedure	CPT-4
44602	Suture of small intestine (enterorrhaphy) for perforated ulcer, diverticulum, wound, injury or rupture; single perforation	Procedure	CPT-4
44603	Suture of small intestine (enterorrhaphy) for perforated ulcer, diverticulum, wound, injury or rupture; multiple perforations	Procedure	CPT-4
44604	Suture of large intestine (colorrhaphy) for perforated ulcer, diverticulum, wound, injury or rupture (single or multiple perforations); without colostomy	Procedure	CPT-4
44605	Suture of large intestine (colorrhaphy) for perforated ulcer, diverticulum, wound, injury or rupture (single or multiple perforations); with colostomy	Procedure	CPT-4

Intra-abdominal Abscess

44900	Incision and drainage of appendiceal abscess, open	Procedure	CPT-4
44960	Appendectomy; for ruptured appendix with abscess or generalized peritonitis	Procedure	CPT-4
45000	Transrectal drainage of pelvic abscess	Procedure	CPT-4
49020	Drainage of peritoneal abscess or localized peritonitis, exclusive of appendiceal abscess, open	Procedure	CPT-4
49021	Drainage of peritoneal abscess or localized peritonitis, exclusive of appendiceal abscess; percutaneous	Procedure	CPT-4
49060	Drainage of retroperitoneal abscess, open	Procedure	CPT-4
49061	Drainage of retroperitoneal abscess; percutaneous	Procedure	CPT-4
50020	Drainage of perirenal or renal abscess, open	Procedure	CPT-4
50021	Drainage of perirenal or renal abscess; percutaneous	Procedure	CPT-4
57010	Colpotomy; with drainage of pelvic abscess	Procedure	CPT-4
58820	Drainage of ovarian abscess; vaginal approach, open	Procedure	CPT-4
58822	Drainage of ovarian abscess; abdominal approach	Procedure	CPT-4
58823	Drainage of pelvic abscess, transvaginal or transrectal approach, percutaneous (eg, ovarian, pericolic)	Procedure	CPT-4
A06.4	Amebic liver abscess	Diagnosis	ICD-10-CM
D73.3	Abscess of spleen	Diagnosis	ICD-10-CM
K35.21	Acute appendicitis with generalized peritonitis, with abscess	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K35.33	Acute appendicitis with perforation, localized peritonitis, and gangrene, with abscess	Diagnosis	ICD-10-CM
K50.014	Crohn's disease of small intestine with abscess	Diagnosis	ICD-10-CM
K50.114	Crohn's disease of large intestine with abscess	Diagnosis	ICD-10-CM
K50.814	Crohn's disease of both small and large intestine with abscess	Diagnosis	ICD-10-CM
K50.914	Crohn's disease, unspecified, with abscess	Diagnosis	ICD-10-CM
K51.014	Ulcerative (chronic) pancolitis with abscess	Diagnosis	ICD-10-CM
K51.214	Ulcerative (chronic) proctitis with abscess	Diagnosis	ICD-10-CM
K51.314	Ulcerative (chronic) rectosigmoiditis with abscess	Diagnosis	ICD-10-CM
K51.414	Inflammatory polyps of colon with abscess	Diagnosis	ICD-10-CM
K51.514	Left sided colitis with abscess	Diagnosis	ICD-10-CM
K51.814	Other ulcerative colitis with abscess	Diagnosis	ICD-10-CM
K51.914	Ulcerative colitis, unspecified with abscess	Diagnosis	ICD-10-CM
K57.0	Diverticulitis of small intestine with perforation and abscess	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
K57.2	Diverticulitis of large intestine with perforation and abscess	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
K57.4	Diverticulitis of both small and large intestine with perforation and abscess	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
K57.8	Diverticulitis of intestine, part unspecified, with perforation and abscess	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
K63.0	Abscess of intestine	Diagnosis	ICD-10-CM
K65.1	Peritoneal abscess	Diagnosis	ICD-10-CM
K68.1	Retroperitoneal abscess	Diagnosis	ICD-10-CM
K68.11	Postprocedural retroperitoneal abscess	Diagnosis	ICD-10-CM
K68.19	Other retroperitoneal abscess	Diagnosis	ICD-10-CM
K75.0	Abscess of liver	Diagnosis	ICD-10-CM
L02.211	Cutaneous abscess of abdominal wall	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
N15.1	Renal and perinephric abscess	Diagnosis	ICD-10-CM
Perianal Disease/Abscess			
0DBQ	Excision / Anus	Procedure	ICD-10-PCS
0DBQ0ZX	Excision of Anus, Open Approach, Diagnostic	Procedure	ICD-10-PCS
0DBQ0ZZ	Excision of Anus, Open Approach	Procedure	ICD-10-PCS
0DBQ3ZX	Excision of Anus, Percutaneous Approach, Diagnostic	Procedure	ICD-10-PCS
0DBQ3ZZ	Excision of Anus, Percutaneous Approach	Procedure	ICD-10-PCS
0DBQ4ZX	Excision of Anus, Percutaneous Endoscopic Approach, Diagnostic	Procedure	ICD-10-PCS
0DBQ4ZZ	Excision of Anus, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DBQ7ZX	Excision of Anus, Via Natural or Artificial Opening, Diagnostic	Procedure	ICD-10-PCS
0DBQ7ZZ	Excision of Anus, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DBQ8ZX	Excision of Anus, Via Natural or Artificial Opening Endoscopic, Diagnostic	Procedure	ICD-10-PCS
0DBQ8ZZ	Excision of Anus, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DBQXZX	Excision of Anus, External Approach, Diagnostic	Procedure	ICD-10-PCS
0DBQXZZ	Excision of Anus, External Approach	Procedure	ICD-10-PCS
0H89XZZ	Division of Perineum Skin, External Approach	Procedure	ICD-10-PCS
45005	Incision and drainage of submucosal abscess, rectum	Procedure	CPT-4
45020	Incision and drainage of deep supralelevator, pelvirectal, or retrorectal abscess	Procedure	CPT-4
46040	Incision and drainage of ischiorectal and/or perirectal abscess (separate procedure)	Procedure	CPT-4
46045	Incision and drainage of intramural, intramuscular, or submucosal abscess, transanal, under anesthesia	Procedure	CPT-4
46050	Incision and drainage, perianal abscess, superficial	Procedure	CPT-4
46060	Incision and drainage of ischiorectal or intramural abscess, with fistulectomy or fistulotomy, submuscular, with or without placement of seton	Procedure	CPT-4
46270	Surgical treatment of anal fistula (fistulectomy/fistulotomy); subcutaneous	Procedure	CPT-4

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Code	Description	Code Category	Code Type
46275	Surgical treatment of anal fistula (fistulectomy/fistulotomy); intersphincteric	Procedure	CPT-4
46280	Surgical treatment of anal fistula (fistulectomy/fistulotomy); transsphincteric, suprasphincteric, extrasphincteric or multiple, including placement of seton, when performed	Procedure	CPT-4
46285	Surgical treatment of anal fistula (fistulectomy/fistulotomy); second stage	Procedure	CPT-4
46288	Closure of anal fistula with rectal advancement flap	Procedure	CPT-4
K60	Fissure and fistula of anal and rectal regions	Diagnosis	ICD-10-CM
K60.0	Acute anal fissure	Diagnosis	ICD-10-CM
K60.1	Chronic anal fissure	Diagnosis	ICD-10-CM
K60.2	Anal fissure, unspecified	Diagnosis	ICD-10-CM
K60.3	Anal fistula	Diagnosis	ICD-10-CM
K60.4	Rectal fistula	Diagnosis	ICD-10-CM
K60.5	Anorectal fistula	Diagnosis	ICD-10-CM
K61	Abscess of anal and rectal regions	Diagnosis	ICD-10-CM
K61.0	Anal abscess	Diagnosis	ICD-10-CM
K61.1	Rectal abscess	Diagnosis	ICD-10-CM
K61.2	Anorectal abscess	Diagnosis	ICD-10-CM
K61.3	Ischiorectal abscess	Diagnosis	ICD-10-CM
K61.31	Horseshoe abscess	Diagnosis	ICD-10-CM
K61.39	Other ischiorectal abscess	Diagnosis	ICD-10-CM
K61.4	Intrasphincteric abscess	Diagnosis	ICD-10-CM
K61.5	Supralevator abscess	Diagnosis	ICD-10-CM
K62	Other diseases of anus and rectum	Diagnosis	ICD-10-CM
K62.0	Anal polyp	Diagnosis	ICD-10-CM
K62.1	Rectal polyp	Diagnosis	ICD-10-CM
K62.2	Anal prolapse	Diagnosis	ICD-10-CM
K62.3	Rectal prolapse	Diagnosis	ICD-10-CM
K62.4	Stenosis of anus and rectum	Diagnosis	ICD-10-CM
K62.5	Hemorrhage of anus and rectum	Diagnosis	ICD-10-CM
K62.6	Ulcer of anus and rectum	Diagnosis	ICD-10-CM
K62.7	Radiation proctitis	Diagnosis	ICD-10-CM
K62.8	Other specified diseases of anus and rectum	Diagnosis	ICD-10-CM
K62.81	Anal sphincter tear (healed) (nontraumatic) (old)	Diagnosis	ICD-10-CM
K62.82	Dysplasia of anus	Diagnosis	ICD-10-CM
K62.89	Other specified diseases of anus and rectum	Diagnosis	ICD-10-CM
K62.9	Disease of anus and rectum, unspecified	Diagnosis	ICD-10-CM
K64	Hemorrhoids and perianal venous thrombosis	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

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Code	Description	Code Category	Code Type
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
Obesity			
43644	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and Roux-en-Y gastroenterostomy (roux limb 150 cm or less)	Procedure	CPT-4
43645	Laparoscopy, surgical, gastric restrictive procedure; with gastric bypass and small intestine reconstruction to limit absorption	Procedure	CPT-4
43770	Laparoscopy, surgical, gastric restrictive procedure; placement of adjustable gastric restrictive device (eg, gastric band and subcutaneous port components)	Procedure	CPT-4
43842	Gastric restrictive procedure, without gastric bypass, for morbid obesity; vertical-banded gastroplasty	Procedure	CPT-4
43843	Gastric restrictive procedure, without gastric bypass, for morbid obesity; other than vertical-banded gastroplasty	Procedure	CPT-4
43845	Gastric restrictive procedure with partial gastrectomy, pylorus-preserving duodenoileostomy and ileoileostomy (50 to 100 cm common channel) to limit absorption (biliopancreatic diversion with duodenal switch)	Procedure	CPT-4
43846	Gastric restrictive procedure, with gastric bypass for morbid obesity; with short limb (150 cm or less) Roux-en-Y gastroenterostomy	Procedure	CPT-4
43847	Gastric restrictive procedure, with gastric bypass for morbid obesity; with small intestine reconstruction to limit absorption	Procedure	CPT-4
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
E66.2	Morbid (severe) obesity with alveolar hypoventilation	Diagnosis	ICD-10-CM
E66.8	Other obesity	Diagnosis	ICD-10-CM
E66.9	Obesity, unspecified	Diagnosis	ICD-10-CM
K95.01	Infection due to gastric band procedure	Diagnosis	ICD-10-CM
K95.09	Other complications of gastric band procedure	Diagnosis	ICD-10-CM
K95.81	Infection due to other bariatric procedure	Diagnosis	ICD-10-CM
K95.89	Other complications of other bariatric procedure	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

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Code	Description	Code Category	Code Type
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
Z68.41	Body mass index (BMI) 40.0-44.9, adult	Diagnosis	ICD-10-CM
Z68.42	Body mass index (BMI) 45.0-49.9, adult	Diagnosis	ICD-10-CM
Z68.43	Body mass index (BMI) 50.0-59.9, adult	Diagnosis	ICD-10-CM
Z68.44	Body mass index (BMI) 60.0-69.9, adult	Diagnosis	ICD-10-CM
Z68.45	Body mass index (BMI) 70 or greater, adult	Diagnosis	ICD-10-CM
CD Colitis			
K50.1	Crohn's disease of large intestine	Diagnosis	ICD-10-CM
K50.10	Crohn's disease of large intestine without complications	Diagnosis	ICD-10-CM
K50.11	Crohn's disease of large intestine with complications	Diagnosis	ICD-10-CM
K50.111	Crohn's disease of large intestine with rectal bleeding	Diagnosis	ICD-10-CM
K50.112	Crohn's disease of large intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.113	Crohn's disease of large intestine with fistula	Diagnosis	ICD-10-CM
K50.114	Crohn's disease of large intestine with abscess	Diagnosis	ICD-10-CM
K50.118	Crohn's disease of large intestine with other complication	Diagnosis	ICD-10-CM
K50.119	Crohn's disease of large intestine with unspecified complications	Diagnosis	ICD-10-CM
K50.8	Crohn's disease of both small and large intestine	Diagnosis	ICD-10-CM
K50.80	Crohn's disease of both small and large intestine without complications	Diagnosis	ICD-10-CM
K50.81	Crohn's disease of both small and large intestine with complications	Diagnosis	ICD-10-CM
K50.811	Crohn's disease of both small and large intestine with rectal bleeding	Diagnosis	ICD-10-CM
K50.812	Crohn's disease of both small and large intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.813	Crohn's disease of both small and large intestine with fistula	Diagnosis	ICD-10-CM
K50.814	Crohn's disease of both small and large intestine with abscess	Diagnosis	ICD-10-CM
K50.818	Crohn's disease of both small and large intestine with other complication	Diagnosis	ICD-10-CM
K50.819	Crohn's disease of both small and large intestine with unspecified complications	Diagnosis	ICD-10-CM
K51.5	Left sided colitis	Diagnosis	ICD-10-CM
K51.50	Left sided colitis without complications	Diagnosis	ICD-10-CM
K51.51	Left sided colitis with complications	Diagnosis	ICD-10-CM
K51.511	Left sided colitis with rectal bleeding	Diagnosis	ICD-10-CM
K51.512	Left sided colitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.513	Left sided colitis with fistula	Diagnosis	ICD-10-CM
K51.514	Left sided colitis with abscess	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K51.518	Left sided colitis with other complication	Diagnosis	ICD-10-CM
K51.519	Left sided colitis with unspecified complications	Diagnosis	ICD-10-CM
Malnutrition			
E40	Kwashiorkor	Diagnosis	ICD-10-CM
E41	Nutritional marasmus	Diagnosis	ICD-10-CM
E42	Marasmic kwashiorkor	Diagnosis	ICD-10-CM
E43	Unspecified severe protein-calorie malnutrition	Diagnosis	ICD-10-CM
E44	Protein-calorie malnutrition of moderate and mild degree	Diagnosis	ICD-10-CM
E44.0	Moderate protein-calorie malnutrition	Diagnosis	ICD-10-CM
E44.1	Mild protein-calorie malnutrition	Diagnosis	ICD-10-CM
E45	Retarded development following protein-calorie malnutrition	Diagnosis	ICD-10-CM
E46	Unspecified protein-calorie malnutrition	Diagnosis	ICD-10-CM
E64	Sequelae of malnutrition and other nutritional deficiencies	Diagnosis	ICD-10-CM
E64.0	Sequelae of protein-calorie malnutrition	Diagnosis	ICD-10-CM
E64.1	Sequelae of vitamin A deficiency	Diagnosis	ICD-10-CM
E64.2	Sequelae of vitamin C deficiency	Diagnosis	ICD-10-CM
E64.3	Sequelae of rickets	Diagnosis	ICD-10-CM
E64.8	Sequelae of other nutritional deficiencies	Diagnosis	ICD-10-CM
E64.9	Sequelae of unspecified nutritional deficiency	Diagnosis	ICD-10-CM
M83.3	Adult osteomalacia due to malnutrition	Diagnosis	ICD-10-CM
O25	Malnutrition in pregnancy, childbirth and the puerperium	Diagnosis	ICD-10-CM
O25.1	Malnutrition in pregnancy	Diagnosis	ICD-10-CM
O25.10	Malnutrition in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O25.11	Malnutrition in pregnancy, first trimester	Diagnosis	ICD-10-CM
O25.12	Malnutrition in pregnancy, second trimester	Diagnosis	ICD-10-CM
O25.13	Malnutrition in pregnancy, third trimester	Diagnosis	ICD-10-CM
O25.2	Malnutrition in childbirth	Diagnosis	ICD-10-CM
O25.3	Malnutrition in the puerperium	Diagnosis	ICD-10-CM
C.diff testing			
0097U	Gastrointestinal pathogen, multiplex reverse transcription and multiplex amplified probe technique, multiple types or subtypes, 22 targets (Campylobacter [C. jejuni/C. coli/C. upsaliensis], Clostridium difficile [C. difficile] toxin A/B, Plesiomonas shigelloides, Salmonella, Vibrio [V. parahaemolyticus/V. vulnificus/V. cholerae], including specific identification of Vibrio cholerae, Yersinia enterocolitica, Enterococci, Enteropathogenic Escherichia coli [EPEC], Enterotoxigenic Escherichia coli [ETEC] lt/st, Shiga-like toxin-producing Escherichia coli [STEC] stx1/s	Procedure	CPT-4
0107U	Clostridium difficile toxin(s) antigen detection by immunoassay technique, stool, qualitative, multiple-step method	Procedure	CPT-4

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Code	Description	Code Category	Code Type
3520F	Clostridium difficile testing performed (IBD)	Procedure	CPT-2
87230	Toxin or antitoxin assay, tissue culture (eg, Clostridium difficile toxin)	Procedure	CPT-4
87324	Infectious agent antigen detection by immunoassay technique, (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], immunochemiluminometric assay [IMCA]) qualitative or semiquantitative, multiple-step method; Clostridium difficile toxin(s)	Procedure	CPT-4
87449	Infectious agent antigen detection by immunoassay technique, (eg, enzyme immunoassay [EIA], enzyme-linked immunosorbent assay [ELISA], immunochemiluminometric assay [IMCA]), qualitative or semiquantitative; multiple-step method, not otherwise specified, each organism	Procedure	CPT-4
87493	Infectious agent detection by nucleic acid (DNA or RNA); Clostridium difficile, toxin gene(s), amplified probe technique	Procedure	CPT-4
87505	Infectious agent detection by nucleic acid (DNA or RNA); gastrointestinal pathogen (eg, Clostridium difficile, E. coli, Salmonella, Shigella, norovirus, Giardia), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 3-5 targets	Procedure	CPT-4
87506	Infectious agent detection by nucleic acid (DNA or RNA); gastrointestinal pathogen (eg, Clostridium difficile, E. coli, Salmonella, Shigella, norovirus, Giardia), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 6-11 targets	Procedure	CPT-4
87507	Infectious agent detection by nucleic acid (DNA or RNA); gastrointestinal pathogen (eg, Clostridium difficile, E. coli, Salmonella, Shigella, norovirus, Giardia), includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 12-25 targets	Procedure	CPT-4
87803	Infectious agent antigen detection by immunoassay with direct optical observation; Clostridium difficile toxin A	Procedure	CPT-4
C.diff Diagnosis			
A04.7	Enterocolitis due to Clostridium difficile	Diagnosis	ICD-10-CM
A04.71	Enterocolitis due to Clostridium difficile, recurrent	Diagnosis	ICD-10-CM
A04.72	Enterocolitis due to Clostridium difficile, not specified as recurrent	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
GI-Related Encounter			
0008T	Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate, with suturing of the esophagogastric junction	Procedure	CPT-3
0057T	Upper gastrointestinal endoscopy, including esophagus, stomach, and either the duodenum and/or jejunum as appropriate, with delivery of thermal energy to the muscle of the lower esophageal sphincter and/or gastric cardia, for treatment of gastroesophageal reflux disease	Procedure	CPT-3
0066T	Computed tomographic (CT) colonography (ie, virtual colonoscopy); screening	Procedure	CPT-3
0067T	Computed tomographic (CT) colonography (ie, virtual colonoscopy); diagnostic	Procedure	CPT-3
00740	Anesthesia for upper gastrointestinal endoscopic procedures, endoscope introduced proximal to duodenum	Procedure	CPT-4
00810	Anesthesia for lower intestinal endoscopic procedures, endoscope introduced distal to duodenum	Procedure	CPT-4
00812	Anesthesia for lower intestinal endoscopic procedures, endoscope introduced distal to duodenum; screening colonoscopy	Procedure	CPT-4
0133T	Upper gastrointestinal endoscopy, including esophagus, stomach, and either the duodenum and/or jejunum as appropriate, with injection of implant material into and along the muscle of the lower esophageal sphincter (eg, for treatment of gastroesophageal reflux disease)	Procedure	CPT-3
0355T	Gastrointestinal tract imaging, intraluminal (eg, capsule endoscopy), colon, with interpretation and report	Procedure	CPT-3
0651T	Magnetically controlled capsule endoscopy, esophagus through stomach, including intraprocedural positioning of capsule, with interpretation and report	Procedure	CPT-3
0DT8	Resection / Small Intestine	Procedure	ICD-10-PCS
0DT80ZZ	Resection of Small Intestine, Open Approach	Procedure	ICD-10-PCS
0DT84ZZ	Resection of Small Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DT87ZZ	Resection of Small Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0DT88ZZ	Resection of Small Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DTE	Resection / Large Intestine	Procedure	ICD-10-PCS
0DTE0ZZ	Resection of Large Intestine, Open Approach	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
ODTE4ZZ	Resection of Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTE7ZZ	Resection of Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTE8ZZ	Resection of Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODTF	Resection / Large Intestine, Right	Procedure	ICD-10-PCS
ODTF0ZZ	Resection of Right Large Intestine, Open Approach	Procedure	ICD-10-PCS
ODTF4ZZ	Resection of Right Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTF7ZZ	Resection of Right Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTF8ZZ	Resection of Right Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODTG	Resection / Large Intestine, Left	Procedure	ICD-10-PCS
ODTG0ZZ	Resection of Left Large Intestine, Open Approach	Procedure	ICD-10-PCS
ODTG4ZZ	Resection of Left Large Intestine, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
ODTG7ZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
ODTG8ZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
ODTGFZZ	Resection of Left Large Intestine, Via Natural or Artificial Opening With Percutaneous Endoscopic Assistance	Procedure	ICD-10-PCS
3130F	Upper gastrointestinal endoscopy performed (GERD)	Procedure	CPT-2
3132F	Documentation of referral for upper gastrointestinal endoscopy (GERD)	Procedure	CPT-2
3140F	Upper gastrointestinal endoscopy report indicates suspicion of Barrett's esophagus (GERD)	Procedure	CPT-2
3141F	Upper gastrointestinal endoscopy report indicates no suspicion of Barrett's esophagus (GERD)	Procedure	CPT-2
3775F	Adenoma(s) or other neoplasm detected during screening colonoscopy (SCADR)	Procedure	CPT-2
3776F	Adenoma(s) or other neoplasm not detected during screening colonoscopy (SCADR)	Procedure	CPT-2
43234	Upper gastrointestinal endoscopy, simple primary examination (eg, with small diameter flexible endoscope) (separate procedure)	Procedure	CPT-4

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Code	Description	Code Category	Code Type
43256	Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with transendoscopic stent placement (includes predilation)	Procedure	CPT-4
43258	Upper gastrointestinal endoscopy including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique	Procedure	CPT-4
43860	Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection; without vagotomy	Procedure	CPT-4
43865	Revision of gastrojejunal anastomosis (gastrojejunostomy) with reconstruction, with or without partial gastrectomy or intestine resection; with vagotomy	Procedure	CPT-4
44120	Enterectomy, resection of small intestine; single resection and anastomosis	Procedure	CPT-4
44121	Enterectomy, resection of small intestine; each additional resection and anastomosis (List separately in addition to code for primary procedure)	Procedure	CPT-4
44125	Enterectomy, resection of small intestine; with enterostomy	Procedure	CPT-4
44126	Enterectomy, resection of small intestine for congenital atresia, single resection and anastomosis of proximal segment of intestine; without tapering	Procedure	CPT-4
44127	Enterectomy, resection of small intestine for congenital atresia, single resection and anastomosis of proximal segment of intestine; with tapering	Procedure	CPT-4
44128	Enterectomy, resection of small intestine for congenital atresia, single resection and anastomosis of proximal segment of intestine; each additional resection and anastomosis (List separately in addition to code for primary procedure)	Procedure	CPT-4
44202	Laparoscopy, surgical; enterectomy, resection of small intestine, single resection and anastomosis	Procedure	CPT-4
44203	Laparoscopy, surgical; each additional small intestine resection and anastomosis (List separately in addition to code for primary procedure)	Procedure	CPT-4
44227	Laparoscopy, surgical, closure of enterostomy, large or small intestine, with resection and anastomosis	Procedure	CPT-4

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Code	Description	Code Category	Code Type
44360	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	Procedure	CPT-4
44361	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with biopsy, single or multiple	Procedure	CPT-4
44363	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with removal of foreign body(s)	Procedure	CPT-4
44364	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	Procedure	CPT-4
44365	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps or bipolar cautery	Procedure	CPT-4
44366	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)	Procedure	CPT-4
44369	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique	Procedure	CPT-4
44370	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with transendoscopic stent placement (includes predilation)	Procedure	CPT-4
44372	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with placement of percutaneous jejunostomy tube	Procedure	CPT-4
44373	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, not including ileum; with conversion of percutaneous gastrostomy tube to percutaneous jejunostomy tube	Procedure	CPT-4
44376	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, including ileum; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)	Procedure	CPT-4
44377	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, including ileum; with biopsy, single or multiple	Procedure	CPT-4

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Code	Description	Code Category	Code Type
44378	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, including ileum; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)	Procedure	CPT-4
44379	Small intestinal endoscopy, enteroscopy beyond second portion of duodenum, including ileum; with transendoscopic stent placement (includes predilation)	Procedure	CPT-4
44380	Ileoscopy, through stoma; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	Procedure	CPT-4
44381	Ileoscopy, through stoma; with transendoscopic balloon dilation	Procedure	CPT-4
44382	Ileoscopy, through stoma; with biopsy, single or multiple	Procedure	CPT-4
44384	Ileoscopy, through stoma; with placement of endoscopic stent (includes pre- and post-dilation and guide wire passage, when performed)	Procedure	CPT-4
44385	Endoscopic evaluation of small intestinal pouch (eg, Kock pouch, ileal reservoir [S or J]); diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	Procedure	CPT-4
44386	Endoscopic evaluation of small intestinal pouch (eg, Kock pouch, ileal reservoir [S or J]); with biopsy, single or multiple	Procedure	CPT-4
44388	Colonoscopy through stoma; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	Procedure	CPT-4
44389	Colonoscopy through stoma; with biopsy, single or multiple	Procedure	CPT-4
44390	Colonoscopy through stoma; with removal of foreign body(s)	Procedure	CPT-4
44391	Colonoscopy through stoma; with control of bleeding, any method	Procedure	CPT-4
44392	Colonoscopy through stoma; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps	Procedure	CPT-4
44393	Colonoscopy through stoma; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique	Procedure	CPT-4
44394	Colonoscopy through stoma; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	Procedure	CPT-4
44397	Colonoscopy through stoma; with transendoscopic stent placement (includes predilation)	Procedure	CPT-4
44401	Colonoscopy through stoma; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre-and post-dilation and guide wire passage, when performed)	Procedure	CPT-4

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
44402	Colonoscopy through stoma; with endoscopic stent placement (including pre- and post-dilation and guide wire passage, when performed)	Procedure	CPT-4
44403	Colonoscopy through stoma; with endoscopic mucosal resection	Procedure	CPT-4
44404	Colonoscopy through stoma; with directed submucosal injection(s), any substance	Procedure	CPT-4
44405	Colonoscopy through stoma; with transendoscopic balloon dilation	Procedure	CPT-4
44406	Colonoscopy through stoma; with endoscopic ultrasound examination, limited to the sigmoid, descending, transverse, or ascending colon and cecum and adjacent structures	Procedure	CPT-4
44407	Colonoscopy through stoma; with transendoscopic ultrasound guided intramural or transmural fine needle aspiration/biopsy(s), includes endoscopic ultrasound examination limited to the sigmoid, descending, transverse, or ascending colon and cecum and adjacent structures	Procedure	CPT-4
44408	Colonoscopy through stoma; with decompression (for pathologic distention) (eg, volvulus, megacolon), including placement of decompression tube, when performed	Procedure	CPT-4
44625	Closure of enterostomy, large or small intestine; with resection and anastomosis other than colorectal	Procedure	CPT-4
44626	Closure of enterostomy, large or small intestine; with resection and colorectal anastomosis (eg, closure of Hartmann type procedure)	Procedure	CPT-4
44661	Closure of enterovesical fistula; with intestine and/or bladder resection	Procedure	CPT-4
45300	Proctosigmoidoscopy, rigid; diagnostic, with or without collection of specimen(s) by brushing or washing (separate procedure)	Procedure	CPT-4
45302	PROCTOSIGMOIDOSCOPY; COLLECT SPECIMEN BRUSH/WASH	Procedure	CPT-4
45303	Proctosigmoidoscopy, rigid; with dilation (eg, balloon, guide wire, bougie)	Procedure	CPT-4
45305	Proctosigmoidoscopy, rigid; with biopsy, single or multiple	Procedure	CPT-4
45307	Proctosigmoidoscopy, rigid; with removal of foreign body	Procedure	CPT-4
45308	Proctosigmoidoscopy, rigid; with removal of single tumor, polyp, or other lesion by hot biopsy forceps or bipolar cautery	Procedure	CPT-4
45309	Proctosigmoidoscopy, rigid; with removal of single tumor, polyp, or other lesion by snare technique	Procedure	CPT-4

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
45310	PROCTOSIGMOIDOSCOPY; REMOVAL POLYP/PAPILLOMA	Procedure	CPT-4
45315	Proctosigmoidoscopy, rigid; with removal of multiple tumors, polyps, or other lesions by hot biopsy forceps, bipolar cautery or snare technique	Procedure	CPT-4
45317	Proctosigmoidoscopy, rigid; with control of bleeding (eg, injection, bipolar cautery, unipolar cautery, laser, heater probe, stapler, plasma coagulator)	Procedure	CPT-4
45320	Proctosigmoidoscopy, rigid; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique (eg, laser)	Procedure	CPT-4
45321	Proctosigmoidoscopy, rigid; with decompression of volvulus	Procedure	CPT-4
45327	Proctosigmoidoscopy, rigid; with transendoscopic stent placement (includes predilation)	Procedure	CPT-4
45330	Sigmoidoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	Procedure	CPT-4
45331	Sigmoidoscopy, flexible; with biopsy, single or multiple	Procedure	CPT-4
45332	Sigmoidoscopy, flexible; with removal of foreign body(s)	Procedure	CPT-4
45333	Sigmoidoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps	Procedure	CPT-4
45334	Sigmoidoscopy, flexible; with control of bleeding, any method	Procedure	CPT-4
45335	Sigmoidoscopy, flexible; with directed submucosal injection(s), any substance	Procedure	CPT-4
45336	SIGMOIDOSCOPY; ABLATE TUMOR MUCOSAL LESION	Procedure	CPT-4
45337	Sigmoidoscopy, flexible; with decompression (for pathologic distention) (eg, volvulus, megacolon), including placement of decompression tube, when performed	Procedure	CPT-4
45338	Sigmoidoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	Procedure	CPT-4
45339	Sigmoidoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique	Procedure	CPT-4
45340	Sigmoidoscopy, flexible; with transendoscopic balloon dilation	Procedure	CPT-4
45341	Sigmoidoscopy, flexible; with endoscopic ultrasound examination	Procedure	CPT-4

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Code	Description	Code Category	Code Type
45342	Sigmoidoscopy, flexible; with transendoscopic ultrasound guided intramural or transmural fine needle aspiration/biopsy(s)	Procedure	CPT-4
45345	Sigmoidoscopy, flexible; with transendoscopic stent placement (includes predilation)	Procedure	CPT-4
45346	Sigmoidoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)	Procedure	CPT-4
45347	Sigmoidoscopy, flexible; with placement of endoscopic stent (includes pre- and post-dilation and guide wire passage, when performed)	Procedure	CPT-4
45349	Sigmoidoscopy, flexible; with endoscopic mucosal resection	Procedure	CPT-4
45350	Sigmoidoscopy, flexible; with band ligation(s) (eg, hemorrhoids)	Procedure	CPT-4
45355	Colonoscopy, rigid or flexible, transabdominal via colotomy, single or multiple	Procedure	CPT-4
45360	Colonoscopy, Fiberoptic, Beyond 25 Cm To Splenic Flexure;	Procedure	CPT-4
45365	Colonoscopy, Fiberoptic, Beyond 25 Cm To Splenic Flexure;	Procedure	CPT-4
45367	Colonoscopy, Fiberoptic, Beyond 25 Cm To Splenic Flexure;	Procedure	CPT-4
45368	Colonoscopy, Fiberoptic, Beyond 25 Cm To Splenic Flexure;	Procedure	CPT-4
45369	Colonoscopy, Fiberoptic, Beyond 25 Cm To Splenic Flexure;	Procedure	CPT-4
45370	Colonoscopy, Fiberoptic, Beyond 25 Cm To Splenic Flexure;	Procedure	CPT-4
45372	Colonoscopy, Fiberoptic, Beyond 25 Cm To Splenic Flexure;	Procedure	CPT-4
45378	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	Procedure	CPT-4
45379	Colonoscopy, flexible; with removal of foreign body(s)	Procedure	CPT-4
45380	Colonoscopy, flexible; with biopsy, single or multiple	Procedure	CPT-4
45381	Colonoscopy, flexible; with directed submucosal injection(s), any substance	Procedure	CPT-4
45382	Colonoscopy, flexible; with control of bleeding, any method	Procedure	CPT-4
45383	Colonoscopy, flexible, proximal to splenic flexure; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique	Procedure	CPT-4

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
45384	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by hot biopsy forceps	Procedure	CPT-4
45385	Colonoscopy, flexible; with removal of tumor(s), polyp(s), or other lesion(s) by snare technique	Procedure	CPT-4
45386	Colonoscopy, flexible; with transendoscopic balloon dilation	Procedure	CPT-4
45387	Colonoscopy, flexible, proximal to splenic flexure; with transendoscopic stent placement (includes predilation)	Procedure	CPT-4
45388	Colonoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesion(s) (includes pre- and post-dilation and guide wire passage, when performed)	Procedure	CPT-4
45389	Colonoscopy, flexible; with endoscopic stent placement (includes pre- and post-dilation and guide wire passage, when performed)	Procedure	CPT-4
45390	Colonoscopy, flexible; with endoscopic mucosal resection	Procedure	CPT-4
45391	Colonoscopy, flexible; with endoscopic ultrasound examination limited to the rectum, sigmoid, descending, transverse, or ascending colon and cecum, and adjacent structures	Procedure	CPT-4
45392	Colonoscopy, flexible; with transendoscopic ultrasound guided intramural or transmural fine needle aspiration/biopsy(s), includes endoscopic ultrasound examination limited to the rectum, sigmoid, descending, transverse, or ascending colon and cecum, and adjacent structures	Procedure	CPT-4
45393	Colonoscopy, flexible; with decompression (for pathologic distention) (eg, volvulus, megacolon), including placement of decompression tube, when performed	Procedure	CPT-4
45398	Colonoscopy, flexible; with band ligation(s) (eg, hemorrhoids)	Procedure	CPT-4
47550	Biliary endoscopy, intraoperative (choledochoscopy) (List separately in addition to code for primary procedure)	Procedure	CPT-4
47552	Biliary endoscopy, percutaneous via T-tube or other tract; diagnostic, with collection of specimen(s) by brushing and/or washing, when performed (separate procedure)	Procedure	CPT-4
47553	Biliary endoscopy, percutaneous via T-tube or other tract; with biopsy, single or multiple	Procedure	CPT-4
47554	Biliary endoscopy, percutaneous via T-tube or other tract; with removal of calculus/calculi	Procedure	CPT-4
47555	Biliary endoscopy, percutaneous via T-tube or other tract; with dilation of biliary duct stricture(s) without stent	Procedure	CPT-4
47556	Biliary endoscopy, percutaneous via T-tube or other tract; with dilation of biliary duct stricture(s) with stent	Procedure	CPT-4

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Code	Description	Code Category	Code Type
56348	Laparoscopy, surgical; intestinal resection, with anastomosis (intra or extracorporeal)	Procedure	CPT-4
74328	Endoscopic catheterization of the biliary ductal system, radiological supervision and interpretation	Procedure	CPT-4
74329	Endoscopic catheterization of the pancreatic ductal system, radiological supervision and interpretation	Procedure	CPT-4
74330	Combined endoscopic catheterization of the biliary and pancreatic ductal systems, radiological supervision and interpretation	Procedure	CPT-4
96570	Photodynamic therapy by endoscopic application of light to ablate abnormal tissue via activation of photosensitive drug(s); first 30 minutes (List separately in addition to code for endoscopy or bronchoscopy procedures of lung and gastrointestinal tract)	Procedure	CPT-4
96571	Photodynamic therapy by endoscopic application of light to ablate abnormal tissue via activation of photosensitive drug(s); each additional 15 minutes (List separately in addition to code for endoscopy or bronchoscopy procedures of lung and gastrointestinal tract)	Procedure	CPT-4
C9724	Endoscopic full-thickness plication of the stomach using endoscopic plication system (EPS); includes endoscopy	Procedure	HCPCS
C9779	Endoscopic submucosal dissection (ESD), including endoscopy or colonoscopy, mucosal closure, when performed	Procedure	HCPCS
G0104	Colorectal cancer screening; flexible sigmoidoscopy	Procedure	HCPCS
G0105	Colorectal cancer screening; colonoscopy on individual at high risk	Procedure	HCPCS
G0106	Colorectal cancer screening; alternative to G0104, screening sigmoidoscopy, barium enema	Procedure	HCPCS
G0120	Colorectal cancer screening; alternative to G0105, screening colonoscopy, barium enema	Procedure	HCPCS
G0121	Colorectal cancer screening; colonoscopy on individual not meeting criteria for high risk	Procedure	HCPCS
G2204	Patients between 45 and 85 years of age who received a screening colonoscopy during the performance period	Procedure	HCPCS
G6019	Colonoscopy through stoma; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique	Procedure	HCPCS
G6020	Colonoscopy through stoma; with transendoscopic stent placement (includes predilation)	Procedure	HCPCS
G6022	Sigmoidoscopy, flexible; with ablation of tumor(s), polyp(s), or other lesions(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique	Procedure	HCPCS

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Code	Description	Code Category	Code Type
G6023	Sigmoidoscopy, flexible; with transendoscopic stent placement (includes predilation)	Procedure	HCPCS
G6024	Colonoscopy, flexible; proximal to splenic flexure; with ablation of tumor(s), polyp(s), or other lesion(s) not amenable to removal by hot biopsy forceps, bipolar cautery or snare technique	Procedure	HCPCS
G6025	Colonoscopy, flexible, proximal to splenic flexure; with transendoscopic stent placement (includes predilation)	Procedure	HCPCS
G8250	Patient with suspicion of Barrett's esophagus in endoscopy report and documented to have received an esophageal biopsy	Procedure	HCPCS
G8251	Patient not documented to have received an esophageal biopsy when suspicion of Barrett's esophagus is indicated in the endoscopy report	Procedure	HCPCS
G9252	Adenoma(s) or other neoplasm detected during screening colonoscopy	Procedure	HCPCS
G9253	Adenoma(s) or other neoplasm not detected during screening colonoscopy	Procedure	HCPCS
G9612	Photodocumentation of two or more cecal landmarks to establish a complete examination	Procedure	HCPCS
G9613	Documentation of postsurgical anatomy (e.g., right hemicolectomy, ileocecal resection, etc.)	Procedure	HCPCS
G9614	Photodocumentation of less than two cecal landmarks (i.e., no cecal landmarks or only one cecal landmark) to establish a complete examination	Procedure	HCPCS
G9659	Patients greater than or equal to 86 years of age who underwent a screening colonoscopy and did not have a history of colorectal cancer or other valid medical reason for the colonoscopy, including: iron deficiency anemia, lower gastrointestinal bleeding, Crohn's disease (i.e., regional enteritis), familial adenomatous polyposis, Lynch syndrome (i.e., hereditary nonpolyposis colorectal cancer), inflammatory bowel disease, ulcerative colitis, abnormal finding of gastrointestinal tract, or changes in bowel habits	Procedure	HCPCS
G9660	Documentation of medical reason(s) for a colonoscopy performed on a patient greater than or equal to 86 years of age (e.g., iron deficiency anemia, lower gastrointestinal bleeding, Crohn's disease (i.e., regional enteritis), familial history of adenomatous polyposis, Lynch syndrome (i.e., hereditary nonpolyposis colorectal cancer), inflammatory bowel disease, ulcerative colitis, abnormal finding of gastrointestinal tract, or changes in bowel habits)	Procedure	HCPCS

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Code	Description	Code Category	Code Type
G9661	Patients greater than or equal to 86 years of age who received a colonoscopy for an assessment of signs/symptoms of GI tract illness, and/or because the patient meets high risk criteria, and/or to follow-up on previously diagnosed advanced lesions	Procedure	HCPCS
G9936	Surveillance colonoscopy - personal history of colonic polyps, colon cancer, or other malignant neoplasm of rectum, rectosigmoid junction, and anus	Procedure	HCPCS
G9937	Diagnostic colonoscopy	Procedure	HCPCS
K50	Crohn's disease [regional enteritis]	Diagnosis	ICD-10-CM
K50.0	Crohn's disease of small intestine	Diagnosis	ICD-10-CM
K50.00	Crohn's disease of small intestine without complications	Diagnosis	ICD-10-CM
K50.01	Crohn's disease of small intestine with complications	Diagnosis	ICD-10-CM
K50.011	Crohn's disease of small intestine with rectal bleeding	Diagnosis	ICD-10-CM
K50.012	Crohn's disease of small intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.013	Crohn's disease of small intestine with fistula	Diagnosis	ICD-10-CM
K50.014	Crohn's disease of small intestine with abscess	Diagnosis	ICD-10-CM
K50.018	Crohn's disease of small intestine with other complication	Diagnosis	ICD-10-CM
K50.019	Crohn's disease of small intestine with unspecified complications	Diagnosis	ICD-10-CM
K50.1	Crohn's disease of large intestine	Diagnosis	ICD-10-CM
K50.10	Crohn's disease of large intestine without complications	Diagnosis	ICD-10-CM
K50.11	Crohn's disease of large intestine with complications	Diagnosis	ICD-10-CM
K50.111	Crohn's disease of large intestine with rectal bleeding	Diagnosis	ICD-10-CM
K50.112	Crohn's disease of large intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.113	Crohn's disease of large intestine with fistula	Diagnosis	ICD-10-CM
K50.114	Crohn's disease of large intestine with abscess	Diagnosis	ICD-10-CM
K50.118	Crohn's disease of large intestine with other complication	Diagnosis	ICD-10-CM
K50.119	Crohn's disease of large intestine with unspecified complications	Diagnosis	ICD-10-CM
K50.8	Crohn's disease of both small and large intestine	Diagnosis	ICD-10-CM
K50.80	Crohn's disease of both small and large intestine without complications	Diagnosis	ICD-10-CM
K50.81	Crohn's disease of both small and large intestine with complications	Diagnosis	ICD-10-CM
K50.811	Crohn's disease of both small and large intestine with rectal bleeding	Diagnosis	ICD-10-CM
K50.812	Crohn's disease of both small and large intestine with intestinal obstruction	Diagnosis	ICD-10-CM
K50.813	Crohn's disease of both small and large intestine with fistula	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K50.814	Crohn's disease of both small and large intestine with abscess	Diagnosis	ICD-10-CM
K50.818	Crohn's disease of both small and large intestine with other complication	Diagnosis	ICD-10-CM
K50.819	Crohn's disease of both small and large intestine with unspecified complications	Diagnosis	ICD-10-CM
K50.9	Crohn's disease, unspecified	Diagnosis	ICD-10-CM
K50.90	Crohn's disease, unspecified, without complications	Diagnosis	ICD-10-CM
K50.91	Crohn's disease, unspecified, with complications	Diagnosis	ICD-10-CM
K50.911	Crohn's disease, unspecified, with rectal bleeding	Diagnosis	ICD-10-CM
K50.912	Crohn's disease, unspecified, with intestinal obstruction	Diagnosis	ICD-10-CM
K50.913	Crohn's disease, unspecified, with fistula	Diagnosis	ICD-10-CM
K50.914	Crohn's disease, unspecified, with abscess	Diagnosis	ICD-10-CM
K50.918	Crohn's disease, unspecified, with other complication	Diagnosis	ICD-10-CM
K50.919	Crohn's disease, unspecified, with unspecified complications	Diagnosis	ICD-10-CM
K51	Ulcerative colitis	Diagnosis	ICD-10-CM
K51.0	Ulcerative (chronic) pancolitis	Diagnosis	ICD-10-CM
K51.00	Ulcerative (chronic) pancolitis without complications	Diagnosis	ICD-10-CM
K51.01	Ulcerative (chronic) pancolitis with complications	Diagnosis	ICD-10-CM
K51.011	Ulcerative (chronic) pancolitis with rectal bleeding	Diagnosis	ICD-10-CM
K51.012	Ulcerative (chronic) pancolitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.013	Ulcerative (chronic) pancolitis with fistula	Diagnosis	ICD-10-CM
K51.014	Ulcerative (chronic) pancolitis with abscess	Diagnosis	ICD-10-CM
K51.018	Ulcerative (chronic) pancolitis with other complication	Diagnosis	ICD-10-CM
K51.019	Ulcerative (chronic) pancolitis with unspecified complications	Diagnosis	ICD-10-CM
K51.2	Ulcerative (chronic) proctitis	Diagnosis	ICD-10-CM
K51.20	Ulcerative (chronic) proctitis without complications	Diagnosis	ICD-10-CM
K51.21	Ulcerative (chronic) proctitis with complications	Diagnosis	ICD-10-CM
K51.211	Ulcerative (chronic) proctitis with rectal bleeding	Diagnosis	ICD-10-CM
K51.212	Ulcerative (chronic) proctitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.213	Ulcerative (chronic) proctitis with fistula	Diagnosis	ICD-10-CM
K51.214	Ulcerative (chronic) proctitis with abscess	Diagnosis	ICD-10-CM
K51.218	Ulcerative (chronic) proctitis with other complication	Diagnosis	ICD-10-CM
K51.219	Ulcerative (chronic) proctitis with unspecified complications	Diagnosis	ICD-10-CM
K51.3	Ulcerative (chronic) rectosigmoiditis	Diagnosis	ICD-10-CM
K51.30	Ulcerative (chronic) rectosigmoiditis without complications	Diagnosis	ICD-10-CM
K51.31	Ulcerative (chronic) rectosigmoiditis with complications	Diagnosis	ICD-10-CM
K51.311	Ulcerative (chronic) rectosigmoiditis with rectal bleeding	Diagnosis	ICD-10-CM
K51.312	Ulcerative (chronic) rectosigmoiditis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.313	Ulcerative (chronic) rectosigmoiditis with fistula	Diagnosis	ICD-10-CM
K51.314	Ulcerative (chronic) rectosigmoiditis with abscess	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K51.318	Ulcerative (chronic) rectosigmoiditis with other complication	Diagnosis	ICD-10-CM
K51.319	Ulcerative (chronic) rectosigmoiditis with unspecified complications	Diagnosis	ICD-10-CM
K51.4	Inflammatory polyps of colon	Diagnosis	ICD-10-CM
K51.40	Inflammatory polyps of colon without complications	Diagnosis	ICD-10-CM
K51.41	Inflammatory polyps of colon with complications	Diagnosis	ICD-10-CM
K51.411	Inflammatory polyps of colon with rectal bleeding	Diagnosis	ICD-10-CM
K51.412	Inflammatory polyps of colon with intestinal obstruction	Diagnosis	ICD-10-CM
K51.413	Inflammatory polyps of colon with fistula	Diagnosis	ICD-10-CM
K51.414	Inflammatory polyps of colon with abscess	Diagnosis	ICD-10-CM
K51.418	Inflammatory polyps of colon with other complication	Diagnosis	ICD-10-CM
K51.419	Inflammatory polyps of colon with unspecified complications	Diagnosis	ICD-10-CM
K51.5	Left sided colitis	Diagnosis	ICD-10-CM
K51.50	Left sided colitis without complications	Diagnosis	ICD-10-CM
K51.51	Left sided colitis with complications	Diagnosis	ICD-10-CM
K51.511	Left sided colitis with rectal bleeding	Diagnosis	ICD-10-CM
K51.512	Left sided colitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.513	Left sided colitis with fistula	Diagnosis	ICD-10-CM
K51.514	Left sided colitis with abscess	Diagnosis	ICD-10-CM
K51.518	Left sided colitis with other complication	Diagnosis	ICD-10-CM
K51.519	Left sided colitis with unspecified complications	Diagnosis	ICD-10-CM
K51.8	Other ulcerative colitis	Diagnosis	ICD-10-CM
K51.80	Other ulcerative colitis without complications	Diagnosis	ICD-10-CM
K51.81	Other ulcerative colitis with complications	Diagnosis	ICD-10-CM
K51.811	Other ulcerative colitis with rectal bleeding	Diagnosis	ICD-10-CM
K51.812	Other ulcerative colitis with intestinal obstruction	Diagnosis	ICD-10-CM
K51.813	Other ulcerative colitis with fistula	Diagnosis	ICD-10-CM
K51.814	Other ulcerative colitis with abscess	Diagnosis	ICD-10-CM
K51.818	Other ulcerative colitis with other complication	Diagnosis	ICD-10-CM
K51.819	Other ulcerative colitis with unspecified complications	Diagnosis	ICD-10-CM
K51.9	Ulcerative colitis, unspecified	Diagnosis	ICD-10-CM
K51.90	Ulcerative colitis, unspecified, without complications	Diagnosis	ICD-10-CM
K51.91	Ulcerative colitis, unspecified, with complications	Diagnosis	ICD-10-CM
K51.911	Ulcerative colitis, unspecified with rectal bleeding	Diagnosis	ICD-10-CM
K51.912	Ulcerative colitis, unspecified with intestinal obstruction	Diagnosis	ICD-10-CM
K51.913	Ulcerative colitis, unspecified with fistula	Diagnosis	ICD-10-CM
K51.914	Ulcerative colitis, unspecified with abscess	Diagnosis	ICD-10-CM
K51.918	Ulcerative colitis, unspecified with other complication	Diagnosis	ICD-10-CM
K51.919	Ulcerative colitis, unspecified with unspecified complications	Diagnosis	ICD-10-CM
K52	Other and unspecified noninfective gastroenteritis and colitis	Diagnosis	ICD-10-CM
K52.0	Gastroenteritis and colitis due to radiation	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
K52.1	Toxic gastroenteritis and colitis	Diagnosis	ICD-10-CM
K52.2	Allergic and dietetic gastroenteritis and colitis	Diagnosis	ICD-10-CM
K52.21	Food protein-induced enterocolitis syndrome	Diagnosis	ICD-10-CM
K52.22	Food protein-induced enteropathy	Diagnosis	ICD-10-CM
K52.29	Other allergic and dietetic gastroenteritis and colitis	Diagnosis	ICD-10-CM
K52.3	Indeterminate colitis	Diagnosis	ICD-10-CM
K52.8	Other specified noninfective gastroenteritis and colitis	Diagnosis	ICD-10-CM
K52.81	Eosinophilic gastritis or gastroenteritis	Diagnosis	ICD-10-CM
K52.82	Eosinophilic colitis	Diagnosis	ICD-10-CM
K52.83	Microscopic colitis	Diagnosis	ICD-10-CM
K52.831	Collagenous colitis	Diagnosis	ICD-10-CM
K52.832	Lymphocytic colitis	Diagnosis	ICD-10-CM
K52.838	Other microscopic colitis	Diagnosis	ICD-10-CM
K52.839	Microscopic colitis, unspecified	Diagnosis	ICD-10-CM
K52.89	Other specified noninfective gastroenteritis and colitis	Diagnosis	ICD-10-CM
K52.9	Noninfective gastroenteritis and colitis, unspecified	Diagnosis	ICD-10-CM
S2215	Upper gastrointestinal endoscopy, including esophagus, stomach, and either the duodenum and/or jejunum as appropriate; with injection of implant material into and along the muscle of the lower esophageal sphincter for treatment of gastroesophageal reflux disease	Procedure	HCPCS

Serious Infection

A01.01	Typhoid meningitis	Diagnosis	ICD-10-CM
A01.03	Typhoid pneumonia	Diagnosis	ICD-10-CM
A01.05	Typhoid osteomyelitis	Diagnosis	ICD-10-CM
A02.1	Salmonella sepsis	Diagnosis	ICD-10-CM
A02.21	Salmonella meningitis	Diagnosis	ICD-10-CM
A02.22	Salmonella pneumonia	Diagnosis	ICD-10-CM
A02.24	Salmonella osteomyelitis	Diagnosis	ICD-10-CM
A04.8	Other specified bacterial intestinal infections	Diagnosis	ICD-10-CM
A04.9	Bacterial intestinal infection, unspecified	Diagnosis	ICD-10-CM
A17.0	Tuberculous meningitis	Diagnosis	ICD-10-CM
A20.2	Pneumonic plague	Diagnosis	ICD-10-CM
A20.3	Plague meningitis	Diagnosis	ICD-10-CM
A21.2	Pulmonary tularemia	Diagnosis	ICD-10-CM
A27.81	Aseptic meningitis in leptospirosis	Diagnosis	ICD-10-CM
A31.0	Pulmonary mycobacterial infection	Diagnosis	ICD-10-CM
A31.1	Cutaneous mycobacterial infection	Diagnosis	ICD-10-CM
A32.11	Listerial meningitis	Diagnosis	ICD-10-CM
A32.7	Listerial sepsis	Diagnosis	ICD-10-CM
A32.82	Listerial endocarditis	Diagnosis	ICD-10-CM
A36.3	Cutaneous diphtheria	Diagnosis	ICD-10-CM
A37.01	Whooping cough due to Bordetella pertussis with pneumonia	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
A37.11	Whooping cough due to Bordetella parapertussis with pneumonia	Diagnosis	ICD-10-CM
A37.81	Whooping cough due to other Bordetella species with pneumonia	Diagnosis	ICD-10-CM
A37.91	Whooping cough, unspecified species with pneumonia	Diagnosis	ICD-10-CM
A39.0	Meningococcal meningitis	Diagnosis	ICD-10-CM
A39.2	Acute meningococemia	Diagnosis	ICD-10-CM
A39.4	Meningococemia, unspecified	Diagnosis	ICD-10-CM
A39.51	Meningococcal endocarditis	Diagnosis	ICD-10-CM
A40.0	Sepsis due to streptococcus, group A	Diagnosis	ICD-10-CM
A40.1	Sepsis due to streptococcus, group B	Diagnosis	ICD-10-CM
A40.3	Sepsis due to Streptococcus pneumoniae	Diagnosis	ICD-10-CM
A40.8	Other streptococcal sepsis	Diagnosis	ICD-10-CM
A40.9	Streptococcal sepsis, unspecified	Diagnosis	ICD-10-CM
A41.01	Sepsis due to Methicillin susceptible Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.02	Sepsis due to Methicillin resistant Staphylococcus aureus	Diagnosis	ICD-10-CM
A41.1	Sepsis due to other specified staphylococcus	Diagnosis	ICD-10-CM
A41.2	Sepsis due to unspecified staphylococcus	Diagnosis	ICD-10-CM
A41.3	Sepsis due to Hemophilus influenzae	Diagnosis	ICD-10-CM
A41.4	Sepsis due to anaerobes	Diagnosis	ICD-10-CM
A41.50	Gram-negative sepsis, unspecified	Diagnosis	ICD-10-CM
A41.51	Sepsis due to Escherichia coli [E. coli]	Diagnosis	ICD-10-CM
A41.52	Sepsis due to Pseudomonas	Diagnosis	ICD-10-CM
A41.53	Sepsis due to Serratia	Diagnosis	ICD-10-CM
A41.59	Other Gram-negative sepsis	Diagnosis	ICD-10-CM
A41.81	Sepsis due to Enterococcus	Diagnosis	ICD-10-CM
A41.89	Other specified sepsis	Diagnosis	ICD-10-CM
A41.9	Sepsis, unspecified organism	Diagnosis	ICD-10-CM
A42.7	Actinomycotic sepsis	Diagnosis	ICD-10-CM
A42.81	Actinomycotic meningitis	Diagnosis	ICD-10-CM
A43.0	Pulmonary nocardiosis	Diagnosis	ICD-10-CM
A43.1	Cutaneous nocardiosis	Diagnosis	ICD-10-CM
A46	Erysipelas	Diagnosis	ICD-10-CM
A48.0	Gas gangrene	Diagnosis	ICD-10-CM
A48.1	Legionnaires' disease	Diagnosis	ICD-10-CM
A54.86	Gonococcal sepsis	Diagnosis	ICD-10-CM
A69.21	Meningitis due to Lyme disease	Diagnosis	ICD-10-CM
A74.81	Chlamydial peritonitis	Diagnosis	ICD-10-CM
A87.0	Enteroviral meningitis	Diagnosis	ICD-10-CM
A87.1	Adenoviral meningitis	Diagnosis	ICD-10-CM
A87.2	Lymphocytic choriomeningitis	Diagnosis	ICD-10-CM
A87.8	Other viral meningitis	Diagnosis	ICD-10-CM
A87.9	Viral meningitis, unspecified	Diagnosis	ICD-10-CM
B00.3	Herpesviral meningitis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
B01.0	Varicella meningitis	Diagnosis	ICD-10-CM
B01.2	Varicella pneumonia	Diagnosis	ICD-10-CM
B02.1	Zoster meningitis	Diagnosis	ICD-10-CM
B05.1	Measles complicated by meningitis	Diagnosis	ICD-10-CM
B05.2	Measles complicated by pneumonia	Diagnosis	ICD-10-CM
B06.02	Rubella meningitis	Diagnosis	ICD-10-CM
B06.81	Rubella pneumonia	Diagnosis	ICD-10-CM
B25.0	Cytomegaloviral pneumonitis	Diagnosis	ICD-10-CM
B26.1	Mumps meningitis	Diagnosis	ICD-10-CM
B27.02	Gammaherpesviral mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.12	Cytomegaloviral mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.82	Other infectious mononucleosis with meningitis	Diagnosis	ICD-10-CM
B27.92	Infectious mononucleosis, unspecified with meningitis	Diagnosis	ICD-10-CM
B33.21	Viral endocarditis	Diagnosis	ICD-10-CM
B37.1	Pulmonary candidiasis	Diagnosis	ICD-10-CM
B37.5	Candidal meningitis	Diagnosis	ICD-10-CM
B37.6	Candidal endocarditis	Diagnosis	ICD-10-CM
B37.7	Candidal sepsis	Diagnosis	ICD-10-CM
B38.0	Acute pulmonary coccidioidomycosis	Diagnosis	ICD-10-CM
B38.2	Pulmonary coccidioidomycosis, unspecified	Diagnosis	ICD-10-CM
B38.4	Coccidioidomycosis meningitis	Diagnosis	ICD-10-CM
B39.0	Acute pulmonary histoplasmosis capsulati	Diagnosis	ICD-10-CM
B39.2	Pulmonary histoplasmosis capsulati, unspecified	Diagnosis	ICD-10-CM
B45.1	Cerebral cryptococcosis	Diagnosis	ICD-10-CM
B57.41	Meningitis in Chagas' disease	Diagnosis	ICD-10-CM
B58.3	Pulmonary toxoplasmosis	Diagnosis	ICD-10-CM
B59	Pneumocystosis	Diagnosis	ICD-10-CM
B77.81	Ascariasis pneumonia	Diagnosis	ICD-10-CM
D73.3	Abscess of spleen	Diagnosis	ICD-10-CM
G00.0	Hemophilus meningitis	Diagnosis	ICD-10-CM
G00.1	Pneumococcal meningitis	Diagnosis	ICD-10-CM
G00.2	Streptococcal meningitis	Diagnosis	ICD-10-CM
G00.3	Staphylococcal meningitis	Diagnosis	ICD-10-CM
G00.8	Other bacterial meningitis	Diagnosis	ICD-10-CM
G00.9	Bacterial meningitis, unspecified	Diagnosis	ICD-10-CM
G01	Meningitis in bacterial diseases classified elsewhere	Diagnosis	ICD-10-CM
G02	Meningitis in other infectious and parasitic diseases classified elsewhere	Diagnosis	ICD-10-CM
G03.8	Meningitis due to other specified causes	Diagnosis	ICD-10-CM
G03.9	Meningitis, unspecified	Diagnosis	ICD-10-CM
H00.031	Abscess of right upper eyelid	Diagnosis	ICD-10-CM
H00.032	Abscess of right lower eyelid	Diagnosis	ICD-10-CM
H00.033	Abscess of eyelid right eye, unspecified eyelid	Diagnosis	ICD-10-CM
H00.034	Abscess of left upper eyelid	Diagnosis	ICD-10-CM
H00.035	Abscess of left lower eyelid	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
H00.036	Abscess of eyelid left eye, unspecified eyelid	Diagnosis	ICD-10-CM
H00.039	Abscess of eyelid unspecified eye, unspecified eyelid	Diagnosis	ICD-10-CM
H05.011	Cellulitis of right orbit	Diagnosis	ICD-10-CM
H05.012	Cellulitis of left orbit	Diagnosis	ICD-10-CM
H05.013	Cellulitis of bilateral orbits	Diagnosis	ICD-10-CM
H05.019	Cellulitis of unspecified orbit	Diagnosis	ICD-10-CM
H05.021	Osteomyelitis of right orbit	Diagnosis	ICD-10-CM
H05.022	Osteomyelitis of left orbit	Diagnosis	ICD-10-CM
H05.023	Osteomyelitis of bilateral orbits	Diagnosis	ICD-10-CM
H05.029	Osteomyelitis of unspecified orbit	Diagnosis	ICD-10-CM
H60.00	Abscess of external ear, unspecified ear	Diagnosis	ICD-10-CM
H60.01	Abscess of right external ear	Diagnosis	ICD-10-CM
H60.02	Abscess of left external ear	Diagnosis	ICD-10-CM
H60.03	Abscess of external ear, bilateral	Diagnosis	ICD-10-CM
H60.10	Cellulitis of external ear, unspecified ear	Diagnosis	ICD-10-CM
H60.11	Cellulitis of right external ear	Diagnosis	ICD-10-CM
H60.12	Cellulitis of left external ear	Diagnosis	ICD-10-CM
H60.13	Cellulitis of external ear, bilateral	Diagnosis	ICD-10-CM
I33.0	Acute and subacute infective endocarditis	Diagnosis	ICD-10-CM
I70.261	Atherosclerosis of native arteries of extremities with gangrene, right leg	Diagnosis	ICD-10-CM
I70.262	Atherosclerosis of native arteries of extremities with gangrene, left leg	Diagnosis	ICD-10-CM
I70.263	Atherosclerosis of native arteries of extremities with gangrene, bilateral legs	Diagnosis	ICD-10-CM
I70.268	Atherosclerosis of native arteries of extremities with gangrene, other extremity	Diagnosis	ICD-10-CM
I70.269	Atherosclerosis of native arteries of extremities with gangrene, unspecified extremity	Diagnosis	ICD-10-CM
I73.01	Raynaud's syndrome with gangrene	Diagnosis	ICD-10-CM
I76	Septic arterial embolism	Diagnosis	ICD-10-CM
I96	Gangrene, not elsewhere classified	Diagnosis	ICD-10-CM
J10.00	Influenza due to other identified influenza virus with unspecified type of pneumonia	Diagnosis	ICD-10-CM
J10.08	Influenza due to other identified influenza virus with other specified pneumonia	Diagnosis	ICD-10-CM
J11.00	Influenza due to unidentified influenza virus with unspecified type of pneumonia	Diagnosis	ICD-10-CM
J11.08	Influenza due to unidentified influenza virus with specified pneumonia	Diagnosis	ICD-10-CM
J12.0	Adenoviral pneumonia	Diagnosis	ICD-10-CM
J12.1	Respiratory syncytial virus pneumonia	Diagnosis	ICD-10-CM
J12.2	Parainfluenza virus pneumonia	Diagnosis	ICD-10-CM
J12.3	Human metapneumovirus pneumonia	Diagnosis	ICD-10-CM
J12.81	Pneumonia due to SARS-associated coronavirus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
J12.89	Other viral pneumonia	Diagnosis	ICD-10-CM
J12.9	Viral pneumonia, unspecified	Diagnosis	ICD-10-CM
J13	Pneumonia due to Streptococcus pneumoniae	Diagnosis	ICD-10-CM
J14	Pneumonia due to Hemophilus influenzae	Diagnosis	ICD-10-CM
J15.0	Pneumonia due to Klebsiella pneumoniae	Diagnosis	ICD-10-CM
J15.1	Pneumonia due to Pseudomonas	Diagnosis	ICD-10-CM
J15.20	Pneumonia due to staphylococcus, unspecified	Diagnosis	ICD-10-CM
J15.211	Pneumonia due to Methicillin susceptible Staphylococcus aureus	Diagnosis	ICD-10-CM
J15.212	Pneumonia due to Methicillin resistant Staphylococcus aureus	Diagnosis	ICD-10-CM
J15.29	Pneumonia due to other staphylococcus	Diagnosis	ICD-10-CM
J15.3	Pneumonia due to streptococcus, group B	Diagnosis	ICD-10-CM
J15.4	Pneumonia due to other streptococci	Diagnosis	ICD-10-CM
J15.5	Pneumonia due to Escherichia coli	Diagnosis	ICD-10-CM
J15.6	Pneumonia due to other Gram-negative bacteria	Diagnosis	ICD-10-CM
J15.7	Pneumonia due to Mycoplasma pneumoniae	Diagnosis	ICD-10-CM
J15.8	Pneumonia due to other specified bacteria	Diagnosis	ICD-10-CM
J15.9	Unspecified bacterial pneumonia	Diagnosis	ICD-10-CM
J16.0	Chlamydial pneumonia	Diagnosis	ICD-10-CM
J16.8	Pneumonia due to other specified infectious organisms	Diagnosis	ICD-10-CM
J17	Pneumonia in diseases classified elsewhere	Diagnosis	ICD-10-CM
J18.0	Bronchopneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.1	Lobar pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.8	Other pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J18.9	Pneumonia, unspecified organism	Diagnosis	ICD-10-CM
J34.0	Abscess, furuncle and carbuncle of nose	Diagnosis	ICD-10-CM
J85.0	Gangrene and necrosis of lung	Diagnosis	ICD-10-CM
J85.1	Abscess of lung with pneumonia	Diagnosis	ICD-10-CM
K12.2	Cellulitis and abscess of mouth	Diagnosis	ICD-10-CM
K35.2	Acute appendicitis with generalized peritonitis	Diagnosis	ICD-10-CM
K35.3	Acute appendicitis with localized peritonitis	Diagnosis	ICD-10-CM
K35.80	Unspecified acute appendicitis	Diagnosis	ICD-10-CM
K35.89	Other acute appendicitis	Diagnosis	ICD-10-CM
K36	Other appendicitis	Diagnosis	ICD-10-CM
K37	Unspecified appendicitis	Diagnosis	ICD-10-CM
K38.9	Disease of appendix, unspecified	Diagnosis	ICD-10-CM
K55.30	Necrotizing enterocolitis, unspecified	Diagnosis	ICD-10-CM
K55.31	Stage 1 necrotizing enterocolitis	Diagnosis	ICD-10-CM
K55.32	Stage 2 necrotizing enterocolitis	Diagnosis	ICD-10-CM
K55.33	Stage 3 necrotizing enterocolitis	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

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Code	Description	Code Category	Code Type
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
K57.32	Diverticulitis of large intestine without perforation or abscess without bleeding	Diagnosis	ICD-10-CM
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
K57.52	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
K57.92	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
K61.0	Anal abscess	Diagnosis	ICD-10-CM
K61.1	Rectal abscess	Diagnosis	ICD-10-CM
K61.2	Anorectal abscess	Diagnosis	ICD-10-CM
K61.3	Ischiorectal abscess	Diagnosis	ICD-10-CM
K63.0	Abscess of intestine	Diagnosis	ICD-10-CM
K65.0	Generalized (acute) peritonitis	Diagnosis	ICD-10-CM
K65.1	Peritoneal abscess	Diagnosis	ICD-10-CM
K65.2	Spontaneous bacterial peritonitis	Diagnosis	ICD-10-CM
K65.3	Choleperitonitis	Diagnosis	ICD-10-CM
K65.8	Other peritonitis	Diagnosis	ICD-10-CM
K65.9	Peritonitis, unspecified	Diagnosis	ICD-10-CM
K68.19	Other retroperitoneal abscess	Diagnosis	ICD-10-CM
K75.0	Abscess of liver	Diagnosis	ICD-10-CM
K81.0	Acute cholecystitis	Diagnosis	ICD-10-CM
K81.2	Acute cholecystitis with chronic cholecystitis	Diagnosis	ICD-10-CM
K81.9	Cholecystitis, unspecified	Diagnosis	ICD-10-CM
K85.0	Idiopathic acute pancreatitis	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
K85.00	Idiopathic acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.01	Idiopathic acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.02	Idiopathic acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.1	Biliary acute pancreatitis	Diagnosis	ICD-10-CM
K85.10	Biliary acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.11	Biliary acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.12	Biliary acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.3	Drug induced acute pancreatitis	Diagnosis	ICD-10-CM
K85.30	Drug induced acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.31	Drug induced acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.32	Drug induced acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.8	Other acute pancreatitis	Diagnosis	ICD-10-CM
K85.80	Other acute pancreatitis without necrosis or infection	Diagnosis	ICD-10-CM
K85.81	Other acute pancreatitis with uninfected necrosis	Diagnosis	ICD-10-CM
K85.82	Other acute pancreatitis with infected necrosis	Diagnosis	ICD-10-CM
K85.9	Acute pancreatitis, unspecified	Diagnosis	ICD-10-CM
K85.90	Acute pancreatitis without necrosis or infection, unspecified	Diagnosis	ICD-10-CM
K85.91	Acute pancreatitis with uninfected necrosis, unspecified	Diagnosis	ICD-10-CM
K85.92	Acute pancreatitis with infected necrosis, unspecified	Diagnosis	ICD-10-CM
L01.00	Impetigo, unspecified	Diagnosis	ICD-10-CM
L01.01	Non-bullous impetigo	Diagnosis	ICD-10-CM
L01.02	Bockhart's impetigo	Diagnosis	ICD-10-CM
L01.03	Bullous impetigo	Diagnosis	ICD-10-CM
L01.09	Other impetigo	Diagnosis	ICD-10-CM
L01.1	Impetiginization of other dermatoses	Diagnosis	ICD-10-CM
L02.01	Cutaneous abscess of face	Diagnosis	ICD-10-CM
L02.02	Furuncle of face	Diagnosis	ICD-10-CM
L02.03	Carbuncle of face	Diagnosis	ICD-10-CM
L02.11	Cutaneous abscess of neck	Diagnosis	ICD-10-CM
L02.12	Furuncle of neck	Diagnosis	ICD-10-CM
L02.13	Carbuncle of neck	Diagnosis	ICD-10-CM
L02.211	Cutaneous abscess of abdominal wall	Diagnosis	ICD-10-CM
L02.212	Cutaneous abscess of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.213	Cutaneous abscess of chest wall	Diagnosis	ICD-10-CM
L02.214	Cutaneous abscess of groin	Diagnosis	ICD-10-CM
L02.215	Cutaneous abscess of perineum	Diagnosis	ICD-10-CM
L02.216	Cutaneous abscess of umbilicus	Diagnosis	ICD-10-CM
L02.219	Cutaneous abscess of trunk, unspecified	Diagnosis	ICD-10-CM
L02.221	Furuncle of abdominal wall	Diagnosis	ICD-10-CM
L02.222	Furuncle of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.223	Furuncle of chest wall	Diagnosis	ICD-10-CM
L02.224	Furuncle of groin	Diagnosis	ICD-10-CM
L02.225	Furuncle of perineum	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L02.226	Furuncle of umbilicus	Diagnosis	ICD-10-CM
L02.229	Furuncle of trunk, unspecified	Diagnosis	ICD-10-CM
L02.231	Carbuncle of abdominal wall	Diagnosis	ICD-10-CM
L02.232	Carbuncle of back [any part, except buttock]	Diagnosis	ICD-10-CM
L02.233	Carbuncle of chest wall	Diagnosis	ICD-10-CM
L02.234	Carbuncle of groin	Diagnosis	ICD-10-CM
L02.235	Carbuncle of perineum	Diagnosis	ICD-10-CM
L02.236	Carbuncle of umbilicus	Diagnosis	ICD-10-CM
L02.239	Carbuncle of trunk, unspecified	Diagnosis	ICD-10-CM
L02.31	Cutaneous abscess of buttock	Diagnosis	ICD-10-CM
L02.32	Furuncle of buttock	Diagnosis	ICD-10-CM
L02.33	Carbuncle of buttock	Diagnosis	ICD-10-CM
L02.411	Cutaneous abscess of right axilla	Diagnosis	ICD-10-CM
L02.412	Cutaneous abscess of left axilla	Diagnosis	ICD-10-CM
L02.413	Cutaneous abscess of right upper limb	Diagnosis	ICD-10-CM
L02.414	Cutaneous abscess of left upper limb	Diagnosis	ICD-10-CM
L02.415	Cutaneous abscess of right lower limb	Diagnosis	ICD-10-CM
L02.416	Cutaneous abscess of left lower limb	Diagnosis	ICD-10-CM
L02.419	Cutaneous abscess of limb, unspecified	Diagnosis	ICD-10-CM
L02.421	Furuncle of right axilla	Diagnosis	ICD-10-CM
L02.422	Furuncle of left axilla	Diagnosis	ICD-10-CM
L02.423	Furuncle of right upper limb	Diagnosis	ICD-10-CM
L02.424	Furuncle of left upper limb	Diagnosis	ICD-10-CM
L02.425	Furuncle of right lower limb	Diagnosis	ICD-10-CM
L02.426	Furuncle of left lower limb	Diagnosis	ICD-10-CM
L02.429	Furuncle of limb, unspecified	Diagnosis	ICD-10-CM
L02.431	Carbuncle of right axilla	Diagnosis	ICD-10-CM
L02.432	Carbuncle of left axilla	Diagnosis	ICD-10-CM
L02.433	Carbuncle of right upper limb	Diagnosis	ICD-10-CM
L02.434	Carbuncle of left upper limb	Diagnosis	ICD-10-CM
L02.435	Carbuncle of right lower limb	Diagnosis	ICD-10-CM
L02.436	Carbuncle of left lower limb	Diagnosis	ICD-10-CM
L02.439	Carbuncle of limb, unspecified	Diagnosis	ICD-10-CM
L02.511	Cutaneous abscess of right hand	Diagnosis	ICD-10-CM
L02.512	Cutaneous abscess of left hand	Diagnosis	ICD-10-CM
L02.519	Cutaneous abscess of unspecified hand	Diagnosis	ICD-10-CM
L02.521	Furuncle right hand	Diagnosis	ICD-10-CM
L02.522	Furuncle left hand	Diagnosis	ICD-10-CM
L02.529	Furuncle unspecified hand	Diagnosis	ICD-10-CM
L02.531	Carbuncle of right hand	Diagnosis	ICD-10-CM
L02.532	Carbuncle of left hand	Diagnosis	ICD-10-CM
L02.539	Carbuncle of unspecified hand	Diagnosis	ICD-10-CM
L02.611	Cutaneous abscess of right foot	Diagnosis	ICD-10-CM
L02.612	Cutaneous abscess of left foot	Diagnosis	ICD-10-CM
L02.619	Cutaneous abscess of unspecified foot	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
L02.621	Furuncle of right foot	Diagnosis	ICD-10-CM
L02.622	Furuncle of left foot	Diagnosis	ICD-10-CM
L02.629	Furuncle of unspecified foot	Diagnosis	ICD-10-CM
L02.631	Carbuncle of right foot	Diagnosis	ICD-10-CM
L02.632	Carbuncle of left foot	Diagnosis	ICD-10-CM
L02.639	Carbuncle of unspecified foot	Diagnosis	ICD-10-CM
L02.811	Cutaneous abscess of head [any part, except face]	Diagnosis	ICD-10-CM
L02.818	Cutaneous abscess of other sites	Diagnosis	ICD-10-CM
L02.821	Furuncle of head [any part, except face]	Diagnosis	ICD-10-CM
L02.828	Furuncle of other sites	Diagnosis	ICD-10-CM
L02.831	Carbuncle of head [any part, except face]	Diagnosis	ICD-10-CM
L02.838	Carbuncle of other sites	Diagnosis	ICD-10-CM
L02.91	Cutaneous abscess, unspecified	Diagnosis	ICD-10-CM
L02.92	Furuncle, unspecified	Diagnosis	ICD-10-CM
L02.93	Carbuncle, unspecified	Diagnosis	ICD-10-CM
L03.011	Cellulitis of right finger	Diagnosis	ICD-10-CM
L03.012	Cellulitis of left finger	Diagnosis	ICD-10-CM
L03.019	Cellulitis of unspecified finger	Diagnosis	ICD-10-CM
L03.031	Cellulitis of right toe	Diagnosis	ICD-10-CM
L03.032	Cellulitis of left toe	Diagnosis	ICD-10-CM
L03.039	Cellulitis of unspecified toe	Diagnosis	ICD-10-CM
L03.111	Cellulitis of right axilla	Diagnosis	ICD-10-CM
L03.112	Cellulitis of left axilla	Diagnosis	ICD-10-CM
L03.113	Cellulitis of right upper limb	Diagnosis	ICD-10-CM
L03.114	Cellulitis of left upper limb	Diagnosis	ICD-10-CM
L03.115	Cellulitis of right lower limb	Diagnosis	ICD-10-CM
L03.116	Cellulitis of left lower limb	Diagnosis	ICD-10-CM
L03.119	Cellulitis of unspecified part of limb	Diagnosis	ICD-10-CM
L03.211	Cellulitis of face	Diagnosis	ICD-10-CM
L03.213	Periorbital cellulitis	Diagnosis	ICD-10-CM
L03.221	Cellulitis of neck	Diagnosis	ICD-10-CM
L03.311	Cellulitis of abdominal wall	Diagnosis	ICD-10-CM
L03.312	Cellulitis of back [any part except buttock]	Diagnosis	ICD-10-CM
L03.313	Cellulitis of chest wall	Diagnosis	ICD-10-CM
L03.314	Cellulitis of groin	Diagnosis	ICD-10-CM
L03.315	Cellulitis of perineum	Diagnosis	ICD-10-CM
L03.316	Cellulitis of umbilicus	Diagnosis	ICD-10-CM
L03.317	Cellulitis of buttock	Diagnosis	ICD-10-CM
L03.319	Cellulitis of trunk, unspecified	Diagnosis	ICD-10-CM
L03.811	Cellulitis of head [any part, except face]	Diagnosis	ICD-10-CM
L03.818	Cellulitis of other sites	Diagnosis	ICD-10-CM
L03.90	Cellulitis, unspecified	Diagnosis	ICD-10-CM
L05.01	Pilonidal cyst with abscess	Diagnosis	ICD-10-CM
L05.02	Pilonidal sinus with abscess	Diagnosis	ICD-10-CM
L05.91	Pilonidal cyst without abscess	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
L05.92	Pilonidal sinus without abscess	Diagnosis	ICD-10-CM
L08.89	Other specified local infections of the skin and subcutaneous tissue	Diagnosis	ICD-10-CM
L08.9	Local infection of the skin and subcutaneous tissue, unspecified	Diagnosis	ICD-10-CM
M46.20	Osteomyelitis of vertebra, site unspecified	Diagnosis	ICD-10-CM
M46.21	Osteomyelitis of vertebra, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M46.22	Osteomyelitis of vertebra, cervical region	Diagnosis	ICD-10-CM
M46.23	Osteomyelitis of vertebra, cervicothoracic region	Diagnosis	ICD-10-CM
M46.24	Osteomyelitis of vertebra, thoracic region	Diagnosis	ICD-10-CM
M46.25	Osteomyelitis of vertebra, thoracolumbar region	Diagnosis	ICD-10-CM
M46.26	Osteomyelitis of vertebra, lumbar region	Diagnosis	ICD-10-CM
M46.27	Osteomyelitis of vertebra, lumbosacral region	Diagnosis	ICD-10-CM
M46.28	Osteomyelitis of vertebra, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M72.6	Necrotizing fasciitis	Diagnosis	ICD-10-CM
M86.00	Acute hematogenous osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.011	Acute hematogenous osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.012	Acute hematogenous osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.019	Acute hematogenous osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.021	Acute hematogenous osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.022	Acute hematogenous osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.029	Acute hematogenous osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.031	Acute hematogenous osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.032	Acute hematogenous osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.039	Acute hematogenous osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.041	Acute hematogenous osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.042	Acute hematogenous osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.049	Acute hematogenous osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.051	Acute hematogenous osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.052	Acute hematogenous osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.059	Acute hematogenous osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.061	Acute hematogenous osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.062	Acute hematogenous osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.069	Acute hematogenous osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.071	Acute hematogenous osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.072	Acute hematogenous osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.079	Acute hematogenous osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.08	Acute hematogenous osteomyelitis, other sites	Diagnosis	ICD-10-CM
M86.09	Acute hematogenous osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.10	Other acute osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.111	Other acute osteomyelitis, right shoulder	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
M86.112	Other acute osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.119	Other acute osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.121	Other acute osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.122	Other acute osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.129	Other acute osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.131	Other acute osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.132	Other acute osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.139	Other acute osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.141	Other acute osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.142	Other acute osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.149	Other acute osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.151	Other acute osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.152	Other acute osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.159	Other acute osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.161	Other acute osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.162	Other acute osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.169	Other acute osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.171	Other acute osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.172	Other acute osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.179	Other acute osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.18	Other acute osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.19	Other acute osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.20	Subacute osteomyelitis, unspecified site	Diagnosis	ICD-10-CM
M86.211	Subacute osteomyelitis, right shoulder	Diagnosis	ICD-10-CM
M86.212	Subacute osteomyelitis, left shoulder	Diagnosis	ICD-10-CM
M86.219	Subacute osteomyelitis, unspecified shoulder	Diagnosis	ICD-10-CM
M86.221	Subacute osteomyelitis, right humerus	Diagnosis	ICD-10-CM
M86.222	Subacute osteomyelitis, left humerus	Diagnosis	ICD-10-CM
M86.229	Subacute osteomyelitis, unspecified humerus	Diagnosis	ICD-10-CM
M86.231	Subacute osteomyelitis, right radius and ulna	Diagnosis	ICD-10-CM
M86.232	Subacute osteomyelitis, left radius and ulna	Diagnosis	ICD-10-CM
M86.239	Subacute osteomyelitis, unspecified radius and ulna	Diagnosis	ICD-10-CM
M86.241	Subacute osteomyelitis, right hand	Diagnosis	ICD-10-CM
M86.242	Subacute osteomyelitis, left hand	Diagnosis	ICD-10-CM
M86.249	Subacute osteomyelitis, unspecified hand	Diagnosis	ICD-10-CM
M86.251	Subacute osteomyelitis, right femur	Diagnosis	ICD-10-CM
M86.252	Subacute osteomyelitis, left femur	Diagnosis	ICD-10-CM
M86.259	Subacute osteomyelitis, unspecified femur	Diagnosis	ICD-10-CM
M86.261	Subacute osteomyelitis, right tibia and fibula	Diagnosis	ICD-10-CM
M86.262	Subacute osteomyelitis, left tibia and fibula	Diagnosis	ICD-10-CM
M86.269	Subacute osteomyelitis, unspecified tibia and fibula	Diagnosis	ICD-10-CM
M86.271	Subacute osteomyelitis, right ankle and foot	Diagnosis	ICD-10-CM
M86.272	Subacute osteomyelitis, left ankle and foot	Diagnosis	ICD-10-CM
M86.279	Subacute osteomyelitis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M86.28	Subacute osteomyelitis, other site	Diagnosis	ICD-10-CM

Appendix W. List of Current Procedural Terminology, Fourth Edition (CPT-4), Current Procedural Terminology, Second Edition (CPT-2), Current Procedural Terminology, Third Edition (CPT-3), Healthcare Common Procedure Coding System, Level II (HCPCS), Vaccine Administered (CV) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Covariates in this Request

Code	Description	Code Category	Code Type
M86.29	Subacute osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.8X0	Other osteomyelitis, multiple sites	Diagnosis	ICD-10-CM
M86.8X1	Other osteomyelitis, shoulder	Diagnosis	ICD-10-CM
M86.8X2	Other osteomyelitis, upper arm	Diagnosis	ICD-10-CM
M86.8X3	Other osteomyelitis, forearm	Diagnosis	ICD-10-CM
M86.8X4	Other osteomyelitis, hand	Diagnosis	ICD-10-CM
M86.8X5	Other osteomyelitis, thigh	Diagnosis	ICD-10-CM
M86.8X6	Other osteomyelitis, lower leg	Diagnosis	ICD-10-CM
M86.8X7	Other osteomyelitis, ankle and foot	Diagnosis	ICD-10-CM
M86.8X8	Other osteomyelitis, other site	Diagnosis	ICD-10-CM
M86.8X9	Other osteomyelitis, unspecified sites	Diagnosis	ICD-10-CM
M86.9	Osteomyelitis, unspecified	Diagnosis	ICD-10-CM
N10	Acute pyelonephritis	Diagnosis	ICD-10-CM
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N48.21	Abscess of corpus cavernosum and penis	Diagnosis	ICD-10-CM
N48.22	Cellulitis of corpus cavernosum and penis	Diagnosis	ICD-10-CM
N61.1	Abscess of the breast and nipple	Diagnosis	ICD-10-CM
N73.0	Acute parametritis and pelvic cellulitis	Diagnosis	ICD-10-CM
N73.2	Unspecified parametritis and pelvic cellulitis	Diagnosis	ICD-10-CM
R65.20	Severe sepsis without septic shock	Diagnosis	ICD-10-CM
R65.21	Severe sepsis with septic shock	Diagnosis	ICD-10-CM
R78.81	Bacteremia	Diagnosis	ICD-10-CM

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01)

The Center for Drug Evaluation and Research has requested execution of the Cohort Identification and Descriptive Analysis (CIDA) tool version 12.2.0 with additional programming to estimate risk for serious infection (defined as infection requiring hospitalization) in Crohn's disease patients treated with ustekinumab compared to Crohn's disease patients treated with non-ustekinumab biologics in adults age ≥18 years in the Sentinel Distributed Database (SDD).

Query period r01: 10/1/2016 - Current data completeness

Coverage requirement: Medical and drug coverage

Index enrollment requirement: 183 days

Index Enrollment Requirement: None

Enrollment gap: 45 days

Age groups: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+

Restrictions: Males and Females only (exclude Other)

Stratifications: Age group, Sex, Calendar year

Envelope macro: No reclassification

Output tables: Baseline table, effect estimates table, censoring and follow-up time tables, distribution of outcome-defining codes, distribution of IPTW weights

Censor output categorization: Censoring day categories: 0-90 days, 91-180 days, 181-270 days, 271-365 days, 366+ days

Freeze data: Yes

Code search details: All study drug use will be evidenced by NDC search in both the SCDM dispensing and procedure tables as well as by procedure code search in the procedure table.

Custom programming needed: For the comparator cohorts:

- 1) All episodes are to be censored at switch to either of the two index drugs other than the specific drug that defined an individual's index dispensing (in addition to other censoring criteria)
- 2) Apply different treatment episode gap and episode extension lengths depending on the index exposure: 56 days for users of infliximab and users of vedolizumab, and 28 days for users of adalimumab.
- 3) If patient has evidence of a code for another non-indexing comparator on the same date as their index treatment should be excluded from the cohort. For example, if a patient initiates infliximab and adalimumab, or infliximab and vedolizumab, on the same date, this would not be considered a valid index date.

For all cohorts:

- 1) Apply washout of 183 days with respect to only the specific drug that defines an individual's index dispensing. Look for a dispensing date rather than days supply.
- 2) Capture N and % for Combined Comorbidity Score categories
- 3) Capture distribution of outcome- defining codes
- 4) Include time*covariate interaction terms in PS model

Output denominator: No

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01)				
	Comparison 1: Serious Infection Composite or COVID-19		Comparison 2: Acute Meningitis	
Request Package Group	cd_ust_srsinf_cv	cd_comps_srsinf_cv	cd_ust_acutemeng	cd_comps_acutemeng
Drug/Exposure				
Exposure/Comparator	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab
Washout (days)		183		183
Incident w/ Respect to:	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing
Exclude evidence of days supply if washout evaluation period includes Cohort Definition	Washout lookback period should search for evidence of a dispensing date		Washout lookback period should search for evidence of a dispensing date	
Build Episodes on Point Exposure?	First valid incident exposure episode		First valid incident exposure episode	
Forced supply to attach to dispensings	No		No	
Forced supply to attach to procedures	Native days supply		Native days supply	
Episode Gap	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Extension Period	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Minimum Episode Duration	None		None	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01)			
Maximum Episode Duration	None		None
Minimum Days Supplied	None		None
Care Setting	*Any care setting		*Any care setting
Principal diagnosis position (PDX)	N/A		N/A
Censor Criteria	*Death; *DP end date; *Query end date; *Disenrollment;		*Death; *DP end date; *Query end date; *Disenrollment;
	*Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)	*Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab) *infliximab, adalimumab, or vedolizumab (when not index-defining drug)	*Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)
			*Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab) *infliximab, adalimumab, or vedolizumab (when not index-defining drug)
Create Baseline Table?	Yes		No
Inclusion/Exclusion			
Pre-Existing Condition	Crohn's disease		Crohn's disease
Include/Exclude	Include		Include
Care Setting/PDX	Any		Any
Lookback Period	-183, 0		-183, 0
Number of instances the criteria should be found in evaluation period	1		1

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01)			
Pre-Existing Conditions Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis Exclude Any -183, 0 1	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis Exclude Any -183, 0 1	
Pre-Existing Conditions Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	*HIV/AIDS *Organ transplantation Exclude Any Entire patient history, 0 1	*HIV/AIDS *Organ transplantation Exclude Any Entire patient history, 0 1	
Same day Exposure Include/Exclude Care Setting/PDX Lookback Period	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab Exclude Any 0, 0	*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment) Exclude Any 0, 0	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab Exclude Any 0, 0

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01)				
<p>Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings</p> <p>Number of instances the criteria should be found in evaluation period</p> <p>Forced supply to attach to dispensings</p>	<p>Washout lookback period should search for evidence of a dispensing date</p> <p>1</p> <p>-</p>		<p>Washout lookback period should search for evidence of a dispensing date</p> <p>1</p> <p>-</p>	
<p>Prior exposure</p> <p>Include/Exclude</p> <p>Care Setting/PDX</p> <p>Lookback Period</p> <p>Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings</p> <p>Number of instances the criteria should be found in evaluation period</p> <p>Forced supply to attach to dispensings</p>	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p>*Ustekinumab</p> <p>Exclude</p> <p>Any</p> <p>-183, -1</p> <p>Washout lookback period should search for evidence of a dispensing date</p> <p>1</p> <p>-</p>	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p>*Ustekinumab</p> <p>Exclude</p> <p>Any</p> <p>-183 -1</p> <p>Washout lookback period should search for evidence of a dispensing date</p> <p>1</p> <p>-</p>
<p>Post-index serious infection</p> <p>Include/Exclude</p> <p>Care Setting</p> <p>Principal diagnosis position</p>	<p>Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) OR Covid-19 Infection</p> <p>Exclude</p> <p>Inpatient hospital stay</p> <p>Any for Serious Infections; Principal for Covid-19</p>		<p>Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) OR Covid-19 Infection</p> <p>Exclude</p> <p>Inpatient hospital stay</p> <p>Any for Serious Infections; Principal for Covid-19</p>	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01)		
Look-forward Period	0, 7	0, 7
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	N/A	N/A
number of instances the criteria should be found in evaluation period	1	1
Forced supply to attach to dispensings	N/A	N/A
Event Outcome		
Event	Serious Infection Composite (See Combo tab for more detail) or Covid-19	Acute Meningitis (See Combo tab for more detail)
Incident event washout period	0	0
Incident w/ respect to: Care setting	N/A Inpatient hospital stay	N/A Inpatient hospital stay
Principal diagnosis position	Any for Serious Infection Composite; Principal for Covid-19	Any
Exclude evidence of days supply if event washout includes dispensings	N/A	N/A
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
Forced supply to attach to dispensings	N/A	N/A
ICD-9, ICD-11, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."		

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)				
	Comparison 3: Gastrointestinal Infection		Comparison 4: Pyelonephritis	
Request Package Group	cd_ust_gi	cd_comps_gi	cd_ust_pyelo	cd_comps_pyelo
Drug/Exposure				
Exposure/Comparator	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab
Washout (days)		183		183
Incident w/ Respect to:	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing
Exclude evidence of days supply if washout evaluation period includes Cohort Definition	Washout lookback period should search for evidence of a dispensing date		Washout lookback period should search for evidence of a dispensing date	
Build Episodes on Point Exposure?	First valid incident exposure episode		First valid incident exposure episode	
Forced supply to attach to dispensings	No		No	
Forced supply to attach to procedures	Native days supply		Native days supply	
Episode Gap	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Extension Period	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Minimum Episode Duration	None		None	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)		
Maximum Episode Duration Minimum Days Supplied Care Setting Principal diagnosis position (PDX) Censor Criteria	None None *Any care setting N/A *Death; *DP end date; *Query end date; *Disenrollment; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)	None None *Any care setting N/A *Death; *DP end date; *Query end date; *Disenrollment; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)
Create Baseline Table?	No	No
Inclusion/Exclusion		
Pre-Existing Condition Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	Crohn's disease Include Any -183, 0 1	Crohn's disease Include Any -183, 0 1
Pre-Existing Conditions	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)				
Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	Exclude Any -183, 0 1		Exclude Any -183, 0 1	
Pre-Existing Conditions Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	*HIV/AIDS *Organ transplantation Exclude Any Entire patient history, 0 1		*HIV/AIDS *Organ transplantation Exclude Any Entire patient history, 0 1	
Same day Exposure Include/Exclude Care Setting/PDX Lookback Period	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab	*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab	*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)
Include/Exclude Care Setting/PDX Lookback Period	Exclude Any 0, 0		Exclude Any 0, 0	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings Number of instances the criteria should be found in evaluation period Forced supply to attach to dispensings	Washout lookback period should search for evidence of a dispensing date 1 -		Washout lookback period should search for evidence of a dispensing date 1 -	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)				
Prior exposure	-	*Ustekinumab	-	*Ustekinumab
Include/Exclude	-	Exclude	-	Exclude
Care Setting/PDX	-	Any	-	Any
Lookback Period	-	-183 -1	-	-183 -1
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	-	Washout lookback period should search for evidence of a dispensing date	-	Washout lookback period should search for evidence of a dispensing date
Number of instances the criteria should be found in evaluation period	-	1	-	1
Forced supply to attach to dispensings	-	-	-	-
Post-index serious infection	Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) OR Covid-19 Infection		Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) OR Covid-19 Infection	
Include/Exclude	Exclude		Exclude	
Care Setting	Inpatient hospital stay		Inpatient hospital stay	
Principal diagnosis position	Any for Serious Infections; Principal for Covid-19		Any for Serious Infections; Principal for Covid-19	
Look-forward Period	0, 7		0, 7	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	N/A		N/A	
Number of instances the criteria should be found in evaluation period	1		1	
Forced supply to attach to dispensings	N/A		N/A	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)		
Event Outcome		
Event	Gastrointestinal Infection (See Combo tab for more detail)	Pyelonephritis (See Combo tab for more detail)
Incident event washout period	0	0
Incident w/ respect to:	N/A	N/A
Care setting	Inpatient hospital stay	Inpatient hospital stay
Principal diagnosis position	Any	Any
Exclude evidence of days supply if event washout includes dispensings	N/A	N/A
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
Forced supply to attach to dispensings	N/A	N/A

ICD-9, ICD-11, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)				
	Comparison 5: Pneumonia		Comparison 6: Acute Osteomyelitis	
Request Package Group	cd_ust_pneum	cd_comps_pneum	cd_ust_acuteosteo	cd_comps_acuteosteo
Drug/Exposure				
Exposure/Comparator	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab
Washout (days)		183		183
Incident w/ Respect to:	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing
Exclude evidence of days supply if washout evaluation period includes Cohort Definition	Washout lookback period should search for evidence of a dispensing date		Washout lookback period should search for evidence of a dispensing date	
Build Episodes on Point Exposure?	First valid incident exposure episode		First valid incident exposure episode	
Forced supply to attach to dispensings	No		No	
Forced supply to attach to procedures	Native days supply		Native days supply	
Episode Gap	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Extension Period	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Minimum Episode Duration	None		None	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)			
Maximum Episode Duration Minimum Days Supplied Care Setting Principal diagnosis position (PDX) Tensor Criteria	None None *Any care setting N/A *Death; *DP end date; *Query end date; *Disenrollment;	None None *Any care setting N/A *Death; *DP end date; *Query end date; *Disenrollment;	None None *Any care setting N/A *Death; *DP end date; *Query end date; *Disenrollment;
Create Baseline Table?	*Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab) *Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab) *infliximab, adalimumab, or vedolizumab (when not index-	*Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)	*Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab) *infliximab, adalimumab, or vedolizumab (when not index-
Inclusion/Exclusion	No	No	No
Pre-Existing Condition Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	Crohn's disease Include Any -183, 0 1	Crohn's disease Include Any -183, 0 1	Crohn's disease Include Any -183, 0 1
Pre-Existing Conditions Include/Exclude	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa Exclude	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa Exclude	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa Exclude

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)				
Care Setting/PDX	Any		Any	
Lookback Period	-183, 0		-183, 0	
Number of instances the criteria should be found in evaluation period	1		1	
Pre-Existing Conditions	*HIV/AIDS *Organ transplantation		*HIV/AIDS *Organ transplantation	
Include/Exclude	Exclude		Exclude	
Care Setting/PDX	Any		Any	
Lookback Period	Entire patient history, 0		Entire patient history, 0	
Number of instances the criteria should be found in evaluation period	1		1	
Same day Exposure	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab	*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab	*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)
Include/Exclude	Exclude		Exclude	
Care Setting/PDX	Any		Any	
Lookback Period	0, 0		0, 0	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Washout lookback period should search for evidence of a dispensing date		Washout lookback period should search for evidence of a dispensing date	
Number of instances the criteria should be found in evaluation period	1		1	
Forced supply to attach to dispensings	-		-	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)				
Prior exposure	-	*Ustekinumab	-	*Ustekinumab
Include/Exclude	-	Exclude	-	Exclude
Care Setting/PDX	-	Any	-	Any
Lookback Period	-	-183 -1	-	-183 -1
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	-	Washout lookback period should search for evidence of a dispensing date	-	Washout lookback period should search for evidence of a dispensing date
Number of instances the criteria should be found in evaluation period	-	1	-	1
Forced supply to attach to dispensings	-	-	-	-
Post-index serious infection	Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) OR Covid-19 Infection		Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) OR Covid-19 Infection	
Include/Exclude	Exclude		Exclude	
Care Setting	Inpatient hospital stay		Inpatient hospital stay	
Principal diagnosis position	Any for Serious Infections; Principal for Covid-19		Any for Serious Infections; Principal for Covid-19	
Look-forward Period	0, 7		0, 7	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	N/A		N/A	
Number of instances the criteria should be found in evaluation period	1		1	
Forced supply to attach to dispensings	N/A		N/A	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)		
Event Outcome		
Event	Pneumonia (See Combo tab for more detail)	Acute Osteomyelitis (See Combo tab for more detail)
Incident event washout period	0	0
Incident w/ respect to: Care setting	N/A Inpatient hospital stay	N/A Inpatient hospital stay
Principal diagnosis position	Any	Any
Exclude evidence of days supply if event washout includes dispensings	N/A	N/A
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
Forced supply to attach to dispensings	N/A	N/A

ICD-9, ICD-11, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)

	Comparison 7: Bacteremia		Comparison 8: Skin/Soft Tissue Infection	
Request Package Group	cd_ust_bacteremia	cd_comps_bacteremia	cd_ust_skin	cd_comps_skin
Drug/Exposure				
Exposure/Comparator	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab
Washout (days)		183		183
Incident w/ Respect to:	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing
Exclude evidence of days supply if washout evaluation period includes dispensings	Washout lookback period should search for evidence of a dispensing date		Washout lookback period should search for evidence of a dispensing date	
Cohort Definition	First valid incident exposure episode		First valid incident exposure episode	
Build Episodes on Point Exposure?	No		No	
Forced supply to attach to dispensings	Native days supply		Native days supply	
Forced supply to attach to procedures	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Gap	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Extension Period	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Minimum Episode Duration		None		None
Maximum Episode Duration	None	None	None	None
Minimum Days Supplied		None		None
Care Setting	*Any care setting		*Any care setting	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)		
Principal diagnosis position (PDX) Censor Criteria	<p>N/A</p> <p>*Death; *DP end date; *Query end date; *Disenrollment;</p> <p>*Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)</p> <p>*Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab) *infliximab, adalimumab, or vedolizumab (when not index-defining drug)</p>	<p>N/A</p> <p>*Death; *DP end date; *Query end date; *Disenrollment;</p> <p>*Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)</p> <p>*Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab) *infliximab, adalimumab, or vedolizumab (when not index-defining drug)</p>
Create Baseline Table?	No	No
Inclusion/Exclusion		
Pre-Existing Condition Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	<p>Crohn's disease</p> <p>Include</p> <p>Any</p> <p>-183, 0</p> <p>1</p>	<p>Crohn's disease</p> <p>Include</p> <p>Any</p> <p>-183, 0</p> <p>1</p>
Pre-Existing Conditions	<p>*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis</p>	<p>*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis</p>
Include/Exclude	Exclude	Exclude

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)			
Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	Any -183, 0 1		Any -183, 0 1
Pre-Existing Conditions Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	*HIV/AIDS *Organ transplantation Exclude Any Entire patient history, 0 1		*HIV/AIDS *Organ transplantation Exclude Any Entire patient history, 0 1
Same day Exposure Include/Exclude Care Setting/PDX Lookback Period Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings Number of instances the criteria should be found in evaluation period Forced supply to attach to dispensings	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab Exclude Any 0, 0 Washout lookback period should search for evidence of a dispensing date 1 -	*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment) Exclude Any 0, 0 Washout lookback period should search for evidence of a dispensing date 1 -	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab Exclude Any 0, 0 Washout lookback period should search for evidence of a dispensing date 1 -
Prior exposure	-	*Ustekinumab	- *Ustekinumab

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)			
Include/Exclude Care Setting/PDX Lookback Period Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings Number of instances the criteria should be found in evaluation period Forced supply to attach to dispensings	-	Exclude Any -183 -1	-
		Washout lookback period should search for evidence of a dispensing date	Washout lookback period should search for evidence of a dispensing date
	-	1	-
	-	-	-
Post-index serious infection	Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) OR Covid-19 Infection		Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) OR Covid-19 Infection
Include/Exclude	Exclude		Exclude
Care Setting	Inpatient hospital stay		Inpatient hospital stay
Principal diagnosis position	Any for Serious Infections; Principal for Covid-19		Any for Serious Infections; Principal for Covid-19
Look-forward Period	0, 7		0, 7
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	N/A		N/A
Number of instances the criteria should be found in evaluation period	1		1
Forced supply to attach to dispensings	N/A		N/A
Event Outcome			
Event	Bacteremia (See Combo tab for more detail)		Skin/Soft Tissue Infection (See Combo tab for more detail)

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)		
Incident event washout	0	0
Incident w/ respect to:	N/A	N/A
Care setting	Inpatient hospital stay	Inpatient hospital stay
Principal diagnosis position	Any	Any
Exclude evidence of days supply if event washout includes dispensings	N/A	N/A
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
Forced supply to attach to dispensings	N/A	N/A
ICD-9, ICD-11, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."		

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)		
	Comparison 9: Covid-19 Infection	
Request Package Group	cd_ust_covid	cd_comps_covid
Drug/Exposure		
Exposure/Comparator	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab
Washout (days)	183	
Incident w/ Respect to:	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing
Exclude evidence of days supply if washout evaluation period includes Cohort Definition	Washout lookback period should search for evidence of a dispensing date	
Build Episodes on Point Exposure?	First valid incident exposure episode	
Forced supply to attach to dispensings	No	
Forced supply to attach to procedures	Native days supply	
Episode Gap	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Extension Period	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Minimum Episode Duration	None	
Maximum Episode Duration	None	

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)	
Minimum Days Supplied Care Setting Principal diagnosis position (PDX) Tensor Criteria	None *Any care setting N/A *Death; *DP end date; *Query end date; *Disenrollment; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)
Create Baseline Table?	*Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab (when not index-defining drug)) No
Inclusion/Exclusion	
Pre-Existing Condition Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	Crohn's disease Include Any -183, 0 1
Pre-Existing Conditions	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis
Include/Exclude	Exclude

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)																						
Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	Any -183, 0 1																					
Pre-Existing Conditions Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	*HIV/AIDS *Organ transplantation Exclude Any Entire patient history, 0 1																					
Same day Exposure Include/Exclude Care Setting/PDX Lookback Period Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings Number of instances the criteria should be found in evaluation period Forced supply to attach to dispensings	<table border="0" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> *Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab </td> <td style="width: 5%; text-align: center; vertical-align: middle;"> </td> <td style="width: 45%; vertical-align: top;"> *Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment) </td> </tr> <tr> <td colspan="3" style="text-align: center;">Exclude</td> </tr> <tr> <td colspan="3" style="text-align: center;">Any</td> </tr> <tr> <td colspan="3" style="text-align: center;">0, 0</td> </tr> <tr> <td colspan="3" style="text-align: center;">Washout lookback period should search for evidence of a dispensing date</td> </tr> <tr> <td colspan="3" style="text-align: center;">1</td> </tr> <tr> <td colspan="3" style="text-align: center;">-</td> </tr> </table>	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab		*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)	Exclude			Any			0, 0			Washout lookback period should search for evidence of a dispensing date			1			-		
*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab		*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)																				
Exclude																						
Any																						
0, 0																						
Washout lookback period should search for evidence of a dispensing date																						
1																						
-																						

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)		
Prior exposure Include/Exclude Care Setting/PDX Lookback Period Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings Number of instances the criteria should be found in evaluation period Forced supply to attach to dispensings	<p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p> <p>-</p>	<p>*Ustekinumab</p> <p>Exclude</p> <p>Any</p> <p>-183 -1</p> <p>Washout lookback period should search for evidence of a dispensing date</p> <p>1</p> <p>-</p>
Post-index serious infection Include/Exclude Care Setting Principal diagnosis position Look-forward Period Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings Number of instances the criteria should be found in evaluation period Forced supply to attach to dispensings	<p>Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection</p> <p>Outcomes (See Combo tab for more detail) OR Covid-19 Infection</p> <p>Exclude Inpatient hospital stay Any for Serious Infections; Principal for Covid-19</p> <p>0, 7</p> <p>N/A</p> <p>1</p> <p>N/A</p>	
Event Outcome		

Appendix X. Specifications Defining Parameters for the Type 2 Request ID: cder_mpl2p_wp045 (run 01) (Continued)	
Event	Covid-19 Infection
Incident event washout period	0
Incident w/ respect to: Care setting	N/A Inpatient hospital stay
Principal diagnosis position	Principal
Exclude evidence of days supply if event washout includes dispensings	N/A
Event de-duplication	De-duplicates occurrences of the same event group on the same day
Forced supply to attach to dispensings	N/A

ICD-9, ICD-11, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

Appendix Y. Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 02)

The Center for Drug Evaluation and Research has requested execution of the Cohort Identification and Descriptive Analysis (CIDA) tool version 12.2.0 with additional programming to estimate risk for serious infection (defined as infection requiring hospitalization) in Crohn's disease patients treated with ustekinumab compared to Crohn's disease patients treated with non-ustekinumab biologics in adults age ≥ 18 years in the Sentinel Distributed Database (SDD).

Query period r02: 10/1/2016 - Current data completeness

Coverage requirement: Medical and drug coverage

Index enrollment requirement: 183 days

Index Enrollment Requirement: None

Enrollment gap: 45 days

Age groups: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+

Restrictions: Males and Females only (exclude Other)

Stratifications: Age group, Sex, Calendar year

Envelope macro: No reclassification

Output tables: Baseline table, effect estimates table, censoring and follow-up time tables, distribution of outcome-defining codes, distribution of IPTW weights

Censor output categorization: Censoring day categories: 0-90 days, 91-180 days, 181-270 days, 271-365 days, 366+ days

Freeze data: Yes

Code search details: All study drug use will be evidenced by NDC search in both the SCDM dispensing and procedure tables as well as by procedure code search in the procedure table.

Custom programming needed: For the comparator cohorts:

- 1) All episodes are to be censored at switch to either of the two index drugs other than the specific drug that defined an individual's index dispensing (in addition to other censoring criteria)
- 2) Apply different treatment episode gap and episode extension lengths depending on the index exposure: 56 days for users of infliximab and users of vedolizumab, and 28 days for users of adalimumab.
- 3) If patient has evidence of a code for another non-indexing comparator on the same date as their index treatment should be excluded from the cohort. For example, if a patient initiates infliximab and adalimumab, or infliximab and vedolizumab, on the same date, this would not be considered a valid index date.

For all cohorts:

- 1) Apply washout of 183 days with respect to only the specific drug that defines an individual's index dispensing. Look for a dispensing
- 3) Capture distribution of outcome- defining codes
- 4) Include time*covariate interaction terms in PS model

Output denominator: No

Appendix Y. Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 02) (Continued)		
	r02: Serious Infection Composite	
Request Package Group	cd_ust_srsinf_r02	cd_comps_srsinf_r02
Drug/Exposure		
Exposure/Comparator	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab
Washout (days)	183	
Incident w/ Respect to:	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing
Exclude evidence of days supply if washout evaluation period includes Cohort Definition	Washout lookback period should search for evidence of a dispensing date	
Build Episodes on Point Exposure?	First valid incident exposure episode	
Forced supply to attach to dispensings	No	
Forced supply to attach to procedures	Native days supply	
Episode Gap	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Extension Period	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Minimum Episode Duration	None	
Maximum Episode Duration	None	
Minimum Days Supplied	None	

Appendix Y. Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 02) (Continued)	
Care Setting Principal diagnosis position (PDX) Tensor Criteria	*Any care setting N/A *Death; *DP end date; *Query end date; *Disenrollment; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab) *Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab (when not index-defining drug))
Create Baseline Table?	Yes
Inclusion/Exclusion	
Pre-Existing Condition Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	Crohn's disease Include Any -183, 0 1
Pre-Existing Conditions Include/Exclude Care Setting/PDX	*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis Exclude Any

Appendix Y. Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 02) (Continued)	
Lookback Period	-183, 0
Number of instances the criteria should be found in evaluation period	1
Pre-Existing Conditions	*HIV/AIDS *Organ transplantation
Include/Exclude	Exclude
Care Setting/PDX	Any
Lookback Period	Entire patient history, 0
Number of instances the criteria should be found in evaluation period	1
Same day Exposure	
	<p>*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab</p> <p>*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)</p>
Include/Exclude	Exclude
Care Setting/PDX	Any
Lookback Period	0, 0
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Washout lookback period should search for evidence of a dispensing date
Number of instances the criteria should be found in evaluation period	1
Forced supply to attach to dispensings	-
Prior exposure	- *Ustekinumab

Appendix Y. Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 02) (Continued)		
Include/Exclude Care Setting/PDX Lookback Period Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings Number of instances the criteria should be found in evaluation period Forced supply to attach to dispensings	- - - - - -	Exclude Any -183, -1 Washout lookback period should search for evidence of a dispensing date 1 -
Post-index serious infection Include/Exclude Care Setting Principal diagnosis position Look-forward Period Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings Number of instances the criteria should be found in evaluation period Forced supply to attach to dispensings	Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail) Exclude Inpatient hospital stay Any 0, 7 N/A 1 N/A	

Appendix Y. Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 02) (Continued)	
Event Outcome	
Event	Serious Infection Composite (See Combo tab for more detail)
Incident event washout period	0
Incident w/ respect to: Care setting	N/A Inpatient hospital stay
Principal diagnosis position	Any
Exclude evidence of days supply if event washout includes dispensings	N/A
Event de-duplication	De-duplicates occurrences of the same event group on the same day
Forced supply to attach to dispensings	N/A

ICD-9, ICD-11, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."

Appendix Z. Specifications Defining Parameters for the for Type 2 Request ID: cder_mpl2p_wp045 (run 03, run 04)

The Center for Drug Evaluation and Research has requested execution of the Cohort Identification and Descriptive Analysis (CIDA) tool version 12.2.0 with additional programming to estimate risk for serious infection (defined as infection requiring hospitalization) in Crohn's disease patients treated with ustekinumab compared to Crohn's disease patients treated with non-ustekinumab biologics in adults age ≥18 years in the Sentinel Distributed Database (SDD).

<p>Query period r03: 10/1/2016 - 3/31/2020</p> <p>Query period r04: 4/1/2020 - Current data</p> <p>Coverage requirement: Medical and drug coverage</p> <p>Index enrollment requirement: 183 days</p> <p>Index Enrollment Requirement: None</p> <p>Enrollment gap: 45 days</p> <p>Age groups: 18-24, 25-34, 35-44, 45-54, 55-64, 65-74, 75+</p> <p>Restrictions: Medical and drug coverage</p> <p>Stratifications: Age group, Sex, Calendar year</p> <p>Envelope macro: No reclassification</p> <p>Output tables: Baseline table, effect estimates table, censoring and follow-up time tables, distribution of outcome-defining codes, distribution of IPTW weights</p> <p>Censor output categorization: Censoring day categories: 0-90 days, 91-180 days, 181-270 days, 271-365 days, 366+ days</p> <p>Freeze data: Yes</p> <p>Code search details: All study drug use will be evidenced by NDC search in both the SCDM dispensing and procedure tables as well as by procedure code search in the procedure table.</p> <p>Custom programming needed: <u>For the comparator cohorts:</u></p> <ol style="list-style-type: none"> 1) All episodes are to be censored at switch to either of the two index drugs other than the specific drug that defined an individual's index dispensing (in addition to other censoring criteria) 2) Apply different treatment episode gap and episode extension lengths depending on the index exposure: 56 days for users of infliximab and users of vedolizumab, and 28 days for users of adalimumab. 3) If patient has evidence of a code for another non-indexing comparator on the same date as their index treatment should be excluded from the cohort. For example, if a patient initiates infliximab and adalimumab, or infliximab and vedolizumab, on the same date, this would not be considered a valid index date. <p><u>For all cohorts:</u></p> <ol style="list-style-type: none"> 1) Apply washout of 183 days with respect to only the specific drug that defines an individual's index dispensing. Look for a dispensing date rather than days supply. 2) Capture N and % for Combined Comorbidity Score categories 3) Capture distribution of outcome- defining codes 4) Include time*covariate interaction terms in PS model <p>Output denominator: No</p>

Appendix Z. Specifications for Type 2 Request ID: cder_mpl2p_wp045 (run 03, run 04)				
	r03: Serious Infection Composite pre-March 2020		r04: Serious Infection Composite post-March 2020	
Request Package Group	cd_ust_srsinf_r03	cd_comps_srsinf_r03	cd_ust_srsinf_r04	cd_comps_srsinf_r04
Drug/Exposure				
Exposure/Comparator	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab	Ustekinumab	Infliximab OR Adalimumab OR Vedolizumab
Washout (days)	183		183	
Incident w/ Respect to:	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing	Ustekinumab	specific drug (infliximab, adalimumab, or vedolizumab) that defined an individual's index dispensing
Exclude evidence of days supply if washout evaluation period includes dispensings	Washout lookback period should search for evidence of a dispensing date		Washout lookback period should search for evidence of a dispensing date	
Cohort Definition	First valid incident exposure episode		First valid incident exposure episode	
Build Episodes on Point Exposure?	No		No	
Forced supply to attach to dispensings	Native days supply		Native days supply	
Forced supply to attach to procedures	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Gap	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Episode Extension Period	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days	56 days	infliximab/vedolizumab: 56 days adalimumab: 28 days
Minimum Episode Duration	None		None	
Maximum Episode Duration	None		None	
Minimum Days Supplied	None		None	
Care Setting	*Any care setting		*Any care setting	

Appendix Z. Specifications for Type 2 Request ID: cder_mpl2p_wp045 (run 03, run 04)		
Principal diagnosis position (PDX) Censor Criteria	<p>N/A</p> <p>*Death; *DP end date; *Query end date; *Disenrollment;</p> <p>*Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)</p> <p>*Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab) *infliximab, adalimumab, or vedolizumab (when not index-defining drug)</p>	<p>N/A</p> <p>*Death; *DP end date; *Query end date; *Disenrollment;</p> <p>*Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, infliximab, risankizumab, adalimumab, or vedolizumab)</p> <p>*Use of ustekinumab; *Use of comparator drug (certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab) *infliximab, adalimumab, or vedolizumab (when not index-defining drug)</p>
Create Baseline Table?	Yes	Yes
Inclusion/Exclusion		
Pre-Existing Condition Include/Exclude Care Setting/PDX Lookback Period Number of instances the criteria should be found in evaluation period	<p>Crohn's disease</p> <p>Include</p> <p>Any</p> <p>-183, 0</p> <p>1</p>	<p>Crohn's disease</p> <p>Include</p> <p>Any</p> <p>-183, 0</p> <p>1</p>
Pre-Existing Conditions Include/Exclude Care Setting/PDX	<p>*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis</p> <p>Exclude</p> <p>Any</p>	<p>*Ulcerative colitis *Plaque psoriasis *Psoriatic arthritis *Rheumatoid arthritis *Ankylosing spondylitis *Juvenile rheumatoid arthritis *Hidradenitis suppurativa *Uveitis</p> <p>Exclude</p> <p>Any</p>

Appendix Z. Specifications for Type 2 Request ID: cder_mpl2p_wp045 (run 03, run 04)			
Lookback Period	-183, 0		-183, 0
Number of instances the criteria should be found in evaluation period	1		1
Pre-Existing Conditions	*HIV/AIDS *Organ transplantation		*HIV/AIDS *Organ transplantation
Include/Exclude	Exclude		Exclude
Care Setting/PDX	Any		Any
Lookback Period	Entire patient history, 0		Entire patient history, 0
Number of instances the criteria should be found in evaluation period	1		1
Same day Exposure	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab	*Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)	*Certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab, infliximab, adalimumab, or vedolizumab *Ustekinumab, certolizumab pegol, golimumab, natalizumab, tofacitinib, ozanimod, upadacitinib, risankizumab *Infliximab, adalimumab, or vedolizumab (when not index-defining treatment)
Include/Exclude	Exclude		Exclude
Care Setting/PDX	Any		Any
Lookback Period	0, 0		0, 0
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Washout lookback period should search for evidence of a dispensing date		Washout lookback period should search for evidence of a dispensing date
Number of instances the criteria should be found in evaluation period	1		1
Forced supply to attach to dispensings	-		-
Prior exposure	-	*Ustekinumab	- *Ustekinumab
Include/Exclude	-	Exclude	- Exclude

Appendix Z. Specifications for Type 2 Request ID: cder_mpl2p_wp045 (run 03, run 04)				
Care Setting/PDX	-	Any	-	Any
Lookback Period	-	-183, -1	-	-183, -1
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	-	Washout lookback period should search for evidence of a dispensing date	-	Washout lookback period should search for evidence of a dispensing date
Number of instances the criteria should be found in evaluation period	-	1	-	1
Forced supply to attach to dispensings	-	-	-	-
Post-index serious infection	Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail)		Acute Meningitis, Gastrointestinal infection, Pyelonephritis, Pneumonia, Acute Osteomyelitis, Bacteremia, or Skin/Soft Tissue Infection Outcomes (See Combo tab for more detail)	
Include/Exclude Care Setting	Exclude Inpatient hospital stay		Exclude Inpatient hospital stay	
Principal diagnosis position	Any		Any	
Look-forward Period	0, 7		0, 7	
Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	N/A		N/A	
Number of instances the criteria should be found in evaluation period	1		1	
Forced supply to attach to dispensings	N/A		N/A	
Event Outcome				
Event	Serious Infection Composite (See Combo tab for more detail)		Serious Infection Composite (See Combo tab for more detail)	
Incident event washout period	0		0	

Appendix Z. Specifications for Type 2 Request ID: cder_mpl2p_wp045 (run 03, run 04)		
Incident w/ respect to:	N/A	N/A
Care setting	Inpatient hospital stay	Inpatient hospital stay
Principal diagnosis position	Any	Any
Exclude evidence of days supply if event washout includes dispensings	N/A	N/A
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
Forced supply to attach to dispensings	N/A	N/A
ICD-9, ICD-11, HCPCS, and CPT codes are provided by Optum360. NDC codes are checked against First Data Bank's "National Drug Data File (NDDF®) Plus."		

Appendix AA. 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 version 12.2.0 with additional programming to estimate risk for serious infection (defined as infection requiring hospitalization) in Crohn's disease patients treated with ustekinumab compared to Crohn's disease patients treated with non-ustekinumab biologics in adults age ≥18 years in the Sentinel Distributed Database (SDD).

PS Models		Comparison	Analyses			
Run	Model	Comparison	Analysis name 1 (IPTW: Truncweight = 0)	Analysis name 2 (IPTW: Truncweight = 1)	Analysis name 3 (IPTW: Truncweight = 2.5)	Analysis name 4 (PS Matching)
1	r01 Overall	Ustekinumab vs. Comparators, Serious Infection Composite or COVID-19	ust_comp_si_cov_0	ust_comp_si_cov_1	ust_comp_si_cov_2_5	ust_comp_si_cov_psm
2	r01 Overall	Ustekinumab vs. Comparators, Acute Meningitis	ust_comp_am_0	ust_comp_am_1	ust_comp_am_2_5	
3	r01 Overall	Ustekinumab vs. Comparators, GI Infection	ust_comp_gi_0	ust_comp_gi_1	ust_comp_gi_2_5	
4	r01 Overall	Ustekinumab vs. Comparators, Pyelonephritis	ust_comp_pyelo_0	ust_comp_pyelo_1	ust_comp_pyelo_2_5	
5	r01 Overall	Ustekinumab vs. Comparators, Pneumonia	ust_comp_pneum_0	ust_comp_pneum_1	ust_comp_pneum_2_5	
6	r01 Overall	Ustekinumab vs. Comparators, Acute Osteomyelitis	ust_comp_ao_0	ust_comp_ao_1	ust_comp_ao_2_5	
7	r01 Overall	Ustekinumab vs. Comparators, Bacteremia	ust_comp_bact_0	ust_comp_bact_1	ust_comp_bact_2_5	
8	r01 Overall	Ustekinumab vs. Comparators, Skin/soft Tissue Infection	ust_comp_skin_0	ust_comp_skin_1	ust_comp_skin_2_5	
9	r01 Overall	Ustekinumab vs. Comparators, Covid-19 infection	ust_comp_cov_0	ust_comp_cov_1	ust_comp_cov_2_5	
10	r02 Overall	Ustekinumab vs. Comparators, Serious Infection Composite	ust_comp_si_0	ust_comp_si_1	ust_comp_si_2_5	
11	r03 Overall	Ustekinumab vs. Comparators, Serious Infection Composite (pre-April 1, 2020)	ust_comp_si_pre_0	ust_comp_si_pre_1	ust_comp_si_pre_2_5	
12	r04 Overall	Ustekinumab vs. Comparators, Serious Infection Composite (post-April 1, 2020)	ust_comp_si_post_0	ust_comp_si_post_1	ust_comp_si_post_2_5	

Appendix AA. Specifications for Propensity Score (PS) Models (Continued)

Propensity Score Estimation Parameters	Covariates	See Covariates tab including Time*covariate interaction term for all covariates (included only in r01 and r02 PS models, not included in r03 or r04 PS models)
	Firth Logistic Intercept Corrected Method	No
	High-dimensional Propensity Score	No
Adjustment method #1	IPTW	
	Analysis name	Analysis names 1-3
	IP weight calculation	ATT (average treatment effect in the treated)
	Weight truncation?	- No truncation - 1st percentile truncation - 2.5 percentile truncation
Adjustment method #2	PS Matching	
	Analysis name	Analysis name 4
	Matching ratio	1:1
	Caliper	0.05
	Analysis type	Conditional and unconditional

Appendix AA. Specifications for Propensity Score (PS) Models (Continued)

Subgroups

Analysis name	ust_comp_si_cov_0, ust_comp_si_cov_1, ust_comp_si_cov_2_5
Subgroups	Pre-Index Treatment Experience (-183,-1)
Sugroup Categories	Treatment Naïve, Treatment Experienced: Defined by dispensing or administration of a study drug (ustekinumab, infliximab, adalimumab, or vedolizumab) or other biologic/small molecule immunosuppressant for CD or UC (certolizumab pegol, golimumab, natalizumab, risankizumab, tofacitinib, upadacitinib, or ozanimod).
Subgroup Rematching	Subgroup re-matching should be done in the total population (i.e., patients who were matched and patients who were not matched in the main analysis)
Firth Logistic Intercept Corrected Method	No
Re-estimate	Yes: the propensity score will be re-estimated

Appendix AB. Specifications for Baseline Characteristics/Covariates

***Gray box indicates inclusion in the PS model**

Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Demographics	--	Age (continuous)	--	--	--
Demographics	--	Sex (male/female)	--	--	--
Demographics	--	Year of index date (2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023)	--	--	--
Demographics	200, 201, 202	Time: [10/1/2016-3/31/2020], [4/1/2020-11/30/2020], and [12/1/2020 and after] (included only in r01 and r02 PS models, not included in r03 or r04 PS models)	--	--	--
Comorbidity	2	Hypothyroidism	--	*Any care setting	*Any
Comorbidity	3	Acute myocardial infarction	--	*Any care setting	*Any
Comorbidity	4	Alcohol or drug abuse	--	*Any care setting	*Any
Comorbidity	5	Alzheimer's disease	--	*Any care setting	*Any
Comorbidity	6	Anemia	--	*Any care setting	*Any
Comorbidity	7	Asthma	--	*Any care setting	*Any
Comorbidity	8	Atrial fibrillation and flutter	--	*Any care setting	*Any
Comorbidity	9	Benign prostatic hyperplasia - inclusion	--	*Any care setting	*Any
Comorbidity	10	Benign prostatic hyperplasia - exclusion	--	*Any care setting	*Any
Comorbidity	11	Benign prostatic hyperplasia	covar9 and NOT covar10		
Comorbidity	12	Cancer, history of	--	*Any care setting	*Any
Comorbidity	13	Cancer, breast	--	*Any care setting	*Any
Comorbidity	14	Cancer, colorectal	--	*Any care setting	*Any
Comorbidity	15	Cancer, endometrial	--	*Any care setting	*Any
Comorbidity	16	Cancer, lung	--	*Any care setting	*Any
Comorbidity	17	Cancer, prostate	--	*Any care setting	*Any
Comorbidity	142	Cancer, urologic (kidney, renal pevis, and ureter)	--	*Any care setting	*Any
Comorbidity	18	Cataract	--	*Any care setting	*Any
Comorbidity	19	Chronic kidney disease	--	*Any care setting	*Any
Comorbidity	20	COPD	--	*Any care setting	*Any
Comorbidity	21	Depression, bipolar, or other depressive mood disorders	--	*Any care setting	*Any
Comorbidity	22	Diabetes	--	*Any care setting	*Any

Appendix AB. Specifications for Baseline Characteristics/Covariates

*Gray box indicates inclusion in the PS model

Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Comorbidity	23	Glaucoma	--	*Any care setting	*Any
Comorbidity	24	Heart Failure and Non-Ischemic Heart Disease	--	*Any care setting	*Any
Comorbidity	25	Hip/pelvic fracture	--	*Any care setting	*Any
Comorbidity	26	Hyperlipidemia	--	*Any care setting	*Any
Comorbidity	27	Hypertension (CCW)	--	*Any care setting	*Any
Comorbidity	28	Serious infection	--	*IP	*Any
Comorbidity	29	Intestinal perforation	--	*Any care setting	*Any
Comorbidity	145	Surgical intervention	--	*Any care setting	*Any
Comorbidity	30	Intestine, fistula	--	*Any care setting	*Any
Comorbidity	31	Intestine, obstruction	--	*Any care setting	*Any
Comorbidity	32	Intra-abdominal abscess		*Any care setting	*Any
Comorbidity	33	Ischemic heart disease	--	*Any care setting	*Any
Comorbidity	143	Non-Alzheimer's dementia	--	*Any care setting	*Any
Comorbidity	35	Obesity	--	*Any care setting	*Any
Comorbidity	36	Osteoporosis With or Without Pathological Fracture	--	*Any care setting	*Any
Comorbidity	144	Parkinson's Disease and Secondary Parkinsonism	--	*Any care setting	*Any
Comorbidity	37	CD Colitis	--	*Any care setting	*Any
Comorbidity	38	Perianal disease/abscess		*Any care setting	*Any
Comorbidity	39	Rheumatoid arthritis/osteoarthritis	--	*Any care setting	*Any
Comorbidity	40	Stroke/transient ischemic attack -inclusion	--	*Any care setting	*Any
Comorbidity	41	Stroke/transient ischemic attack - exclusion	--	*Any care setting	*Any
Comorbidity	42	Stroke/TIA	covar40 and NOT covar41		
Medication use: biologic immunosuppressant	43	Adalimumab on index date	--	--	
Medication use: biologic immunosuppressant	44	Infliximab on index date	--	--	

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Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Medication use: biologic immunosuppressant	45	Vedolizumab on index date	--	--	
Medication use: biologic immunosuppressant	46	Certolizumab pegol on index date	--	--	--
Medication use: biologic immunosuppressant	47	Golimumab on index date	--	--	--
Medication use: biologic immunosuppressant	48	Natalizumab on index date	--	--	--
Medication use: biologic immunosuppressant	49	Ozanimod on index date	--	--	--
Medication use: biologic immunosuppressant	50	Tofacitinib on index date	--	--	--
Medication use: biologic immunosuppressant	51	Upadacitinib on index date	--	--	--
Medication use: biologic immunosuppressant	52	Risankizumab on index date	--	--	--
Medication use: biologic immunosuppressant	53	Any comparator: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	--	--	--
Medication use: biologic immunosuppressant	54	Adalimumab	--	--	--

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Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Medication use: biologic immunosuppressant	55	Certolizumab pegol	--	--	--
Medication use: biologic immunosuppressant	56	Golimumab	--	--	--
Medication use: biologic immunosuppressant	57	Infliximab	--	--	--
Medication use: biologic immunosuppressant	58	Natalizumab	--	--	--
Medication use: biologic immunosuppressant	59	Ozanimod	--	--	--
Medication use: biologic immunosuppressant	60	Tofacitinib	--	--	--
Medication use: biologic immunosuppressant	61	Upadacitinib	--	--	--
Medication use: biologic immunosuppressant	62	Vedolizumab	--	--	--
Medication use: biologic immunosuppressant	63	Risankizumab	--	--	--
Medication use: biologic immunosuppressant	64	Any comparator: certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab	--	--	--

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Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Medication use: biologic immunosuppressant	146	At least 2 dispensings of a biologic (ustekinumab, infliximab, adalimumab, vedolizumab, certolizumab pegol, golimumab, natalizumab, ozanimod, tofacitinib, upadacitinib, risankizumab)	--	--	--
Medication use: biologic immunosuppressant	147	At least 3 dispensings of a biologic	--	--	--
Medication use: biologic immunosuppressant	148	At least 5 dispensings of a biologic	--	--	--
Medication use: biologic immunosuppressant	149	At least 7 dispensings of a biologic	--	--	--
Medication use: biologic immunosuppressant	150	1 dispensing of a biologic	Not Covar 146	--	--
Medication use: biologic immunosuppressant	151	2 dispensings of a biologic	Covar146 and Not Covar147	--	--
Medication use: biologic immunosuppressant	152	3-4 dispensings of a biologic	Covar147 and Not Covar148	--	--
Medication use: biologic immunosuppressant	153	5-6 dispensings of a biologic	Covar148 and Not Covar 149	--	--
Medication use: IBD-related	65	Aminosalicilates (5-ASA)	--	--	--
Medication use: IBD-related	66	Immunomodulators: methotrexate, thiopurines, cyclosporine, and tacrolimus	--	--	--

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Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Medication use: IBD-related	67	Corticosteroids, intravenous	--	--	--
Medication use: IBD-related	68	Corticosteroids, oral	--	--	--
Medication use: IBD-related	69	Corticosteroids, rectal	--	--	--
Medication use: general	70	Antibiotics	--	--	--
Medication use: general	71	Antivirals	--	--	--
Medication use: general	72	Anticoagulants	--	--	--
Medication use: general	73	Antidiabetics	--	--	--
Medication use: general	74	Antihypertensives	--	--	--
Medication use: general	75	Antiplatelets	--	--	--
Medication use: general	76	Lipid-lowering drugs	--	--	--
Medication use: general	77	Non-steroidal anti-inflammatory drugs	--	--	--
Medication use: general	78	Opioids	--	--	--
Utilization: general	79	At least 1 emergency department (ED) encounter	--	*ED	--
Utilization: general	80	At least 2 emergency department (ED) encounters	--	*ED	--
Utilization: general	81	At least 4 emergency department (ED) encounters	--	*ED	--
Utilization: general	82	At least 1 ambulatory (AV) encounter	--	*AV	--
Utilization: general	83	At least 2 ambulatory (AV) encounters	--	*AV	--
Utilization: general	84	At least 4 ambulatory (AV) encounters	--	*AV	--

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Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Utilization: general	85	At least 1 inpatient (IP) encounter	--	*IP	--
Utilization: general	86	At least 2 inpatient (IP) encounters	--	*IP	--
Utilization: general	87	At least 4 inpatient (IP) encounters	--	*IP	--
Utilization: GI-related	88	At least 1 day with a GI-related emergency department (ED) encounter	--	*ED	--
Utilization: GI-related	89	At least 2 days with a GI-related emergency department (ED) encounter	--	*ED	--
Utilization: GI-related	90	At least 4 days with an GI-related emergency department (ED) encounter	--	*ED	--
Utilization: GI-related	91	At least 1 day with a GI-related inpatient (IP) encounter	--	*IP	*Principal
Utilization: GI-related	92	At least 2 days with a GI-related inpatient (IP) encounter	--	*IP	*Principal
Utilization: GI-related	93	At least 4 days with a GI-related inpatient (IP) encounter	--	*IP	*Principal
Utilization: general	94	0 emergency department (ED) encounters	NOT covar79	*ED	--
Utilization: general	95	1 emergency department (ED) encounter	covar79 and NOT covar80		
Utilization: general	96	2-3 emergency department (ED) encounters	covar80 and NOT covar81	*ED	--
Utilization: general	97	0 ambulatory encounters	NOT covar82	*AV	--
Utilization: general	98	1 ambulatory encounter	covar82 and NOT covar83	*AV	--
Utilization: general	99	2-3 ambulatory encounters	covar83 and NOT covar84	*AV	--
Utilization: general	100	0 inpatient (IP) encounters	NOT covar85	*IP	--
Utilization: general	101	1 inpatient (IP) encounter	covar85 and NOT covar86	*IP	--
Utilization: general	102	2-3 inpatient (IP) encounters	covar86 and NOT covar87	*IP	--
Utilization: GI-related	103	0 days with a GI-related emergency department (ED) encounter	NOT covar88	*ED	--

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Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Utilization: GI-related	104	1 day with a GI-related emergency department (ED) encounter	covar88 and NOT covar89	*ED	--
Utilization: GI-related	105	2-3 days with a GI-related emergency department (ED) encounter	covar89 and NOT covar90	*ED	--
Utilization: GI-related	106	0 days with a GI-related inpatient (IP) encounter	NOT covar91	*IP	--
Utilization: GI-related	107	1 day with a GI-related inpatient (IP) encounter	covar91 and NOT covar92	*IP	--
Utilization: GI-related	108	2-3 days with a GI-related inpatient (IP) encounter	covar92 and NOT covar93	*IP	--
Utilization: drugs	--	Number of unique drug classes dispensed	--	--	--
Utilization: drugs	--	Number of dispensings	--	--	--
Utilization: health services	--	Number of inpatient hospital stays	--	--	--
Utilization: health services	--	Number of non-acute institutional stays	--	--	--
Utilization: health services	--	Number of emergency department visits	--	--	--
Utilization: health services	--	Number of ambulatory visits	--	--	--
Utilization: health services	--	Number other ambulatory visits	--	--	--
Comorbidity	--	Combined comorbidity score	--	--	--
Comorbidity	109	Metastatic cancer	--	*Any care setting	*Any
Comorbidity	110	Congestive heart failure	--	*Any care setting	*Any
Comorbidity	111	Dementia	--	*Any care setting	*Any
Comorbidity	112	Renal failure	--	*Any care setting	*Any
Comorbidity	113	Weight loss	--	*Any care setting	*Any
Comorbidity	114	Hemiplegia	--	*Any care setting	*Any
Comorbidity	115	Alcohol abuse	--	*Any care setting	*Any
Comorbidity	116	Any tumor	--	*Any care setting	*Any

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Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Comorbidity	117	Cardiac arrhythmias	--	*Any care setting	*Any
Comorbidity	118	Chronic pulmonary disease	--	*Any care setting	*Any
Comorbidity	119	Coagulopathy	--	*Any care setting	*Any
Comorbidity	120	Complicated diabetes	--	*Any care setting	*Any
Comorbidity	121	Deficiency anemias	--	*Any care setting	*Any
Comorbidity	122	Fluid and electrolyte disorders	--	*Any care setting	*Any
Comorbidity	123	Liver disease	--	*Any care setting	*Any
Comorbidity	124	Peripheral vascular disorder	--	*Any care setting	*Any
Comorbidity	125	Psychosis	--	*Any care setting	*Any
Comorbidity	126	Pulmonary circulation disorders	--	*Any care setting	*Any
Comorbidity	127	HIV/AIDS	--	*Any care setting	*Any
Comorbidity	128	Hypertension	--	*Any care setting	*Any
Comorbidity	129	Covid-19 vaccination		*Any care setting	*Any
Comorbidity	130	Flu (Influenza) vaccination (see combo)		*Any care setting	*Any
Comorbidity	131	Diphtheria, tetanus, and pertussis (DTaP) vaccination		*Any care setting	*Any
Comorbidity	132	Haemophilus influenza type B vaccination		*Any care setting	*Any
Comorbidity	133	Measles, mumps, and rubella (MMR) vaccination		*Any care setting	*Any
Comorbidity	134	Meningococcal vaccination		*Any care setting	*Any
Comorbidity	135	Pneumococcal vaccination		*Any care setting	*Any
Comorbidity	136	Varicella (VAR) vaccination		*Any care setting	*Any
Comorbidity	137	Zoster recombinant vaccination		*Any care setting	*Any
CD Severity Marker	138	Malnutrition		*Any care setting	*Any
CD Severity Marker	139	C. diff testing		*Any care setting	*Any
CD Severity Marker	140	C. diff diagnosis		*Any care setting	*Any

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Baseline Characteristics/Covariates

Covariate Group	Covariate Number	Baseline Characteristics/Covariates*	Combo Criteria	Care Setting	Principal Diagnosis Position
Subgroup	141	Treatment-experienced: Defined by dispensing or administration of a study drug (ustekinumab, infliximab, adalimumab, or vedolizumab) or other biologic/small molecule immunosuppressant for CD or UC (certolizumab pegol, golimumab, natalizumab, risankizumab, tofacitinib, upadacitinib, or ozanimod)	--	*Any care setting	*Any
Covariate	--	Time*covariate interaction term for all covariates (included only in r01 and r02 PS models, not included in r03 or r04 PS models).	--	--	--

Appendix AB. Specifications for Baseline Characteristics/Covariates

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Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	0	0	*Evaluation period should search for evidence of a dispensing date	1

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Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1

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Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	1
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	2
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	3
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	5
Medication use: biologic immunosuppressant	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	*Evaluation period should search for evidence of a dispensing date	7
Medication use: biologic immunosuppressant	*Combination of multiple covariate values	-183	-1	--	--
Medication use: biologic immunosuppressant	*Combination of multiple covariate values	-183	-1	--	--
Medication use: biologic immunosuppressant	*Combination of multiple covariate values	-183	-1	--	--
Medication use: biologic immunosuppressant	*Combination of multiple covariate values	-183	-1	--	--

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Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Medication use: IBD-related	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: IBD-related	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: IBD-related	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: IBD-related	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: IBD-related	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1

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Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Medication use: general	*Drug code	-183	0	*Evaluation period should search for evidence of a dispensing date	1
Utilization: general	--	-183	-1	--	1
Utilization: general	--	-183	-1	--	2
Utilization: general	--	-183	-1	--	4
Utilization: general	--	-183	-1	--	1
Utilization: general	--	-183	-1	--	2
Utilization: general	--	-183	-1	--	4
Utilization: general	--	-183	-1	--	4
Utilization: general	--	-183	-1	--	1
Utilization: general	--	-183	-1	--	2
Utilization: general	--	-183	-1	--	4
Utilization: GI-related	*Diagnosis code *Procedure code	-183	-1	--	1
Utilization: GI-related	*Diagnosis code *Procedure code	-183	-1	--	2

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Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Utilization: GI-related	*Diagnosis code *Procedure code	-183	-1	--	4
Utilization: GI-related	*Diagnosis code *Procedure code	-183	-1	--	1
Utilization: GI-related	*Diagnosis code *Procedure code	-183	-1	--	2
Utilization: GI-related	*Diagnosis code *Procedure code	-183	-1	--	4
Utilization: general	*Combination of multiple covariate values	-183	-1	--	--
Utilization: general	*Combination of multiple covariate values	-183	-1		
Utilization: general	*Combination of multiple covariate values	-183	-1	--	--
Utilization: general	*Combination of multiple covariate values	-183	-1	--	--
Utilization: general	*Combination of multiple covariate values	-183	-1	--	--
Utilization: general	*Combination of multiple covariate values	-183	-1	--	--
Utilization: general	*Combination of multiple covariate values	-183	-1	--	--
Utilization: general	*Combination of multiple covariate values	-183	-1	--	--
Utilization: general	*Combination of multiple covariate values	-183	-1	--	--
Utilization: GI-related	*Combination of multiple covariate values	-183	-1	--	--

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Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Utilization: GI-related	*Combination of multiple covariate values	-183	-1	--	--
Utilization: GI-related	*Combination of multiple covariate values	-183	-1	--	--
Utilization: GI-related	*Combination of multiple covariate values	-183	-1	--	--
Utilization: GI-related	*Combination of multiple covariate values	-183	-1	--	--
Utilization: GI-related	*Combination of multiple covariate values	-183	-1	--	--
Utilization: drugs	--	-183	-1	--	--
Utilization: drugs	--	-183	-1	--	--
Utilization: health services	--	-183	-1	--	--
Utilization: health services	--	-183	-1	--	--
Utilization: health services	--	-183	-1	--	--
Utilization: health services	--	-183	-1	--	--
Utilization: health services	--	-183	-1	--	--
Comorbidity	--	-183	0	--	--
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1

Appendix AB. Specifications for Baseline Characteristics/Covariates

*Gray box indicates inclusion in the PS model

Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Diagnosis code	-183	0	--	1
Comorbidity	*Drug code (Dispensings and Procedures tables) *Procedure code	ever	0	*Evaluation period should search for evidence of a dispensing date	1
Comorbidity	*Procedure code	-365 (0 for input file purpose)	0	--	1
Comorbidity	*Procedure code	ever	0	--	1
Comorbidity	*Procedure code	ever	0	--	1
Comorbidity	*Procedure code	ever	0	--	1
Comorbidity	*Procedure code	ever	0	--	1
Comorbidity	*Procedure code	ever	0	--	1
Comorbidity	*Procedure code	ever	0	--	1
Comorbidity	*Procedure code	ever	0	--	2
CD Severity Marker	*Diagnosis code	-183	0	--	1
CD Severity Marker	*Procedure code	-183	0	--	1
CD Severity Marker	*Diagnosis code	-183	0	--	1
Subgroup	*Drug code (Dispensings and Procedures tables) *Procedure code	-183	-1	--	1

Appendix AB. Specifications for Baseline Characteristics/Covariates

*Gray box indicates inclusion in the PS model

Baseline Characteristics/Covariates

Covariate Group	Code Category	Evaluation Period Start	Evaluation Period End	Exclude Evidence of Days Supply if Covariate Includes Dispensings	Number of Onstances the Covariate Should be Found in Evaluation
Covariate	--	--	--	--	--

Serious Infection after Ustekinumab Treatment for Crohn's Disease

Cohort Entry Date (Day 0)

(Observation of first ustekinumab or comparator [currently: infliximab, adalimumab, vedolizumab])

