Disclaimer

The following report(s) provides findings from an FDA-initiated query using Sentinel. While Sentinel queries may be undertaken to assess potential medical product safety risks, they may also be initiated for various other reasons. Some examples include determining a rate or count of an identified health outcome of interest, examining medical product use, exploring the feasibility of future, more detailed analyses within Sentinel, and seeking to better understand Sentinel capabilities.

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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Sentinel

Overview for Request: care_mpl1p_wp004 (Report 2 of 2)

Request ID: care_mpl1p_wp004

Request Description: In this study, we assessed drug utilization patterns of inhaler triple therapy new users among a target population of triple therapy-naïve patients with chronic obstructive pulmonary disease (COPD) who had evidence of exacerbations despite dual therapy maintenance treatment in the Sentinel Distributed Database (SDD).

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

Data Source: We distributed this request to two Sentinel Data Partners (DPs) on October 9, 2023. These DPs are a subset of the SDD. In this report (2 of 2) patients with Medicaid coverage were included. Report 1 of 2 contains patients with fee-for-service medical coverage and Part D drug coverage. The study period included data from October 1, 2017 to December 31, 2022. Please see Appendix A for a list of dates of available data for each DP.

Study Design: Triple therapy is defined as a single inhaler (SITT) or multiple inhalers containing a corticosteroid (ICS), long-acting muscarinic antagonist (LAMA), and long-acting beta agonist (LABA). Multiple inhaler users were categorized as those newly adding a LAMA (MITT-LAMA) or an ICS (MITT-ICS) to existing dual therapy. We identified individuals with new use of SITT, MITT-LAMA, or MITT-ICS among those who were 40 years of age and above. The analyses characterized utilization patterns by examining days supplied per dispensing, cumulative exposure duration, first treatment episode exposure duration, second and subsequent treatment episodes exposure duration, all treatment episode gaps, first treatment episode gap, second and subsequent treatment gaps, and reason for ending of first treatment episodes. This is a Type 5 analysis in the Query Request Package (QRP) documentation.

Cohort Eligibility Criteria: SITT, MITT-LAMA, and MITT-ICS treatment episodes were allowed to index from October 1, 2017 through December 31, 2021. We required members to be continuously enrolled in health plans with medical and drug coverage in the 365 days prior to their index date, during which gaps in coverage of up to 45 days were allowed. We included the age groups 40-64, 65-74, and 75+ years. In the 365 days prior to the index date, we required at least one diagnosis of COPD and at least 180 cumulative days' supply overlapping the 60 days prior to index inhaled dual therapy containing an ICS and long-acting beta agonist (LABA), or a LABA and LAMA, whether in the same inhaler or in multiple. Patients could not have evidence of inhaled triple therapy, whether in a single or multiple inhaler(s), in the 365 days prior to the index date. In all cohorts, we further required no evidence of asthma, alpha-1-antitrypsin deficiency, sarcoidosis, cystic fibrosis, bronchiectasis, interstitial lung disease, pneumoconiosis, miscellaneous other lung diseases, and chronic azithromycin (at least 14 days supply) or roflumilast use in the 365 days prior to and including the index date, and no evidence of exacerbation episodes or any inpatient encounter on the index date.

Please see Appendix F for a list of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and Appendix G for a list of generic and brand names of medical products used to define inclusion and exclusion criteria in this request.

Exposure of Interest: The exposures of interest (SITT, MITT-LAMA, and MITT-ICS) are inhaled therapy, which were constructed based on evidence of dispensings. MITT new users indexed on the first date of the newly-added LAMA or ICS component. Exposure episodes were followed until end of treatment, switch to comparator treatment, disenrollment, end of data, end of query, or death. Please refer to Appendix B for a list of generic and brand names of medical products used to

Sentinel

Overview for Request: care_mpl1p_wp004 (Report 2 of 2)

Baseline Characteristics: We considered the following demographic characteristics on the index date (i.e. day of incident dispensing): age, sex, race, ethnicity, calendar year, and calendar season. Based upon each patient's zip code, we also defined their associated Census Bureau region and used it to report the following proxies for socioeconomic status based on metrics from the 2015 American Community Survey (in quintiles of national distribution): median household income, median property value, and percent unemployment.

The following clinical characteristics were assessed in the 365 days prior to the index date: anxiety, atrial fibrillation, cachexia, diabetes, lung cancer, other cancer (non-lung), cardiovascular disease, chronic bronchitis, chronic kidney disease, cirrhosis, congestive heart failure, emphysema, gastroesophageal reflux disease, hypertension, major depressive disorder, obesity, obstructive sleep apnea, osteoporosis, oxygen therapy, pneumococcal vaccination, pneumonia, pulmonary embolus, pulmonary function test, pulmonary hypertension, pulmonary rehabilitation, and respiratory failure. In the same time frame, we assessed number of moderate-to-severe and severe COPD exacerbations. Recent COVID-19 infection was assessed in the prior 90 days. We also characterized historic use of antibiotics, oral corticosteroids, angiotensin-converting enzyme inhibitors (ACEis) or Angiotensin-II receptor blockers (ARBs), amiodarone, anticonvulsants, antidepressants, antipsychotics, non-benzodiazepine anxiolytics or hypnotics, benzodiazepine, beta blockers or calcium channel blockers, dementia treatments, digoxin, diuretics, influenza vaccination, insulin, non-insulin antidiabetic medications, opioids, antiparkinsonian agents, proton pump inhibitors, therapeutic anticoagulants, and exacerbation episodes in the 365 days prior to the index date. Health services utilization (including evidence of an institutional encounter) and Charlson/Elixhauser combined comorbidity score[1] were assessed in the 365 days prior to the index date. Tobacco smoking, colon cancer screening, breast cancer screening, cervical cancer screening, prostate cancer screening, pneumococcal vaccination, and evidence of any potential inhaled therapy for COPD were assessed for all available data prior to the index date.

We also characterized use of various forms triple therapy from the index date through 365 days overall and in the following day increments: [0, 0], [1, 29], [30, 59], [60, 89], [90, 179], [180, 269], [270, 359], and [360, 365].

Please see Appendix H for a list of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2) Procedure Codes and Appendix I for a list of generic and brand names of medical products used to define baseline characteristics in this request.

Please see Appendices J.1 - J.6 for the specifications of parameters used in this request and Appendix K for a design diagram of cohort defining criteria.

Limitations: 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. Death data are incomplete at this time, limited mostly to in-hospital deaths, and restricted by a 2-4 year data lag and DP-specific dependencies.

Notes: Please contact the Sentinel Operations Center (info@sentinelsystem.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.sentinelsystem.org/projects/SETINEL/repos/sentinel-routine-querying-tool-documentation/browse).

[1] 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

Sentinel

Table of Contents

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

Table 1a Characteristics of Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 1b Characteristics of Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users and Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 2a Categorical Summary of Days Supplied per Dispensing for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 2b Continuous Summary of Days Supplied per Dispensing for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 3a Categorical Summary of Patients' Cumulative Treatment Episode Durations for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 3b Continuous Summary of Patients' Cumulative Treatment Episode Durations for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 4a Categorical Summary of First Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 4b Continuous Summary of First Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 5a Categorical Summary of Second and Subsequent Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 5b Continuous Summary of Second and Subsequent Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 6 Continuous Summary of All Treatment Episode Gaps for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 7 Continuous Summary of First Treatment Episode Gaps for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 8 Continuous Summary of Second and Subsequent Treatment Episode Gaps for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 9 Summary of Reasons First Treatment Episodes Ended for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 10 Summary of Episode Duration for First Treatment Episodes Ended due to End of Exposure Episode for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 11 Summary of Episode Duration for First Treatment Episodes Ended due to Occurrence of User-Defined Censoring Criteria for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Sentinel

Table of Contents

Table 12 Summary of Episode Duration for First Treatment Episodes Ended due to Disenrollment for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 13 Summary of Episode Duration for First Treatment Episodes Ended due to End of Data for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 14 Summary of Episode Duration for First Treatment Episodes Ended due to End of Study Period for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 15 Summary of Reasons Treatment Episodes Ended for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 16a Counts of Products Comprising the "Single Inhaler Triple Therapy (SITT)" Exposure in the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 16b Counts of Products Comprising the "Multiple Inhaler Triple Therapy (MITT) Step up to LAMA" Exposure in the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 16c Counts of Products Comprising the "Multiple Inhaler Triple Therapy (MITT) Step up to ICS" Exposure in the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Table 17 Summary of Patient Level Cohort Attrition in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Figure 1a Patient Entry into Study by Month for Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Figure 1b Patient Entry into Study by Month for Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Figure 1c Patient Entry into Study by Month for Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Figure 2a Reasons for End of First Treatment Episode Among Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Figure 2b Reasons for End of First Treatment Episode Among Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Figure 2c Reasons for End of First Treatment Episode Among Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Appendix A Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (October 9, 2023)

Appendix B Generic and Brand Names of Medical Products Used to Define Index Criteria in this Request

Appendix C List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Chronic Obstructive Pulmonary Disease (COPD) in this Request

Appendix D Generic and Brand Names of Medical Products Used to Define Oral Corticosteroids and Non-Azithromycin Antibiotics in this Request

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

Appendix F List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request

Appendix G Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request

Sentinel

Table of Contents

Appendix H	List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2) Procedure Codes Used to Define Baseline Characteristics in this Request
Appendix I	Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request
Appendix J.1	Specifications Defining Parameters for this Request
Appendix J.2	Specifications Defining Parameters for this Request, Baseline Characteristics
Appendix J.3	Specifications Defining Parameters for this Request, Stockpiling
Appendix J.4	Specifications Defining Parameters for this Request, Comorbidity
Appendix J.5	Specifications Defining Parameters for this Request, Utilization
Appendix J.6	Specifications Defining Parameters for this Request, Exacerbation Definition
Appendix K	Design Diagram for Cohort Defining Criteria

Sentinel

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

Amount Supplied - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing.
Blackout Period - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded.
Care Setting - type of medical encounter or facility where the exposure, event, or condition code was recorded. Possible care settings include: Inpatient Hospital Stay (IP), Non-Acute Institutional Stay (IS), Emergency Department (ED), Ambulatory Visit (AV), and Other Ambulatory Visit (OA). For laboratory results, possible care settings include: Emergency Department (E), Home (H), Inpatient (I), Outpatient (O), or Unknown or Missing (U). The Care Setting, along with the Principal Diagnosis Indicator (PDX), forms the Care Setting/PDX parameter.

- **Ambulatory Visit (AV) -** includes visits at outpatient clinics, same-day surgeries, urgent care visits, and other same-day ambulatory hospital encounters, but excludes emergency department encounters.
- **Emergency Department (ED) -** includes ED encounters that become inpatient stays (in which case inpatient stays would be a separate encounter). Excludes urgent care visits.
- **Inpatient Hospital Stay (IP) -** includes all inpatient stays, same-day hospital discharges, hospital transfers, and acute hospital care where the discharge is after the admission date.
- **Non-Acute Institutional Stay (IS) -** includes hospice, skilled nursing facility (SNF), rehab center, nursing home, residential, overnight non-hospital dialysis and other non-hospital stays.
- **Other Ambulatory Visit (OA) -** includes other non overnight AV encounters such as hospice visits, home health visits, skilled nursing facility visits, other non-hospital visits, as well as telemedicine, telephone and email consultations.

Charlson/Elixhauser Combined Comorbidity Score - calculated based on comorbidities observed during a requester-defined window around the exposure episode start date (e.g., in the 183 days prior to index).
Code Days - the minimum number of times the diagnosis must be found during the evaluation period in order to fulfill the algorithm to identify the corresponding patient characteristic.
Cohort Definition (drug/exposure) - indicates how the cohort will be defined: 01: Cohort includes only the first valid treatment episode during the query period; 02: Cohort includes all valid treatment episodes during the query period; 03: Cohort includes all valid treatment episodes during the query period until an event occurs.
Computed Start Marketing Date - represents the first observed dispensing date among all valid users within a GROUP (scenario) within each Data Partner site.
Days Supplied - number of days supplied for all dispensings in qualifying treatment episodes.
Eligible Members - number of members eligible for an incident treatment episode (defined by the drug/exposure and event washout periods) with drug and medical coverage during the query period.
Enrollment Gap - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled" sequence.
Episodes - treatment episodes; length of episode is determined by days supplied in one dispensing or consecutive dispensings bridged by the episode gap.
Episode Gap - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same treatment episode.
Event Deduplication - specifies how events are counted by the Modular Program (MP) algorithm: 0: Counts all occurrences of a health outcome of interest (HOI) during an exposure episode; 1: de-duplicates occurrences of the same HOI code and code type on the same day; 2: de-duplicates occurrences of the same HOI group on the same day (e.g., de-duplicates at the group level).
Exposure Episode Length - number of days after exposure initiation that is considered "exposed time."
Exposure Extension Period - number of days post treatment period in which the outcomes/events are counted for a treatment episode. Extensions are added after any episode gaps have been bridged.
Lookback Period - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing).

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

Sentinel

Table 1a. Characteristics of Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Single Inhaler Triple Therapy (SITT) New Users	
Patient Characteristics	**Number**	**Percent**
Unique patients	1,941	N/A
Demographic Characteristics	**Mean**	**Standard Deviation**
Mean Age (years)	57.6	5.9
Age	**Number**	**Percent**
40-64 years	1,891	97.4%
65-74 years	35	1.8%
≥ 75 years	15	0.8%
Sex		
Female	1,137	58.6%
Male	804	41.4%
Other	0	0.0%
Race[1]		
American Indian or Alaska Native	15	0.8%
Asian	15	0.8%
Black or African American	173	8.9%
Multi-racial	*****	*****
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	356	18.3%
White	1,376	70.9%
Hispanic origin		
Yes	96	4.9%
No	1,585	81.7%
Unknown	260	13.4%
Year		
2017	*****	*****
2018	*****	*****
2019	661	34.1%
2020	977	50.3%
2021	0	0.0%
Season of Treatment Initiation		
Spring	498	25.7%
Summer	456	23.5%
Fall	555	28.6%
Winter	432	22.3%
Census Bureau Region		
Northeast	281	14.5%
Midwest	637	32.8%
South	529	27.3%
West	493	25.4%
US Territories or Unknown	*****	*****

Sentinel

Table 1a. Characteristics of Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Single Inhaler Triple Therapy (SITT) New Users	
Proxies for Socioeconomic Status[2]	**Number**	**Percent**
Median Household Income		
1st Quintile	327	16.8%
2nd Quintile	330	17.0%
3rd Quintile	396	20.4%
4th Quintile	393	20.2%
5th Quintile	383	19.7%
Missing	112	5.8%
Median Property Value		
1st Quintile	317	16.3%
2nd Quintile	379	19.5%
3rd Quintile	446	23.0%
4th Quintile	352	18.1%
5th Quintile	334	17.2%
Missing	113	5.8%
Percent Unemployment		
1st Quintile	419	21.6%
2nd Quintile	417	21.5%
3rd Quintile	349	18.0%
4th Quintile	372	19.2%
5th Quintile	278	14.3%
Missing	106	5.5%
Health Characteristics		
Chronic Comorbidities in Prior Year	**Mean**	**Standard Deviation**
Charlson/Elixhauser combined comorbidity score[3]	2.56	2.05
	Number	**Percent**
Anxiety	626	32.3%
Atrial fibrillation	100	5.2%
Atrial or ventricular arrythmias	205	10.6%
Chronic kidney disease	366	18.9%
Congestive heart failure	274	14.1%
Cardiovascular disease	382	19.7%
Diabetes	533	27.5%
Emphysematous phenotype	520	26.8%
Gastroesophageal reflux disease (GERD)	421	21.7%
Hypertension	1,110	57.2%
Lung cancer	58	3.0%
Major depressive disorder	490	25.2%
Obesity	281	14.5%
Obstructive sleep apnea	346	17.8%
Osteoporosis	71	3.7%
Other (non-lung) cancer	322	16.6%
Select Respiratory Comorbidities Assessed in Prior Year		
Cachexia	15	0.8%
Chronic bronchitis	183	9.4%
Cirrhosis	59	3.0%

Sentinel

Table 1a. Characteristics of Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Single Inhaler Triple Therapy (SITT) New Users	
Select Respiratory Comorbidities Assessed in Prior Year	**Number**	**Percent**
Influenza vaccination status	521	26.8%
Any institutional stay (binary)	43	2.2%
Pneumonia	353	18.2%
Pulmonary embolus	27	1.4%
Pulmonary hypertension	71	3.7%
Oxygen therapy	721	37.1%
Pulmonary function tests (PFTs)		
0 to 1	1,775	91.4%
2 to 3	133	6.9%
>=4	33	1.7%
Pulmonary rehabilitation	13	0.7%
Respiratory failure with intubation and mechanical ventilation	23	1.2%
Select Health Behaviors Assessed Ever Prior to Index		
Colon cancer screening	718	37.0%
Breast cancer screening (mammogram)	648	33.4%
Cervical cancer screening (pap smear)	389	20.0%
Pneumococcal vaccination	602	31.0%
Prostate cancer screening	425	21.9%
History of smoking	1,742	89.7%
Exacerbation-Related Characteristics Assessed in Prior Year		
Moderate to severe exacerbations	**Mean**	**Standard Deviation**
Mean number	1.6	1.1
	Number	**Percent**
Exactly 0	0	0.0%
Exactly 1	1,252	64.5%
Exactly 2	404	20.8%
Exactly 3	158	8.1%
Exactly 4	66	3.4%
5 or more	61	3.1%
Severe exacerbations		
Mean number	0.3	0.6
	Number	**Percent**
Exactly 0	1,509	77.7%
Exactly 1	359	18.5%
Exactly 2	54	2.8%
Exactly 3	13	0.7%
Exactly 4	*****	*****
5 or more	*****	*****
Medical Product Use		
Chronic Medications Assessed in Prior Year		
Angiotensin-converting enzyme inhibitors (ACEIs) or Angiotensin receptor blockers (ARBs)	811	41.8%
Amiodarone	15	0.8%
Anticonvulsants	962	49.6%
Antidepressants	1,168	60.2%
Antipsychotics	402	20.7%

Sentinel

Table 1a. Characteristics of Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Single Inhaler Triple Therapy (SITT) New Users	
Chronic Medications Assessed in Prior Year	**Number**	**Percent**
Anxiolytics or hypnotics	686	35.3%
Benzodiazepine	450	23.2%
Beta blockers or calcium channel blockers	882	45.4%
Dementia medications	821	42.3%
Digoxin	22	1.1%
Diuretics	651	33.5%
Insulin	153	7.9%
Non-insulin antidiabetic medications	394	20.3%
Opioids	1,002	51.6%
Parkinsons medications	153	7.9%
Proton pump inhibitors	910	46.9%
Therapeutic anticoagulants	149	7.7%
Potential Inhaled Therapy Assessed Ever Before the Prior Year		
Any Duration		
Inhaled Triple Therapy	1,941	100.0%
Single-Agent ICS-LABA-LAMA	39	2.0%
Dual-Agent ICS-LABA *and* Single-Agent LAMA	478	24.6%
Dual-Agent LABA-LAMA *and* Single-Agent ICS	89	4.6%
Single-Agent ICS *and* Single-Agent LABA *and* Single-Agent LAMA	21	1.1%
≥45 Days		
Inhaled Triple Therapy	1,941	100.0%
Single-Agent ICS-LABA-LAMA	23	1.2%
Dual-Agent ICS-LABA *and* Single-Agent LAMA	368	19.0%
Dual-Agent LABA-LAMA *and* Single-Agent ICS	51	2.6%
Single-Agent ICS *and* Single-Agent LABA *and* Single-Agent LAMA	14	0.7%
Inhaled Triple Therapy Assessed Ever After Index		
Any Single Inhaler Triple Therapy (SITT) [0, 365]	1,941	100.0%
Single Inhaler Triple Therapy (SITT) [0, 0]	1,941	100.0%
Single Inhaler Triple Therapy (SITT) [1, 29]	1,938	99.8%
Single Inhaler Triple Therapy (SITT) [30, 59]	1,203	62.0%
Single Inhaler Triple Therapy (SITT) [60, 89]	1,180	60.8%
Single Inhaler Triple Therapy (SITT) [90, 179]	1,161	59.8%
Single Inhaler Triple Therapy (SITT) [180, 269]	886	45.6%
Single Inhaler Triple Therapy (SITT) [270, 359]	649	33.4%
Single Inhaler Triple Therapy (SITT) [360, 365]	326	16.8%
Any Multiple Inhaler Triple Therapy (MITT) [0, 365]	96	4.9%
Multiple Inhaler Triple Therapy (MITT) [0, 0]	*****	*****
Multiple Inhaler Triple Therapy (MITT) [1, 29]	*****	*****
Multiple Inhaler Triple Therapy (MITT) [30, 59]	15	0.8%
Multiple Inhaler Triple Therapy (MITT) [60, 89]	28	1.4%
Multiple Inhaler Triple Therapy (MITT) [90, 179]	52	2.7%
Multiple Inhaler Triple Therapy (MITT) [180, 269]	53	2.7%
Multiple Inhaler Triple Therapy (MITT) [270, 359]	47	2.4%
Multiple Inhaler Triple Therapy (MITT) [360, 365]	21	1.1%

Table 1a. Characteristics of Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Single Inhaler Triple Therapy (SITT) New Users	
Health Service Utilization Intensity Metrics	**Mean**	**Standard Deviation**
Mean number of ambulatory encounters	26.64	35.29
Mean number of emergency room encounters	1.48	2.45
Mean number of inpatient hospital encounters	0.45	0.86
Mean number of non-acute institutional encounters	0.03	0.22
Mean number of other ambulatory encounters	32.17	63.62
Mean number of filled prescriptions	85.35	57.24
Mean number of generics dispensed	18.64	8.54
Mean number of unique drug classes dispensed	16.46	7.14

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

[2]Metrics chosen from the 2015 American Community Survey, described in relation to the national quintile for the corresponding Census Bureau Region.

[3]The Charlson/Elixhauser 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)

******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

Sentinel

Table 1b. Characteristics of Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users and Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users		Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	
Patient Characteristics	**Number**	**Percent**	**Number**	**Percent**
Unique patients	13,570	N/A	71,283	N/A
Demographic Characteristics	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Mean Age (years)	56.6	6.1	56.4	6.5
Age	**Number**	**Percent**	**Number**	**Percent**
40-64 years	13,279	97.9%	69,128	97.0%
65-74 years	206	1.5%	1,463	2.1%
≥ 75 years	85	0.6%	692	1.0%
Sex				
Female	8,104	59.7%	44,570	62.5%
Male	5,466	40.3%	26,713	37.5%
Other	0	0.0%	0	0.0%
Race[1]				
American Indian or Alaska Native	163	1.2%	873	1.2%
Asian	146	1.1%	999	1.4%
Black or African American	1,677	12.4%	9,969	14.0%
Multi-racial	36	0.3%	118	0.2%
Native Hawaiian or Other Pacific Islander	21	0.2%	161	0.2%
Unknown	1,943	14.3%	11,608	16.3%
White	9,584	70.6%	47,555	66.7%
Hispanic origin				
Yes	622	4.6%	4,057	5.7%
No	11,631	85.7%	59,696	83.7%
Unknown	1,317	9.7%	7,530	10.6%
Year				
2017	1,090	8.0%	8,224	11.5%
2018	4,226	31.1%	24,200	33.9%
2019	4,200	31.0%	19,084	26.8%
2020	4,054	29.9%	19,775	27.7%
2021	0	0.0%	0	0.0%
Season of Treatment Initiation				
Spring	3,377	24.9%	17,051	23.9%
Summer	2,978	21.9%	14,771	20.7%
Fall	3,886	28.6%	21,128	29.6%
Winter	3,329	24.5%	18,333	25.7%
Census Bureau Region				
Northeast	2,771	20.4%	12,966	18.2%
Midwest	3,917	28.9%	23,834	33.4%
South	3,699	27.3%	17,344	24.3%
West	3,162	23.3%	16,935	23.8%
US Territories or Unknown	21	0.2%	204	0.3%

Sentinel

Table 1b. Characteristics of Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users and Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users		Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	
Proxies for Socioeconomic Status[2]	**Number**	**Percent**	**Number**	**Percent**
Median Household Income				
1st Quintile	2,469	18.2%	13,565	19.0%
2nd Quintile	2,620	19.3%	13,412	18.8%
3rd Quintile	2,613	19.3%	13,344	18.7%
4th Quintile	2,618	19.3%	13,354	18.7%
5th Quintile	2,522	18.6%	13,442	18.9%
Missing	728	5.4%	4,166	5.8%
Median Property Value				
1st Quintile	2,508	18.5%	13,522	19.0%
2nd Quintile	2,558	18.9%	13,432	18.8%
3rd Quintile	2,658	19.6%	13,247	18.6%
4th Quintile	2,664	19.6%	13,297	18.7%
5th Quintile	2,444	18.0%	13,559	19.0%
Missing	738	5.4%	4,226	5.9%
Percent Unemployment				
1st Quintile	2,675	19.7%	13,742	19.3%
2nd Quintile	2,694	19.9%	13,365	18.7%
3rd Quintile	2,567	18.9%	13,262	18.6%
4th Quintile	2,707	19.9%	13,834	19.4%
5th Quintile	2,242	16.5%	13,148	18.4%
Missing	685	5.0%	3,932	5.5%
Health Characteristics				
Chronic Comorbidities in Prior Year	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Charlson/Elixhauser combined comorbidity score[3]	2.69	2.21	2.64	2.25
	Number	**Percent**	**Number**	**Percent**
Anxiety	4,106	30.3%	21,958	30.8%
Atrial fibrillation	661	4.9%	3,652	5.1%
Atrial or ventricular arrythmias	1,539	11.3%	8,304	11.6%
Chronic kidney disease	2,721	20.1%	14,889	20.9%
Congestive heart failure	1,885	13.9%	10,088	14.2%
Cardiovascular disease	2,599	19.2%	13,594	19.1%
Diabetes	3,396	25.0%	19,662	27.6%
Emphysematous phenotype	2,916	21.5%	12,617	17.7%
Gastroesophageal reflux disease (GERD)	2,587	19.1%	14,166	19.9%
Hypertension	7,669	56.5%	42,052	59.0%
Lung cancer	329	2.4%	1,230	1.7%
Major depressive disorder	3,615	26.6%	19,449	27.3%
Obesity	1,930	14.2%	11,790	16.5%
Obstructive sleep apnea	1,958	14.4%	10,668	15.0%
Osteoporosis	421	3.1%	1,930	2.7%
Other (non-lung) cancer	2,331	17.2%	11,958	16.8%

Sentinel

Table 1b. Characteristics of Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users and Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users		Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	
Select Respiratory Comorbidities Assessed in Prior Year	**Number**	**Percent**	**Number**	**Percent**
Cachexia	85	0.6%	480	0.7%
Chronic bronchitis	1,186	8.7%	7,179	10.1%
Cirrhosis	479	3.5%	2,131	3.0%
Influenza vaccination status	3,195	23.5%	17,552	24.6%
Any institutional stay (binary)	408	3.0%	2,618	3.7%
Pneumonia	2,421	17.8%	12,040	16.9%
Pulmonary embolus	241	1.8%	1,123	1.6%
Pulmonary hypertension	444	3.3%	2,276	3.2%
Oxygen therapy	3,984	29.4%	20,952	29.4%
Pulmonary function tests (PFTs)				
0 to 1	12,919	95.2%	68,007	95.4%
2 to 3	581	4.3%	2,874	4.0%
>=4	70	0.5%	402	0.6%
Pulmonary rehabilitation	38	0.3%	280	0.4%
Respiratory failure with intubation and mechanical ventilation	169	1.2%	798	1.1%
Select Health Behaviors Assessed Ever Prior to Index				
Colon cancer screening	4,128	30.4%	21,319	29.9%
Breast cancer screening (mammogram)	4,218	31.1%	23,215	32.6%
Cervical cancer screening (pap smear)	2,613	19.3%	14,417	20.2%
Pneumococcal vaccination	2,691	19.8%	14,503	20.3%
Prostate cancer screening	2,291	16.9%	11,323	15.9%
History of smoking	11,710	86.3%	58,364	81.9%
Exacerbation-Related Characteristics Assessed in Prior Year				
Moderate to severe exacerbations	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Mean number	1.3	0.8	1.4	0.9
	Number	**Percent**	**Number**	**Percent**
Exactly 0	0	0.0%	0	0.0%
Exactly 1	10,598	78.1%	52,274	73.3%
Exactly 2	2,108	15.5%	12,508	17.5%
Exactly 3	558	4.1%	3,792	5.3%
Exactly 4	183	1.3%	1,548	2.2%
5 or more	123	0.9%	1,161	1.6%
Severe exacerbations	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Mean number	0.3	0.5	0.3	0.5
	Number	**Percent**	**Number**	**Percent**
Exactly 0	10,392	76.6%	55,331	77.6%
Exactly 1	2,872	21.2%	13,952	19.6%
Exactly 2	242	1.8%	1,541	2.2%
Exactly 3	51	0.4%	307	0.4%
Exactly 4	*****	*****	100	0.1%
5 or more	*****	*****	52	0.1%

Sentinel

Table 1b. Characteristics of Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users and Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users		Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	
Medical Product Use	**Number**	**Percent**	**Number**	**Percent**
Chronic Medications Assessed in Prior Year				
Angiotensin-converting enzyme inhibitors (ACEIs) or Angiotensin receptor blockers (ARBs)	5,229	38.5%	29,677	41.6%
Amiodarone	122	0.9%	600	0.8%
Anticonvulsants	6,055	44.6%	33,416	46.9%
Antidepressants	7,268	53.6%	40,055	56.2%
Antipsychotics	2,718	20.0%	14,979	21.0%
Anxiolytics or hypnotics	4,244	31.3%	23,823	33.4%
Benzodiazepine	2,700	19.9%	15,677	22.0%
Beta blockers or calcium channel blockers	5,771	42.5%	31,592	44.3%
Dementia medications	5,120	37.7%	28,580	40.1%
Digoxin	97	0.7%	746	1.0%
Diuretics	3,795	28.0%	22,599	31.7%
Insulin	1,165	8.6%	7,204	10.1%
Non-insulin antidiabetic medications	2,509	18.5%	14,685	20.6%
Opioids	6,934	51.1%	38,623	54.2%
Parkinsons medications	846	6.2%	4,819	6.8%
Proton pump inhibitors	5,168	38.1%	30,069	42.2%
Therapeutic anticoagulants	985	7.3%	5,550	7.8%
Potential Inhaled Therapy Assessed Ever Before the Prior Year				
Any Duration				
Inhaled Triple Therapy	13,570	100.0%	71,283	100.0%
Single-Agent ICS-LABA-LAMA	17	0.1%	70	0.1%
Dual-Agent ICS-LABA *and* Single-Agent LAMA	2,101	15.5%	11,195	15.7%
Dual-Agent LABA-LAMA *and* Single-Agent ICS	126	0.9%	615	0.9%
Single-Agent ICS *and* Single-Agent LABA *and* Single-Agent LAMA	52	0.4%	340	0.5%
≥45 Days				
Inhaled Triple Therapy	13,570	100.0%	71,283	100.0%
Single-Agent ICS-LABA-LAMA	*****	*****	30	<0.1%
Dual-Agent ICS-LABA *and* Single-Agent LAMA	1,437	10.6%	8,285	11.6%
Dual-Agent LABA-LAMA *and* Single-Agent ICS	59	0.4%	333	0.5%
Single-Agent ICS *and* Single-Agent LABA *and* Single-Agent LAMA	*****	*****	180	0.3%
Inhaled Triple Therapy Assessed Ever After Index				
Any Single Inhaler Triple Therapy (SITT) [0, 365]	188	1.4%	824	1.2%
Single Inhaler Triple Therapy (SITT) [0, 0]	*****	*****	*****	*****
Single Inhaler Triple Therapy (SITT) [1, 29]	*****	*****	*****	*****
Single Inhaler Triple Therapy (SITT) [30, 59]	35	0.3%	171	0.2%
Single Inhaler Triple Therapy (SITT) [60, 89]	44	0.3%	221	0.3%
Single Inhaler Triple Therapy (SITT) [90, 179]	89	0.7%	399	0.6%
Single Inhaler Triple Therapy (SITT) [180, 269]	109	0.8%	483	0.7%
Single Inhaler Triple Therapy (SITT) [270, 359]	106	0.8%	522	0.7%
Single Inhaler Triple Therapy (SITT) [360, 365]	61	0.4%	337	0.5%
Any Multiple Inhaler Triple Therapy (MITT) [0, 365]	3,214	23.7%	14,220	19.9%
Multiple Inhaler Triple Therapy (MITT) [0, 0]	1,526	11.2%	7,113	10.0%

Sentinel

Table 1b. Characteristics of Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users and Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users		Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	
Inhaled Triple Therapy Assessed Ever After Index	**Number**	**Percent**	**Number**	**Percent**
Single Agent (ICS and LABA and LAMA) [0, 0]	*****	*****	79	0.1%
Dual-Agent ICS-LABA and Single-Agent LAMA [0, 0]	1,390	10.2%	6,180	8.7%
Dual-Agent LABA-LAMA and Single-Agent ICS [0, 0]	*****	*****	856	1.2%
Multiple Inhaler Triple Therapy (MITT) [1, 29]	2,053	15.1%	8,805	12.4%
Single Agent (ICS and LABA and LAMA) [1, 29]	19	0.1%	121	0.2%
Dual-Agent ICS-LABA and Single-Agent LAMA [1, 29]	1,860	13.7%	7,648	10.7%
Dual-Agent LABA-LAMA and Single-Agent ICS [1, 29]	176	1.3%	1,054	1.5%
Multiple Inhaler Triple Therapy (MITT) [30, 59]	1,153	8.5%	5,426	7.6%
Single Agent (ICS and LABA and LAMA) [30, 59]	*****	*****	69	0.1%
Dual-Agent ICS-LABA and Single-Agent LAMA [30, 59]	1,034	7.6%	4,730	6.6%
Dual-Agent LABA-LAMA and Single-Agent ICS [30, 59]	*****	*****	640	0.9%
Multiple Inhaler Triple Therapy (MITT) [60, 89]	1,243	9.2%	5,759	8.1%
Single Agent (ICS and LABA and LAMA) [60, 89]	*****	*****	67	0.1%
Dual-Agent ICS-LABA and Single-Agent LAMA [60, 89]	1,102	8.1%	5,042	7.1%
Dual-Agent LABA-LAMA and Single-Agent ICS [60, 89]	*****	*****	662	0.9%
Multiple Inhaler Triple Therapy (MITT) [90, 179]	1,624	12.0%	7,493	10.5%
Single Agent (ICS and LABA and LAMA) [90, 179]	15	0.1%	105	0.1%
Dual-Agent ICS-LABA and Single-Agent LAMA [90, 179]	1,410	10.4%	6,613	9.3%
Dual-Agent LABA-LAMA and Single-Agent ICS [90, 179]	209	1.5%	837	1.2%
Multiple Inhaler Triple Therapy (MITT) [180, 269]	1,359	10.0%	6,604	9.3%
Single Agent (ICS and LABA and LAMA) [180, 269]	15	0.1%	99	0.1%
Dual-Agent ICS-LABA and Single-Agent LAMA [180, 269]	1,165	8.6%	5,852	8.2%
Dual-Agent LABA-LAMA and Single-Agent ICS [180, 269]	187	1.4%	698	1.0%
Multiple Inhaler Triple Therapy (MITT) [270, 359]	1,136	8.4%	5,831	8.2%
Single Agent (ICS and LABA and LAMA) [270, 359]	11	0.1%	82	0.1%
Dual-Agent ICS-LABA and Single-Agent LAMA [270, 359]	974	7.2%	5,182	7.3%
Dual-Agent LABA-LAMA and Single-Agent ICS [270, 359]	159	1.2%	597	0.8%
Inhaled Triple Therapy Assessed Ever After Index	**Number**	**Percent**	**Number**	**Percent**
Multiple Inhaler Triple Therapy (MITT) [360, 365]	560	4.1%	2,924	4.1%
Single Agent (ICS and LABA and LAMA) [360, 365]	*****	*****	30	<0.1%
Dual-Agent ICS-LABA and Single-Agent LAMA [360, 365]	*****	*****	2,584	3.6%
Dual-Agent LABA-LAMA and Single-Agent ICS [360, 365]	*****	*****	*****	*****
Health Service Utilization Intensity Metrics	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Mean number of ambulatory encounters	25.66	35.81	25.36	33.70
Mean number of emergency room encounters	1.69	2.91	1.64	2.91
Mean number of inpatient hospital encounters	0.52	0.98	0.52	10.2
Mean number of non-acute institutional encounters	0.04	0.32	0.05	0.37
Mean number of other ambulatory encounters	30.71	63.57	34.41	68.63
Mean number of filled prescriptions	62.54	54.04	79.24	58.61
Mean number of generics dispensed	15.60	8.32	17.83	8.73
Mean number of unique drug classes dispensed	14.09	7.04	15.91	7.30

Table 1b. Characteristics of Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users and Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

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

[2]Metrics chosen from the 2015 American Community Survey, described in relation to the national quintile for the corresponding Census Bureau Region.

[3]The Charlson/Elixhauser 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)

******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

Sentinel

Table 2a. Categorical Summary of Days Supplied per Dispensing for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Number of Dispensings by Days Supplied					
		0-14 Days		15-30 Days		31-60 Days	
	Total Number of Dispensings	Number of Dispensings	Percent of Total Dispensings	Number of Dispensings	Percent of Total Dispensings	Number of Dispensings	Percent of Total Dispensings
Single Inhaler Triple Therapy							
Single Inhaler Triple Therapy (SITT) New Users	9,675	728	7.5%	8,691	89.8%	117	1.2%
Multiple Inhaler Triple Therapy							
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	84,333	2,493	3.0%	79,342	94.1%	913	1.1%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	550,198	14,871	2.7%	509,659	92.6%	17,099	3.1%

Sentinel

Table 2a. Categorical Summary of Days Supplied per Dispensing for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

		Number of Dispensings by Days Supplied					
		61-90 Days		91-180 Days		181+ Days	
	Total Number of Dispensings	Number of Dispensings	Percent of Total Dispensings	Number of Dispensings	Percent of Total Dispensings	Number of Dispensings	Percent of Total Dispensings
Single Inhaler Triple Therapy							
Single Inhaler Triple Therapy (SITT) New Users	9,675	139	1.4%	0	0.0%	0	0.0%
Multiple Inhaler Triple Therapy							
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	84,333	1,525	1.8%	19	<0.1%	41	<0.1%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	550,198	8,143	1.5%	265	<0.1%	161	<0.1%

Sentinel

Table 2b. Continuous Summary of Days Supplied per Dispensing for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Distribution of Days Supplied by Dispensing						
	Total Number of Dispensings	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy								
Single Inhaler Triple Therapy (SITT) New Users	9,675	1	30	30	30	90	28.9	10.1
Multiple Inhaler Triple Therapy								
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New	84,333	1	30	30	30	600	30.5	11.4
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	550,198	1	30	30	30	600	30.7	11.1

Sentinel

Table 3a. Categorical Summary of Patients' Cumulative Treatment Episode Durations for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Number of Patients by Cumulative Treatment Episode Duration									
		0-14 Days		15-30 Days		31-60 Days		61-90 Days		91-180 Days	
	Total Number of Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy											
Single Inhaler Triple Therapy (SITT) New Users	1,941	176	9.1%	157	8.1%	401	20.7%	213	11.0%	331	17.1%
Multiple Inhaler Triple Therapy											
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	180	1.3%	339	2.5%	2,726	20.1%	1,744	12.9%	2,834	20.9%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	904	1.3%	1,488	2.1%	10,244	14.4%	7,528	10.6%	13,484	18.9%

Sentinel

Table 3a. Categorical Summary of Patients' Cumulative Treatment Episode Durations for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

		Number of Patients by Cumulative Treatment Episode Duration									
		181-365 Days		366-730 Days		731-1095 Days		1096-1460 Days		1461+ Days	
	Total Number of Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy											
Single Inhaler Triple Therapy (SITT) New Users	1,941	421	21.7%	219	11.3%	23	1.2%	0	0.0%	0	0.0%
Multiple Inhaler Triple Therapy											
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	3,139	23.1%	2,082	15.3%	492	3.6%	34	0.3%	0	0.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	17,989	25.2%	15,023	21.1%	4,410	6.2%	213	0.3%	0	0.0%

Sentinel

Table 3b. Continuous Summary of Patients' Cumulative Treatment Episode Durations for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Distribution of Cumulative Treatment Episode Duration, Days						
	Total Number of Patients	**Minimum**	**Q1**	**Median**	**Q3**	**Maximum**	**Mean**	**Standard Deviation**
Single Inhaler Triple Therapy								
Single Inhaler Triple Therapy (SITT) New Users	1,941	1	44	98	243	1,010	165.8	171.5
Multiple Inhaler Triple Therapy								
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1	70	148	301	1,186	221.3	211.8
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	1	88	198	394	1,185	274.2	239.9

Sentinel

Table 4a. Categorical Summary of First Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Number of Patients by First Treatment Episode Duration									
		0-14 Days		15-30 Days		31-60 Days		61-90 Days		91-180 Days	
	Total Number of Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy											
Single Inhaler Triple Therapy (SITT) New Users	1,941	233	12.0%	208	10.7%	746	38.4%	212	10.9%	244	12.6%
Multiple Inhaler Triple Therapy											
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	211	1.6%	437	3.2%	6,806	50.2%	1,936	14.3%	2,182	16.1%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	1,066	1.5%	2,308	3.2%	33,634	47.2%	11,176	15.7%	12,240	17.2%

Sentinel

Table 4a. Categorical Summary of First Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

		Number of Patients by First Treatment Episode Duration									
		181-365 Days		366-730 Days		731-1095 Days		1096-1460 Days		1461+ Days	
	Total Number of Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy											
Single Inhaler Triple Therapy (SITT) New Users	1,941	208	10.7%	78	4.0%	12	0.6%	0	0.0%	0	0.0%
Multiple Inhaler Triple Therapy											
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1,358	10.0%	521	3.8%	99	0.7%	20	0.1%	0	0.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	7,291	10.2%	2,909	4.1%	583	0.8%	76	0.1%	0	0.0%

Sentinel

Table 4b. Continuous Summary of First Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Distribution of First Treatment Episode Duration, Days						
	Total Number of Patients	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy								
Single Inhaler Triple Therapy (SITT) New Users	1,941	1	38	44	105	975	96.8	124.8
Multiple Inhaler Triple Therapy								
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1	44	44	110	1,186	106.8	131.5
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	1	44	45	117	1,185	110.2	133.2

Sentinel

Table 5a. Categorical Summary of Second and Subsequent Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Number of Treatment Episodes by Duration (Excluding First Treatment Episode)									
		0-14 Days		15-30 Days		31-60 Days		61-90 Days		91-180 Days	
	Total Number of Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes
Single Inhaler Triple Therapy											
Single Inhaler Triple Therapy (SITT) New Users	1,679	137	8.2%	131	7.8%	790	47.1%	240	14.3%	226	13.5%
Multiple Inhaler Triple Therapy											
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	17,449	462	2.6%	787	4.5%	8,971	51.4%	2,662	15.3%	2,695	15.4%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	124,543	2,767	2.2%	6,014	4.8%	60,174	48.3%	20,256	16.3%	20,744	16.7%

Sentinel

Table 5a. Categorical Summary of Second and Subsequent Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

		Number of Treatment Episodes by Duration (Excluding First Treatment Episode)									
		181-365 Days		366-730 Days		731-1095 Days		1096-1460 Days		1461+ Days	
	Total Number of Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes
Single Inhaler Triple Therapy											
Single Inhaler Triple Therapy (SITT) New Users	1,679	124	7.4%	*****	*****	*****	*****	0	0.0%	0	0.0%
Multiple Inhaler Triple Therapy											
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	17,449	1,401	8.0%	436	2.5%	*****	*****	*****	*****	0	0.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	124,543	10,855	8.7%	3,364	2.7%	*****	*****	*****	*****	0	0.0%

******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 5b. Continuous Summary of Second and Subsequent Treatment Episodes for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Distribution of Treatment Episode Durations Excluding First Treatment Episode, Days						
	Total Number of Episodes	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy								
Single Inhaler Triple Therapy (SITT) New Users	1,679	1	44	44	85	829	79.8	90.1
Multiple Inhaler Triple Therapy								
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	17,449	1	44	44	104	1,136	89.1	96.7
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	124,543	1	44	44	104	1,114	93.9	102.3

Sentinel

Table 6. Continuous Summary of All Treatment Episode Gaps for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Distribution of Treatment Episode Gap Durations, Days						
	Total Number of Gaps	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy								
Single Inhaler Triple Therapy (SITT) New Users	1,679	0	12	32	79	911	64.1	88.9
Multiple Inhaler Triple Therapy								
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	17,449	0	14	40	104	1,084	86.6	125.7
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	124,543	0	13	34	86	1,133	76.0	113.6

Sentinel

Table 7. Continuous Summary of First Treatment Episode Gaps for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Distribution of First Treatment Episode Gap Duration, Days						
	Total Number of Patients	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy								
Single Inhaler Triple Therapy (SITT) New Users	830	0	12	37	96	737	75.8	103.0
Multiple Inhaler Triple Therapy								
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	7,492	0	16	46	128	1,084	106.0	151.1
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	45,749	0	15	40	109	1,133	94.8	139.6

Sentinel

Table 8. Continuous Summary of Second and Subsequent Treatment Episode Gaps for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

		Distribution of Treatment Episode Durations Excluding First Treatment Episode Gap, Days						
	Total Number of Gaps	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy								
Single Inhaler Triple Therapy (SITT) New Users	849	0	12	29	66	911	52.6	70.8
Multiple Inhaler Triple Therapy								
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	9,957	0	13	35	89	953	72.1	100.1
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	78,794	0	13	31	77	1,064	65.1	93.7

Sentinel

Table 9. Summary of Reasons FirstTreatment Episodes Ended for InhaledTriple Therapy (Single or Multiple Inhaler) Among Patients Stepping Upfrom Inhaled Dual Therapy in theMedicaid Sentinel Data from October 1,2017 to December 31, 2020[1]

		Censoring Reason									
		End of Exposure Episode[2]		Occurrence of User-Defined Censoring Criteria[3]		Disenrollment[4]		End of Data[5]		End of Study Period[6]	
	Total Number of Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy											
Single Inhaler Triple Therapy (SITT) New Users	1,941	1,040	53.6%	447	23.0%	460	23.7%	356	18.3%	356	18.3%
Multiple Inhaler Triple Therapy											
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New	13,570	11,293	83.2%	71	0.5%	2,182	16.1%	1,475	10.9%	1,475	10.9%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	59,867	84.0%	320	0.4%	10,956	15.4%	7,077	9.9%	7,077	9.9%

[1]A patient's episode may be censored due to more than one reason if they occur on the same date. Therefore, the sum of the reasons for censoring may be greater than the total number of patients.

[2]Represents episodes censored due to end of the exposure episode. In as-treated analyses, exposure episodes are defined using days supplied as recorded in outpatient pharmacy dispensing records, and episodes end after days supplied are exhausted or a pre-determined maximum episode duration is met. In point exposure analyses, exposure episodes end when a pre-determined maximum episode duration is met.

[3]Represents episodes censored due to occurrence of additional user-defined criteria using drug, procedure, diagnosis, and/or laboratory codes.

[4]Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

[5]Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

[6]Represents episodes censored due to user-specified study end date.

Sentinel

Table 10. Summary of Episode Duration for First Treatment Episodes Ended due to End of Exposure Episode for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

			Number of Patients Censored due to End of Exposure Episode by Episode Length							
			0-30 days		31-90 days		91-180 days		181-365 days	
	Total Number of Patients	Total Number of Patients Censored due to End of Exposure Episode[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	1,040	19	1.8%	753	72.4%	147	14.1%	95	9.1%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	11,293	130	1.2%	8,102	71.7%	1,805	16.0%	951	8.4%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	59,867	869	1.5%	41,550	69.4%	10,334	17.3%	5,181	8.7%

[1]Represents episodes censored due to end of the exposure episode. In as-treated analyses, exposure episodes are defined using days supplied as recorded in outpatient pharmacy dispensing records, and episodes end after days supplied are exhausted or a pre-determined maximum episode duration is met. In point exposure analyses, exposure episodes end when a pre-determined maximum episode duration is met.

******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.*

Sentinel

Table 10. Summary of Episode Duration for First Treatment Episodes Ended due to End of Exposure Episode for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Number of Patients Censored due to End of Exposure Episode by Episode Length							
			366-730 days		731-1,095 days		1,096-1,460 days		1,461+ days	
	Total Number of Patients	Total Number of Patients Censored due to End of Exposure Episode[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	1,040	*****	*****	*****	*****	0	0.0%	0	0.0%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	11,293	278	2.5%	*****	*****	*****	*****	0	0.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	59,867	1,745	2.9%	*****	*****	*****	*****	0	0.0%

[1]Represents episodes censored due to end of the exposure episode. In as-treated analyses, exposure episodes are defined using days supplied as recorded in outpatient pharmacy dispensing records, and episodes end after days supplied are exhausted or a pre-determined maximum episode duration is met. In point exposure analyses, exposure episodes end when a pre-determined maximum episode duration is met.

******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.*

Sentinel

Table 10. Summary of Episode Duration for First Treatment Episodes Ended due to End of Exposure Episode for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Distribution of Treatment Episode Length, Days						
	Total Number of Patients	Total Number of Patients Censored due to End of Exposure Episode[1]	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy									
Single Inhaler Triple Therapy (SITT) New Users	1,941	1,040	17	44	44	104	752	90.3	89.2
Multiple Inhaler Triple Therapy									
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	11,293	2	44	44	104	1,106	91.5	96.0
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	59,867	4	44	44	105	1,151	96.4	101.4

[1]Represents episodes censored due to end of the exposure episode. In as-treated analyses, exposure episodes are defined using days supplied as recorded in outpatient pharmacy dispensing records, and episodes end after days supplied are exhausted or a pre-determined maximum episode duration is met. In point exposure analyses, exposure episodes end when a pre-determined maximum episode duration is met.

Sentinel

Table 11. Summary of Episode Duration for First Treatment Episodes Ended due to Occurrence of User-Defined Censoring Criteria for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

			Number of Patients Censored due to Occurrence of User-Defined Censoring Criteria by Episode Length							
			0-30 days		31-90 days		91-180 days		181-365 days	
	Total Number of Patients	Total Number of Patients Censored due to Occurrence of User-Defined Censoring Criteria[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	447	322	72.0%	89	19.9%	18	4.0%	12	2.7%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	71	22	31.0%	18	25.4%	*****	*****	*****	*****
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	320	92	28.8%	90	28.1%	62	19.4%	38	11.9%

[1]Represents episodes censored due to occurrence of additional user-defined criteria using drug, procedure, diagnosis, and/or laboratory codes.

******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. Summary of Episode Duration for First Treatment Episodes Ended due to Occurrence of User-Defined Censoring Criteria for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Number of Patients Censored due to Occurrence of User-Defined Censoring Criteria by Episode Length							
			366-730 days		731-1,095 days		1,096-1,460 days		1,461+ days	
	Total Number of Patients	Total Number of Patients Censored due to Occurrence of User-Defined Censoring Criteria[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	447	*****	*****	*****	*****	.	0.0%	.	0.0%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	71	*****	*****	*****	*****	0	0.0%	.	0.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	320	*****	*****	*****	*****	0	0.0%	.	0.0%

[1]Represents episodes censored due to occurrence of additional user-defined criteria using drug, procedure, diagnosis, and/or laboratory codes.

******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. Summary of Episode Duration for First Treatment Episodes Ended due to Occurrence of User-Defined Censoring Criteria for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Distribution of Treatment Episode Length, Days						
	Total Number of Patients	Total Number of Patients Censored due to Occurrence of User-Defined Censoring Criteria[1]	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy									
Single Inhaler Triple Therapy (SITT) New Users	1,941	447	1	8	19	35	738	37.3	70.2
Multiple Inhaler Triple Therapy									
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	71	1	27	74	133	858	109.5	138.1
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	320	1	28	65	171	1,030	143.3	190.0

[1]Represents episodes censored due to occurrence of additional user-defined criteria using drug, procedure, diagnosis, and/or laboratory codes.

Sentinel

Table 12. Summary of Episode Duration for First Treatment Episodes Ended due to Disenrollment for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

			Number of Patients Censored due to Disenrollment by Episode Length							
			0-30 days		31-90 days		91-180 days		181-365 days	
	Total Number of Patients	Total Number of Patients Censored due to Disenrollment[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	460	100	21.7%	123	26.7%	78	17.0%	100	21.7%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	2,182	488	22.4%	623	28.6%	351	16.1%	392	18.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	10,956	2,373	21.7%	3,149	28.7%	1,814	16.6%	2,043	18.6%

[1]Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

Sentinel

Table 12. Summary of Episode Duration for First Treatment Episodes Ended due to Disenrollment for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Number of Patients Censored due to Disenrollment by Episode Length							
			366-730 days		731-1,095 days		1,096-1,460 days		1,461+ days	
	Total Number of Patients	Total Number of Patients Censored due to Disenrollment[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	460	*****	*****	*****	*****	0	0.0%	0	0.0%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	2,182	237	10.9%	73	3.3%	18	0.8%	0	0.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	10,956	1,117	10.2%	388	3.5%	72	0.7%	0	0.0%

[1]Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

******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.*

Sentinel

Table 12. Summary of Episode Duration for First Treatment Episodes Ended due to Disenrollment for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Distribution of Treatment Episode Length, Days						
	Total Number of Patients	Total Number of Patients Censored due to Disenrollment[1]	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy									
Single Inhaler Triple Therapy (SITT) New Users	1,941	460	1	35	95	264	975	168.8	185.8
Multiple Inhaler Triple Therapy									
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	2,182	1	34	87	254	1,186	184.8	227.1
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	10,956	1	35	88	252	1,185	183.8	226.3

[1]Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

Sentinel

Table 13. Summary of Episode Duration for First Treatment Episodes Ended due to End of Data for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

			Number of Patients Censored due to End of Data by Episode Length							
			0-30 days		31-90 days		91-180 days		181-365 days	
	Total Number of Patients	Total Number of Patients Censored due to End of Data[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	356	79	22.2%	99	27.8%	50	14.0%	77	21.6%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1,475	283	19.2%	365	24.7%	250	16.9%	289	19.6%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	7,077	1,295	18.3%	1,742	24.6%	1,207	17.1%	1,556	22.0%

[1]Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

Sentinel

Table 13. Summary of Episode Duration for First Treatment Episodes Ended due to End of Data for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Number of Patients Censored due to End of Data by Episode Length							
			366-730 days		731-1,095 days		1,096-1,460 days		1,461+ days	
	Total Number of Patients	Total Number of Patients Censored due to End of Data[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	356	*****	*****	*****	*****	0	0.0%	0	0.0%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1,475	201	13.6%	69	4.7%	18	1.2%	0	0.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	7,077	856	12.1%	350	4.9%	71	1.0%	0	0.0%

[1]Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

******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.*

Sentinel

Table 13. Summary of Episode Duration for First Treatment Episodes Ended due to End of Data for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Distribution of Treatment Episode Length, Days						
	Total Number of Patients	Total Number of Patients Censored due to End of Data[1]	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy									
Single Inhaler Triple Therapy (SITT) New Users	1,941	356	1	32	90	275	975	176.1	196.4
Multiple Inhaler Triple Therapy									
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1,475	1	42	115	309	1,186	219.6	252.2
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	7,077	1	43	122	301	1,185	218.9	250.2

[1]Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

Sentinel

Table 14. Summary of Episode Duration for First Treatment Episodes Ended due to End of Study Period for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

			Number of Patients Censored due to End of Study Period by Episode Length							
			0-30 days		31-90 days		91-180 days		181-365 days	
	Total Number of Patients	Total Number of Patients Censored due to End of Study Period[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	356	79	22.2%	99	27.8%	50	14.0%	77	21.6%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1,475	283	19.2%	365	24.7%	250	16.9%	289	19.6%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	7,077	1,295	18.3%	1,742	24.6%	1,207	17.1%	1,556	22.0%

[1]Represents episodes censored due to user-specified study end date.

Sentinel

Table 14. Summary of Episode Duration for First Treatment Episodes Ended due to End of Study Period for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Number of Patients Censored due to End of Study Period by Episode Length							
			366-730 days		731-1,095 days		1,096-1,460 days		1,461+ days	
	Total Number of Patients	Total Number of Patients Censored due to End of Study Period[1]	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients	Number of Patients	Percent of Total Patients
Single Inhaler Triple Therapy										
Single Inhaler Triple Therapy (SITT) New Users	1,941	356	*****	*****	*****	*****	0	0.0%	0	0.0%
Multiple Inhaler Triple Therapy										
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1,475	201	13.6%	69	4.7%	18	1.2%	0	0.0%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	7,077	856	12.1%	350	4.9%	71	1.0%	0	0.0%

[1]Represents episodes censored due to user-specified study end date.

******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.*

Sentinel

Table 14. Summary of Episode Duration for First Treatment Episodes Ended due to End of Study Period for Inhaled Triple Therapy (Single or Multiple Inhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020 (continued)

			Distribution of Treatment Episode Length, Days						
	Total Number of Patients	Total Number of Patients Censored due to End of Study Period[1]	Minimum	Q1	Median	Q3	Maximum	Mean	Standard Deviation
Single Inhaler Triple Therapy									
Single Inhaler Triple Therapy (SITT) New Users	1,941	356	1	32	90	275	975	176.1	196.4
Multiple Inhaler Triple Therapy									
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	13,570	1,475	1	42	115	309	1,186	219.6	252.2
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	71,283	7,077	1	43	122	301	1,185	218.9	250.2

[1]Represents episodes censored due to user-specified study end date.

Sentinel

Table 15. Summary of Reasons Treatment Episodes Ended for Inhaled Triple Therapy (Single or MultipleInhaler) Among Patients Stepping Up from Inhaled Dual Therapy in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1,2017 to December 31, 20201

		Censoring Reason									
		End of Exposure Episode[2]		Occurrence of User-Defined Censoring Criteria[3]		Disenrollment[4]		End of Data[5]		End of Study Period[6]	
	Total Number of Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes	Number of Episodes	Percent of Total Episodes
Single Inhaler Triple Therapy											
Single Inhaler Triple Therapy (SITT) New Users	3,620	2,119	58.5%	640	17.7%	866	23.9%	700	19.3%	700	19.3%
Multiple Inhaler Triple Therapy											
Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	31,019	25,386	81.8%	188	0.6%	5,394	17.4%	4,075	13.1%	4,075	13.1%
Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users	195,826	160,889	82.2%	1,081	0.6%	33,518	17.1%	25,239	12.9%	25,239	12.9%

[1]An episode may be censored due to more than one reason if they occur on the same date. Therefore, the sum of the reasons for censoring may be greater than the total number of episodes.

[2]Represents episodes censored due to end of the exposure episode. In as-treated analyses, exposure episodes are defined using days supplied as recorded in outpatient pharmacy dispensing records, and episodes end after days supplied are exhausted or a pre-determined maximum episode duration is met. In point exposure analyses, exposure episodes end when a pre-determined maximum episode duration is met.

[3]Represents episodes censored due to occurrence of additional user-defined criteria using drug, procedure, diagnosis, and/or laboratory codes.

[4]Represents episodes censored due to disenrollment from health plan. Data Partners often artificially assign a "disenrollment" date equal to data end date for members still enrolled on that date. Therefore, a patient may have dual reasons for censoring as "disenrollment" and "end of data" on the same day - this can be interpreted as right-censoring in most cases.

[5]Represents episodes censored due to Data Partner data end date. This end date represents the last day of the most recent year-month in which all of a Data Partner's data tables in the Sentinel Common Data Model have at least 80% of the record count relative to the prior month.

[6]Represents episodes censored due to user-specified study end date.

Table 16a. Counts of Products Comprising the "Single Inhaler Triple Therapy (SITT)" Exposure in the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Code	Code Description	Code Category	Code Type	Overall Counts
Fluticasone/Umeclidin/Vilanter	Fluticasone/Umeclidin/Vilanter	RX	N/A	1,927
Budesonide/Glycopyr/Formoterol	Budesonide/Glycopyr/Formoterol	RX	N/A	14

N/A: Not Applicable

Table 16b. Counts of Products Comprising the "Multiple Inhaler Triple Therapy (MITT) Step up to LAMA" Exposure in the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Code	Code Description	Code Category	Code Type	Overall Counts
Tiotropium Bromide	Tiotropium Bromide	RX	N/A	7,103
Umeclidinium Brm/Vilanterol Tr	Umeclidinium Brm/Vilanterol Tr	RX	N/A	2,085
Umeclidinium Bromide	Umeclidinium Bromide	RX	N/A	2,044
Tiotropium Br/Olodaterol Hcl	Tiotropium Br/Olodaterol Hcl	RX	N/A	1,372
Glycopyrrolate/Formoterol Fum	Glycopyrrolate/Formoterol Fum	RX	N/A	708
Aclidinium Bromide	Aclidinium Bromide	RX	N/A	225
Indacaterol/Glycopyrrolate	Indacaterol/Glycopyrrolate	RX	N/A	23
Glycopyrrol/Nebulizer/Accessor	Glycopyrrol/Nebulizer/Accessor	RX	N/A	12
Glycopyrrolate	Glycopyrrolate	RX	N/A	*****
Revefenacin	Revefenacin	RX	N/A	*****
Glycopyrrolate/Neb.Accessories	Glycopyrrolate/Neb.Accessories	RX	N/A	*****

******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 16c. Counts of Products Comprising the "Multiple Inhaler Triple Therapy (MITT) Step up to ICS" Exposure in the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

Code	Code Description	Code Category	Code Type	Overall Counts
Budesonide/Formoterol Fumarate	Budesonide/Formoterol Fumarate	RX	N/A	24,738
Fluticasone Propion/Salmeterol	Fluticasone Propion/Salmeterol	RX	N/A	19,206
Fluticasone Propionate	Fluticasone Propionate	RX	N/A	6,725
Fluticasone/Vilanterol	Fluticasone/Vilanterol	RX	N/A	6,249
Beclomethasone Dipropionate	Beclomethasone Dipropionate	RX	N/A	5,515
Mometasone/Formoterol	Mometasone/Formoterol	RX	N/A	5,266
Budesonide	Budesonide	RX	N/A	2,110
Fluticasone Furoate	Fluticasone Furoate	RX	N/A	1,085
Mometasone Furoate	Mometasone Furoate	RX	N/A	578
Ciclesonide	Ciclesonide	RX	N/A	64

N/A: Not Applicable

Sentinel

Table 17. Summary of Patient-Level Cohort Attrition in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Single Inhaler Triple Therapy		Multiple Inhaler Triple Therapy			
	Single Inhaler Triple Therapy (SITT) New Users		Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users		Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members meeting enrollment and demographic requirements						
Enrolled at any point during the query period	88,387,063	N/A	88,387,063	N/A	88,387,063	N/A
Had required coverage type (medical and/or drug coverage)	88,387,063	0	88,387,063	0	88,387,063	0
Enrolled during specified age range	20,507,821	67,879,242	20,507,821	67,879,242	20,507,821	67,879,242
Had requestable medical charts	20,507,821	0	20,507,821	0	20,507,821	0
Met demographic requirements (sex, race, and Hispanic origin)	20,507,821	0	20,507,821	0	20,507,821	0
Members with a valid index event						
Had any cohort-defining claim during the query period	24,730	20,483,091	1,506,358	19,001,463	475,003	20,032,818
Claim recorded during specified age range	24,452	278	1,422,543	83,815	466,533	8,470
Episode defining index claim recorded during the query period	24,422	30	1,352,485	70,058	436,722	29,811
Members with required pre-index history						
Had sufficient pre-index continuous enrollment	18,010	6,412	1,053,139	299,346	336,169	100,553
Met inclusion and exclusion criteria[1]	5,457	12,553	217,160	835,979	54,723	281,446
Evidence of ALPHA1_EXCL	N/A	102	N/A	1,009	N/A	853
Evidence of ASTHMA_EXCL	N/A	5,214	N/A	461,238	N/A	99,413
Evidence of AZT_EXCL	N/A	1,714	N/A	46,636	N/A	20,918
Evidence of BRONCH_EXCL	N/A	491	N/A	12,297	N/A	7,331
Evidence of CF_EXCL	N/A	*****	N/A	376	N/A	148
Evidence of ICS_or_ICSLABA_60D_EXCL	N/A	N/A	N/A	N/A	N/A	132,907
Evidence of ICS_or_ICSLABA_EXCL	N/A	N/A	N/A	N/A	N/A	160,459
Evidence of ILDPNEU_EXCL	N/A	573	N/A	17,970	N/A	9,977
Evidence of LAMA_or_LABALAMA_60D_EXCL	N/A	N/A	N/A	N/A	N/A	99,549
Evidence of LAMA_or_LABALAMA_EXCL	N/A	N/A	N/A	N/A	N/A	168,885
Evidence of LUNG_EXCL	N/A	4,757	N/A	176,198	N/A	89,201
Evidence of Multiple Inhaler Triple Therapy (MITT)_EXCL_ICS_LABA_LAMA	N/A	*****	N/A	1,339	N/A	1,395
Evidence of Multiple Inhaler Triple Therapy (MITT)_EXCL_ICSLABA_LAMA	N/A	4,174	N/A	80,520	N/A	87,978

Sentinel

Table 17. Summary of Patient-Level Cohort Attrition in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Single Inhaler Triple Therapy		Multiple Inhaler Triple Therapy			
	Single Inhaler Triple Therapy (SITT) New Users		Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users		Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Evidence of Multiple Inhaler Triple Therapy (MITT)_EXCL_LABALAMA_ICS	N/A	775	N/A	5,275	N/A	6,871
Evidence of Multiple Inhaler Triple Therapy (MITT)60_EXCL_ICS_LABA_LAMA	N/A	41	N/A	521	N/A	519
Evidence of Multiple Inhaler Triple Therapy (MITT)60_EXCL_ICSLABA_LAMA	N/A	2,533	N/A	38,094	N/A	42,465
Evidence of Multiple Inhaler Triple Therapy (MITT)60_EXCL_LABALAMA_ICS	N/A	500	N/A	2,287	N/A	3,095
Evidence of ROFL_EXCL	N/A	741	N/A	4,787	N/A	4,527
Evidence of SAMEDAYIP_EXCL	N/A	274	N/A	37,043	N/A	19,396
Evidence of SARCO_EXCL	N/A	97	N/A	7,075	N/A	2,158
Evidence of Single Inhaler Triple Therapy (SITT)60_EXCL	N/A	2,960	N/A	2,038	N/A	1,759
Evidence of Single Inhaler Triple Therapy (SITT)365_EXCL	N/A	4,178	N/A	2,187	N/A	1,929
No evidence of COPD_AND_ICS_AND_LABA	N/A	12,535	N/A	N/A	N/A	281,225
No evidence of COPD_AND_ICSLABA	N/A	10,476	N/A	N/A	N/A	254,421
No evidence of COPD_AND_LABA_AND_LAMA	N/A	12,530	N/A	835,805	N/A	N/A
No evidence of COPD_AND_LABALAMA	N/A	12,074	N/A	834,371	N/A	N/A
No evidence of COPD_INCL	N/A	2,874	N/A	681,051	N/A	117,231
No evidence of ICS_AND_LABA_60D_INCL	N/A	12,508	N/A	N/A	N/A	280,897
No evidence of ICS_AND_LABA_INCL	N/A	12,518	N/A	N/A	N/A	281,059
No evidence of ICSLABA_60D_INCL	N/A	9,065	N/A	N/A	N/A	221,233
No evidence of ICSLABA_INCL	N/A	9,345	N/A	N/A	N/A	229,389
No evidence of LABA_AND_LAMA_INCL	N/A	12,529	N/A	835,793	N/A	N/A
No evidence of LABALAMA_60D_INCL	N/A	11,598	N/A	831,991	N/A	N/A
No evidence of LABALAMA_INCL	N/A	11,851	N/A	833,408	N/A	N/A

Sentinel

Table 17. Summary of Patient-Level Cohort Attrition in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

	Single Inhaler Triple Therapy		Multiple Inhaler Triple Therapy			
	Single Inhaler Triple Therapy (SITT) New Users		Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users		Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Members with required exacerbation history						
Met exacerbation-related inclusion and exclusion criteria[1]	1,941	3,516	13,570	41,153	71,283	145,877
Evidence of a moderate or severe COPD exacerbation on the index date	N/A	636	N/A	5,883	N/A	16,312
No evidence of a moderate or severe exacerbation episode in baseline period	N/A	2,912	N/A	35,777	N/A	133,328
Final cohort						
Number of members	1,941	N/A	13,570	N/A	71,283	N/A

[1]Patients 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.

******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. Patient Entry into Study by Month for Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

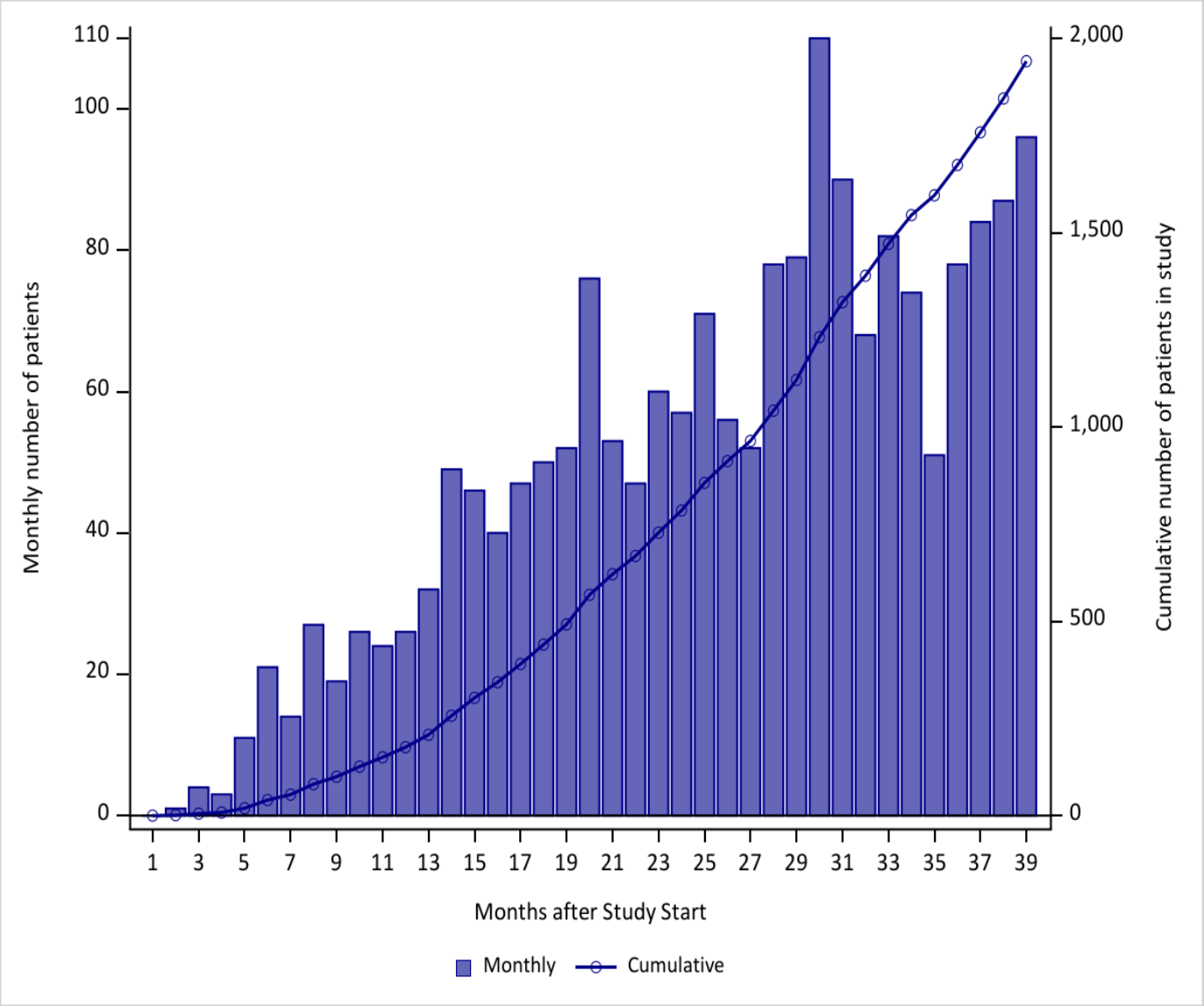


Figure 1b. Patient Entry into Study by Month for Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

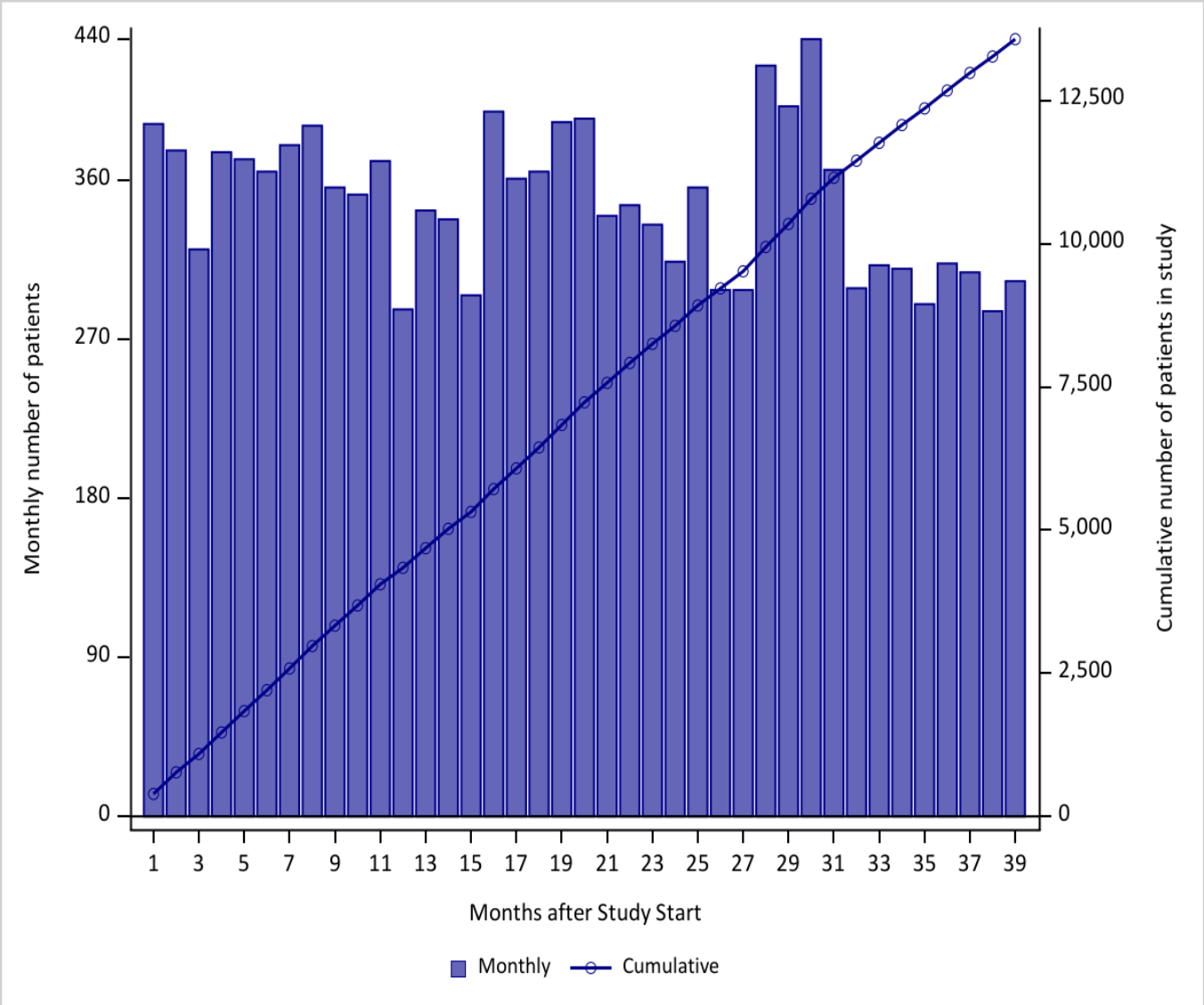


Figure 1c. Patient Entry into Study by Month for Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

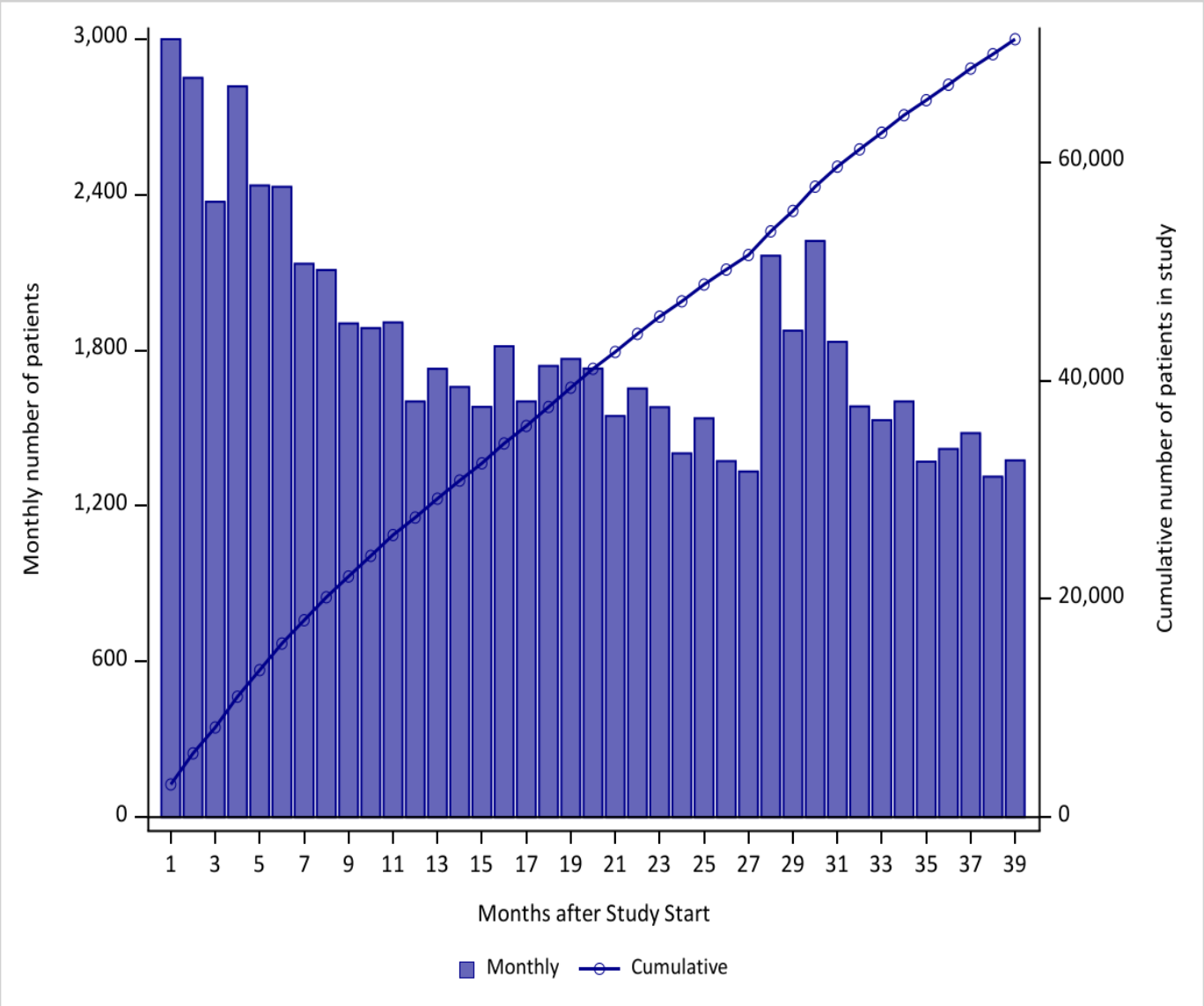


Figure 2a. Reasons for End of First Treatment Episode Among Single Inhaler Triple Therapy (SITT) New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

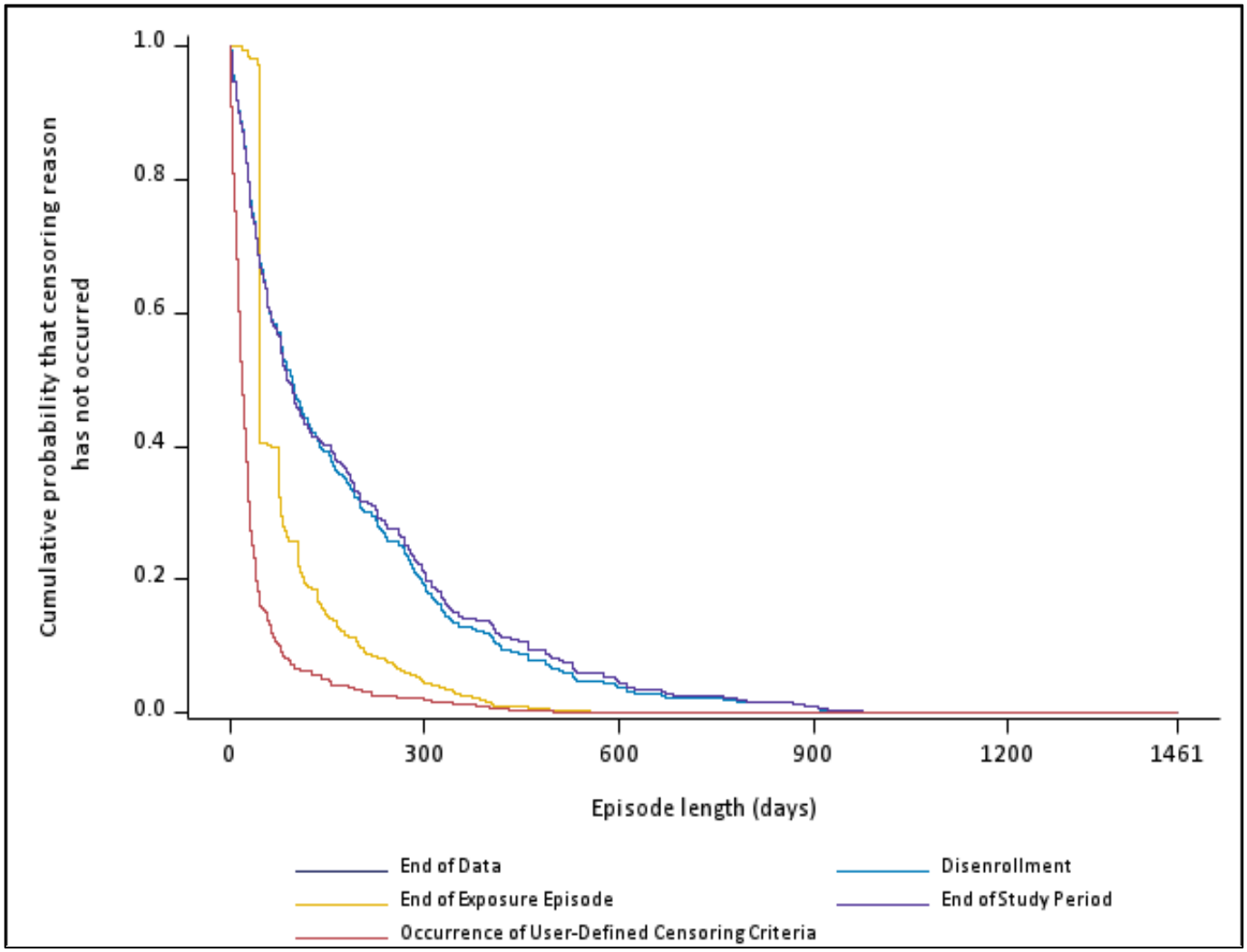


Figure 2b. Reasons for End of First Treatment Episode Among Multiple Inhaler Triple Therapy (MITT) Step up to LAMA New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020

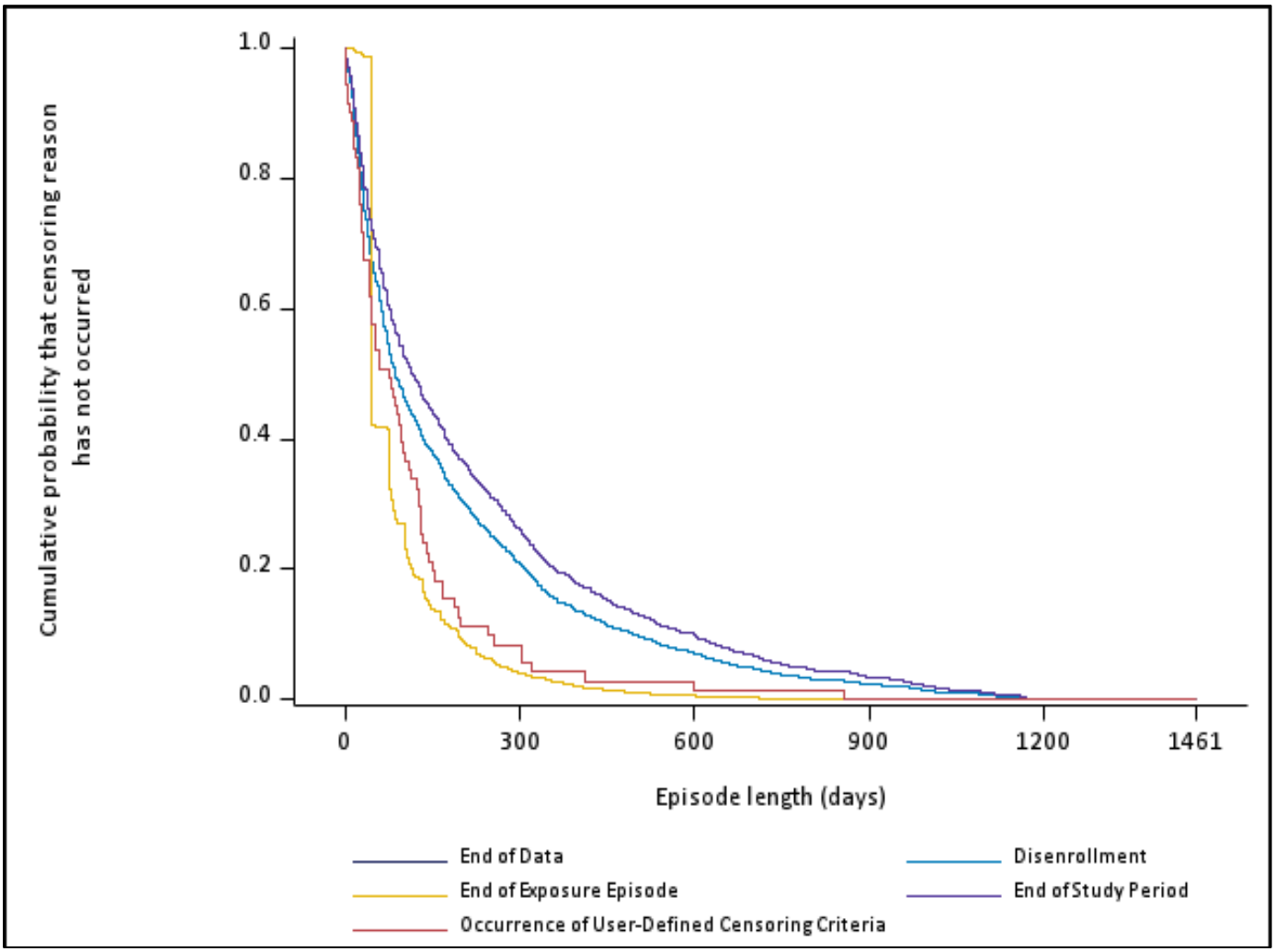
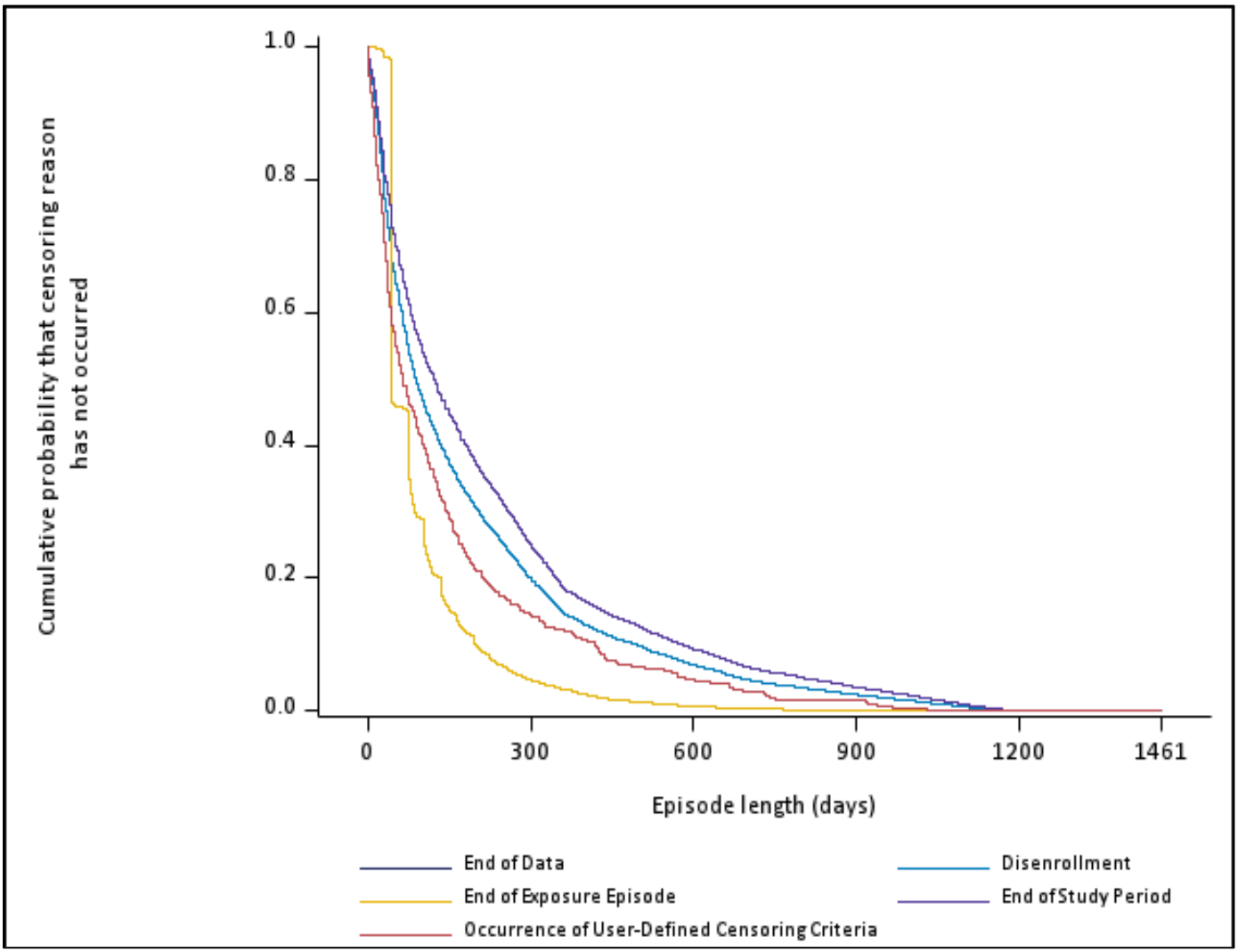


Figure 2c. Reasons for End of First Treatment Episode Among Multiple Inhaler Triple Therapy (MITT) Step up to ICS New Users in the Medicaid Data of the Sentinel Distributed Database (SDD) from October 1, 2017 to December 31, 2020



Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (October 9, 2023)

DP ID	DP Start Date	DP End Date[1]
DP01	01/01/2014	12/31/2020

[1]End 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.

Sentinel

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

Generic Name	Brand Name
Inhaled Corticosteroid (ICS)	
beclomethasone dipropionate	Qvar
beclomethasone dipropionate	Qvar RediHaler
budesonide	budesonide
budesonide	Pulmicort
budesonide	Pulmicort Flexhaler
ciclesonide	Alvesco
fluticasone furoate	Arnuity Ellipta
fluticasone propionate	ArmonAir Digihaler
fluticasone propionate	ArmonAir RespiClick
fluticasone propionate	Flovent Diskus
fluticasone propionate	Flovent HFA
fluticasone propionate	fluticasone propionate
mometasone furoate	Asmanex HFA
mometasone furoate	Asmanex Twisthaler
Long-Acting Muscarinic Antagonist (LAMA)	
aclidinium bromide	Tudorza Pressair
glycopyrrolate	Seebri Neohaler
glycopyrrolate/nebulizer accessories	Lonhala Magnair Refill
glycopyrrolate/nebulizer and accessories	Lonhala Magnair Starter
revefenacin	Yupelri
tiotropium bromide	Spiriva Respimat
tiotropium bromide	Spiriva with HandiHaler
umeclidinium bromide	Incruse Ellipta
ICS/Long-Acting Beta Agonist (LABA)	
budesonide/formoterol fumarate	Symbicort
budesonide/formoterol fumarate	budesonide-formoterol
fluticasone furoate/vilanterol trifenatate	Breo Ellipta
mometasone furoate/formoterol fumarate	Dulera
fluticasone propionate/salmeterol xinafoate	fluticasone propion-salmeterol
fluticasone propionate/salmeterol xinafoate	Advair Diskus
fluticasone propionate/salmeterol xinafoate	Advair HFA
fluticasone propionate/salmeterol xinafoate	Wixela Inhub
fluticasone propionate/salmeterol xinafoate	AirDuo Digihaler
fluticasone propionate/salmeterol xinafoate	AirDuo RespiClick
LABA/LAMA	
glycopyrrolate/formoterol fumarate	Bevespi Aerosphere
indacaterol maleate/glycopyrrolate	Utibron Neohaler
tiotropium bromide/olodaterol HCl	Stiolto Respimat
umeclidinium bromide/vilanterol trifenatate	Anoro Ellipta
Single Inhaler Triple Therapy (SITT), ICS/LABA/LAMA	
budesonide/glycopyrrolate/formoterol fumarate	Breztri Aerosphere
fluticasone furoate/umeclidinium bromide/vilanterol trifenat	Trelegy Ellipta

Appendix C. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Chronic Obstructive Pulmonary Disease (COPD) in this Request

Code	Description	Code Category	Code Type
	COPD Diagnosis		
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
J43.1	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
J44.9	Chronic obstructive pulmonary disease, unspecified	Diagnosis	ICD-10-CM
	COPD Exacerbation		
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
	Acute Respiratory Failure		
J80	Acute respiratory distress syndrome	Diagnosis	ICD-10-CM
J96.0	Acute respiratory failure	Diagnosis	ICD-10-CM
J96.00	Acute respiratory failure, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
J96.01	Acute respiratory failure with hypoxia	Diagnosis	ICD-10-CM
J96.02	Acute respiratory failure with hypercapnia	Diagnosis	ICD-10-CM
J96.20	Acute and chronic respiratory failure, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
J96.21	Acute and chronic respiratory failure with hypoxia	Diagnosis	ICD-10-CM
J96.22	Acute and chronic respiratory failure with hypercapnia	Diagnosis	ICD-10-CM
J96.90	Respiratory failure, unspecified, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
J96.91	Respiratory failure, unspecified with hypoxia	Diagnosis	ICD-10-CM
J96.92	Respiratory failure, unspecified with hypercapnia	Diagnosis	ICD-10-CM
R09.2	Respiratory arrest	Diagnosis	ICD-10-CM

Appendix D. Generic and Brand Names of Medical Products Used to Define Oral Corticosteroids and Non-Azithromycin Antibiotics in this Request

Generic Name	Brand Name
Oral Corticosteroids	
cortisone acetate	cortisone
deflazacort	Emflaza
dexamethasone	Decadron
dexamethasone	Dexabliss
dexamethasone	dexamethasone
dexamethasone	Dexamethasone Intensol
dexamethasone	DexPak 10 day
dexamethasone	DexPak 13 Day
dexamethasone	DexPak 6 Day
dexamethasone	Dxevo
dexamethasone	Hemady
dexamethasone	HiDex
dexamethasone	LoCort
dexamethasone	TaperDex
dexamethasone	ZCort
dexamethasone	ZoDex
dexamethasone	ZonaCort
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	Orapred ODT
prednisolone sodium phosphate	Pediapred
prednisolone sodium phosphate	prednisolone sodium phosphate
prednisolone sodium phosphate	Veripred 20
prednisone	Deltasone
prednisone	prednisone
prednisone	Prednisone Intensol
prednisone	Rayos
Non-Azithromycin Antibiotics	
amoxicillin	amoxicillin
amoxicillin	Moxatag
amoxicillin/potassium clavulanate	amoxicillin-pot clavulanate
amoxicillin/potassium clavulanate	Augmentin
amoxicillin/potassium clavulanate	Augmentin XR

Appendix D. Generic and Brand Names of Medical Products Used to Define Oral Corticosteroids and Non-Azithromycin Antibiotics in this Request

Generic Name	Brand Name
ampicillin trihydrate	ampicillin
bismuth subsalicylate/metronidazole/tetracycline HCl	Helidac
cefaclor	cefaclor
cefadroxil	cefadroxil
cefdinir	cefdinir
cefixime	cefixime
cefixime	Suprax
cefpodoxime proxetil	cefpodoxime
cefprozil	cefprozil
ceftibuten	Cedax
ceftibuten	ceftibuten
cefuroxime axetil	Ceftin
cefuroxime axetil	cefuroxime axetil
cephalexin	cephalexin
cephalexin	Daxbia
cephalexin	Keflex
ciprofloxacin HCl	Cipro
ciprofloxacin HCl	ciprofloxacin HCl
ciprofloxacin/ciprofloxacin HCl	Cipro XR
ciprofloxacin/ciprofloxacin HCl	ciprofloxacin (mixture)
clarithromycin	Biaxin
clarithromycin	clarithromycin
colloidal bismuth subcitrate/metronidazole/tetracycline HCl	Pylera
demeclocycline HCl	demeclocycline
dicloxacillin sodium	dicloxacillin
doxycycline hyclate	Acticlate
doxycycline hyclate	Doryx
doxycycline hyclate	Doryx MPC
doxycycline hyclate	doxycycline hyclate
doxycycline hyclate	LymePak
doxycycline hyclate	Morgidox
doxycycline hyclate	Soloxide
doxycycline hyclate	Targadox
doxycycline hyclate	Vibramycin
doxycycline monohydrate	Avidoxy
doxycycline monohydrate	doxycycline monohydrate
doxycycline monohydrate	Mondoxyne NL
doxycycline monohydrate	Monodox
doxycycline monohydrate	Okebo
doxycycline monohydrate	Oracea
erythromycin base	Ery-Tab
erythromycin base	erythromycin
erythromycin base	PCE
erythromycin ethylsuccinate	E.E.S. 400

Appendix D. Generic and Brand Names of Medical Products Used to Define Oral Corticosteroids and Non-Azithromycin Antibiotics in this Request

Generic Name	Brand Name
erythromycin ethylsuccinate	erythromycin ethylsuccinate
erythromycin stearate	Erythrocin (as stearate)
erythromycin stearate	erythromycin stearate
gemifloxacin mesylate	Factive
levofloxacin	Levaquin
levofloxacin	levofloxacin
linezolid	linezolid
linezolid	Zyvox
minocycline HCl	CoreMino
minocycline HCl	Minocin
minocycline HCl	minocycline
minocycline HCl	Minolira ER
minocycline HCl	Solodyn
minocycline HCl	Ximino
moxifloxacin HCl	Avelox
moxifloxacin HCl	Avelox ABC Pack
moxifloxacin HCl	moxifloxacin
ofloxacin	Floxin
ofloxacin	ofloxacin
penicillin V potassium	penicillin V potassium
sulfamethoxazole/trimethoprim	Bactrim
sulfamethoxazole/trimethoprim	Bactrim DS
sulfamethoxazole/trimethoprim	sulfamethoxazole-trimethoprim
tedizolid phosphate	Sivextro
tetracycline HCl	tetracycline

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

Code	Description	Code Category	Code Type
	Corticosteroids		
J0702	INJ BETAMETHASONE AC & PHOS 3 MG	Procedure	HCPCS
J1020	Injection, methylprednisolone acetate, 20 mg	Procedure	HCPCS
J1030	Injection, methylprednisolone acetate, 40 mg	Procedure	HCPCS
J1040	Injection, methylprednisolone acetate, 80 mg	Procedure	HCPCS
J1094	INJECTION DEXAMETHASONE ACTAT 1 MG	Procedure	HCPCS
J2650	Injection, prednisolone acetate, up to 1 ml	Procedure	HCPCS
J3301	Injection, triamcinolone acetonide, not otherwise specified, 10 mg	Procedure	HCPCS
J3302	Injection, triamcinolone diacetate, per 5 mg	Procedure	HCPCS
J8540	DEXAMETHASONE ORAL 0.25 MG	Procedure	HCPCS

Appendix F. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
	Alpha-1-Antitrypsin Deficiency		
E88.01	Alpha-1-antitrypsin deficiency	Diagnosis	ICD-10-CM
	Asthma		
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
J45.40	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
J45.991	Cough variant asthma	Diagnosis	ICD-10-CM
J45.998	Other asthma	Diagnosis	ICD-10-CM
	Bronchiectasis		
A15.0	Tuberculous bronchiectasis (current disease)	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
Q33.4	Congenital bronchiectasis	Diagnosis	ICD-10-CM
	Cystic Fibrosis		
E84	Cystic fibrosis	Diagnosis	ICD-10-CM
E84.0	Cystic fibrosis with pulmonary manifestations	Diagnosis	ICD-10-CM
E84.1	Cystic fibrosis with intestinal manifestations	Diagnosis	ICD-10-CM
E84.11	Meconium ileus in cystic fibrosis	Diagnosis	ICD-10-CM
E84.19	Cystic fibrosis with other intestinal manifestations	Diagnosis	ICD-10-CM
E84.8	Cystic fibrosis with other manifestations	Diagnosis	ICD-10-CM
E84.9	Cystic fibrosis, unspecified	Diagnosis	ICD-10-CM
	Interstitial Lung Disease and Pneumoconiosis		
J60	Coalworker's pneumoconiosis	Diagnosis	ICD-10-CM
J61	Pneumoconiosis due to asbestos and other mineral fibers	Diagnosis	ICD-10-CM

Appendix F. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
J62	Pneumoconiosis due to dust containing silica	Diagnosis	ICD-10-CM
J63	Pneumoconiosis due to other inorganic dusts	Diagnosis	ICD-10-CM
J64	Unspecified pneumoconiosis	Diagnosis	ICD-10-CM
J65	Pneumoconiosis associated with tuberculosis	Diagnosis	ICD-10-CM
J66	Airway disease due to specific organic dust	Diagnosis	ICD-10-CM
J67	Hypersensitivity pneumonitis due to organic dust	Diagnosis	ICD-10-CM
J68	Respiratory conditions due to inhalation of chemicals, gases, fumes and vapors	Diagnosis	ICD-10-CM
J69	Pneumonitis due to solids and liquids	Diagnosis	ICD-10-CM
J70	Respiratory conditions due to other external agents	Diagnosis	ICD-10-CM
J70.0	Acute pulmonary manifestations due to radiation	Diagnosis	ICD-10-CM
J70.1	Chronic and other pulmonary manifestations due to radiation	Diagnosis	ICD-10-CM
J70.2	Acute drug-induced interstitial lung disorders	Diagnosis	ICD-10-CM
J70.3	Chronic drug-induced interstitial lung disorders	Diagnosis	ICD-10-CM
J70.4	Drug-induced interstitial lung disorders, unspecified	Diagnosis	ICD-10-CM
J70.5	Respiratory conditions due to smoke inhalation	Diagnosis	ICD-10-CM
J70.8	Respiratory conditions due to other specified external agents	Diagnosis	ICD-10-CM
J70.9	Respiratory conditions due to unspecified external agent	Diagnosis	ICD-10-CM
J84	Other interstitial pulmonary diseases	Diagnosis	ICD-10-CM
J84.0	Alveolar and parieto-alveolar conditions	Diagnosis	ICD-10-CM
J84.01	Alveolar proteinosis	Diagnosis	ICD-10-CM
J84.02	Pulmonary alveolar microlithiasis	Diagnosis	ICD-10-CM
J84.03	Idiopathic pulmonary hemosiderosis	Diagnosis	ICD-10-CM
J84.09	Other alveolar and parieto-alveolar conditions	Diagnosis	ICD-10-CM
J84.1	Other interstitial pulmonary diseases with fibrosis	Diagnosis	ICD-10-CM
J84.11	Idiopathic interstitial pneumonia	Diagnosis	ICD-10-CM
J84.111	Idiopathic interstitial pneumonia, not otherwise specified	Diagnosis	ICD-10-CM
J84.112	Idiopathic pulmonary fibrosis	Diagnosis	ICD-10-CM
J84.113	Idiopathic non-specific interstitial pneumonitis	Diagnosis	ICD-10-CM
J84.114	Acute interstitial pneumonitis	Diagnosis	ICD-10-CM
J84.115	Respiratory bronchiolitis interstitial lung disease	Diagnosis	ICD-10-CM
J84.116	Cryptogenic organizing pneumonia	Diagnosis	ICD-10-CM
J84.117	Desquamative interstitial pneumonia	Diagnosis	ICD-10-CM
J84.17	Other interstitial pulmonary diseases with fibrosis in diseases classified elsewhere	Diagnosis	ICD-10-CM
J84.2	Lymphoid interstitial pneumonia	Diagnosis	ICD-10-CM
J84.8	Other specified interstitial pulmonary diseases	Diagnosis	ICD-10-CM
J84.81	Lymphangioleiomyomatosis	Diagnosis	ICD-10-CM
J84.82	Adult pulmonary Langerhans cell histiocytosis	Diagnosis	ICD-10-CM
J84.83	Surfactant mutations of the lung	Diagnosis	ICD-10-CM
J84.84	Other interstitial lung diseases of childhood	Diagnosis	ICD-10-CM
J84.841	Neuroendocrine cell hyperplasia of infancy	Diagnosis	ICD-10-CM
J84.842	Pulmonary interstitial glycogenosis	Diagnosis	ICD-10-CM
J84.843	Alveolar capillary dysplasia with vein misalignment	Diagnosis	ICD-10-CM
J84.848	Other interstitial lung diseases of childhood	Diagnosis	ICD-10-CM

Appendix F. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
J84.89	Other specified interstitial pulmonary diseases	Diagnosis	ICD-10-CM
J84.9	Interstitial pulmonary disease, unspecified	Diagnosis	ICD-10-CM
	Sarcoidosis		
D86	Sarcoidosis	Diagnosis	ICD-10-CM
D86.0	Sarcoidosis of lung	Diagnosis	ICD-10-CM
D86.1	Sarcoidosis of lymph nodes	Diagnosis	ICD-10-CM
D86.2	Sarcoidosis of lung with sarcoidosis of lymph nodes	Diagnosis	ICD-10-CM
D86.3	Sarcoidosis of skin	Diagnosis	ICD-10-CM
D86.8	Sarcoidosis of other sites	Diagnosis	ICD-10-CM
D86.81	Sarcoid meningitis	Diagnosis	ICD-10-CM
D86.82	Multiple cranial nerve palsies in sarcoidosis	Diagnosis	ICD-10-CM
D86.83	Sarcoid iridocyclitis	Diagnosis	ICD-10-CM
D86.84	Sarcoid pyelonephritis	Diagnosis	ICD-10-CM
D86.85	Sarcoid myocarditis	Diagnosis	ICD-10-CM
D86.86	Sarcoid arthropathy	Diagnosis	ICD-10-CM
D86.87	Sarcoid myositis	Diagnosis	ICD-10-CM
D86.89	Sarcoidosis of other sites	Diagnosis	ICD-10-CM
D86.9	Sarcoidosis, unspecified	Diagnosis	ICD-10-CM
	Miscellaneous Other Lung Diseases		
B44.81	Allergic bronchopulmonary aspergillosis	Diagnosis	ICD-10-CM
D57.01	Hb-SS disease with acute chest syndrome	Diagnosis	ICD-10-CM
D57.211	Sickle-cell/Hb-C disease with acute chest syndrome	Diagnosis	ICD-10-CM
D57.411	Sickle-cell thalassemia with acute chest syndrome	Diagnosis	ICD-10-CM
D57.811	Other sickle-cell disorders with acute chest syndrome	Diagnosis	ICD-10-CM
J39.8	Other specified diseases of upper respiratory tract	Diagnosis	ICD-10-CM
J81.0	Acute pulmonary edema	Diagnosis	ICD-10-CM
J81.1	Chronic pulmonary edema	Diagnosis	ICD-10-CM
J82	Pulmonary eosinophilia, not elsewhere classified	Diagnosis	ICD-10-CM
J84.10	Pulmonary fibrosis, unspecified	Diagnosis	ICD-10-CM
J85.0	Gangrene and necrosis of lung	Diagnosis	ICD-10-CM
J85.2	Abscess of lung without pneumonia	Diagnosis	ICD-10-CM
J85.3	Abscess of mediastinum	Diagnosis	ICD-10-CM
J86.0	Pyothorax with fistula	Diagnosis	ICD-10-CM
J86.9	Pyothorax without fistula	Diagnosis	ICD-10-CM
J90	Pleural effusion, not elsewhere classified	Diagnosis	ICD-10-CM
J91.0	Malignant pleural effusion	Diagnosis	ICD-10-CM
J91.8	Pleural effusion in other conditions classified elsewhere	Diagnosis	ICD-10-CM
J92.0	Pleural plaque with presence of asbestos	Diagnosis	ICD-10-CM
J92.9	Pleural plaque without asbestos	Diagnosis	ICD-10-CM
J94.0	Chylous effusion	Diagnosis	ICD-10-CM
J94.1	Fibrothorax	Diagnosis	ICD-10-CM
J94.2	Hemothorax	Diagnosis	ICD-10-CM
J94.8	Other specified pleural conditions	Diagnosis	ICD-10-CM
J94.9	Pleural condition, unspecified	Diagnosis	ICD-10-CM
J95.00	Unspecified tracheostomy complication	Diagnosis	ICD-10-CM

Appendix F. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes Used to Define Inclusion and Exclusion Criteria in this Request

Code	Description	Code Category	Code Type
J95.01	Hemorrhage from tracheostomy stoma	Diagnosis	ICD-10-CM
J95.02	Infection of tracheostomy stoma	Diagnosis	ICD-10-CM
J95.03	Malfunction of tracheostomy stoma	Diagnosis	ICD-10-CM
J95.04	Tracheo-esophageal fistula following tracheostomy	Diagnosis	ICD-10-CM
J95.09	Other tracheostomy complication	Diagnosis	ICD-10-CM
J95.84	Transfusion-related acute lung injury (TRALI)	Diagnosis	ICD-10-CM
J98.01	Acute bronchospasm	Diagnosis	ICD-10-CM
J98.09	Other diseases of bronchus, not elsewhere classified	Diagnosis	ICD-10-CM
J98.11	Atelectasis	Diagnosis	ICD-10-CM
J98.19	Other pulmonary collapse	Diagnosis	ICD-10-CM
J98.2	Interstitial emphysema	Diagnosis	ICD-10-CM
J98.3	Compensatory emphysema	Diagnosis	ICD-10-CM
J98.4	Other disorders of lung	Diagnosis	ICD-10-CM
J98.51	Mediastinitis	Diagnosis	ICD-10-CM
J98.59	Other diseases of mediastinum, not elsewhere classified	Diagnosis	ICD-10-CM
J98.6	Disorders of diaphragm	Diagnosis	ICD-10-CM
J98.8	Other specified respiratory disorders	Diagnosis	ICD-10-CM
J98.9	Respiratory disorder, unspecified	Diagnosis	ICD-10-CM
J99	Respiratory disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
M32.13	Lung involvement in systemic lupus erythematosus	Diagnosis	ICD-10-CM
M33.01	Juvenile dermatomyositis with respiratory involvement	Diagnosis	ICD-10-CM
M33.11	Other dermatomyositis with respiratory involvement	Diagnosis	ICD-10-CM
M33.21	Polymyositis with respiratory involvement	Diagnosis	ICD-10-CM
M33.91	Dermatopolymyositis, unspecified with respiratory involvement	Diagnosis	ICD-10-CM
M34.81	Systemic sclerosis with lung involvement	Diagnosis	ICD-10-CM
M35.02	Sicca syndrome with lung involvement	Diagnosis	ICD-10-CM
R09.1	Pleurisy	Diagnosis	ICD-10-CM
	COPD Diagnosis		
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
J43.1	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
J44.9	Chronic obstructive pulmonary disease, unspecified	Diagnosis	ICD-10-CM

Sentinel

Appendix G. Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request

Generic Name	Brand Name
Azithromycin	
azithromycin	Zithromax
azithromycin	Zithromax Z-Pak
azithromycin	Zithromax TRI-PAK
azithromycin	azithromycin
Roflumilast	
roflumilast	Daliresp
Long-Acting Beta Agonist (LABA)	
arformoterol tartrate	arformoterol
arformoterol tartrate	Brovana
formoterol fumarate	Foradil Aerolizer
formoterol fumarate	formoterol fumarate
formoterol fumarate	Perforomist
formoterol fumarate dihydrate, micronized	formoterol fum dihyd,mic(bulk)
indacaterol maleate	Arcapta Neohaler
olodaterol HCl	Striverdi Respimat
salmeterol xinafoate	Serevent
salmeterol xinafoate	Serevent Refill
salmeterol xinafoate	Serevent Diskus
Inhaled Corticosteroid (ICS)	
beclomethasone dipropionate	Qvar
beclomethasone dipropionate	Qvar RediHaler
budesonide	budesonide
budesonide	Pulmicort
budesonide	Pulmicort Flexhaler
ciclesonide	Alvesco
fluticasone furoate	Arnuity Ellipta
fluticasone propionate	ArmonAir Digihaler
fluticasone propionate	ArmonAir RespiClick
fluticasone propionate	Flovent Diskus
fluticasone propionate	Flovent HFA
fluticasone propionate	fluticasone propionate
mometasone furoate	Asmanex HFA
mometasone furoate	Asmanex Twisthaler
Long-Acting Muscarinic Antagonist (LAMA)	
aclidinium bromide	Tudorza Pressair
glycopyrrolate	Seebri Neohaler
glycopyrrolate/nebulizer accessories	Lonhala Magnair Refill
glycopyrrolate/nebulizer and accessories	Lonhala Magnair Starter
revefenacin	Yupelri
tiotropium bromide	Spiriva Respimat
tiotropium bromide	Spiriva with HandiHaler
umeclidinium bromide	Incruse Ellipta

Appendix G. Generic and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request

Generic Name	Brand Name
ICS/LABA	
budesonide/formoterol fumarate	Symbicort
budesonide/formoterol fumarate	budesonide-formoterol
fluticasone furoate/vilanterol trifenatate	Breo Ellipta
mometasone furoate/formoterol fumarate	Dulera
fluticasone propionate/salmeterol xinafoate	fluticasone propion-salmeterol
fluticasone propionate/salmeterol xinafoate	Advair Diskus
fluticasone propionate/salmeterol xinafoate	Advair HFA
fluticasone propionate/salmeterol xinafoate	Wixela Inhub
fluticasone propionate/salmeterol xinafoate	AirDuo Digihaler
fluticasone propionate/salmeterol xinafoate	AirDuo RespiClick
LABA/LAMA	
glycopyrrolate/formoterol fumarate	Bevespi Aerosphere
indacaterol maleate/glycopyrrolate	Utibron Neohaler
tiotropium bromide/olodaterol HCl	Stiolto Respimat
umeclidinium bromide/vilanterol trifenatate	Anoro Ellipta
Single Inhaler Triple Therapy (SITT), ICS/LABA/LAMA	
budesonide/glycopyrrolate/formoterol fumarate	Breztri Aerosphere
fluticasone furoate/umeclidinium bromide/vilanterol trifenat	Trelegy Ellipta

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
	Anxiety		
F34.1	Dysthymic disorder	Diagnosis	ICD-10-CM
F40.00	Agoraphobia, unspecified	Diagnosis	ICD-10-CM
F40.01	Agoraphobia with panic disorder	Diagnosis	ICD-10-CM
F40.02	Agoraphobia without panic disorder	Diagnosis	ICD-10-CM
F40.10	Social phobia, unspecified	Diagnosis	ICD-10-CM
F40.11	Social phobia, generalized	Diagnosis	ICD-10-CM
F40.210	Arachnophobia	Diagnosis	ICD-10-CM
F40.218	Other animal type phobia	Diagnosis	ICD-10-CM
F40.220	Fear of thunderstorms	Diagnosis	ICD-10-CM
F40.228	Other natural environment type phobia	Diagnosis	ICD-10-CM
F40.230	Fear of blood	Diagnosis	ICD-10-CM
F40.231	Fear of injections and transfusions	Diagnosis	ICD-10-CM
F40.232	Fear of other medical care	Diagnosis	ICD-10-CM
F40.233	Fear of injury	Diagnosis	ICD-10-CM
F40.240	Claustrophobia	Diagnosis	ICD-10-CM
F40.241	Acrophobia	Diagnosis	ICD-10-CM
F40.242	Fear of bridges	Diagnosis	ICD-10-CM
F40.243	Fear of flying	Diagnosis	ICD-10-CM
F40.248	Other situational type phobia	Diagnosis	ICD-10-CM
F40.290	Androphobia	Diagnosis	ICD-10-CM
F40.291	Gynephobia	Diagnosis	ICD-10-CM
F40.298	Other specified phobia	Diagnosis	ICD-10-CM
F40.8	Other phobic anxiety disorders	Diagnosis	ICD-10-CM
F40.9	Phobic anxiety disorder, unspecified	Diagnosis	ICD-10-CM
F41.0	Panic disorder [episodic paroxysmal anxiety]	Diagnosis	ICD-10-CM
F41.1	Generalized anxiety disorder	Diagnosis	ICD-10-CM
F41.3	Other mixed anxiety disorders	Diagnosis	ICD-10-CM
F41.8	Other specified anxiety disorders	Diagnosis	ICD-10-CM
F41.9	Anxiety disorder, unspecified	Diagnosis	ICD-10-CM
F42.2	Mixed obsessional thoughts and acts	Diagnosis	ICD-10-CM
F42.3	Hoarding disorder	Diagnosis	ICD-10-CM
F42.8	Other obsessive-compulsive disorder	Diagnosis	ICD-10-CM
F42.9	Obsessive-compulsive disorder, unspecified	Diagnosis	ICD-10-CM
F44.0	Dissociative amnesia	Diagnosis	ICD-10-CM
F44.1	Dissociative fugue	Diagnosis	ICD-10-CM
F44.2	Dissociative stupor	Diagnosis	ICD-10-CM
F44.4	Conversion disorder with motor symptom or deficit	Diagnosis	ICD-10-CM
F44.5	Conversion disorder with seizures or convulsions	Diagnosis	ICD-10-CM
F44.6	Conversion disorder with sensory symptom or deficit	Diagnosis	ICD-10-CM
F44.7	Conversion disorder with mixed symptom presentation	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
F44.81	Dissociative identity disorder	Diagnosis	ICD-10-CM
F44.89	Other dissociative and conversion disorders	Diagnosis	ICD-10-CM
F44.9	Dissociative and conversion disorder, unspecified	Diagnosis	ICD-10-CM
F45.0	Somatization disorder	Diagnosis	ICD-10-CM
F45.1	Undifferentiated somatoform disorder	Diagnosis	ICD-10-CM
F45.20	Hypochondriacal disorder, unspecified	Diagnosis	ICD-10-CM
F45.21	Hypochondriasis	Diagnosis	ICD-10-CM
F45.22	Body dysmorphic disorder	Diagnosis	ICD-10-CM
F45.29	Other hypochondriacal disorders	Diagnosis	ICD-10-CM
F45.8	Other somatoform disorders	Diagnosis	ICD-10-CM
F45.9	Somatoform disorder, unspecified	Diagnosis	ICD-10-CM
F48.1	Depersonalization-derealization syndrome	Diagnosis	ICD-10-CM
F48.8	Other specified nonpsychotic mental disorders	Diagnosis	ICD-10-CM
F48.9	Nonpsychotic mental disorder, unspecified	Diagnosis	ICD-10-CM
F68.11	Factitious disorder imposed on self, with predominantly psychological signs and symptoms	Diagnosis	ICD-10-CM
F68.13	Factitious disorder imposed on self, with combined psychological and physical signs and symptoms	Diagnosis	ICD-10-CM
F68.8	Other specified disorders of adult personality and behavior	Diagnosis	ICD-10-CM
F99	Mental disorder, not otherwise specified	Diagnosis	ICD-10-CM
R45.2	Unhappiness	Diagnosis	ICD-10-CM
R45.5	Hostility	Diagnosis	ICD-10-CM
R45.6	Violent behavior	Diagnosis	ICD-10-CM
	Atrial Fibrillation		
I48.0	Paroxysmal atrial fibrillation	Diagnosis	ICD-10-CM
I48.1	Persistent atrial fibrillation	Diagnosis	ICD-10-CM
I48.2	Chronic 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
I48.92	Unspecified atrial flutter	Diagnosis	ICD-10-CM
	Atrial or Ventricular Arrhythmias (Excluding Atrial Fibrillation)		
I46.2	Cardiac arrest due to underlying cardiac condition	Diagnosis	ICD-10-CM
I46.8	Cardiac arrest due to other underlying condition	Diagnosis	ICD-10-CM
I46.9	Cardiac arrest, cause unspecified	Diagnosis	ICD-10-CM
I47	Paroxysmal tachycardia	Diagnosis	ICD-10-CM
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
I49	Other cardiac arrhythmias	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
I49.2	Junctional premature depolarization	Diagnosis	ICD-10-CM
I49.8	Other specified cardiac arrhythmias	Diagnosis	ICD-10-CM
I49.9	Cardiac arrhythmia, unspecified	Diagnosis	ICD-10-CM
P29.1	Neonatal cardiac dysrhythmia	Diagnosis	ICD-10-CM
P29.11	Neonatal tachycardia	Diagnosis	ICD-10-CM
R00.0	Tachycardia, unspecified	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
	Cachexia		
R64	Cachexia	Diagnosis	ICD-10-CM
	Chronic Bronchitis		
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
	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
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
C68.9	Malignant neoplasm of urinary organ, unspecified	Diagnosis	ICD-10-CM
D30.00	Benign neoplasm of unspecified kidney	Diagnosis	ICD-10-CM
D30.01	Benign neoplasm of right kidney	Diagnosis	ICD-10-CM
D30.02	Benign neoplasm of left kidney	Diagnosis	ICD-10-CM
D41.00	Neoplasm of uncertain behavior of unspecified kidney	Diagnosis	ICD-10-CM
D41.01	Neoplasm of uncertain behavior of right kidney	Diagnosis	ICD-10-CM
D41.02	Neoplasm of uncertain behavior of left kidney	Diagnosis	ICD-10-CM
D41.10	Neoplasm of uncertain behavior of unspecified renal pelvis	Diagnosis	ICD-10-CM
D41.11	Neoplasm of uncertain behavior of right renal pelvis	Diagnosis	ICD-10-CM
D41.12	Neoplasm of uncertain behavior of left renal pelvis	Diagnosis	ICD-10-CM
D41.20	Neoplasm of uncertain behavior of unspecified ureter	Diagnosis	ICD-10-CM
D41.21	Neoplasm of uncertain behavior of right ureter	Diagnosis	ICD-10-CM
D41.22	Neoplasm of uncertain behavior of left ureter	Diagnosis	ICD-10-CM
D59.3	Hemolytic-uremic syndrome	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
E08.65	Diabetes mellitus due to underlying condition with hyperglycemia	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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E10.29	Type 1 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E10.65	Type 1 diabetes mellitus with hyperglycemia	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
E11.65	Type 2 diabetes mellitus with hyperglycemia	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
E74.8	Other specified disorders of carbohydrate metabolism	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
I70.1	Atherosclerosis of renal artery	Diagnosis	ICD-10-CM
I72.2	Aneurysm of renal artery	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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
N00.0	Acute nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N00.1	Acute nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N00.2	Acute nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N00.3	Acute nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N00.4	Acute nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N00.5	Acute nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N00.6	Acute nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N00.7	Acute nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N00.8	Acute nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N00.9	Acute nephritic syndrome with unspecified morphologic changes	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

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Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
N01.9	Rapidly progressive nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
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
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
N04.0	Nephrotic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
N04.9	Nephrotic syndrome with unspecified morphologic changes	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
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
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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
N08	Glomerular disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N13.1	Hydronephrosis with ureteral stricture, not elsewhere classified	Diagnosis	ICD-10-CM
N13.2	Hydronephrosis with renal and ureteral calculous obstruction	Diagnosis	ICD-10-CM
N13.30	Unspecified hydronephrosis	Diagnosis	ICD-10-CM
N13.39	Other hydronephrosis	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
N15.9	Renal tubulo-interstitial disease, unspecified	Diagnosis	ICD-10-CM
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N17.0	Acute kidney failure with tubular necrosis	Diagnosis	ICD-10-CM
N17.1	Acute kidney failure with acute cortical necrosis	Diagnosis	ICD-10-CM
N17.2	Acute kidney failure with medullary necrosis	Diagnosis	ICD-10-CM
N17.8	Other acute kidney failure	Diagnosis	ICD-10-CM
N17.9	Acute kidney failure, unspecified	Diagnosis	ICD-10-CM
N18.1	Chronic kidney disease, stage 1	Diagnosis	ICD-10-CM
N18.2	Chronic kidney disease, stage 2 (mild)	Diagnosis	ICD-10-CM
N18.3	Chronic kidney disease, stage 3 (moderate)	Diagnosis	ICD-10-CM
N18.4	Chronic kidney disease, stage 4 (severe)	Diagnosis	ICD-10-CM
N18.5	Chronic kidney disease, stage 5	Diagnosis	ICD-10-CM
N18.6	End stage renal disease	Diagnosis	ICD-10-CM
N18.9	Chronic kidney disease, unspecified	Diagnosis	ICD-10-CM
N19	Unspecified kidney failure	Diagnosis	ICD-10-CM
N25.0	Renal osteodystrophy	Diagnosis	ICD-10-CM
N25.1	Nephrogenic diabetes insipidus	Diagnosis	ICD-10-CM
N25.81	Secondary hyperparathyroidism of renal origin	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
Q62.0	Congenital hydronephrosis	Diagnosis	ICD-10-CM
Q62.10	Congenital occlusion of ureter, unspecified	Diagnosis	ICD-10-CM
Q62.11	Congenital occlusion of ureteropelvic junction	Diagnosis	ICD-10-CM
Q62.12	Congenital occlusion of ureterovesical orifice	Diagnosis	ICD-10-CM
Q62.2	Congenital megaureter	Diagnosis	ICD-10-CM
Q62.31	Congenital ureterocele, orthotopic	Diagnosis	ICD-10-CM
Q62.32	Cecoureterocele	Diagnosis	ICD-10-CM
Q62.39	Other obstructive defects of renal pelvis and ureter	Diagnosis	ICD-10-CM
R94.4	Abnormal results of kidney function studies	Diagnosis	ICD-10-CM
	Cirrhosis		
K70.2	Alcoholic fibrosis and sclerosis 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
K74.0	Hepatic fibrosis	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
K74.60	Unspecified cirrhosis of liver	Diagnosis	ICD-10-CM
K74.69	Other cirrhosis of liver	Diagnosis	ICD-10-CM
	Congestive Heart Failure		
I11.0	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I50.1	Left ventricular failure, unspecified	Diagnosis	ICD-10-CM
I50.20	Unspecified systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.21	Acute systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.22	Chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.23	Acute on chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.30	Unspecified diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50.31	Acute diastolic (congestive) heart failure	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
Cardiovascular Disease (Myocardial infarction, Stroke, Heart Failure, Angina or Transient Ishchemic Attack)			
G45.0	Vertebro-basilar artery syndrome	Diagnosis	ICD-10-CM
G45.1	Carotid artery syndrome (hemispheric)	Diagnosis	ICD-10-CM
G45.2	Multiple and bilateral precerebral artery syndromes	Diagnosis	ICD-10-CM
G45.8	Other transient cerebral ischemic attacks and related syndromes	Diagnosis	ICD-10-CM
G45.9	Transient cerebral ischemic attack, unspecified	Diagnosis	ICD-10-CM
G46.0	Middle cerebral artery syndrome	Diagnosis	ICD-10-CM
G46.1	Anterior cerebral artery syndrome	Diagnosis	ICD-10-CM
G46.2	Posterior cerebral artery syndrome	Diagnosis	ICD-10-CM
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
I11.0	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
I20.0	Unstable angina	Diagnosis	ICD-10-CM
I21.01	ST elevation (STEMI) myocardial infarction involving left main coronary artery	Diagnosis	ICD-10-CM
I21.02	ST elevation (STEMI) myocardial infarction involving left anterior descending coronary artery	Diagnosis	ICD-10-CM
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
I22.0	Subsequent ST elevation (STEMI) myocardial infarction of anterior wall	Diagnosis	ICD-10-CM
I22.1	Subsequent ST elevation (STEMI) myocardial infarction of inferior wall	Diagnosis	ICD-10-CM
I22.2	Subsequent non-ST elevation (NSTEMI) myocardial infarction	Diagnosis	ICD-10-CM
I22.8	Subsequent ST elevation (STEMI) myocardial infarction of other sites	Diagnosis	ICD-10-CM
I22.9	Subsequent ST elevation (STEMI) myocardial infarction of unspecified site	Diagnosis	ICD-10-CM
I25.110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris	Diagnosis	ICD-10-CM
I25.700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable 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
I25.720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable 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
I25.750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina	Diagnosis	ICD-10-CM
I25.760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina	Diagnosis	ICD-10-CM
I25.790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
I60.20	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
I60.30	Nontraumatic subarachnoid hemorrhage from unspecified posterior communicating artery	Diagnosis	ICD-10-CM
I60.31	Nontraumatic subarachnoid hemorrhage from right posterior communicating artery	Diagnosis	ICD-10-CM
I60.32	Nontraumatic subarachnoid hemorrhage from left posterior communicating artery	Diagnosis	ICD-10-CM
I60.4	Nontraumatic subarachnoid hemorrhage from basilar artery	Diagnosis	ICD-10-CM
I60.50	Nontraumatic subarachnoid hemorrhage from unspecified vertebral artery	Diagnosis	ICD-10-CM
I60.51	Nontraumatic subarachnoid hemorrhage from right vertebral artery	Diagnosis	ICD-10-CM
I60.52	Nontraumatic subarachnoid hemorrhage from left vertebral artery	Diagnosis	ICD-10-CM
I60.6	Nontraumatic subarachnoid hemorrhage from other intracranial arteries	Diagnosis	ICD-10-CM
I60.7	Nontraumatic subarachnoid hemorrhage from unspecified intracranial artery	Diagnosis	ICD-10-CM
I60.8	Other nontraumatic subarachnoid hemorrhage	Diagnosis	ICD-10-CM
I60.9	Nontraumatic subarachnoid hemorrhage, unspecified	Diagnosis	ICD-10-CM
I61.0	Nontraumatic intracerebral hemorrhage in hemisphere, subcortical	Diagnosis	ICD-10-CM
I61.1	Nontraumatic intracerebral hemorrhage in hemisphere, cortical	Diagnosis	ICD-10-CM
I61.2	Nontraumatic intracerebral hemorrhage in hemisphere, unspecified	Diagnosis	ICD-10-CM
I61.3	Nontraumatic intracerebral hemorrhage in brain stem	Diagnosis	ICD-10-CM
I61.4	Nontraumatic intracerebral hemorrhage in cerebellum	Diagnosis	ICD-10-CM
I61.5	Nontraumatic intracerebral hemorrhage, intraventricular	Diagnosis	ICD-10-CM
I61.6	Nontraumatic intracerebral hemorrhage, multiple localized	Diagnosis	ICD-10-CM
I61.8	Other nontraumatic intracerebral hemorrhage	Diagnosis	ICD-10-CM
I61.9	Nontraumatic intracerebral hemorrhage, unspecified	Diagnosis	ICD-10-CM
I63.00	Cerebral infarction due to thrombosis of unspecified precerebral artery	Diagnosis	ICD-10-CM
I63.00	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
I63.011	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
I63.012	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
I63.013	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
I63.019	Cerebral infarction due to thrombosis of unspecified vertebral artery	Diagnosis	ICD-10-CM
I63.02	Cerebral infarction due to thrombosis of basilar artery	Diagnosis	ICD-10-CM
I63.02	Cerebral infarction due to thrombosis of basilar artery	Diagnosis	ICD-10-CM
I63.031	Cerebral infarction due to thrombosis of right carotid artery	Diagnosis	ICD-10-CM
I63.031	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
I63.032	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
I63.039	Cerebral infarction due to thrombosis of unspecified carotid artery	Diagnosis	ICD-10-CM
I63.09	Cerebral infarction due to thrombosis of other precerebral artery	Diagnosis	ICD-10-CM
I63.09	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
I63.10	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
I63.111	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
I63.112	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
I63.119	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
I63.12	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
I63.131	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
I63.132	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
I63.139	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
I63.19	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
I63.20	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 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 arteries	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
I63.213	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 arteries	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
I63.219	Cerebral infarction due to unspecified occlusion or stenosis of unspecified vertebral arteries	Diagnosis	ICD-10-CM
I63.22	Cerebral infarction due to unspecified occlusion or stenosis of basilar arteries	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
I63.231	Cerebral infarction due to unspecified occlusion or stenosis of right carotid arteries	Diagnosis	ICD-10-CM
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries	Diagnosis	ICD-10-CM
I63.232	Cerebral infarction due to unspecified occlusion or stenosis of left carotid arteries	Diagnosis	ICD-10-CM
I63.233	Cerebral infarction due to unspecified occlusion or stenosis of bilateral carotid arteries	Diagnosis	ICD-10-CM
I63.233	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 arteries	Diagnosis	ICD-10-CM
I63.239	Cerebral infarction due to unspecified occlusion or stenosis of unspecified carotid arteries	Diagnosis	ICD-10-CM
I63.29	Cerebral infarction due to unspecified occlusion or stenosis of other precerebral arteries	Diagnosis	ICD-10-CM
I63.29	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
I63.30	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
I63.311	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
I63.312	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
I63.313	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
I63.319	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
I63.321	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
I63.322	Cerebral infarction due to thrombosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.323	Cerebral infarction due to thrombosis of bilateral anterior arteries	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
I63.329	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
I63.331	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
I63.332	Cerebral infarction due to thrombosis of left posterior cerebral artery	Diagnosis	ICD-10-CM
I63.333	Cerebral infarction to thrombosis of bilateral posterior arteries	Diagnosis	ICD-10-CM
I63.333	Cerebral infarction 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
I63.339	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
I63.341	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
I63.342	Cerebral infarction due to thrombosis of left cerebellar artery	Diagnosis	ICD-10-CM
I63.343	Cerebral infarction to thrombosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.343	Cerebral infarction to thrombosis of bilateral cerebellar arteries	Diagnosis	ICD-10-CM
I63.349	Cerebral infarction due to thrombosis of unspecified cerebellar artery	Diagnosis	ICD-10-CM
I63.349	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
I63.39	Cerebral infarction due to thrombosis of other cerebral artery	Diagnosis	ICD-10-CM
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.40	Cerebral infarction due to embolism of unspecified cerebral artery	Diagnosis	ICD-10-CM
I63.411	Cerebral infarction due to embolism of right middle cerebral artery	Diagnosis	ICD-10-CM
I63.411	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
I63.412	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
I63.413	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
I63.419	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
I63.421	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
I63.422	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
I63.423	Cerebral infarction due to embolism of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
I63.429	Cerebral infarction due to embolism of unspecified anterior cerebral artery	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
I63.431	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
I63.432	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
I63.433	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
I63.439	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
I63.441	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
I63.442	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
I63.443	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
I63.449	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
I63.49	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
I63.50	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
I63.511	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
I63.512	Cerebral infarction due to unspecified occlusion or stenosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle arteries	Diagnosis	ICD-10-CM
I63.513	Cerebral infarction due to unspecified occlusion or stenosis of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I63.519	Cerebral infarction due to unspecified occlusion or stenosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

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
I63.521	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
I63.522	Cerebral infarction due to unspecified occlusion or stenosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I63.523	Cerebral infarction due to unspecified occlusion or stenosis of bilateral anterior arteries	Diagnosis	ICD-10-CM
I63.523	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
I63.529	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
I63.531	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
I63.532	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 arteries	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
I63.539	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
I63.541	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
I63.542	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
I63.549	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
I63.59	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
I63.6	Cerebral infarction due to cerebral venous thrombosis, nonpyogenic	Diagnosis	ICD-10-CM
I63.8	Other cerebral infarction	Diagnosis	ICD-10-CM
I63.8	Other cerebral infarction	Diagnosis	ICD-10-CM
I63.9	Cerebral infarction, unspecified	Diagnosis	ICD-10-CM
I63.9	Cerebral infarction, unspecified	Diagnosis	ICD-10-CM
I66.01	Occlusion and stenosis of right middle cerebral artery	Diagnosis	ICD-10-CM
I66.02	Occlusion and stenosis of left middle cerebral artery	Diagnosis	ICD-10-CM
I66.03	Occlusion and stenosis of bilateral middle cerebral arteries	Diagnosis	ICD-10-CM
I66.09	Occlusion and stenosis of unspecified middle cerebral artery	Diagnosis	ICD-10-CM
I66.11	Occlusion and stenosis of right anterior cerebral artery	Diagnosis	ICD-10-CM
I66.12	Occlusion and stenosis of left anterior cerebral artery	Diagnosis	ICD-10-CM
I66.13	Occlusion and stenosis of bilateral anterior cerebral arteries	Diagnosis	ICD-10-CM
I66.19	Occlusion and stenosis of unspecified anterior cerebral artery	Diagnosis	ICD-10-CM
I66.21	Occlusion and stenosis of right posterior cerebral artery	Diagnosis	ICD-10-CM
I66.22	Occlusion and stenosis of left posterior cerebral artery	Diagnosis	ICD-10-CM
I66.23	Occlusion and stenosis of bilateral posterior cerebral arteries	Diagnosis	ICD-10-CM
I66.29	Occlusion and stenosis of unspecified posterior cerebral artery	Diagnosis	ICD-10-CM
I66.3	Occlusion and stenosis of cerebellar arteries	Diagnosis	ICD-10-CM
I66.8	Occlusion and stenosis of other cerebral arteries	Diagnosis	ICD-10-CM
I66.9	Occlusion and stenosis of unspecified cerebral artery	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
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
	Diabetes		
E08.00	Diabetes mellitus due to underlying condition with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E08.01	Diabetes mellitus due to underlying condition with hyperosmolarity with coma	Diagnosis	ICD-10-CM
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
E08.3211	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
E08.3291	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
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
E08.3391	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
E08.3411	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
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
E08.3511	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 H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics 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
E08.3591	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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
E08.610	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
E08.618	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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
E09.3211	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
E09.3291	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
E09.3311	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
E09.3411	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
E09.3491	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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
E09.3591	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
E09.610	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
E09.618	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
E10.3211	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3212	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3213	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3219	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3292	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3293	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3299	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E10.3313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3413	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3499	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right 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
E10.3521	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E10.3529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.3531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E10.3532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E10.3533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E10.3539	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.3541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E10.3542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E10.3543	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E10.3549	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E10.3551	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E10.3552	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E10.3553	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E10.3559	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E10.3591	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3592	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3593	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3599	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
E10.618	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without 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
E11.3291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.3411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
E11.3543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E11.3549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E11.3551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E11.3552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E11.3553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E11.3559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E11.3591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3593	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
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
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
E11.610	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
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
E13.00	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
E13.01	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
E13.10	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
E13.11	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
E13.311	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
E13.319	Other specified diabetes mellitus with unspecified diabetic retinopathy without 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
E13.3211	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
E13.3212	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E13.3213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	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
E13.3219	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3291	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
E13.3292	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
E13.3293	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
E13.3299	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3311	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
E13.3312	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
E13.3313	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
E13.3319	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3391	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics 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
E13.3392	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
E13.3393	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
E13.3399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3411	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
E13.3412	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
E13.3413	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
E13.3419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
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
E13.3492	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
E13.3493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E13.3499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3511	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
E13.3512	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
E13.3513	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
E13.3519	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
E13.3521	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
E13.3522	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
E13.3523	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
E13.3529	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
E13.3531	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
E13.3533	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
E13.3539	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
E13.3541	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
E13.3542	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
E13.3543	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
E13.3549	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
E13.3551	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
E13.3552	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E13.3553	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	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
E13.3559	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E13.3591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	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
E13.3592	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
E13.3593	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
E13.3599	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
E13.36	Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E13.37X1	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E13.37X1	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
E13.37X2	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
E13.37X3	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
E13.37X9	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication	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
E13.610	Other specified diabetes mellitus with diabetic neuropathic 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
E13.618	Other specified diabetes mellitus with other diabetic 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
E13.620	Other specified diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E13.621	Other specified diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E13.621	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
E13.622	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
E13.628	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
E13.630	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
E13.638	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
E13.641	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
E13.649	Other specified diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E13.65	Other specified diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E13.65	Other specified diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E13.69	Other specified diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E13.69	Other specified diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
E13.9	Other specified diabetes mellitus without complications	Diagnosis	ICD-10-CM
O24.414	Gestational diabetes mellitus in pregnancy, insulin controlled	Diagnosis	ICD-10-CM
O24.415	Gestational diabetes mellitus in pregnancy, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24.419	Gestational diabetes mellitus in pregnancy, unspecified control	Diagnosis	ICD-10-CM
O24.425	Gestational diabetes mellitus in childbirth, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24.429	Gestational diabetes mellitus in childbirth, unspecified control	Diagnosis	ICD-10-CM
O24.434	Gestational diabetes mellitus in the puerperium, insulin controlled	Diagnosis	ICD-10-CM
O24.435	Gestational diabetes mellitus in puerperium, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24.439	Gestational diabetes mellitus in the puerperium, unspecified control	Diagnosis	ICD-10-CM
O24.011	Pre-existing type 1 diabetes mellitus, in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24.012	Pre-existing type 1 diabetes mellitus, in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24.013	Pre-existing type 1 diabetes mellitus, in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24.019	Pre-existing type 1 diabetes mellitus, in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O24.02	Pre-existing type 1 diabetes mellitus, in childbirth	Diagnosis	ICD-10-CM
O24.03	Pre-existing type 1 diabetes mellitus, in the puerperium	Diagnosis	ICD-10-CM
O24.111	Pre-existing type 2 diabetes mellitus, in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24.112	Pre-existing type 2 diabetes mellitus, in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24.113	Pre-existing type 2 diabetes mellitus, in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24.119	Pre-existing type 2 diabetes mellitus, in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O24.12	Pre-existing type 2 diabetes mellitus, in childbirth	Diagnosis	ICD-10-CM
O24.13	Pre-existing type 2 diabetes mellitus, in the puerperium	Diagnosis	ICD-10-CM
O24.311	Unspecified pre-existing diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24.312	Unspecified pre-existing diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24.313	Unspecified pre-existing diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24.319	Unspecified pre-existing diabetes mellitus in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O24.32	Unspecified pre-existing diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O24.33	Unspecified pre-existing diabetes mellitus in the puerperium	Diagnosis	ICD-10-CM
O24.811	Other pre-existing diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24.812	Other pre-existing diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24.813	Other pre-existing diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24.819	Other pre-existing diabetes mellitus in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O24.82	Other pre-existing diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O24.83	Other pre-existing diabetes mellitus in the puerperium	Diagnosis	ICD-10-CM
O24.911	Unspecified diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24.912	Unspecified diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24.913	Unspecified diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
O24.919	Unspecified diabetes mellitus in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O24.92	Unspecified diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O24.93	Unspecified diabetes mellitus in the puerperium	Diagnosis	ICD-10-CM
	Emphysematous Phenotype		
J43	Emphysema	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
	Gastroesophageal Reflux Disease (GERD)		
K21	Gastro-esophageal reflux disease	Diagnosis	ICD-10-CM
K21.0	Gastro-esophageal reflux disease with esophagitis	Diagnosis	ICD-10-CM
K21.00	Gastro-esophageal reflux disease with esophagitis, without bleeding	Diagnosis	ICD-10-CM
K21.01	Gastro-esophageal reflux disease with esophagitis, with bleeding	Diagnosis	ICD-10-CM
K21.9	Gastro-esophageal reflux disease without esophagitis	Diagnosis	ICD-10-CM
	Hypertension		
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
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

Sentinel

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
I67.4	Hypertensive encephalopathy	Diagnosis	ICD-10-CM
N26.2	Page kidney	Diagnosis	ICD-10-CM
	Lung Cancer		
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
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
C45.0	Mesothelioma of pleura	Diagnosis	ICD-10-CM
C45.1	Mesothelioma of peritoneum	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
D19.0	Benign neoplasm of mesothelial tissue of pleura	Diagnosis	ICD-10-CM
D19.1	Benign neoplasm of mesothelial tissue of peritoneum	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
	Major Depressive Disorder		
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
F32.9	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-10-CM
F32.9	Major depressive disorder, single episode, 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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
F33.9	Major depressive disorder, recurrent, unspecified	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
	Obesity		
44.31	High gastric bypass	Procedure	ICD-9-CM
44.68	Laparoscopic gastroplasty	Procedure	ICD-9-CM
44.95	Laparoscopic gastric restrictive procedure	Procedure	ICD-9-CM
E65	Localized adiposity	Diagnosis	ICD-10-CM
E66.01	Morbid (severe) obesity due to excess calories	Diagnosis	ICD-10-CM
E66.09	Other obesity due to excess calories	Diagnosis	ICD-10-CM
E66.1	Drug-induced obesity	Diagnosis	ICD-10-CM
E66.2	Morbid (severe) obesity with alveolar hypoventilation	Diagnosis	ICD-10-CM
E66.3	Overweight	Diagnosis	ICD-10-CM
E66.8	Other obesity	Diagnosis	ICD-10-CM
E66.9	Obesity, unspecified	Diagnosis	ICD-10-CM
Z98.84	Bariatric surgery status	Diagnosis	ICD-10-CM
0D1607A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160JA	Bypass Stomach to Jejunum with Synthetic Substitute, Open Approach	Procedure	ICD-10-PCS
0D160KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Open Approach	Procedure	ICD-10-PCS
0D160ZA	Bypass Stomach to Jejunum, Open Approach	Procedure	ICD-10-PCS
0D1687A	Bypass Stomach to Jejunum with Autologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168JA	Bypass Stomach to Jejunum with Synthetic Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168KA	Bypass Stomach to Jejunum with Nonautologous Tissue Substitute, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0D168ZA	Bypass Stomach to Jejunum, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0DQ64ZZ	Repair Stomach, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
0DV64CZ	Restriction of Stomach with Extraluminal Device, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
	Obstructive Sleep Apnea		
G47.33	Obstructive sleep apnea (adult) (pediatric)	Diagnosis	ICD-10-CM
	Osteoporosis		
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
	Other (Non-Lung) Cancer		
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
C02.0	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
C03.0	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
C04.0	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
C05.0	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
C06.0	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
C06.80	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

Sentinel

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C07	Malignant neoplasm of parotid gland	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
C09.0	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
C10.0	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
C11.0	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
C13.0	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
C14.0	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
C15.3	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
C16.0	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

Sentinel

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C17.0	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
C18.0	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
C21.0	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
C22.0	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
C24.0	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
C25.0	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C26.0	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
C30.0	Malignant neoplasm of nasal cavity	Diagnosis	ICD-10-CM
C30.1	Malignant neoplasm of middle ear	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
C32.0	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
C37	Malignant neoplasm of thymus	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
C39.0	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
C40.00	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
C40.10	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
C40.20	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics 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
C40.80	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
C40.90	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
C41.0	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
C43.0	Malignant melanoma of lip	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
C43.20	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
C43.30	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
C43.51	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
C43.60	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
C43.70	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C43.9	Malignant melanoma of skin, unspecified	Diagnosis	ICD-10-CM
C44.00	Unspecified malignant neoplasm of skin of lip	Diagnosis	ICD-10-CM
C44.01	Basal cell carcinoma of skin of lip	Diagnosis	ICD-10-CM
C44.02	Squamous cell carcinoma of skin of lip	Diagnosis	ICD-10-CM
C44.09	Other specified malignant neoplasm of skin of lip	Diagnosis	ICD-10-CM
C44.101	Unspecified malignant neoplasm of skin of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
C44.102	Unspecified malignant neoplasm of skin of right eyelid, including canthus	Diagnosis	ICD-10-CM
C44.109	Unspecified malignant neoplasm of skin of left eyelid, including canthus	Diagnosis	ICD-10-CM
C44.191	Other specified malignant neoplasm of skin of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
C44.192	Other specified malignant neoplasm of skin of right eyelid, including canthus	Diagnosis	ICD-10-CM
C44.199	Other specified malignant neoplasm of skin of left eyelid, including canthus	Diagnosis	ICD-10-CM
C44.201	Unspecified malignant neoplasm of skin of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
C44.202	Unspecified malignant neoplasm of skin of right ear and external auricular canal	Diagnosis	ICD-10-CM
C44.209	Unspecified malignant neoplasm of skin of left ear and external auricular canal	Diagnosis	ICD-10-CM
C44.291	Other specified malignant neoplasm of skin of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
C44.292	Other specified malignant neoplasm of skin of right ear and external auricular canal	Diagnosis	ICD-10-CM
C44.299	Other specified malignant neoplasm of skin of left ear and external auricular canal	Diagnosis	ICD-10-CM
C44.300	Unspecified malignant neoplasm of skin of unspecified part of face	Diagnosis	ICD-10-CM
C44.301	Unspecified malignant neoplasm of skin of nose	Diagnosis	ICD-10-CM
C44.309	Unspecified malignant neoplasm of skin of other parts of face	Diagnosis	ICD-10-CM
C44.390	Other specified malignant neoplasm of skin of unspecified parts of face	Diagnosis	ICD-10-CM
C44.391	Other specified malignant neoplasm of skin of nose	Diagnosis	ICD-10-CM
C44.399	Other specified malignant neoplasm of skin of other parts of face	Diagnosis	ICD-10-CM
C44.40	Unspecified malignant neoplasm of skin of scalp and neck	Diagnosis	ICD-10-CM
C44.49	Other specified malignant neoplasm of skin of scalp and neck	Diagnosis	ICD-10-CM
C44.500	Unspecified malignant neoplasm of anal skin	Diagnosis	ICD-10-CM
C44.501	Unspecified malignant neoplasm of skin of breast	Diagnosis	ICD-10-CM
C44.509	Unspecified malignant neoplasm of skin of other part of trunk	Diagnosis	ICD-10-CM
C44.590	Other specified malignant neoplasm of anal skin	Diagnosis	ICD-10-CM
C44.591	Other specified malignant neoplasm of skin of breast	Diagnosis	ICD-10-CM
C44.599	Other specified malignant neoplasm of skin of other part of trunk	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C44.601	Unspecified malignant neoplasm of skin of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C44.602	Unspecified malignant neoplasm of skin of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C44.609	Unspecified malignant neoplasm of skin of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C44.691	Other specified malignant neoplasm of skin of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
C44.692	Other specified malignant neoplasm of skin of right upper limb, including shoulder	Diagnosis	ICD-10-CM
C44.699	Other specified malignant neoplasm of skin of left upper limb, including shoulder	Diagnosis	ICD-10-CM
C44.701	Unspecified malignant neoplasm of skin of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C44.702	Unspecified malignant neoplasm of skin of right lower limb, including hip	Diagnosis	ICD-10-CM
C44.709	Unspecified malignant neoplasm of skin of left lower limb, including hip	Diagnosis	ICD-10-CM
C44.791	Other specified malignant neoplasm of skin of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
C44.792	Other specified malignant neoplasm of skin of right lower limb, including hip	Diagnosis	ICD-10-CM
C44.799	Other specified malignant neoplasm of skin of left lower limb, including hip	Diagnosis	ICD-10-CM
C44.80	Unspecified malignant neoplasm of overlapping sites of skin	Diagnosis	ICD-10-CM
C44.89	Other specified malignant neoplasm of overlapping sites of skin	Diagnosis	ICD-10-CM
C44.90	Unspecified malignant neoplasm of skin, unspecified	Diagnosis	ICD-10-CM
C44.99	Other specified malignant neoplasm of skin, unspecified	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
C46.0	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
C46.7	Kaposi's sarcoma of other sites	Diagnosis	ICD-10-CM
C46.9	Kaposi's sarcoma, unspecified	Diagnosis	ICD-10-CM
C47.0	Malignant neoplasm of peripheral nerves of head, face and neck	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C48.0	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
C49.0	Malignant neoplasm of connective and soft tissue of head, face and neck	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
C49.20	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.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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C49.A9	Gastrointestinal stromal tumor of other sites	Diagnosis	ICD-10-CM
C4A.0	Merkel cell carcinoma of lip	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.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.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.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.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.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
C50.011	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

Sentinel

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C52	Malignant neoplasm of vagina	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
C54.0	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
C56.1	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
C57.00	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
C57.10	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
C57.20	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
C60.0	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
C62.00	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
C62.10	Malignant neoplasm of unspecified descended testis	Diagnosis	ICD-10-CM
C62.11	Malignant neoplasm of descended right testis	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C62.12	Malignant neoplasm of descended left testis	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
C63.00	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
C63.10	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
C64.1	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
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
C68.0	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
C69.00	Malignant neoplasm of unspecified conjunctiva	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C69.01	Malignant neoplasm of right conjunctiva	Diagnosis	ICD-10-CM
C69.02	Malignant neoplasm of left conjunctiva	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
C69.20	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
C69.30	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
C69.40	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
C69.50	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
C69.60	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
C69.80	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
C69.90	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
C70.0	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
C71.0	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
C72.0	Malignant neoplasm of spinal cord	Diagnosis	ICD-10-CM
C72.1	Malignant neoplasm of cauda equina	Diagnosis	ICD-10-CM

Sentinel

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C72.30	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
C72.40	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
C72.50	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
C74.00	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
C74.10	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
C74.90	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
C75.0	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
C76.0	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
C76.40	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
C76.50	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C78.1	Secondary malignant neoplasm of mediastinum	Diagnosis	ICD-10-CM
C78.2	Secondary malignant neoplasm of pleura	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
C78.80	Secondary malignant neoplasm of unspecified digestive organ	Diagnosis	ICD-10-CM
C78.89	Secondary malignant neoplasm of other digestive organs	Diagnosis	ICD-10-CM
C79.00	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
C79.10	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
C79.31	Secondary malignant neoplasm of brain	Diagnosis	ICD-10-CM
C79.32	Secondary malignant neoplasm of cerebral meninges	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
C79.51	Secondary malignant neoplasm of bone	Diagnosis	ICD-10-CM
C79.52	Secondary malignant neoplasm of bone marrow	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
C79.70	Secondary malignant neoplasm of unspecified adrenal gland	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C79.81	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.00	Malignant carcinoid tumor of unspecified site	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.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.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.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
C80.0	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
C81.00	Nodular lymphocyte predominant Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C81.10	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
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
C81.20	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
C81.30	Lymphocyte depleted Hodgkin lymphoma, unspecified site	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C81.40	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
C81.70	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
C81.90	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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C82.00	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
C82.10	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
C82.20	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
C82.30	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C82.40	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
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
C82.50	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
C82.60	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
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
C82.80	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C82.90	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
C83.00	Small cell B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM
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
C83.10	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
C83.30	Diffuse large B-cell lymphoma, unspecified site	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
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
C83.70	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
C83.80	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
C83.88	Other non-follicular lymphoma, lymph nodes of multiple sites	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C83.89	Other non-follicular lymphoma, extranodal and solid organ sites	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
C84.00	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
C84.10	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
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
C84.40	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C84.60	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
C84.70	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
C84.90	Mature T/NK-cell lymphomas, unspecified, unspecified site	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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.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
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.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
C85.10	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 H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics 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
C85.20	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
C85.80	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
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
C85.90	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C88.2	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
C90.00	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
C90.10	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
C90.20	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
C90.30	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
C91.00	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
C91.10	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
C91.30	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
C91.40	Hairy cell leukemia not having achieved remission	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
C91.41	Hairy cell leukemia, in remission	Diagnosis	ICD-10-CM
C91.42	Hairy cell leukemia, in relapse	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
C91.60	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
C91.90	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.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.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
C92.00	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
C92.10	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
C92.20	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
C92.30	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
C92.40	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
C92.50	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
C92.60	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

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Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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.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.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
C93.00	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
C93.10	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
C93.30	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
C93.90	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.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
C94.00	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
C94.20	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
C94.30	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
C94.40	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
C94.80	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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
C95.10	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
C95.90	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
C96.20	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
C96.9	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
D00.00	Carcinoma in situ of oral cavity, unspecified site	Diagnosis	ICD-10-CM
D00.01	Carcinoma in situ of labial mucosa and vermilion border	Diagnosis	ICD-10-CM
D00.02	Carcinoma in situ of buccal mucosa	Diagnosis	ICD-10-CM
D00.03	Carcinoma in situ of gingiva and edentulous alveolar ridge	Diagnosis	ICD-10-CM
D00.04	Carcinoma in situ of soft palate	Diagnosis	ICD-10-CM
D00.05	Carcinoma in situ of hard palate	Diagnosis	ICD-10-CM
D00.06	Carcinoma in situ of floor of mouth	Diagnosis	ICD-10-CM
D00.07	Carcinoma in situ of tongue	Diagnosis	ICD-10-CM
D00.08	Carcinoma in situ of pharynx	Diagnosis	ICD-10-CM
D00.1	Carcinoma in situ of esophagus	Diagnosis	ICD-10-CM
D00.2	Carcinoma in situ of stomach	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
D01.3	Carcinoma in situ of anus and anal canal	Diagnosis	ICD-10-CM
D01.40	Carcinoma in situ of unspecified part of intestine	Diagnosis	ICD-10-CM
D01.49	Carcinoma in situ of other parts of intestine	Diagnosis	ICD-10-CM
D01.5	Carcinoma in situ of liver, gallbladder and bile ducts	Diagnosis	ICD-10-CM
D01.7	Carcinoma in situ of other specified digestive organs	Diagnosis	ICD-10-CM
D01.9	Carcinoma in situ of digestive organ, unspecified	Diagnosis	ICD-10-CM
D02.0	Carcinoma in situ of larynx	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D02.1	Carcinoma in situ of trachea	Diagnosis	ICD-10-CM
D02.3	Carcinoma in situ of other parts of respiratory system	Diagnosis	ICD-10-CM
D02.4	Carcinoma in situ of respiratory system, unspecified	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
D04.0	Carcinoma in situ of skin of lip	Diagnosis	ICD-10-CM
D04.10	Carcinoma in situ of skin of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
D04.11	Carcinoma in situ of skin of right eyelid, including canthus	Diagnosis	ICD-10-CM
D04.12	Carcinoma in situ of skin of left eyelid, including canthus	Diagnosis	ICD-10-CM
D04.20	Carcinoma in situ of skin of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
D04.21	Carcinoma in situ of skin of right ear and external auricular canal	Diagnosis	ICD-10-CM
D04.22	Carcinoma in situ of skin of left ear and external auricular canal	Diagnosis	ICD-10-CM
D04.30	Carcinoma in situ of skin of unspecified part of face	Diagnosis	ICD-10-CM
D04.39	Carcinoma in situ of skin of other parts of face	Diagnosis	ICD-10-CM
D04.4	Carcinoma in situ of skin of scalp and neck	Diagnosis	ICD-10-CM
D04.5	Carcinoma in situ of skin of trunk	Diagnosis	ICD-10-CM
D04.60	Carcinoma in situ of skin of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
D04.61	Carcinoma in situ of skin of right upper limb, including shoulder	Diagnosis	ICD-10-CM
D04.62	Carcinoma in situ of skin of left upper limb, including shoulder	Diagnosis	ICD-10-CM
D04.70	Carcinoma in situ of skin of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
D04.71	Carcinoma in situ of skin of right lower limb, including hip	Diagnosis	ICD-10-CM
D04.72	Carcinoma in situ of skin of left lower limb, including hip	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D04.8	Carcinoma in situ of skin of other sites	Diagnosis	ICD-10-CM
D04.9	Carcinoma in situ of skin, unspecified	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
D06.0	Carcinoma in situ of endocervix	Diagnosis	ICD-10-CM
D06.1	Carcinoma in situ of exocervix	Diagnosis	ICD-10-CM
D06.7	Carcinoma in situ of other parts of cervix	Diagnosis	ICD-10-CM
D06.9	Carcinoma in situ of cervix, unspecified	Diagnosis	ICD-10-CM
D07.0	Carcinoma in situ of endometrium	Diagnosis	ICD-10-CM
D07.1	Carcinoma in situ of vulva	Diagnosis	ICD-10-CM
D07.2	Carcinoma in situ of vagina	Diagnosis	ICD-10-CM
D07.30	Carcinoma in situ of unspecified female genital organs	Diagnosis	ICD-10-CM
D07.39	Carcinoma in situ of other female genital organs	Diagnosis	ICD-10-CM
D07.4	Carcinoma in situ of penis	Diagnosis	ICD-10-CM
D07.5	Carcinoma in situ of prostate	Diagnosis	ICD-10-CM
D07.60	Carcinoma in situ of unspecified male genital organs	Diagnosis	ICD-10-CM
D07.61	Carcinoma in situ of scrotum	Diagnosis	ICD-10-CM
D07.69	Carcinoma in situ of other male genital organs	Diagnosis	ICD-10-CM
D09.0	Carcinoma in situ of bladder	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
D09.20	Carcinoma in situ of unspecified eye	Diagnosis	ICD-10-CM
D09.21	Carcinoma in situ of right eye	Diagnosis	ICD-10-CM
D09.22	Carcinoma in situ of left eye	Diagnosis	ICD-10-CM
D09.3	Carcinoma in situ of thyroid and other endocrine glands	Diagnosis	ICD-10-CM
D09.8	Carcinoma in situ of other specified sites	Diagnosis	ICD-10-CM
D09.9	Carcinoma in situ, unspecified	Diagnosis	ICD-10-CM
D10.0	Benign neoplasm of lip	Diagnosis	ICD-10-CM
D10.1	Benign neoplasm of tongue	Diagnosis	ICD-10-CM
D10.2	Benign neoplasm of floor of mouth	Diagnosis	ICD-10-CM
D10.30	Benign neoplasm of unspecified part of mouth	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D10.39	Benign neoplasm of other parts of mouth	Diagnosis	ICD-10-CM
D10.4	Benign neoplasm of tonsil	Diagnosis	ICD-10-CM
D10.5	Benign neoplasm of other parts of oropharynx	Diagnosis	ICD-10-CM
D10.6	Benign neoplasm of nasopharynx	Diagnosis	ICD-10-CM
D10.7	Benign neoplasm of hypopharynx	Diagnosis	ICD-10-CM
D10.9	Benign neoplasm of pharynx, unspecified	Diagnosis	ICD-10-CM
D11.0	Benign neoplasm of parotid gland	Diagnosis	ICD-10-CM
D11.7	Benign neoplasm of other major salivary glands	Diagnosis	ICD-10-CM
D11.9	Benign neoplasm of major salivary gland, unspecified	Diagnosis	ICD-10-CM
D12.0	Benign neoplasm of cecum	Diagnosis	ICD-10-CM
D12.1	Benign neoplasm of appendix	Diagnosis	ICD-10-CM
D12.2	Benign neoplasm of ascending colon	Diagnosis	ICD-10-CM
D12.3	Benign neoplasm of transverse colon	Diagnosis	ICD-10-CM
D12.4	Benign neoplasm of descending colon	Diagnosis	ICD-10-CM
D12.5	Benign neoplasm of sigmoid colon	Diagnosis	ICD-10-CM
D12.6	Benign neoplasm of colon, unspecified	Diagnosis	ICD-10-CM
D12.7	Benign neoplasm of rectosigmoid junction	Diagnosis	ICD-10-CM
D12.8	Benign neoplasm of rectum	Diagnosis	ICD-10-CM
D12.9	Benign neoplasm of anus and anal canal	Diagnosis	ICD-10-CM
D13.0	Benign neoplasm of esophagus	Diagnosis	ICD-10-CM
D13.1	Benign neoplasm of stomach	Diagnosis	ICD-10-CM
D13.2	Benign neoplasm of duodenum	Diagnosis	ICD-10-CM
D13.30	Benign neoplasm of unspecified part of small intestine	Diagnosis	ICD-10-CM
D13.39	Benign neoplasm of other parts of small intestine	Diagnosis	ICD-10-CM
D13.4	Benign neoplasm of liver	Diagnosis	ICD-10-CM
D13.5	Benign neoplasm of extrahepatic bile ducts	Diagnosis	ICD-10-CM
D13.6	Benign neoplasm of pancreas	Diagnosis	ICD-10-CM
D13.7	Benign neoplasm of endocrine pancreas	Diagnosis	ICD-10-CM
D13.9	Benign neoplasm of ill-defined sites within the digestive system	Diagnosis	ICD-10-CM
D14.0	Benign neoplasm of middle ear, nasal cavity and accessory sinuses	Diagnosis	ICD-10-CM
D14.1	Benign neoplasm of larynx	Diagnosis	ICD-10-CM
D14.2	Benign neoplasm of trachea	Diagnosis	ICD-10-CM
D14.4	Benign neoplasm of respiratory system, unspecified	Diagnosis	ICD-10-CM
D15.0	Benign neoplasm of thymus	Diagnosis	ICD-10-CM
D15.1	Benign neoplasm of heart	Diagnosis	ICD-10-CM
D15.2	Benign neoplasm of mediastinum	Diagnosis	ICD-10-CM
D15.7	Benign neoplasm of other specified intrathoracic organs	Diagnosis	ICD-10-CM
D15.9	Benign neoplasm of intrathoracic organ, unspecified	Diagnosis	ICD-10-CM
D16.00	Benign neoplasm of scapula and long bones of unspecified upper limb	Diagnosis	ICD-10-CM
D16.01	Benign neoplasm of scapula and long bones of right upper limb	Diagnosis	ICD-10-CM
D16.02	Benign neoplasm of scapula and long bones of left upper limb	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D16.10	Benign neoplasm of short bones of unspecified upper limb	Diagnosis	ICD-10-CM
D16.11	Benign neoplasm of short bones of right upper limb	Diagnosis	ICD-10-CM
D16.12	Benign neoplasm of short bones of left upper limb	Diagnosis	ICD-10-CM
D16.20	Benign neoplasm of long bones of unspecified lower limb	Diagnosis	ICD-10-CM
D16.21	Benign neoplasm of long bones of right lower limb	Diagnosis	ICD-10-CM
D16.22	Benign neoplasm of long bones of left lower limb	Diagnosis	ICD-10-CM
D16.30	Benign neoplasm of short bones of unspecified lower limb	Diagnosis	ICD-10-CM
D16.31	Benign neoplasm of short bones of right lower limb	Diagnosis	ICD-10-CM
D16.32	Benign neoplasm of short bones of left lower limb	Diagnosis	ICD-10-CM
D16.4	Benign neoplasm of bones of skull and face	Diagnosis	ICD-10-CM
D16.5	Benign neoplasm of lower jaw bone	Diagnosis	ICD-10-CM
D16.6	Benign neoplasm of vertebral column	Diagnosis	ICD-10-CM
D16.7	Benign neoplasm of ribs, sternum and clavicle	Diagnosis	ICD-10-CM
D16.8	Benign neoplasm of pelvic bones, sacrum and coccyx	Diagnosis	ICD-10-CM
D16.9	Benign neoplasm of bone and articular cartilage, unspecified	Diagnosis	ICD-10-CM
D17.0	Benign lipomatous neoplasm of skin and subcutaneous tissue of head, face and neck	Diagnosis	ICD-10-CM
D17.1	Benign lipomatous neoplasm of skin and subcutaneous tissue of trunk	Diagnosis	ICD-10-CM
D17.20	Benign lipomatous neoplasm of skin and subcutaneous tissue of unspecified limb	Diagnosis	ICD-10-CM
D17.21	Benign lipomatous neoplasm of skin and subcutaneous tissue of right arm	Diagnosis	ICD-10-CM
D17.22	Benign lipomatous neoplasm of skin and subcutaneous tissue of left arm	Diagnosis	ICD-10-CM
D17.23	Benign lipomatous neoplasm of skin and subcutaneous tissue of right leg	Diagnosis	ICD-10-CM
D17.24	Benign lipomatous neoplasm of skin and subcutaneous tissue of left leg	Diagnosis	ICD-10-CM
D17.30	Benign lipomatous neoplasm of skin and subcutaneous tissue of unspecified sites	Diagnosis	ICD-10-CM
D17.39	Benign lipomatous neoplasm of skin and subcutaneous tissue of other sites	Diagnosis	ICD-10-CM
D17.4	Benign lipomatous neoplasm of intrathoracic organs	Diagnosis	ICD-10-CM
D17.5	Benign lipomatous neoplasm of intra-abdominal organs	Diagnosis	ICD-10-CM
D17.6	Benign lipomatous neoplasm of spermatic cord	Diagnosis	ICD-10-CM
D17.71	Benign lipomatous neoplasm of kidney	Diagnosis	ICD-10-CM
D17.72	Benign lipomatous neoplasm of other genitourinary organ	Diagnosis	ICD-10-CM
D17.79	Benign lipomatous neoplasm of other sites	Diagnosis	ICD-10-CM
D17.9	Benign lipomatous neoplasm, unspecified	Diagnosis	ICD-10-CM
D18.00	Hemangioma unspecified site	Diagnosis	ICD-10-CM
D18.01	Hemangioma of skin and subcutaneous tissue	Diagnosis	ICD-10-CM
D18.02	Hemangioma of intracranial structures	Diagnosis	ICD-10-CM
D18.03	Hemangioma of intra-abdominal structures	Diagnosis	ICD-10-CM
D18.09	Hemangioma of other sites	Diagnosis	ICD-10-CM
D18.1	Lymphangioma, any site	Diagnosis	ICD-10-CM
D19.7	Benign neoplasm of mesothelial tissue of other sites	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D19.9	Benign neoplasm of mesothelial tissue, unspecified	Diagnosis	ICD-10-CM
D20.0	Benign neoplasm of soft tissue of retroperitoneum	Diagnosis	ICD-10-CM
D20.1	Benign neoplasm of soft tissue of peritoneum	Diagnosis	ICD-10-CM
D21.0	Benign neoplasm of connective and other soft tissue of head, face and neck	Diagnosis	ICD-10-CM
D21.10	Benign neoplasm of connective and other soft tissue of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
D21.11	Benign neoplasm of connective and other soft tissue of right upper limb, including shoulder	Diagnosis	ICD-10-CM
D21.12	Benign neoplasm of connective and other soft tissue of left upper limb, including shoulder	Diagnosis	ICD-10-CM
D21.20	Benign neoplasm of connective and other soft tissue of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
D21.21	Benign neoplasm of connective and other soft tissue of right lower limb, including hip	Diagnosis	ICD-10-CM
D21.22	Benign neoplasm of connective and other soft tissue of left lower limb, including hip	Diagnosis	ICD-10-CM
D21.3	Benign neoplasm of connective and other soft tissue of thorax	Diagnosis	ICD-10-CM
D21.4	Benign neoplasm of connective and other soft tissue of abdomen	Diagnosis	ICD-10-CM
D21.5	Benign neoplasm of connective and other soft tissue of pelvis	Diagnosis	ICD-10-CM
D21.6	Benign neoplasm of connective and other soft tissue of trunk, unspecified	Diagnosis	ICD-10-CM
D21.9	Benign neoplasm of connective and other soft tissue, unspecified	Diagnosis	ICD-10-CM
D22.0	Melanocytic nevi of lip	Diagnosis	ICD-10-CM
D22.10	Melanocytic nevi of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
D22.11	Melanocytic nevi of right eyelid, including canthus	Diagnosis	ICD-10-CM
D22.12	Melanocytic nevi of left eyelid, including canthus	Diagnosis	ICD-10-CM
D22.20	Melanocytic nevi of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
D22.21	Melanocytic nevi of right ear and external auricular canal	Diagnosis	ICD-10-CM
D22.22	Melanocytic nevi of left ear and external auricular canal	Diagnosis	ICD-10-CM
D22.30	Melanocytic nevi of unspecified part of face	Diagnosis	ICD-10-CM
D22.39	Melanocytic nevi of other parts of face	Diagnosis	ICD-10-CM
D22.4	Melanocytic nevi of scalp and neck	Diagnosis	ICD-10-CM
D22.5	Melanocytic nevi of trunk	Diagnosis	ICD-10-CM
D22.60	Melanocytic nevi of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
D22.61	Melanocytic nevi of right upper limb, including shoulder	Diagnosis	ICD-10-CM
D22.62	Melanocytic nevi of left upper limb, including shoulder	Diagnosis	ICD-10-CM
D22.70	Melanocytic nevi of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
D22.71	Melanocytic nevi of right lower limb, including hip	Diagnosis	ICD-10-CM
D22.72	Melanocytic nevi of left lower limb, including hip	Diagnosis	ICD-10-CM
D22.9	Melanocytic nevi, unspecified	Diagnosis	ICD-10-CM
D23.0	Other benign neoplasm of skin of lip	Diagnosis	ICD-10-CM
D23.10	Other benign neoplasm of skin of unspecified eyelid, including canthus	Diagnosis	ICD-10-CM
D23.11	Other benign neoplasm of skin of right eyelid, including canthus	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D23.12	Other benign neoplasm of skin of left eyelid, including canthus	Diagnosis	ICD-10-CM
D23.20	Other benign neoplasm of skin of unspecified ear and external auricular canal	Diagnosis	ICD-10-CM
D23.21	Other benign neoplasm of skin of right ear and external auricular canal	Diagnosis	ICD-10-CM
D23.22	Other benign neoplasm of skin of left ear and external auricular canal	Diagnosis	ICD-10-CM
D23.30	Other benign neoplasm of skin of unspecified part of face	Diagnosis	ICD-10-CM
D23.39	Other benign neoplasm of skin of other parts of face	Diagnosis	ICD-10-CM
D23.4	Other benign neoplasm of skin of scalp and neck	Diagnosis	ICD-10-CM
D23.5	Other benign neoplasm of skin of trunk	Diagnosis	ICD-10-CM
D23.60	Other benign neoplasm of skin of unspecified upper limb, including shoulder	Diagnosis	ICD-10-CM
D23.61	Other benign neoplasm of skin of right upper limb, including shoulder	Diagnosis	ICD-10-CM
D23.62	Other benign neoplasm of skin of left upper limb, including shoulder	Diagnosis	ICD-10-CM
D23.70	Other benign neoplasm of skin of unspecified lower limb, including hip	Diagnosis	ICD-10-CM
D23.71	Other benign neoplasm of skin of right lower limb, including hip	Diagnosis	ICD-10-CM
D23.72	Other benign neoplasm of skin of left lower limb, including hip	Diagnosis	ICD-10-CM
D23.9	Other benign neoplasm of skin, unspecified	Diagnosis	ICD-10-CM
D24.1	Benign neoplasm of right breast	Diagnosis	ICD-10-CM
D24.2	Benign neoplasm of left breast	Diagnosis	ICD-10-CM
D24.9	Benign neoplasm of unspecified breast	Diagnosis	ICD-10-CM
D25.0	Submucous leiomyoma of uterus	Diagnosis	ICD-10-CM
D25.1	Intramural leiomyoma of uterus	Diagnosis	ICD-10-CM
D25.2	Subserosal leiomyoma of uterus	Diagnosis	ICD-10-CM
D25.9	Leiomyoma of uterus, unspecified	Diagnosis	ICD-10-CM
D26.0	Other benign neoplasm of cervix uteri	Diagnosis	ICD-10-CM
D26.1	Other benign neoplasm of corpus uteri	Diagnosis	ICD-10-CM
D26.7	Other benign neoplasm of other parts of uterus	Diagnosis	ICD-10-CM
D26.9	Other benign neoplasm of uterus, unspecified	Diagnosis	ICD-10-CM
D27.0	Benign neoplasm of right ovary	Diagnosis	ICD-10-CM
D27.1	Benign neoplasm of left ovary	Diagnosis	ICD-10-CM
D27.9	Benign neoplasm of unspecified ovary	Diagnosis	ICD-10-CM
D28.0	Benign neoplasm of vulva	Diagnosis	ICD-10-CM
D28.1	Benign neoplasm of vagina	Diagnosis	ICD-10-CM
D28.2	Benign neoplasm of uterine tubes and ligaments	Diagnosis	ICD-10-CM
D28.7	Benign neoplasm of other specified female genital organs	Diagnosis	ICD-10-CM
D28.9	Benign neoplasm of female genital organ, unspecified	Diagnosis	ICD-10-CM
D29.0	Benign neoplasm of penis	Diagnosis	ICD-10-CM
D29.1	Benign neoplasm of prostate	Diagnosis	ICD-10-CM
D29.20	Benign neoplasm of unspecified testis	Diagnosis	ICD-10-CM
D29.21	Benign neoplasm of right testis	Diagnosis	ICD-10-CM
D29.22	Benign neoplasm of left testis	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D29.30	Benign neoplasm of unspecified epididymis	Diagnosis	ICD-10-CM
D29.31	Benign neoplasm of right epididymis	Diagnosis	ICD-10-CM
D29.32	Benign neoplasm of left epididymis	Diagnosis	ICD-10-CM
D29.4	Benign neoplasm of scrotum	Diagnosis	ICD-10-CM
D29.8	Benign neoplasm of other specified male genital organs	Diagnosis	ICD-10-CM
D29.9	Benign neoplasm of male genital organ, unspecified	Diagnosis	ICD-10-CM
D30.00	Benign neoplasm of unspecified kidney	Diagnosis	ICD-10-CM
D30.01	Benign neoplasm of right kidney	Diagnosis	ICD-10-CM
D30.02	Benign neoplasm of left kidney	Diagnosis	ICD-10-CM
D30.10	Benign neoplasm of unspecified renal pelvis	Diagnosis	ICD-10-CM
D30.11	Benign neoplasm of right renal pelvis	Diagnosis	ICD-10-CM
D30.12	Benign neoplasm of left renal pelvis	Diagnosis	ICD-10-CM
D30.20	Benign neoplasm of unspecified ureter	Diagnosis	ICD-10-CM
D30.21	Benign neoplasm of right ureter	Diagnosis	ICD-10-CM
D30.22	Benign neoplasm of left ureter	Diagnosis	ICD-10-CM
D30.3	Benign neoplasm of bladder	Diagnosis	ICD-10-CM
D30.4	Benign neoplasm of urethra	Diagnosis	ICD-10-CM
D30.8	Benign neoplasm of other specified urinary organs	Diagnosis	ICD-10-CM
D30.9	Benign neoplasm of urinary organ, unspecified	Diagnosis	ICD-10-CM
D31.00	Benign neoplasm of unspecified conjunctiva	Diagnosis	ICD-10-CM
D31.01	Benign neoplasm of right conjunctiva	Diagnosis	ICD-10-CM
D31.02	Benign neoplasm of left conjunctiva	Diagnosis	ICD-10-CM
D31.10	Benign neoplasm of unspecified cornea	Diagnosis	ICD-10-CM
D31.11	Benign neoplasm of right cornea	Diagnosis	ICD-10-CM
D31.12	Benign neoplasm of left cornea	Diagnosis	ICD-10-CM
D31.20	Benign neoplasm of unspecified retina	Diagnosis	ICD-10-CM
D31.21	Benign neoplasm of right retina	Diagnosis	ICD-10-CM
D31.22	Benign neoplasm of left retina	Diagnosis	ICD-10-CM
D31.30	Benign neoplasm of unspecified choroid	Diagnosis	ICD-10-CM
D31.31	Benign neoplasm of right choroid	Diagnosis	ICD-10-CM
D31.32	Benign neoplasm of left choroid	Diagnosis	ICD-10-CM
D31.40	Benign neoplasm of unspecified ciliary body	Diagnosis	ICD-10-CM
D31.41	Benign neoplasm of right ciliary body	Diagnosis	ICD-10-CM
D31.42	Benign neoplasm of left ciliary body	Diagnosis	ICD-10-CM
D31.50	Benign neoplasm of unspecified lacrimal gland and duct	Diagnosis	ICD-10-CM
D31.51	Benign neoplasm of right lacrimal gland and duct	Diagnosis	ICD-10-CM
D31.52	Benign neoplasm of left lacrimal gland and duct	Diagnosis	ICD-10-CM
D31.60	Benign neoplasm of unspecified site of unspecified orbit	Diagnosis	ICD-10-CM
D31.61	Benign neoplasm of unspecified site of right orbit	Diagnosis	ICD-10-CM
D31.62	Benign neoplasm of unspecified site of left orbit	Diagnosis	ICD-10-CM
D31.90	Benign neoplasm of unspecified part of unspecified eye	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D31.91	Benign neoplasm of unspecified part of right eye	Diagnosis	ICD-10-CM
D31.92	Benign neoplasm of unspecified part of left eye	Diagnosis	ICD-10-CM
D32.0	Benign neoplasm of cerebral meninges	Diagnosis	ICD-10-CM
D32.1	Benign neoplasm of spinal meninges	Diagnosis	ICD-10-CM
D32.9	Benign neoplasm of meninges, unspecified	Diagnosis	ICD-10-CM
D33.0	Benign neoplasm of brain, supratentorial	Diagnosis	ICD-10-CM
D33.1	Benign neoplasm of brain, infratentorial	Diagnosis	ICD-10-CM
D33.2	Benign neoplasm of brain, unspecified	Diagnosis	ICD-10-CM
D33.3	Benign neoplasm of cranial nerves	Diagnosis	ICD-10-CM
D33.4	Benign neoplasm of spinal cord	Diagnosis	ICD-10-CM
D33.7	Benign neoplasm of other specified parts of central nervous system	Diagnosis	ICD-10-CM
D33.9	Benign neoplasm of central nervous system, unspecified	Diagnosis	ICD-10-CM
D34	Benign neoplasm of thyroid gland	Diagnosis	ICD-10-CM
D35.00	Benign neoplasm of unspecified adrenal gland	Diagnosis	ICD-10-CM
D35.01	Benign neoplasm of right adrenal gland	Diagnosis	ICD-10-CM
D35.02	Benign neoplasm of left adrenal gland	Diagnosis	ICD-10-CM
D35.1	Benign neoplasm of parathyroid gland	Diagnosis	ICD-10-CM
D35.2	Benign neoplasm of pituitary gland	Diagnosis	ICD-10-CM
D35.3	Benign neoplasm of craniopharyngeal duct	Diagnosis	ICD-10-CM
D35.4	Benign neoplasm of pineal gland	Diagnosis	ICD-10-CM
D35.5	Benign neoplasm of carotid body	Diagnosis	ICD-10-CM
D35.6	Benign neoplasm of aortic body and other paraganglia	Diagnosis	ICD-10-CM
D35.7	Benign neoplasm of other specified endocrine glands	Diagnosis	ICD-10-CM
D35.9	Benign neoplasm of endocrine gland, unspecified	Diagnosis	ICD-10-CM
D36.0	Benign neoplasm of lymph nodes	Diagnosis	ICD-10-CM
D36.10	Benign neoplasm of peripheral nerves and autonomic nervous system, unspecified	Diagnosis	ICD-10-CM
D36.11	Benign neoplasm of peripheral nerves and autonomic nervous system of face, head, and neck	Diagnosis	ICD-10-CM
D36.12	Benign neoplasm of peripheral nerves and autonomic nervous system, upper limb, including shoulder	Diagnosis	ICD-10-CM
D36.13	Benign neoplasm of peripheral nerves and autonomic nervous system of lower limb, including hip	Diagnosis	ICD-10-CM
D36.14	Benign neoplasm of peripheral nerves and autonomic nervous system of thorax	Diagnosis	ICD-10-CM
D36.15	Benign neoplasm of peripheral nerves and autonomic nervous system of abdomen	Diagnosis	ICD-10-CM
D36.16	Benign neoplasm of peripheral nerves and autonomic nervous system of pelvis	Diagnosis	ICD-10-CM
D36.17	Benign neoplasm of peripheral nerves and autonomic nervous system of trunk, unspecified	Diagnosis	ICD-10-CM
D36.7	Benign neoplasm of other specified sites	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D36.9	Benign neoplasm, unspecified site	Diagnosis	ICD-10-CM
D37.01	Neoplasm of uncertain behavior of lip	Diagnosis	ICD-10-CM
D37.02	Neoplasm of uncertain behavior of tongue	Diagnosis	ICD-10-CM
D37.030	Neoplasm of uncertain behavior of the parotid salivary glands	Diagnosis	ICD-10-CM
D37.031	Neoplasm of uncertain behavior of the sublingual salivary glands	Diagnosis	ICD-10-CM
D37.032	Neoplasm of uncertain behavior of the submandibular salivary glands	Diagnosis	ICD-10-CM
D37.039	Neoplasm of uncertain behavior of the major salivary glands, unspecified	Diagnosis	ICD-10-CM
D37.04	Neoplasm of uncertain behavior of the minor salivary glands	Diagnosis	ICD-10-CM
D37.05	Neoplasm of uncertain behavior of pharynx	Diagnosis	ICD-10-CM
D37.09	Neoplasm of uncertain behavior of other specified sites of the oral cavity	Diagnosis	ICD-10-CM
D37.1	Neoplasm of uncertain behavior of stomach	Diagnosis	ICD-10-CM
D37.2	Neoplasm of uncertain behavior of small intestine	Diagnosis	ICD-10-CM
D37.3	Neoplasm of uncertain behavior of appendix	Diagnosis	ICD-10-CM
D37.4	Neoplasm of uncertain behavior of colon	Diagnosis	ICD-10-CM
D37.5	Neoplasm of uncertain behavior of rectum	Diagnosis	ICD-10-CM
D37.6	Neoplasm of uncertain behavior of liver, gallbladder and bile ducts	Diagnosis	ICD-10-CM
D37.8	Neoplasm of uncertain behavior of other specified digestive organs	Diagnosis	ICD-10-CM
D37.9	Neoplasm of uncertain behavior of digestive organ, unspecified	Diagnosis	ICD-10-CM
D38.0	Neoplasm of uncertain behavior of larynx	Diagnosis	ICD-10-CM
D38.2	Neoplasm of uncertain behavior of pleura	Diagnosis	ICD-10-CM
D38.3	Neoplasm of uncertain behavior of mediastinum	Diagnosis	ICD-10-CM
D38.4	Neoplasm of uncertain behavior of thymus	Diagnosis	ICD-10-CM
D38.5	Neoplasm of uncertain behavior of other respiratory organs	Diagnosis	ICD-10-CM
D38.6	Neoplasm of uncertain behavior of respiratory organ, unspecified	Diagnosis	ICD-10-CM
D39.0	Neoplasm of uncertain behavior of uterus	Diagnosis	ICD-10-CM
D39.10	Neoplasm of uncertain behavior of unspecified ovary	Diagnosis	ICD-10-CM
D39.11	Neoplasm of uncertain behavior of right ovary	Diagnosis	ICD-10-CM
D39.12	Neoplasm of uncertain behavior of left ovary	Diagnosis	ICD-10-CM
D39.2	Neoplasm of uncertain behavior of placenta	Diagnosis	ICD-10-CM
D39.8	Neoplasm of uncertain behavior of other specified female genital organs	Diagnosis	ICD-10-CM
D39.9	Neoplasm of uncertain behavior of female genital organ, unspecified	Diagnosis	ICD-10-CM
D3A.00	Benign carcinoid tumor of unspecified site	Diagnosis	ICD-10-CM
D3A.010	Benign carcinoid tumor of the duodenum	Diagnosis	ICD-10-CM
D3A.011	Benign carcinoid tumor of the jejunum	Diagnosis	ICD-10-CM
D3A.012	Benign carcinoid tumor of the ileum	Diagnosis	ICD-10-CM
D3A.019	Benign carcinoid tumor of the small intestine, unspecified portion	Diagnosis	ICD-10-CM
D3A.020	Benign carcinoid tumor of the appendix	Diagnosis	ICD-10-CM
D3A.021	Benign carcinoid tumor of the cecum	Diagnosis	ICD-10-CM
D3A.022	Benign carcinoid tumor of the ascending colon	Diagnosis	ICD-10-CM
D3A.023	Benign carcinoid tumor of the transverse colon	Diagnosis	ICD-10-CM
D3A.024	Benign carcinoid tumor of the descending colon	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D3A.025	Benign carcinoid tumor of the sigmoid colon	Diagnosis	ICD-10-CM
D3A.026	Benign carcinoid tumor of the rectum	Diagnosis	ICD-10-CM
D3A.029	Benign carcinoid tumor of the large intestine, unspecified portion	Diagnosis	ICD-10-CM
D3A.091	Benign carcinoid tumor of the thymus	Diagnosis	ICD-10-CM
D3A.092	Benign carcinoid tumor of the stomach	Diagnosis	ICD-10-CM
D3A.093	Benign carcinoid tumor of the kidney	Diagnosis	ICD-10-CM
D3A.094	Benign carcinoid tumor of the foregut, unspecified	Diagnosis	ICD-10-CM
D3A.095	Benign carcinoid tumor of the midgut, unspecified	Diagnosis	ICD-10-CM
D3A.096	Benign carcinoid tumor of the hindgut, unspecified	Diagnosis	ICD-10-CM
D3A.098	Benign carcinoid tumors of other sites	Diagnosis	ICD-10-CM
D3A.8	Other benign neuroendocrine tumors	Diagnosis	ICD-10-CM
D40.0	Neoplasm of uncertain behavior of prostate	Diagnosis	ICD-10-CM
D40.10	Neoplasm of uncertain behavior of unspecified testis	Diagnosis	ICD-10-CM
D40.11	Neoplasm of uncertain behavior of right testis	Diagnosis	ICD-10-CM
D40.12	Neoplasm of uncertain behavior of left testis	Diagnosis	ICD-10-CM
D40.8	Neoplasm of uncertain behavior of other specified male genital organs	Diagnosis	ICD-10-CM
D40.9	Neoplasm of uncertain behavior of male genital organ, unspecified	Diagnosis	ICD-10-CM
D41.00	Neoplasm of uncertain behavior of unspecified kidney	Diagnosis	ICD-10-CM
D41.01	Neoplasm of uncertain behavior of right kidney	Diagnosis	ICD-10-CM
D41.02	Neoplasm of uncertain behavior of left kidney	Diagnosis	ICD-10-CM
D41.10	Neoplasm of uncertain behavior of unspecified renal pelvis	Diagnosis	ICD-10-CM
D41.11	Neoplasm of uncertain behavior of right renal pelvis	Diagnosis	ICD-10-CM
D41.12	Neoplasm of uncertain behavior of left renal pelvis	Diagnosis	ICD-10-CM
D41.20	Neoplasm of uncertain behavior of unspecified ureter	Diagnosis	ICD-10-CM
D41.21	Neoplasm of uncertain behavior of right ureter	Diagnosis	ICD-10-CM
D41.22	Neoplasm of uncertain behavior of left ureter	Diagnosis	ICD-10-CM
D41.3	Neoplasm of uncertain behavior of urethra	Diagnosis	ICD-10-CM
D41.4	Neoplasm of uncertain behavior of bladder	Diagnosis	ICD-10-CM
D41.8	Neoplasm of uncertain behavior of other specified urinary organs	Diagnosis	ICD-10-CM
D41.9	Neoplasm of uncertain behavior of unspecified urinary organ	Diagnosis	ICD-10-CM
D42.0	Neoplasm of uncertain behavior of cerebral meninges	Diagnosis	ICD-10-CM
D42.1	Neoplasm of uncertain behavior of spinal meninges	Diagnosis	ICD-10-CM
D42.9	Neoplasm of uncertain behavior of meninges, unspecified	Diagnosis	ICD-10-CM
D43.0	Neoplasm of uncertain behavior of brain, supratentorial	Diagnosis	ICD-10-CM
D43.1	Neoplasm of uncertain behavior of brain, infratentorial	Diagnosis	ICD-10-CM
D43.2	Neoplasm of uncertain behavior of brain, unspecified	Diagnosis	ICD-10-CM
D43.3	Neoplasm of uncertain behavior of cranial nerves	Diagnosis	ICD-10-CM
D43.4	Neoplasm of uncertain behavior of spinal cord	Diagnosis	ICD-10-CM
D43.8	Neoplasm of uncertain behavior of other specified parts of central nervous system	Diagnosis	ICD-10-CM
D43.9	Neoplasm of uncertain behavior of central nervous system, unspecified	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D44.0	Neoplasm of uncertain behavior of thyroid gland	Diagnosis	ICD-10-CM
D44.10	Neoplasm of uncertain behavior of unspecified adrenal gland	Diagnosis	ICD-10-CM
D44.11	Neoplasm of uncertain behavior of right adrenal gland	Diagnosis	ICD-10-CM
D44.12	Neoplasm of uncertain behavior of left adrenal gland	Diagnosis	ICD-10-CM
D44.2	Neoplasm of uncertain behavior of parathyroid gland	Diagnosis	ICD-10-CM
D44.3	Neoplasm of uncertain behavior of pituitary gland	Diagnosis	ICD-10-CM
D44.4	Neoplasm of uncertain behavior of craniopharyngeal duct	Diagnosis	ICD-10-CM
D44.5	Neoplasm of uncertain behavior of pineal gland	Diagnosis	ICD-10-CM
D44.6	Neoplasm of uncertain behavior of carotid body	Diagnosis	ICD-10-CM
D44.7	Neoplasm of uncertain behavior of aortic body and other paraganglia	Diagnosis	ICD-10-CM
D44.9	Neoplasm of uncertain behavior of unspecified endocrine gland	Diagnosis	ICD-10-CM
D45	Polycythemia vera	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
D47.01	Cutaneous mastocytosis	Diagnosis	ICD-10-CM
D47.02	Systemic mastocytosis	Diagnosis	ICD-10-CM
D47.09	Other mast cell neoplasms of uncertain behavior	Diagnosis	ICD-10-CM
D47.1	Chronic myeloproliferative disease	Diagnosis	ICD-10-CM
D47.3	Essential (hemorrhagic) thrombocythemia	Diagnosis	ICD-10-CM
D47.9	Neoplasm of uncertain behavior of lymphoid, hematopoietic and related tissue, unspecified	Diagnosis	ICD-10-CM
D47.Z1	Post-transplant lymphoproliferative disorder (PTLD)	Diagnosis	ICD-10-CM
D47.Z2	Castleman disease	Diagnosis	ICD-10-CM
D47.Z9	Other specified neoplasms of uncertain behavior of lymphoid, hematopoietic and related tissue	Diagnosis	ICD-10-CM
D48.0	Neoplasm of uncertain behavior of bone and articular cartilage	Diagnosis	ICD-10-CM
D48.1	Neoplasm of uncertain behavior of connective and other soft tissue	Diagnosis	ICD-10-CM
D48.2	Neoplasm of uncertain behavior of peripheral nerves and autonomic nervous system	Diagnosis	ICD-10-CM
D48.3	Neoplasm of uncertain behavior of retroperitoneum	Diagnosis	ICD-10-CM
D48.4	Neoplasm of uncertain behavior of peritoneum	Diagnosis	ICD-10-CM
D48.5	Neoplasm of uncertain behavior of skin	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
D48.60	Neoplasm of uncertain behavior of unspecified breast	Diagnosis	ICD-10-CM
D48.61	Neoplasm of uncertain behavior of right breast	Diagnosis	ICD-10-CM
D48.62	Neoplasm of uncertain behavior of left breast	Diagnosis	ICD-10-CM
D48.7	Neoplasm of uncertain behavior of other specified sites	Diagnosis	ICD-10-CM
D48.9	Neoplasm of uncertain behavior, unspecified	Diagnosis	ICD-10-CM
D49.0	Neoplasm of unspecified behavior of digestive system	Diagnosis	ICD-10-CM
D49.1	Neoplasm of unspecified behavior of respiratory system	Diagnosis	ICD-10-CM
D49.2	Neoplasm of unspecified behavior of bone, soft tissue, and skin	Diagnosis	ICD-10-CM
D49.3	Neoplasm of unspecified behavior of breast	Diagnosis	ICD-10-CM
D49.4	Neoplasm of unspecified behavior of bladder	Diagnosis	ICD-10-CM
D49.511	Neoplasm of unspecified behavior of right kidney	Diagnosis	ICD-10-CM
D49.512	Neoplasm of unspecified behavior of left kidney	Diagnosis	ICD-10-CM
D49.519	Neoplasm of unspecified behavior of unspecified kidney	Diagnosis	ICD-10-CM
D49.59	Neoplasm of unspecified behavior of other genitourinary organ	Diagnosis	ICD-10-CM
D49.6	Neoplasm of unspecified behavior of brain	Diagnosis	ICD-10-CM
D49.7	Neoplasm of unspecified behavior of endocrine glands and other parts of nervous system	Diagnosis	ICD-10-CM
D49.81	Neoplasm of unspecified behavior of retina and choroid	Diagnosis	ICD-10-CM
D49.89	Neoplasm of unspecified behavior of other specified sites	Diagnosis	ICD-10-CM
D49.9	Neoplasm of unspecified behavior of unspecified site	Diagnosis	ICD-10-CM
H47.42	Disorders of optic chiasm in (due to) neoplasm	Diagnosis	ICD-10-CM
H47.49	Disorders of optic chiasm in (due to) other disorders	Diagnosis	ICD-10-CM
H47.521	Disorders of visual pathways in (due to) neoplasm, right side	Diagnosis	ICD-10-CM
H47.522	Disorders of visual pathways in (due to) neoplasm, left side	Diagnosis	ICD-10-CM
H47.529	Disorders of visual pathways in (due to) neoplasm, unspecified side	Diagnosis	ICD-10-CM
H47.631	Disorders of visual cortex in (due to) neoplasm, right side of brain	Diagnosis	ICD-10-CM
H47.632	Disorders of visual cortex in (due to) neoplasm, left side of brain	Diagnosis	ICD-10-CM
H47.639	Disorders of visual cortex in (due to) neoplasm, unspecified side of brain	Diagnosis	ICD-10-CM
K31.7	Polyp of stomach and duodenum	Diagnosis	ICD-10-CM
K63.5	Polyp of colon	Diagnosis	ICD-10-CM
Q85.00	Neurofibromatosis, unspecified	Diagnosis	ICD-10-CM
Q85.01	Neurofibromatosis, type 1	Diagnosis	ICD-10-CM
Q85.02	Neurofibromatosis, type 2	Diagnosis	ICD-10-CM
Q85.03	Schwannomatosis	Diagnosis	ICD-10-CM
Q85.09	Other neurofibromatosis	Diagnosis	ICD-10-CM
	Pneumonia		
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
J15.6	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

Sentinel

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
	Pulmonary Embolism		
I26.01	Septic pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.09	Other pulmonary embolism with acute cor pulmonale	Diagnosis	ICD-10-CM
I26.90	Septic pulmonary embolism without acute cor pulmonale	Diagnosis	ICD-10-CM
I26.99	Other pulmonary embolism without acute cor pulmonale	Diagnosis	ICD-10-CM
T80.0XXA	Air embolism following infusion, transfusion and therapeutic injection, initial encounter	Diagnosis	ICD-10-CM
T81.718A	Complication of other artery following a procedure, not elsewhere classified, initial encounter	Diagnosis	ICD-10-CM
T81.72XA	Complication of vein following a procedure, not elsewhere classified, initial encounter	Diagnosis	ICD-10-CM
T82.817A	Embolism due to cardiac prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
T82.818A	Embolism due to vascular prosthetic devices, implants and grafts, initial encounter	Diagnosis	ICD-10-CM
	Pulmonary Hypertension		
I27.0	Primary pulmonary hypertension	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
I27.83	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
	Influenza Vaccination		
G0008	Administration of influenza virus vaccine	Procedure	HCPCS
G8482	Influenza immunization administered or previously received	Procedure	HCPCS
G8636	Influenza immunization administered or previously received	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 infuenza 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

Sentinel

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

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
4037F	Influenza immunization ordered or administered (COPD, PV, CKD, ESRD)(IBD)	Procedure	CPT-2
4274F	Influenza immunization administered or previously received (HIV) (P-ESRD)	Procedure	CPT-2
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
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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
90756	Influenza virus vaccine, quadrivalent (ccIIV4), derived from cell cultures, subunit, antibiotic free, 0.5mL dosage, for intramuscular use	Procedure	CPT-4
	Oxygen Therapy or Supplemental Oxygen Use		
93.96	Other oxygen enrichment	Procedure	ICD-9-CM
Z99.81	Dependence on supplemental oxygen	Diagnosis	ICD-10-CM
3E0F7GC	Introduction of Other Therapeutic Substance into Respiratory Tract, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
E0433	Portable liquid oxygen system, rental; home liquefier used to fill portable liquid oxygen containers, includes portable containers, regulator, flowmeter, humidifier, cannula or mask and tubing, with or without supply reservoir and contents gauge	Procedure	HCPCS
E0434	Portable liquid oxygen system, rental; includes portable container, supply reservoir, humidifier, flowmeter, refill adaptor, contents gauge, cannula or mask, and tubing	Procedure	HCPCS
E0441	Stationary oxygen contents, gaseous, 1 month's supply = 1 unit	Procedure	HCPCS
E0442	Stationary oxygen contents, liquid, 1 month's supply = 1 unit	Procedure	HCPCS
E0443	Portable oxygen contents, gaseous, 1 month's supply = 1 unit	Procedure	HCPCS
E0444	Portable oxygen contents, liquid, 1 month's supply = 1 unit	Procedure	HCPCS
E1392	Portable oxygen concentrator, rental	Procedure	HCPCS
K0738	Portable gaseous oxygen system, rental; home compressor used to fill portable oxygen cylinders; includes portable containers, regulator, flowmeter, humidifier, cannula or mask, and tubing	Procedure	HCPCS
94640	Pressurized or nonpressurized inhalation treatment for acute airway obstruction or for sputum induction for diagnostic purposes (eg, with an aerosol generator, nebulizer, metered dose inhaler or intermittent positive pressure breathing [IPPB] device)	Procedure	CPT-4

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
94644	Continuous inhalation treatment with aerosol medication for acute airway obstruction; first hour	Procedure	CPT-4
94645	Continuous inhalation treatment with aerosol medication for acute airway obstruction; each additional hour (List separately in addition to code for primary procedure)	Procedure	CPT-4
	Respiratory Failure		
J80	Acute respiratory distress syndrome	Diagnosis	ICD-10-CM
J96.0	Acute respiratory failure	Diagnosis	ICD-10-CM
J96.00	Acute respiratory failure, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
J96.01	Acute respiratory failure with hypoxia	Diagnosis	ICD-10-CM
J96.02	Acute respiratory failure with hypercapnia	Diagnosis	ICD-10-CM
J96.20	Acute and chronic respiratory failure, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
J96.21	Acute and chronic respiratory failure with hypoxia	Diagnosis	ICD-10-CM
J96.22	Acute and chronic respiratory failure with hypercapnia	Diagnosis	ICD-10-CM
J96.90	Respiratory failure, unspecified, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
J96.91	Respiratory failure, unspecified with hypoxia	Diagnosis	ICD-10-CM
J96.92	Respiratory failure, unspecified with hypercapnia	Diagnosis	ICD-10-CM
R09.2	Respiratory arrest	Diagnosis	ICD-10-CM
	Intubation		
96.04	Insertion of endotracheal tube	Procedure	ICD-9-CM
96.05	Other intubation of respiratory tract	Procedure	ICD-9-CM
0BH13EZ	Insertion of Endotracheal Airway into Trachea, Percutaneous Approach	Procedure	ICD-10-PCS
0BH172Z	Insertion of Monitoring Device into Trachea, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0BH17DZ	Insertion of Intraluminal Device into Trachea, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0BH17EZ	Insertion of Endotracheal Airway into Trachea, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0BH17YZ	Insertion of Other Device into Trachea, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0BH182Z	Insertion of Monitoring Device into Trachea, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0BH18DZ	Insertion of Intraluminal Device into Trachea, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0BH18EZ	Insertion of Endotracheal Airway into Trachea, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0BH18YZ	Insertion of Other Device into Trachea, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
0WHQ73Z	Insertion of Infusion Device into Respiratory Tract, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
0WHQ7YZ	Insertion of Other Device into Respiratory Tract, Via Natural or Artificial Opening	Procedure	ICD-10-PCS

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
G8164	Patient with isolated coronary artery bypass graft documented to have prolonged intubation	Procedure	HCPCS
G8569	Prolonged postoperative intubation (> 24 hrs) required	Procedure	HCPCS
31500	Intubation, endotracheal, emergency procedure	Procedure	CPT-4
	Mechanical Ventilation		
93.91	Intermittent positive pressure breathing (IPPB)	Procedure	ICD-9-CM
96.70	Continuous invasive mechanical ventilation of unspecified duration	Procedure	ICD-9-CM
96.71	Continuous invasive mechanical ventilation for less than 96 consecutive hours	Procedure	ICD-9-CM
96.72	Continuous invasive mechanical ventilation for 96 consecutive hours or more	Procedure	ICD-9-CM
5A09358	Assistance with Respiratory Ventilation, Less than 24 Consecutive Hours, Intermittent Positive Airway Pressure	Procedure	ICD-10-PCS
5A09359	Assistance with Respiratory Ventilation, Less than 24 Consecutive Hours, Continuous Negative Airway Pressure	Procedure	ICD-10-PCS
5A0935B	Assistance with Respiratory Ventilation, Less than 24 Consecutive Hours, Intermittent Negative Airway Pressure	Procedure	ICD-10-PCS
5A0935Z	Assistance with Respiratory Ventilation, Less than 24 Consecutive Hours	Procedure	ICD-10-PCS
5A09458	Assistance with Respiratory Ventilation, 24-96 Consecutive Hours, Intermittent Positive Airway Pressure	Procedure	ICD-10-PCS
5A09459	Assistance with Respiratory Ventilation, 24-96 Consecutive Hours, Continuous Negative Airway Pressure	Procedure	ICD-10-PCS
5A0945B	Assistance with Respiratory Ventilation, 24-96 Consecutive Hours, Intermittent Negative Airway Pressure	Procedure	ICD-10-PCS
5A0945Z	Assistance with Respiratory Ventilation, 24-96 Consecutive Hours	Procedure	ICD-10-PCS
5A09558	Assistance with Respiratory Ventilation, Greater than 96 Consecutive Hours, Intermittent Positive Airway Pressure	Procedure	ICD-10-PCS
5A09559	Assistance with Respiratory Ventilation, Greater than 96 Consecutive Hours, Continuous Negative Airway Pressure	Procedure	ICD-10-PCS
5A0955B	Assistance with Respiratory Ventilation, Greater than 96 Consecutive Hours, Intermittent Negative Airway Pressure	Procedure	ICD-10-PCS
5A0955Z	Assistance with Respiratory Ventilation, Greater than 96 Consecutive Hours	Procedure	ICD-10-PCS
5A1935Z	Respiratory Ventilation, Less than 24 Consecutive Hours	Procedure	ICD-10-PCS
5A1945Z	Respiratory Ventilation, 24-96 Consecutive Hours	Procedure	ICD-10-PCS
5A1955Z	Respiratory Ventilation, Greater than 96 Consecutive Hours	Procedure	ICD-10-PCS
A4483	Moisture exchanger, disposable, for use with invasive mechanical ventilation	Procedure	HCPCS
94002	ventilation assist and management, initiation of pressure or volume preset ventilators for assisted or controlled breathing; hospital inpatient/observation, initial day	Procedure	CPT-4
94003	ventilation assist and management, initiation of pressure or volume preset ventilators for assisted or controlled breathing; hospital inpatient/observation, each subsequent day	Procedure	CPT-4

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
94004	Ventilation assist and management, initiation of pressure or volume preset ventilators for assisted or controlled breathing; nursing facility, per day	Procedure	CPT-4
94656	ventilation assist and management, initiation of pressure or volume preset ventilator for assisted or controlled breathing: first day	Procedure	CPT-4
94657	ventilation assist and management, initiation of pressure or volume preset ventilator for assisted or controlled breathing: subsequent days	Procedure	CPT-4
94662	continuous negative pressure ventilator	Procedure	CPT-4
99440	Newborn resuscitation: provision of positive pressure ventilation and/or chest compressions in the presence of acute inadequate ventilation and/or cardiac output	Procedure	CPT-4
4168F	Patient receiving care in the intensive care unit (ICU) and receiving mechanical ventilation, 24 hours or less (CRIT)	Procedure	CPT-4
	Smoking		
F17	Nicotine dependence	Diagnosis	ICD-10-CM
F17.2	Nicotine dependence	Diagnosis	ICD-10-CM
F17.20	Nicotine dependence, unspecified	Diagnosis	ICD-10-CM
F17.200	Nicotine dependence, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F17.201	Nicotine dependence, unspecified, in remission	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
F17.21	Nicotine dependence, cigarettes	Diagnosis	ICD-10-CM
F17.210	Nicotine dependence, cigarettes, uncomplicated	Diagnosis	ICD-10-CM
F17.211	Nicotine dependence, cigarettes, in remission	Diagnosis	ICD-10-CM
F17.213	Nicotine dependence, cigarettes, with withdrawal	Diagnosis	ICD-10-CM
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
F17.290	Nicotine dependence, other tobacco product, uncomplicated	Diagnosis	ICD-10-CM
F17.291	Nicotine dependence, other tobacco product, in remission	Diagnosis	ICD-10-CM
O99.33	Tobacco use disorder complicating pregnancy, childbirth, and the puerperium	Diagnosis	ICD-10-CM
O99.330	Smoking (tobacco) complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.331	Smoking (tobacco) complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.332	Smoking (tobacco) complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.333	Smoking (tobacco) complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.334	Smoking (tobacco) complicating childbirth	Diagnosis	ICD-10-CM
O99.335	Smoking (tobacco) complicating the puerperium	Diagnosis	ICD-10-CM
T65.221A	Toxic effect of tobacco cigarettes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.222A	Toxic effect of tobacco cigarettes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
T65.223A	Toxic effect of tobacco cigarettes, assault, initial encounter	Diagnosis	ICD-10-CM
T65.224A	Toxic effect of tobacco cigarettes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.291A	Toxic effect of other tobacco and nicotine, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.292A	Toxic effect of other tobacco and nicotine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.293A	Toxic effect of other tobacco and nicotine, assault, initial encounter	Diagnosis	ICD-10-CM
T65.294A	Toxic effect of other tobacco and nicotine, undetermined, initial encounter	Diagnosis	ICD-10-CM
Z72.0	Tobacco use	Diagnosis	ICD-10-CM
Z87.891	Personal history of nicotine dependence	Diagnosis	ICD-10-CM
C9801	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes	Procedure	HCPCS
C9802	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes	Procedure	HCPCS
D1320	tobacco counseling for the control and prevention of oral disease	Procedure	HCPCS
G0375	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes	Procedure	HCPCS
G0376	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes	Procedure	HCPCS
G0436	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes	Procedure	HCPCS
G0437	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes	Procedure	HCPCS
G8093	Newly diagnosed chronic obstructive pulmonary disease (COPD) patient documented to have received smoking cessation intervention, within 3 months of diagnosis	Procedure	HCPCS
G8094	Newly diagnosed chronic obstructive pulmonary disease (COPD) patient not documented to have received smoking cessation intervention, within 3 months of diagnosis	Procedure	HCPCS
G8402	Tobacco (smoke) use cessation intervention, counseling	Procedure	HCPCS
G8403	Tobacco (smoke) use cessation intervention not counseled	Procedure	HCPCS
G8453	Tobacco use cessation intervention, counseling	Procedure	HCPCS
G8454	Tobacco use cessation intervention not counseled, reason not specified	Procedure	HCPCS
G8455	Current tobacco smoker	Procedure	HCPCS
G8690	Current tobacco smoker or current exposure to secondhand smoke	Procedure	HCPCS
G9016	Smoking cessation counseling, individual, in the absence of or in addition to any other evaluation and management service, per session (6-10 minutes) [demo project code only]	Procedure	HCPCS
G9276	Documentation that patient is a current tobacco user	Procedure	HCPCS

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Code	Description	Code Category	Code Type
G9458	Patient documented as tobacco user and received tobacco cessation intervention (must include at least one of the following: advice given to quit smoking or tobacco use, counseling on the benefits of quitting smoking or tobacco use, assistance with or referral to external smoking or tobacco cessation support programs, or current enrollment in smoking or tobacco use cessation program) if identified as a tobacco user	Procedure	HCPCS
S4990	Nicotine patches, legend	Procedure	HCPCS
S4991	Nicotine patches, non-legend	Procedure	HCPCS
S4995	Smoking cessation gum	Procedure	HCPCS
S9075	Smoking cessation treatment	Procedure	HCPCS
S9453	Smoking cessation classes, non-physician provider, per session	Procedure	HCPCS
1034F	Current tobacco smoker (CAD, CAP, COPD, PV) (DM)	Procedure	CPT-2
4000F	Tobacco use cessation intervention, counseling (COPD, CAP, CAD, Asthma) (DM) (PV)	Procedure	CPT-2
4001F	Tobacco use cessation intervention, pharmacologic therapy (COPD, CAD, CAP, PV, Asthma) (DM) (PV)	Procedure	CPT-2
4004F	Patient screened for tobacco use and received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (PV, CAD)	Procedure	CPT-2
83887	Nicotine	Procedure	CPT-4
99406	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes	Procedure	CPT-4
99407	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes	Procedure	CPT-4
	Pneumococcal Vaccination		
G0009	Administration of pneumococcal vaccine	Procedure	HCPCS
G8864	Pneumococcal vaccine administered or previously received	Procedure	HCPCS
4040F	Pneumococcal vaccine administered or previously received (COPD) (PV), (IBD)	Procedure	CPT-2
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
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
	Screening for Breast Cancer (Mammogram)		
Z12.31	Encounter for screening mammogram for malignant neoplasm of breast	Diagnosis	ICD-10-CM
76083	Computer aided detection (computer algorithm analysis of digital image data for lesion detection) with further physician review for interpretation, with or without digitization of film radiographic images; screening mammography (List separately in addition to code for primary procedure)	Procedure	CPT-4
76085	Digitization of film radiographic images with computer analysis for lesion detection and further physician review for interpretation, mammography (List separately in addition to code for primary procedure)	Procedure	CPT-4

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Code	Description	Code Category	Code Type
76092	Screening mammography, bilateral (two view film study of each breast)	Procedure	CPT-4
77052	Computer-aided detection (computer algorithm analysis of digital image data for lesion detection) with further review for interpretation, with or without digitization of film radiographic images; screening mammography (List separately in addition to code for primary procedure)	Procedure	CPT-4
77057	Screening mammography, bilateral (2-view study of each breast)	Procedure	CPT-4
77063	Screening digital breast tomosynthesis, bilateral (List separately in addition to code for primary procedure)	Procedure	CPT-4
77067	Screening mammography, bilateral (2-view study of each breast), including computer-aided detection (CAD) when performed	Procedure	CPT-4
	Screening for Cervical Cancer (Pap Smear)		
91.46	Cell block and Papanicolaou smear of specimen from female genital tract	Procedure	ICD-9-CM
Z01.42	Encounter for cervical smear to confirm findings of recent normal smear following initial abnormal smear	Diagnosis	ICD-10-CM
Z12.4	Encounter for screening for malignant neoplasm of cervix	Diagnosis	ICD-10-CM
G0101	Cervical or vaginal cancer screening; pelvic and clinical breast examination	Procedure	HCPCS
G0123	Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, screening by cytotechnologist under physician supervision	Procedure	HCPCS
G0124	Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, requiring interpretation by physician	Procedure	HCPCS
G0141	Screening cytopathology smears, cervical or vaginal, performed by automated system, with manual rescreening, requiring interpretation by physician	Procedure	HCPCS
G0143	Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, with manual screening and rescreening by cytotechnologist under physician supervision	Procedure	HCPCS
G0144	Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, with screening by automated system, under physician supervision	Procedure	HCPCS
G0145	Screening cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation, with screening by automated system and manual rescreening under physician supervision	Procedure	HCPCS
P3000	Screening Papanicolaou smear, cervical or vaginal, up to three smears, by technician under physician supervision	Procedure	HCPCS
P3001	Screening Papanicolaou smear, cervical or vaginal, up to three smears, requiring interpretation by physician	Procedure	HCPCS
Q0091	Screening Papanicolaou smear; obtaining, preparing and conveyance of cervical or vaginal smear to laboratory	Procedure	HCPCS

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Code	Description	Code Category	Code Type
88141	Cytopathology, cervical or vaginal (any reporting system), requiring interpretation by physician	Procedure	CPT-4
88142	Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; manual screening under physician supervision	Procedure	CPT-4
88143	Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; with manual screening and rescreening under physician supervision	Procedure	CPT-4
88144	Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; with manual screening and computer-assisted rescreening under physician supervision	Procedure	CPT-4
88145	Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; with manual screening and computer-assisted rescreening using cell selection and review under physician supervision	Procedure	CPT-4
88147	Cytopathology smears, cervical or vaginal; screening by automated system under physician supervision	Procedure	CPT-4
88148	Cytopathology smears, cervical or vaginal; screening by automated system with manual rescreening under physician supervision	Procedure	CPT-4
88150	Cytopathology, slides, cervical or vaginal; manual screening under physician supervision	Procedure	CPT-4
88151	CYTOPATH SMEARS CERV/VAG 1-3; REQ PHYS INTERPT	Procedure	CPT-4
88152	Cytopathology, slides, cervical or vaginal; with manual screening and computer-assisted rescreening under physician supervision	Procedure	CPT-4
88153	Cytopathology, slides, cervical or vaginal; with manual screening and rescreening under physician supervision	Procedure	CPT-4
88154	Cytopathology, slides, cervical or vaginal; with manual screening and computer-assisted rescreening using cell selection and review under physician supervision	Procedure	CPT-4
88155	Cytopathology, slides, cervical or vaginal, definitive hormonal evaluation (eg, maturation index, karyopyknotic index, estrogenic index) (List separately in addition to code[s] for other technical and interpretation services)	Procedure	CPT-4
88164	Cytopathology, slides, cervical or vaginal (the Bethesda System); manual screening under physician supervision	Procedure	CPT-4
88165	Cytopathology, slides, cervical or vaginal (the Bethesda System); with manual screening and rescreening under physician supervision	Procedure	CPT-4
88166	Cytopathology, slides, cervical or vaginal (the Bethesda System); with manual screening and computer-assisted rescreening under physician supervision	Procedure	CPT-4
88167	Cytopathology, slides, cervical or vaginal (the Bethesda System); with manual screening and computer-assisted rescreening using cell selection and review under physician supervision	Procedure	CPT-4

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
88174	Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; screening by automated system, under physician supervision	Procedure	CPT-4
88175	Cytopathology, cervical or vaginal (any reporting system), collected in preservative fluid, automated thin layer preparation; with screening by automated system and manual rescreening or review, under physician supervision	Procedure	CPT-4
Screening for Colon Cancer (Flexible Sigmoidoscopy or Colonoscopy or CT Virtual Colonoscopy)			
Z12.11	Encounter for screening for malignant neoplasm of colon	Diagnosis	ICD-10-CM
Z12.12	Encounter for screening for malignant neoplasm of rectum	Diagnosis	ICD-10-CM
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
G0122	Colorectal cancer screening; barium enema	Procedure	HCPCS
G0328	Colorectal cancer screening; fecal occult blood test, immunoassay, one to three simultaneous determinations	Procedure	HCPCS
45378	Colonoscopy, flexible; diagnostic, including collection of specimen(s) by brushing or washing, when performed (separate procedure)	Procedure	CPT-4
74263	Computed tomographic (CT) colonography, screening, including image postprocessing	Procedure	CPT-4
81528	Oncology (colorectal) screening, quantitative real-time target and signal amplification of 10 DNA markers (KRAS mutations, promoter methylation of NDRG4 and BMP3) and fecal hemoglobin, utilizing stool, algorithm reported as a positive or negative result	Procedure	CPT-4
82270	Blood, occult, by peroxidase activity (eg, guaiac), qualitative; feces, consecutive collected specimens with single determination, for colorectal neoplasm screening (ie, patient was provided 3 cards or single triple card for consecutive collection)	Procedure	CPT-4
82274	Blood, occult, by fecal hemoglobin determination by immunoassay, qualitative, feces, 1-3 simultaneous determinations	Procedure	CPT-4
Screening for Prostate Cancer (Prostate Exam or Digital Rectal Examination or Prostate-Specific Antigen Test)			
Z12.5	Encounter for screening for malignant neoplasm of prostate	Diagnosis	ICD-10-CM
G0102	Prostate cancer screening; digital rectal examination	Procedure	HCPCS
G0103	Prostate cancer screening; prostate specific antigen test (PSA)	Procedure	HCPCS
55700	Biopsy, prostate; needle or punch, single or multiple, any approach	Procedure	CPT-4
55705	Biopsy, prostate; incisional, any approach	Procedure	CPT-4
84152	Prostate specific antigen (PSA); complexed (direct measurement)	Procedure	CPT-4
84153	Prostate specific antigen (PSA); total	Procedure	CPT-4

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
84154	Prostate specific antigen (PSA); free	Procedure	CPT-4
	Corticosteroids		
J0702	INJ BETAMETHASONE AC & PHOS 3 MG	Procedure	HCPCS
J1020	Injection, methylprednisolone acetate, 20 mg	Procedure	HCPCS
J1030	Injection, methylprednisolone acetate, 40 mg	Procedure	HCPCS
J1040	Injection, methylprednisolone acetate, 80 mg	Procedure	HCPCS
J1094	INJECTION DEXAMETHASONE ACTAT 1 MG	Procedure	HCPCS
J2650	Injection, prednisolone acetate, up to 1 ml	Procedure	HCPCS
J3301	Injection, triamcinolone acetonide, not otherwise specified, 10 mg	Procedure	HCPCS
J3302	Injection, triamcinolone diacetate, per 5 mg	Procedure	HCPCS
J8540	DEXAMETHASONE ORAL 0.25 MG	Procedure	HCPCS
	Chronic Obstructive Pulmonary Disease (COPD)		
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
J44.9	Chronic obstructive pulmonary disease, unspecified	Diagnosis	ICD-10-CM
J96	Respiratory failure, not elsewhere classified	Diagnosis	ICD-10-CM
J96.2	Acute and chronic respiratory failure	Diagnosis	ICD-10-CM
J96.9	Respiratory failure, unspecified	Diagnosis	ICD-10-CM
	Pulmonary Function Test (PFT)		
3023F	Spirometry results documented and reviewed (COPD)	Procedure	CPT-2
3025F	Spirometry test results demonstrate FEV1/FVC less than 70% with COPD symptoms (eg, dyspnea, cough/sputum, wheezing) (CAP, COPD)	Procedure	CPT-2
3027F	Spirometry test results demonstrate FEV1/FVC greater than or equal to 70% or patient does not have COPD symptoms (COPD)	Procedure	CPT-2
94010	Spirometry, including graphic record, total and timed vital capacity, expiratory flow rate measurement(s), with or without maximal voluntary ventilation	Procedure	CPT-4
94014	Patient-initiated spirometric recording per 30-day period of time; includes reinforced education, transmission of spirometric tracing, data capture, analysis of transmitted data, periodic recalibration and review and interpretation by a physician or other qualified health care professional	Procedure	CPT-4
94015	Patient-initiated spirometric recording per 30-day period of time; recording (includes hook-up, reinforced education, data transmission, data capture, trend analysis, and periodic recalibration)	Procedure	CPT-4
94016	Patient-initiated spirometric recording per 30-day period of time; review and interpretation only by a physician or other qualified health care professional	Procedure	CPT-4
94060	Bronchodilation responsiveness, spirometry as in 94010, pre- and post-bronchodilator administration	Procedure	CPT-4

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Code	Description	Code Category	Code Type
94617	Exercise test for bronchospasm, including pre- and post-spirometry and pulse oximetry; with electrocardiographic recording(s)	Procedure	CPT-4
94620	Pulmonary stress testing; simple (eg, 6-minute walk test, prolonged exercise test for bronchospasm with pre- and post-spirometry and oximetry)	Procedure	CPT-4
G8924	Spirometry results documented (FEV1/FVC < 70%)	Procedure	HCPCS
G8925	Spirometry test results demonstrate FEV1 >= 60%, FEV1/FVC >= 70%, predicted or patient does not have COPD symptoms	Procedure	HCPCS
G8926	Spirometry test not performed or documented, reason not given	Procedure	HCPCS
	History of Pulmonary Rehabilitation		
94625	Physician or other qualified health care professional services for outpatient pulmonary rehabilitation; without continuous oximetry monitoring (per session)	Procedure	CPT-4
94626	Physician or other qualified health care professional services for outpatient pulmonary rehabilitation; with continuous oximetry monitoring (per session)	Procedure	CPT-4
G0237	Therapeutic procedures to increase strength or endurance of respiratory muscles, face-to-face, one-on-one, each 15 minutes (includes monitoring)	Procedure	HCPCS
G0238	Therapeutic procedures to improve respiratory function, other than described by G0237, one-on-one, face-to-face, per 15 minutes (includes monitoring)	Procedure	HCPCS
G0239	Therapeutic procedures to improve respiratory function or increase strength or endurance of respiratory muscles, two or more individuals (includes monitoring)	Procedure	HCPCS
G0424	Pulmonary rehabilitation, including exercise (includes monitoring), 1 hour, per session, up to two sessions per day	Procedure	HCPCS
	COVID-19 Vaccination		
91300	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, 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/0.5mL 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, 5x1010 viral particles/0.5mL 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/0.5mL dosage, for intramuscular use	Procedure	CPT-4

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Code	Description	Code Category	Code Type
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
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
91310	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, monovalent, preservative free, 5 mcg/0.5 mL dosage, adjuvant AS03 emulsion, 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, spike protein, preservative free, 10 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation, for intramuscular use	Procedure	CPT-4
91316	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, bivalent, preservative free, 10 mcg/0.2 mL dosage, for intramuscular use	Procedure	CPT-4

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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
91302	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, DNA, spike protein, chimpanzee adenovirus Oxford 1 (ChAdOx1) vector, preservative free, 5x10^10 viral particles/0.5mL dosage, for intramuscular use	Procedure	CPT-4
XW013S6	Introduction of COVID-19 Vaccine Dose 1 into Subcutaneous Tissue, Percutaneous Approach, New Technology Group 6	Procedure	ICD-10-PCS
XW013T6	Introduction of COVID-19 Vaccine Dose 2 into Subcutaneous Tissue, Percutaneous Approach, New Technology Group 6	Procedure	ICD-10-PCS
XW013U6	Introduction of COVID-19 Vaccine into Subcutaneous Tissue, Percutaneous Approach, New Technology Group 6	Procedure	ICD-10-PCS
XW023S6	Introduction of COVID-19 Vaccine Dose 1 into Muscle, Percutaneous Approach, New Technology Group 6	Procedure	ICD-10-PCS
XW023T6	Introduction of COVID-19 Vaccine Dose 2 into Muscle, Percutaneous Approach, New Technology Group 6	Procedure	ICD-10-PCS
XW023U6	Introduction of COVID-19 Vaccine into Muscle, Percutaneous Approach, New Technology Group 6	Procedure	ICD-10-PCS
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/0.3 mL 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/0.3 mL 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, mRNA-LNP, spike protein, preservative free, 100 mcg/0.5mL dosage; first dose	Procedure	CPT-4

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Code	Description	Code Category	Code Type
0012A	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, 100 mcg/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, mRNA-LNP, spike protein, preservative free, 100 mcg/0.5 mL dosage; third dose	Procedure	CPT-4
0021A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, DNA, spike protein, chimpanzee adenovirus Oxford 1 (ChAdOx1) vector, preservative free, 5x1010 viral particles/0.5mL dosage; first dose	Procedure	CPT-4
0022A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, DNA, spike protein, chimpanzee adenovirus Oxford 1 (ChAdOx1) vector, preservative free, 5x1010 viral particles/0.5mL dosage; second 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, 5x1010 viral particles/0.5mL dosage; single dose	Procedure	CPT-4
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, 5x1010 viral particles/0.5mL dosage; booster dose	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, 5 mcg/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, 5 mcg/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, 5 mcg/0.5mL dosage; booster dose	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/0.3 mL dosage, tris-sucrose formulation; first dose	Procedure	CPT-4

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Code	Description	Code Category	Code Type
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/0.3 mL dosage, 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/0.3 mL dosage, tris-sucrose formulation; third dose	Procedure	CPT-4
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/0.3 mL dosage, 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, mRNA-LNP, spike protein, preservative free, 50 mcg/0.25 mL 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, 10 mcg/0.2 mL 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, 10 mcg/0.2 mL 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, 10 mcg/0.2 mL 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, 10 mcg/0.2 mL 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, 3 mcg/0.2 mL 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, 3 mcg/0.2 mL 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, 3 mcg/0.2 mL 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, 50 mcg/0.5 mL dosage; first dose, when administered to individuals 6 through 11 years	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, 50 mcg/0.5 mL dosage; second dose, when administered to individuals 6 through 11 years	Procedure	CPT-4
0093A	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, 50 mcg/0.5 mL dosage; third dose, when administered to individuals 6 through 11 years	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, 50 mcg/0.5 mL dosage; booster dose, when administered to individuals 18 years and over	Procedure	CPT-4
0104A	Immunization administration by intramuscular injection of severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, monovalent, preservative free, 5 mcg/0.5 mL dosage, adjuvant AS03 emulsion, 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, 25 mcg/0.25 mL dosage; first dose	Procedure	CPT-4
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, 25 mcg/0.25 mL dosage; second dose	Procedure	CPT-4

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Code	Description	Code Category	Code Type
0113A	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, 25 mcg/0.25 mL dosage; 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/0.3 mL dosage, 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, mRNA-LNP, spike protein, bivalent, preservative free, 50 mcg/0.5 mL 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, mRNA-LNP, spike protein, bivalent, preservative free, 25 mcg/0.25 mL 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/0.2 mL 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/0.2 mL dosage, booster dose	Procedure	CPT-4
0173A	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, 3 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation; third dose	Procedure	CPT-4
0174A	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, 3 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation; booster dose	Procedure	CPT-4
91300	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, 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/0.5mL dosage, for intramuscular use	Procedure	CPT-4

Sentinel

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
91302	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, DNA, spike protein, chimpanzee adenovirus Oxford 1 (ChAdOx1) vector, preservative free, 5x1010 viral particles/0.5mL 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, 5x1010 viral particles/0.5mL 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/0.5mL 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
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
91310	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, monovalent, preservative free, 5 mcg/0.5 mL dosage, adjuvant AS03 emulsion, 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

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
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, spike protein, preservative free, 10 mcg/0.2 mL dosage, diluent reconstituted, tris-sucrose formulation, for intramuscular use	Procedure	CPT-4
91316	Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) (coronavirus disease [COVID-19]) vaccine, mRNA-LNP, spike protein, bivalent, preservative free, 10 mcg/0.2 mL 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
207	COVID-19, mRNA, LNP-S, PF, 100 mcg/0.5mL dose or 50 mcg/0.25mL dose	Procedure	CVX
208	COVID-19, mRNA, LNP-S, PF, 30 mcg/0.3 mL dose	Procedure	CVX
210	COVID-19 vaccine, vector-nr, rS-ChAdOx1, PF, 0.5 mL	Procedure	CVX
211	COVID-19, subunit, rS-nanoparticle+Matrix-M1 Adjuvant, PF, 0.5 mL	Procedure	CVX
212	COVID-19 vaccine, vector-nr, rS-Ad26, PF, 0.5 mL	Procedure	CVX
213	SARS-COV-2 (COVID-19) vaccine, UNSPECIFIED	Procedure	CVX
217	COVID-19, mRNA, LNP-S, PF, 30 mcg/0.3 mL dose, tris-sucrose	Procedure	CVX
218	COVID-19, mRNA, LNP-S, PF, 10 mcg/0.2 mL dose, tris-sucrose	Procedure	CVX
219	COVID-19, mRNA, LNP-S, PF, 3 mcg/0.2 mL dose, tris-sucrose	Procedure	CVX
221	COVID-19, mRNA, LNP-S, PF, 50 mcg/0.5 mL dose	Procedure	CVX
225	COVID-19, D614, recomb, preS dTM, AS03 adjuvant add, PF, 5mcg/0.5mL	Procedure	CVX
226	COVID-19, D614, recomb, preS dTM, AS03 adjuvant add, PF, 10mcg/0.5mL	Procedure	CVX
227	COVID-19, mRNA, LNP-S, PF, pediatric 50 mcg/0.5 mL dose	Procedure	CVX
228	COVID-19, mRNA, LNP-S, PF, pediatric 25 mcg/0.25 mL dose	Procedure	CVX
229	COVID-19, mRNA, LNP-S, bivalent, PF, 50 mcg/0.5 mL or 25mcg/0.25 mL	Procedure	CVX
230	COVID-19, mRNA, LNP-S, bivalent, PF, 10 mcg/0.2 mL	Procedure	CVX
300	COVID-19, mRNA, LNP-S, bivalent, PF, 30 mcg/0.3 mL dose	Procedure	CVX
301	COVID-19, mRNA, LNP-S, bivalent, PF, 10 mcg/0.2 mL dose	Procedure	CVX
302	COVID-19, mRNA, LNP-S, bivalent, PF, 3 mcg/0.2 mL dose	Procedure	CVX
500	COVID-19 Non-US Vaccine, Product Unknown	Procedure	CVX
501	COVID-19 IV Non-US Vaccine (QAZCOVID-IN)	Procedure	CVX
502	COVID-19 IV Non-US Vaccine (COVAXIN)	Procedure	CVX
503	COVID-19 LAV Non-US Vaccine (COVIVAC)	Procedure	CVX
504	COVID-19 VVnr Non-US Vaccine (Sputnik Light)	Procedure	CVX
505	COVID-19 VVnr Non-US Vaccine (Sputnik V)	Procedure	CVX
506	COVID-19 VVnr Non-US Vaccine (CanSino Biological Inc./Beijing Institute of Biotechnology	Procedure	CVX

Appendix H. List of International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Diagnosis Codes and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), Healthcare Common Procedure Coding System (HCPCS), Level II, and Current Procedural Terminology, Fourth Edition (CPT-4), Category I and Category II (CPT-2), and Vaccine Adminixtered (CVX) Procedure Codes Used to Define Baseline Characteristics in this Request

Code	Description	Code Category	Code Type
507	COVID-19 PS Non-US Vaccine (Anhui Zhifei Longcom Biopharm + Inst of Micro, Chinese Acad of Sciences)	Procedure	CVX
508	COVID-19 PS Non-US Vaccine (Jiangsu Province Centers for Disease Control and Prevention)	Procedure	CVX
509	COVID-19 PS Non-US Vaccine (EpiVacCorona)	Procedure	CVX
510	COVID-19 IV Non-US Vaccine (BIBP, Sinopharm)	Procedure	CVX
511	COVID-19 IV Non-US Vaccine (CoronaVac, Sinovac)	Procedure	CVX
512	SARS-COV-2 COVID-19 VLP Non-US Vaccine (Medicago, Covifenz)	Procedure	CVX
513	SARS-COV-2 COVID-19 PS Non-US Vaccine (Anhui Zhifei Longcom, Zifivax)	Procedure	CVX
514	SARS-COV-2 COVID-19 DNA Non-US Vaccine (Zydus Cadila, ZyCoV-D)	Procedure	CVX
515	SARS-COV-2 COVID-19 PS Non-US Vaccine (Medigen, MVC-COV1901)	Procedure	CVX
516	COV-2 COVID-19 Inactivated Non-US Vaccine Product (Minhai Biotechnology Co, KCONVAC)	Procedure	CVX
517	SARS-COV-2 COVID-19 PS Non-US Vaccine (Biological E Limited, Corbevax)	Procedure	CVX
518	COVID-19 Inactivated, Non-US Vaccine (VLA2001, Valneva)	Procedure	CVX
519	COVID-19 mRNA, bivalent, original/Omicron BA.1, Non-US Vaccine (Spikevax Bivalent), Moderna	Procedure	CVX
520	COVID-19 mRNA, bivalent, original/Omicron BA.1, Non-US Vaccine Product, Pfizer-BioNTech	Procedure	CVX
521	COVID-19 SP, protein-based, adjuvanted (VidPrevtyn Beta), Sanofi-GSK	Procedure	CVX

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
Influenza Vaccination	
flu vaccine qs 2016-2017(4 years and older)cell derived/PF	Flucelvax Quad 2016-2017 (PF)
influenza vaccine quadrivalent live 2016-2017 (2 yrs-49 yrs)	Flumist Quad 2016-2017
influenza vaccine tvs 2016-17 (65 yr up)/adjuvant MF59C.1/PF	Fluad 2016-2017 (65 yr up)(PF)
influenza virus vaccine quadrival 2016-17 (6 mos-35 mos)/PF	EZ Flu16-17(Fluzon Qd Ped)(PF)
influenza virus vaccine quadrival 2016-17 (6 mos-35 mos)/PF	Fluzone Quad Pedi 2016-17 (PF)
influenza virus vaccine quadrivalent 2016-17(18 year and up)	Afluria Quad 2016-2017
influenza virus vaccine quadrivalent 2016-17(18yr and up)/PF	Afluria Quad 2016-2017 (PF)
influenza virus vaccine quadrivalent 2016-17(18yrs-64yrs)/PF	Fluzone Intraderm Quad 2016-17
influenza virus vaccine quadval split 2016-17(36 mos up)/PF	Fluarix Quad 2016-2017 (PF)
influenza virus vaccine quadval split 2016-17(36 mos up)/PF	Fluzone Quad 2016-2017 (PF)
influenza virus vaccine qvalsplit 2016-2017(6 mos and older)	Flulaval Quad 2016-2017
influenza virus vaccine qvalsplit 2016-2017(6 mos and older)	Fluzone Quad 2016-2017
influenza virus vaccine qvalsplit 2016-2017(6 mos and up)/PF	Flulaval Quad 2016-2017 (PF)
influenza virus vaccine trival 2016-2017 (4yr and older)/PF	EZ Flu 2016-17 (Fluvirin) (PF)
influenza virus vaccine trival 2016-2017 (4yr and older)/PF	Fluvirin 2016-2017 (PF)
influenza virus vaccine trival split 2016-2017(65 yr up)/PF	Fluzone High-Dose 2016-17 (PF)
influenza virus vaccine trivalent 2016-2017 (4 yr and older)	Fluvirin 2016-2017
influenza virus vaccine trivalent 2016-2017 (5 years up)/PF	Afluria 2016-2017 (PF)
influenza virus vaccine trivalent 2016-2017 (5 years up)/PF	EZ Flu 2016-17 (Afluria) (PF)
influenza virus vaccine trivalent 2016-2017 (5 yr and older)	Afluria 2016-2017
influenza virus vaccine tv 2016-17(18 yrs and older)rcmb/PF	Flublok 2016-2017 (PF)
Obesity	
liraglutide	Saxenda
naltrexone HCl/bupropion HCl	Contrave
orlistat	Alli
orlistat	Xenical
phentermine HCl/topiramate	Qsymia
semaglutide	Wegovy
Smoking	
bupropion HCl	bupropion HCl
bupropion HCl	bupropion HCl (smoking deter)
bupropion HCl	Forfivo XL
bupropion HCl	Wellbutrin SR
bupropion HCl	Wellbutrin XL
bupropion HCl	Zyban
nicotine	Nicoderm CQ
nicotine	nicotine
nicotine	Nicotrol
nicotine	Nicotrol NS
nicotine	NTS Step 1
nicotine bitartrate	Nicotine Tartrate
nicotine polacrilex	Nicorelief
nicotine polacrilex	Nicorette
nicotine polacrilex	nicotine (polacrilex)

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
nicotine polacrilex	Quit 2
nicotine polacrilex	Quit 4
nicotine polacrilex	Stop Smoking Aid
silver nitrate	Curad Germ Shield Wound
silver nitrate	silver nitrate
silver nitrate	Silver Wound
silver nitrate	Solox Gel
varenicline tartrate	Chantix
varenicline tartrate	Chantix Continuing Month Box
varenicline tartrate	Chantix Starting Month Box
varenicline tartrate	Tyrvaya
varenicline tartrate	varenicline
Pneumococcal Vaccination	
pneumococcal 13-valent conjugate vaccine (Diphtheria crm)/PF	Prevnar 13 (PF)
pneumococcal 23-valent polysaccharide vaccine	Pneumovax-23
Angiotensin-Converting Enzyme (ACE) Inhibitors or Angiotensin Receptor Blockers (ARBs)	
amlodipine besylate/benazepril HCl	amlodipine-benazepril
amlodipine besylate/benazepril HCl	Lotrel
amlodipine besylate/olmesartan medoxomil	amlodipine-olmesartan
amlodipine besylate/olmesartan medoxomil	Azor
amlodipine besylate/valsartan	amlodipine-valsartan
amlodipine besylate/valsartan	Exforge
amlodipine besylate/valsartan/hydrochlorothiazide	amlodipine-valsartan-hcthiazid
amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
azilsartan medoxomil	Edarbi
azilsartan medoxomil/chlorthalidone	Edarbyclor
benazepril HCl	benazepril
benazepril HCl	Lotensin
benazepril HCl/hydrochlorothiazide	benazepril-hydrochlorothiazide
benazepril HCl/hydrochlorothiazide	Lotensin HCT
candesartan cilexetil	Atacand
candesartan cilexetil	candesartan
candesartan cilexetil/hydrochlorothiazide	Atacand HCT
candesartan cilexetil/hydrochlorothiazide	candesartan-hydrochlorothiazid
captopril	captopril
captopril/hydrochlorothiazide	captopril-hydrochlorothiazide
enalapril maleate	enalapril maleate
enalapril maleate	Epaned
enalapril maleate	Vasotec
enalapril maleate/hydrochlorothiazide	enalapril-hydrochlorothiazide
enalapril maleate/hydrochlorothiazide	Vaseretic
eprosartan mesylate	eprosartan
fosinopril sodium	fosinopril
fosinopril sodium/hydrochlorothiazide	fosinopril-hydrochlorothiazide
irbesartan	Avapro

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
irbesartan	irbesartan
irbesartan/hydrochlorothiazide	Avalide
irbesartan/hydrochlorothiazide	irbesartan-hydrochlorothiazide
lisinopril	lisinopril
lisinopril	Prinivil
lisinopril	Qbrelis
lisinopril	Zestril
lisinopril/hydrochlorothiazide	lisinopril-hydrochlorothiazide
lisinopril/hydrochlorothiazide	Zestoretic
losartan potassium	Cozaar
losartan potassium	losartan
losartan potassium/hydrochlorothiazide	Hyzaar
losartan potassium/hydrochlorothiazide	losartan-hydrochlorothiazide
moexipril HCl	moexipril
moexipril HCl/hydrochlorothiazide	moexipril-hydrochlorothiazide
nebivolol HCl/valsartan	Byvalson
olmesartan medoxomil	Benicar
olmesartan medoxomil	olmesartan
olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	olmesartan-amlodipin-hcthiazid
olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	Tribenzor
olmesartan medoxomil/hydrochlorothiazide	Benicar HCT
olmesartan medoxomil/hydrochlorothiazide	olmesartan-hydrochlorothiazide
perindopril arginine/amlodipine besylate	Prestalia
perindopril erbumine	Aceon
perindopril erbumine	perindopril erbumine
quinapril HCl	Accupril
quinapril HCl	quinapril
quinapril HCl/hydrochlorothiazide	Accuretic
quinapril HCl/hydrochlorothiazide	quinapril-hydrochlorothiazide
ramipril	Altace
ramipril	ramipril
sacubitril/valsartan	Entresto
telmisartan	Micardis
telmisartan	telmisartan
telmisartan/amlodipine besylate	telmisartan-amlodipine
telmisartan/amlodipine besylate	Twynsta
telmisartan/hydrochlorothiazide	Micardis HCT
telmisartan/hydrochlorothiazide	telmisartan-hydrochlorothiazid
trandolapril	Mavik
trandolapril	trandolapril
trandolapril/verapamil HCl	Tarka
trandolapril/verapamil HCl	trandolapril-verapamil
valsartan	Diovan
valsartan	valsartan
valsartan/hydrochlorothiazide	Diovan HCT

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
valsartan/hydrochlorothiazide	valsartan-hydrochlorothiazide
Amiodarone	
amiodarone HCl	amiodarone
amiodarone HCl	Pacerone
amiodarone HCl/dextrose 5 % in water	amiodarone in dextrose 5 %
amiodarone in dextrose, iso-osmotic	Nexterone
Anticonvulsants	
brivaracetam	Briviact
cannabidiol (CBD)	Epidiolex
carbamazepine	carbamazepine
carbamazepine	Carbatrol
carbamazepine	Epitol
carbamazepine	Equetro
carbamazepine	Tegretol
carbamazepine	Tegretol XR
cenobamate	Xcopri
cenobamate	Xcopri Maintenance Pack
cenobamate	Xcopri Titration Pack
clobazam	clobazam
clobazam	Onfi
clobazam	Sympazan
clonazepam	clonazepam
clonazepam	Klonopin
diazepam	Diastat
diazepam	Diastat AcuDial
diazepam	diazepam
diazepam	Valtoco
divalproex sodium	Depakote
divalproex sodium	Depakote ER
divalproex sodium	Depakote Sprinkles
divalproex sodium	divalproex
eslicarbazepine acetate	Aptiom
ethosuximide	ethosuximide
ethosuximide	Zarontin
ethotoin	Peganone
ezogabine	Potiga
felbamate	felbamate
felbamate	Felbatol
fenfluramine HCl	Fintepla
fosphenytoin sodium	Cerebyx
fosphenytoin sodium	fosphenytoin
GABAPENTIN	Fanatrex
gabapentin	gabapentin
gabapentin	Neurontin
gabapentin/capsaicin/methyl salicylate/menthol	SmartRx Gaba-V Kit

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
gabapentin/lidocaine	Gabacaine
gabapentin/lidocaine	Pentican
gabapentin/lidocaine HCl/gauze bandage/silicone adhesive	Gabapal
gabapentin/lidocaine HCl/menthol	Active-Pac
gabapentin/lidocaine HCl/menthol	SmartRx GabaKit
gabapentin/lidocaine HCl/silicone adhesive	Lidotin
gabapentin/lidocaine/prilocaine/transparent dressing	Lipritin
gabapentin/lidocaine/prilocaine/transparent dressing	Lipritin II
lacosamide	lacosamide
lacosamide	Vimpat
lamotrigine	Lamictal
lamotrigine	Lamictal ODT
lamotrigine	Lamictal ODT Starter (Blue)
lamotrigine	Lamictal ODT Starter (Green)
lamotrigine	Lamictal ODT Starter (Orange)
lamotrigine	Lamictal Starter (Blue) Kit
lamotrigine	Lamictal Starter (Green) Kit
lamotrigine	Lamictal Starter (Orange) Kit
lamotrigine	Lamictal XR
lamotrigine	Lamictal XR Starter (Blue)
lamotrigine	Lamictal XR Starter (Green)
lamotrigine	Lamictal XR Starter (Orange)
lamotrigine	lamotrigine
lamotrigine	Subvenite
lamotrigine	Subvenite Starter (Blue) Kit
lamotrigine	Subvenite Starter (Green) Kit
lamotrigine	Subvenite Starter (Orange) Kit
levetiracetam	Elepsia XR
levetiracetam	Keppra
levetiracetam	Keppra XR
levetiracetam	levetiracetam
levetiracetam	Roweepra
levetiracetam	Roweepra XR
levetiracetam	Spritam
levetiracetam in sodium chloride, iso-osmotic	levetiracetam in NaCl (iso-os)
methsuximide	Celontin
midazolam	Nayzilam
oxcarbazepine	oxcarbazepine
oxcarbazepine	Oxtellar XR
oxcarbazepine	Trileptal
perampanel	Fycompa
phenobarbital	phenobarbital
phenobarbital sodium	phenobarbital sodium
phenytoin	Dilantin Infatabs
phenytoin	Dilantin-125

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
phenytoin	phenytoin
phenytoin sodium	phenytoin sodium
phenytoin sodium extended	Dilantin
phenytoin sodium extended	Dilantin Extended
phenytoin sodium extended	Dilantin Kapseal
phenytoin sodium extended	Phenytek
phenytoin sodium extended	phenytoin sodium extended
pregabalin	Lyrica
pregabalin	pregabalin
primidone	Mysoline
primidone	primidone
rufinamide	Banzel
rufinamide	rufinamide
stiripentol	Diacomit
tiagabine HCl	Gabitril
tiagabine HCl	tiagabine
topiramate	Eprontia
topiramate	Qudexy XR
topiramate	Topamax
topiramate	topiramate
topiramate	Trokendi XR
valproic acid	Depakene
valproic acid	valproic acid
valproic acid (as sodium salt) (valproate sodium)	Depacon
valproic acid (as sodium salt) (valproate sodium)	Depakene
valproic acid (as sodium salt) (valproate sodium)	valproate sodium
valproic acid (as sodium salt) (valproate sodium)	valproic acid (as sodium salt)
vigabatrin	Sabril
vigabatrin	vigabatrin
vigabatrin	Vigadrone
zonisamide	Zonegran
zonisamide	zonisamide
Antidepressants	
amitriptyline HCl	amitriptyline
amitriptyline HCl/chlordiazepoxide	amitriptyline-chlordiazepoxide
amoxapine	amoxapine
brexanolone	Zulresso
bupropion HBr	Aplenzin
bupropion HCl	bupropion HCl
bupropion HCl	bupropion HCl (smoking deter)
bupropion HCl	Forfivo XL
bupropion HCl	Wellbutrin SR
bupropion HCl	Wellbutrin XL
bupropion HCl	Zyban
citalopram hydrobromide	Celexa

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
citalopram hydrobromide	citalopram
clomipramine HCl	Anafranil
clomipramine HCl	clomipramine
desipramine HCl	desipramine
desipramine HCl	Norpramin
desvenlafaxine	desvenlafaxine
desvenlafaxine	Khedezla
desvenlafaxine fumarate	desvenlafaxine fumarate
desvenlafaxine succinate	desvenlafaxine succinate
desvenlafaxine succinate	Pristiq
doxepin HCl	doxepin
doxepin HCl	Silenor
duloxetine HCl	Cymbalta
duloxetine HCl	Drizalma Sprinkle
duloxetine HCl	duloxetine
duloxetine HCl	Irenka
escitalopram oxalate	escitalopram oxalate
escitalopram oxalate	Lexapro
esketamine HCl	Spravato
fluoxetine HCl	fluoxetine
fluoxetine HCl	Prozac
fluoxetine HCl	Prozac Weekly
fluoxetine HCl	Sarafem
fluvoxamine maleate	fluvoxamine
imipramine HCl	imipramine HCl
imipramine HCl	Tofranil
imipramine pamoate	imipramine pamoate
isocarboxazid	Marplan
levomilnacipran HCl	Fetzima
maprotiline HCl	maprotiline
milnacipran HCl	Savella
mirtazapine	mirtazapine
mirtazapine	Remeron
mirtazapine	Remeron SolTab
nefazodone HCl	nefazodone
nortriptyline HCl	nortriptyline
nortriptyline HCl	Pamelor
olanzapine/fluoxetine HCl	olanzapine-fluoxetine
olanzapine/fluoxetine HCl	Symbyax
paroxetine HCl	paroxetine HCl
paroxetine HCl	Paxil
paroxetine HCl	Paxil CR
paroxetine mesylate	Brisdelle
paroxetine mesylate	paroxetine mesylate(menop.sym)
paroxetine mesylate	Pexeva

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
perphenazine/amitriptyline HCl	perphenazine-amitriptyline
phenelzine sulfate	Nardil
phenelzine sulfate	phenelzine
protriptyline HCl	protriptyline
selegiline	Emsam
sertraline HCl	sertraline
sertraline HCl	Zoloft
tranylcypromine sulfate	Parnate
tranylcypromine sulfate	tranylcypromine
trazodone HCl	trazodone
trimipramine maleate	Surmontil
trimipramine maleate	trimipramine
venlafaxine HCl	Effexor XR
venlafaxine HCl	venlafaxine
vilazodone HCl	Viibryd
vortioxetine hydrobromide	Trintellix
Antipsychotics	
aripiprazole	Abilify
aripiprazole	Abilify Maintena
aripiprazole	Abilify MyCite
aripiprazole	Abilify MyCite Maintenance Kit
aripiprazole	Abilify MyCite Starter Kit
aripiprazole	aripiprazole
aripiprazole lauroxil	Aristada
aripiprazole lauroxil, submicronized	Aristada Initio
asenapine maleate	asenapine maleate
asenapine maleate	Saphris
brexpiprazole	Rexulti
cariprazine HCl	Vraylar
chlorpromazine HCl	chlorpromazine
clozapine	clozapine
clozapine	Clozaril
clozapine	FazaClo
clozapine	Versacloz
fluphenazine decanoate	fluphenazine decanoate
fluphenazine HCl	fluphenazine HCl
haloperidol	haloperidol
haloperidol decanoate	Haldol Decanoate
haloperidol decanoate	haloperidol decanoate
haloperidol lactate	Haldol
haloperidol lactate	haloperidol lactate
iloperidone	Fanapt
loxapine	Adasuve
loxapine succinate	loxapine succinate
lurasidone HCl	Latuda

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
molindone HCl	molindone
olanzapine	olanzapine
olanzapine	Zyprexa
olanzapine	Zyprexa Zydis
olanzapine pamoate	Zyprexa Relprevv
olanzapine/fluoxetine HCl	olanzapine-fluoxetine
olanzapine/fluoxetine HCl	Symbyax
paliperidone	Invega
paliperidone	paliperidone
paliperidone palmitate	Invega Hafyera
paliperidone palmitate	Invega Sustenna
paliperidone palmitate	Invega Trinza
perphenazine	perphenazine
perphenazine/amitriptyline HCl	perphenazine-amitriptyline
pimavanserin tartrate	Nuplazid
pimozide	Orap
pimozide	pimozide
prochlorperazine maleate	Compazine
prochlorperazine maleate	prochlorperazine maleate
quetiapine fumarate	quetiapine
quetiapine fumarate	Seroquel
quetiapine fumarate	Seroquel XR
risperidone	Perseris
risperidone	Risperdal
risperidone	Risperdal M-TAB
risperidone	risperidone
risperidone microspheres	Risperdal Consta
thioridazine HCl	thioridazine
thiothixene	thiothixene
trifluoperazine HCl	trifluoperazine
ziprasidone HCl	Geodon
ziprasidone HCl	ziprasidone HCl
Anxiolytics or Hypnotics	
amobarbital sodium	Amytal
buspirone HCl	buspirone
butabarbital sodium	Butisol
clonazepam	clonazepam
clonazepam	Klonopin
dexmedetomidine HCl	dexmedetomidine
dexmedetomidine HCl	Precedex
dexmedetomidine HCl in 0.9 % sodium chloride	dexmedetomidine in 0.9 % NaCl
dexmedetomidine HCl in 0.9 % sodium chloride	Precedex in 0.9 % sodium chlor
dexmedetomidine in 5 % dextrose in water	dexmedetomidine in dextrose 5%
diphenhydramine HCl	Aler-Cap
diphenhydramine HCl	Alka-Seltzer Plus Allergy

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
diphenhydramine HCl	Aller-G-Time
diphenhydramine HCl	Allergy
diphenhydramine HCl	Allergy (diphenhydramine)
diphenhydramine HCl	Allergy Cream (diphenhydramin)
diphenhydramine HCl	Allergy Medication
diphenhydramine HCl	Allergy Medicine
diphenhydramine HCl	Allergy Relief(diphenhydramin)
diphenhydramine HCl	Antihist
diphenhydramine HCl	Antihistamine
diphenhydramine HCl	Anti-Itch (diphenhydramine)
diphenhydramine HCl	Anti-Itch Maximum Strength
diphenhydramine HCl	Banophen
diphenhydramine HCl	Banophen Allergy
diphenhydramine HCl	Benadryl
diphenhydramine HCl	Benadryl Allergy
diphenhydramine HCl	Child Allergy Relief (diphen)
diphenhydramine HCl	Children's Allergy (diphenhyd)
diphenhydramine HCl	Children's Aurodryl Allergy
diphenhydramine HCl	Children's Benadryl Allergy
diphenhydramine HCl	Children's Diphenhydramine
diphenhydramine HCl	Children's Wal-Dryl Allergy
diphenhydramine HCl	Complete Allergy
diphenhydramine HCl	Complete Allergy Medicine
diphenhydramine HCl	Compoz
DIPHENHYDRAMINE HCL	Dicopanol
diphenhydramine HCl	Diphedryl
diphenhydramine HCl	Diphedryl Allergy
diphenhydramine HCl	Diphen
diphenhydramine HCl	Diphenhist
diphenhydramine HCl	diphenhydramine HCl
diphenhydramine HCl	EZ Nite Sleep
diphenhydramine HCl	Geri-Dryl
diphenhydramine HCl	Itch Relief (diphenhydramine)
diphenhydramine HCl	M-Dryl
diphenhydramine HCl	Naramin
diphenhydramine HCl	Nightime Sleep
diphenhydramine HCl	Nighttime Allergy Relief
diphenhydramine HCl	NightTime Sleep Aid (diphen)
diphenhydramine HCl	Nytol
diphenhydramine HCl	Ormir
diphenhydramine HCl	PediaClear Cough
diphenhydramine HCl	Pharbedryl
diphenhydramine HCl	Q-Dryl
diphenhydramine HCl	Restfully Sleep
diphenhydramine HCl	Siladryl SA

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
diphenhydramine HCl	Silphen Cough
diphenhydramine HCl	Simply Sleep
diphenhydramine HCl	Sleep
diphenhydramine HCl	Sleep Aid (diphenhydramine)
diphenhydramine HCl	Sleep Aid Max Str (diphenhydr)
diphenhydramine HCl	Sleep II
diphenhydramine HCl	Sleep Tablet (diphenhydramine)
diphenhydramine HCl	Sleep Time
diphenhydramine HCl	Sleepgels
diphenhydramine HCl	Sleeping
diphenhydramine HCl	Sleep-Tabs
diphenhydramine HCl	Sominex
diphenhydramine HCl	Total Allergy Medicine
diphenhydramine HCl	Unisom (diphenhydramine)
diphenhydramine HCl	Unisom SleepGels
diphenhydramine HCl	Unisom SleepMelts
diphenhydramine HCl	Valu-Dryl
diphenhydramine HCl	Valu-Dryl Allergy
diphenhydramine HCl	Valu-Dryl Anti-Itch
diphenhydramine HCl	Valu-Dryl Child's Allergy
diphenhydramine HCl	Vanamine PD
diphenhydramine HCl	Wal-Dryl (diphenhydramine)
diphenhydramine HCl	Wal-Dryl Allergy
diphenhydramine HCl	Wal-Sleep Z
diphenhydramine HCl	Wal-Som (diphenhydramine)
diphenhydramine HCl	Z-Sleep
diphenhydramine HCl	ZzzQuil
doxepin HCl	doxepin
doxepin HCl	Prudoxin
doxepin HCl	Silenor
doxepin HCl	Zonalon
eszopiclone	eszopiclone
eszopiclone	Lunesta
hydroxyzine HCl	hydroxyzine HCl
hydroxyzine pamoate	hydroxyzine pamoate
hydroxyzine pamoate	Vistaril
melatonin	Children's Sleep (melatonin)
melatonin	Meladox
melatonin	Melatin
melatonin	melatonin
melatonin	VitaJoy Melatonin
melatonin/pyridoxine HCl (vit B6)	melatonin-pyridoxine HCl (B6)
meprobamate	meprobamate
pentobarbital sodium	Nembutal Sodium
pentobarbital sodium	pentobarbital sodium

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
phenobarbital	phenobarbital
phenobarbital sodium	phenobarbital sodium
phenobarbital sodium in 0.9 % sodium chloride	phenobarbital in 0.9 % sod chl
ramelteon	ramelteon
ramelteon	Rozerem
secobarbital sodium	Seconal Sodium
suvorexant	Belsomra
tasimelteon	Hetlioz
tasimelteon	Hetlioz LQ
tryptophan	tryptophan
zaleplon	Sonata
zaleplon	zaleplon
zolpidem tartrate	Ambien
zolpidem tartrate	Ambien CR
zolpidem tartrate	Edluar
zolpidem tartrate	Intermezzo
zolpidem tartrate	zolpidem
zolpidem tartrate	Zolpimist
Benzodiazepine	
alprazolam	alprazolam
alprazolam	Alprazolam Intensol
alprazolam	Xanax
alprazolam	Xanax XR
amitriptyline HCl/chlordiazepoxide	amitriptyline-chlordiazepoxide
chlordiazepoxide HCl	chlordiazepoxide HCl
chlordiazepoxide/clidinium bromide	chlordiazepoxide-clidinium
chlordiazepoxide/clidinium bromide	Librax (with clidinium)
clorazepate dipotassium	clorazepate dipotassium
clorazepate dipotassium	Tranxene T-Tab
diazepam	Diastat
diazepam	Diastat AcuDial
diazepam	diazepam
diazepam	Diazepam Intensol
diazepam	Valium
diazepam	Valtoco
estazolam	estazolam
flurazepam HCl	flurazepam
lorazepam	Ativan
lorazepam	lorazepam
lorazepam	Lorazepam Intensol
lorazepam	Loreev XR
lorazepam in 0.9 % sodium chloride	lorazepam in 0.9% sod chloride
lorazepam in 5 % dextrose and water	lorazepam in dextrose 5 %
midazolam	Nayzilam
midazolam HCl	midazolam

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
midazolam HCl in 0.9 % sodium chloride	midazolam in 0.9 % sod chlorid
midazolam HCl in 0.9 % sodium chloride/PF	midazolam (PF) in 0.9 % NaCl
midazolam HCl in dextrose 5% in water	midazolam in dextrose 5 %
midazolam HCl/PF	midazolam (PF)
oxazepam	oxazepam
quazepam	Doral
quazepam	quazepam
temazepam	Restoril
temazepam	temazepam
triazolam	Halcion
triazolam	triazolam
Beta Blockers or Calcium Channel Blockers	
acebutolol HCl	acebutolol
acebutolol HCl	Sectral
amlodipine benzoate	Katerzia
amlodipine besylate	amlodipine
amlodipine besylate	Norliqva
amlodipine besylate	Norvasc
amlodipine besylate/atorvastatin calcium	amlodipine-atorvastatin
amlodipine besylate/atorvastatin calcium	Caduet
amlodipine besylate/benazepril HCl	amlodipine-benazepril
amlodipine besylate/benazepril HCl	Lotrel
amlodipine besylate/celecoxib	Consensi
amlodipine besylate/olmesartan medoxomil	amlodipine-olmesartan
amlodipine besylate/olmesartan medoxomil	Azor
amlodipine besylate/valsartan	amlodipine-valsartan
amlodipine besylate/valsartan	Exforge
amlodipine besylate/valsartan/hydrochlorothiazide	amlodipine-valsartan-hcthiazid
amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
atenolol	atenolol
atenolol	Tenormin
betaxolol HCl	Betoptic S
betaxolol HCl	betaxolol
bisoprolol fumarate	bisoprolol fumarate
bisoprolol fumarate	Zebeta
carvedilol	Coreg
carvedilol	carvedilol
carvedilol phosphate	Coreg CR
carvedilol phosphate	carvedilol phosphate
clevidipine butyrate	Cleviprex
diltiazem HCl	Cardizem
diltiazem HCl	Cardizem CD
diltiazem HCl	Cardizem LA
diltiazem HCl	Cartia XT
diltiazem HCl	diltiazem HCl

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
diltiazem HCl	DILT-XR
diltiazem HCl	Matzim LA
diltiazem HCl	Taztia XT
diltiazem HCl	Tiadylt ER
diltiazem HCl	Tiazac
diltiazem HCl in 0.9 % sodium chloride	diltiazem HCl in 0.9% NaCl
diltiazem HCl/dextrose 5 % in water	diltiazem in dextrose 5 %
felodipine	felodipine
isradipine	isradipine
labetalol HCl	labetalol
labetalol HCl in dextrose, iso-osmotic	labetalol in dextrose,iso-osm
labetalol HCl in sodium chloride, iso-osmotic	labetalol in NaCl (iso-osmot)
labetalol in dextrose 5 % in water	labetalol in dextrose 5 %
metoprolol succinate	Toprol XL
metoprolol succinate	metoprolol succinate
metoprolol succinate	Kapspargo Sprinkle
metoprolol tartrate	Lopressor
metoprolol tartrate	metoprolol tartrate
nadolol	nadolol
nadolol	Corgard
nadolol/bendroflumethiazide	nadolol-bendroflumethiazide
nadolol/bendroflumethiazide	Corzide
nebivolol HCl	Bystolic
nebivolol HCl	nebivolol
nicardipine HCl	Cardene IV
nicardipine HCl	nicardipine
nicardipine HCl in 0.9 % sodium chloride	nicardipine in 0.9 % sod chlor
nicardipine in 5 % dextrose in water	nicardipine in 5 % dextrose
nicardipine in dextrose, iso-osmotic	Cardene IV in dextrose
nicardipine in sodium chloride, iso-osmotic	Cardene IV in sodium chloride
nicardipine in sodium chloride, iso-osmotic	nicardipine in NaCl (iso-os)
nifedipine	Adalat CC
nifedipine	Afeditab CR
nifedipine	Nifedical XL
nifedipine	nifedipine
nifedipine	Procardia
nifedipine	Procardia XL
nimodipine	nimodipine
nimodipine	Nymalize
nisoldipine	nisoldipine
nisoldipine	Sular
propranolol HCl	propranolol
propranolol HCl	InnoPran XL
propranolol HCl	Inderal LA
propranolol HCl	Inderal XL

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
propranolol HCl	Hemangeol
propranolol HCl/hydrochlorothiazide	propranolol-hydrochlorothiazid
verapamil HCl	Calan
verapamil HCl	Calan SR
verapamil HCl	verapamil
verapamil HCl	Verelan
verapamil HCl	Verelan PM
Dementia Medications	
bupropion HBr	Aplenzin
bupropion HCl	bupropion HCl
bupropion HCl	bupropion HCl (smoking deter)
bupropion HCl	Forfivo XL
bupropion HCl	Wellbutrin SR
bupropion HCl	Wellbutrin XL
bupropion HCl	Zyban
citalopram hydrobromide	Celexa
citalopram hydrobromide	citalopram
desvenlafaxine	desvenlafaxine
desvenlafaxine	Khedezla
desvenlafaxine fumarate	desvenlafaxine fumarate
desvenlafaxine succinate	desvenlafaxine succinate
desvenlafaxine succinate	Pristiq
dextromethorphan Hbr/quinidine sulfate	Nuedexta
donepezil HCl	Aricept
donepezil HCl	donepezil
escitalopram oxalate	escitalopram oxalate
escitalopram oxalate	Lexapro
galantamine HBr	galantamine
galantamine HBr	Razadyne
galantamine HBr	Razadyne ER
memantine HCl	memantine
memantine HCl	Namenda
memantine HCl	Namenda Titration Pak
memantine HCl	Namenda XR
memantine HCl/donepezil HCl	Namzaric
naltrexone HCl/bupropion HCl	Contrave
quetiapine fumarate	quetiapine
quetiapine fumarate	Seroquel
quetiapine fumarate	Seroquel XR
quinidine gluconate	quinidine gluconate
quinidine sulfate	quinidine sulfate
rivastigmine	Exelon Patch
rivastigmine	rivastigmine
rivastigmine tartrate	Exelon
rivastigmine tartrate	rivastigmine tartrate

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
trazodone HCl	trazodone
venlafaxine HCl	Effexor XR
venlafaxine HCl	venlafaxine
Digoxin	
digoxin	Digitek
digoxin	Digox
digoxin	digoxin
digoxin	Lanoxin
digoxin	Lanoxin Pediatric
digoxin immune fab	DigiFab
Diuretics	
triamterene/hydrochlorothiazide	Dyazide
acetazolamide	acetazolamide
acetazolamide	Diamox Sequels
acetazolamide sodium	acetazolamide sodium
amiloride HCl	amiloride
amiloride HCl/hydrochlorothiazide	amiloride-hydrochlorothiazide
bumetanide	bumetanide
calcium/corn/buchu/couch grass/hydrangea	Diuretic
chlorothiazide	chlorothiazide
chlorothiazide	Diuril
chlorothiazide sodium	chlorothiazide sodium
chlorothiazide sodium	Diuril IV
chlorthalidone	chlorthalidone
chlorthalidone	Thalitone
conivaptan HCl/dextrose 5 % in water	Vaprisol in 5 % dextrose
eplerenone	eplerenone
eplerenone	Inspra
ethacrynate sodium	ethacrynate sodium
ethacrynate sodium	Sodium Edecrin
ethacrynic acid	Edecrin
ethacrynic acid	ethacrynic acid
furosemide	furosemide
furosemide	Lasix
furosemide in 0.9 % sodium chloride	furosemide in 0.9 % NaCl
furosemide/dextrose 5 % in water	furosemide in dextrose 5 %
hydrochlorothiazide	hydrochlorothiazide
hydrochlorothiazide	Microzide
indapamide	indapamide
mannitol	mannitol 10 %
mannitol	mannitol 20 %
mannitol	mannitol 25 %
mannitol	mannitol 5 %
mannitol	Osmitrol 10 %
mannitol	Osmitrol 15 %

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
mannitol	Osmitrol 20 %
mannitol	Osmitrol 5 %
methazolamide	methazolamide
methazolamide	Neptazane
methyclothiazide	methyclothiazide
metolazone	metolazone
pamabrom	Diuretic Softgels
pamabrom	Diurex Max
potassium sulfate/corn/buchu/couch grass/hydrangea	Natural Herbal Diuretic
spironolactone	Aldactone
spironolactone	CaroSpir
spironolactone	spironolactone
spironolactone/hydrochlorothiazide	Aldactazide
spironolactone/hydrochlorothiazide	spironolacton-hydrochlorothiaz
tolvaptan	Samsca
tolvaptan	tolvaptan
torsemide	Demadex
torsemide	Soaanz
torsemide	torsemide
triamterene	Dyrenium
triamterene	triamterene
triamterene/hydrochlorothiazide	Maxzide
triamterene/hydrochlorothiazide	Maxzide-25mg
triamterene/hydrochlorothiazide	triamterene-hydrochlorothiazid
urea	Ure-Na
Insulin	
insulin aspart	insulin aspart U-100
insulin aspart	Novolog Flexpen U-100 Insulin
insulin aspart	Novolog PenFill U-100 Insulin
insulin aspart	Novolog U-100 Insulin aspart
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	insulin asp prt-insulin aspart
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30 U-100 Insuln
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30FlexPen U-100
insulin degludec	Tresiba FlexTouch U-100
insulin degludec	Tresiba FlexTouch U-200
insulin degludec	Tresiba U-100 Insulin
insulin degludec/liraglutide	Xultophy 100/3.6
insulin detemir	Levemir U-100 Insulin
insulin detemir	Levemir FlexTouch U100 Insulin
insulin glargine,human recombinant analog	Basaglar KwikPen U-100 Insulin
insulin glargine,human recombinant analog	Lantus Solostar U-100 Insulin
insulin glargine,human recombinant analog	Lantus U-100 Insulin

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
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/lixisenatide	Soliqua 100/33
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 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 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 U-100 Insulin
insulin NPH human isophane/insulin regular, human	Novolin 70-30 FlexPen U-100
insulin regular, human	Afrezza
insulin regular, human	Humulin R Regular U-100 Insuln
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 U100 Insulin
insulin regular, human in 0.9 % sodium chloride	Myxredlin
Non-Insulin Antidiabetic Medications	
acarbose	acarbose
acarbose	Precose
albiglutide	Tanzeum
alogliptin benzoate	alogliptin
alogliptin benzoate	Nesina
alogliptin benzoate/metformin HCl	alogliptin-metformin
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
alogliptin benzoate/pioglitazone HCl	Oseni
bromocriptine mesylate	bromocriptine
bromocriptine mesylate	Cycloset

Sentinel

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
bromocriptine mesylate	Parlodel
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
dulaglutide	Trulicity
empagliflozin	Jardiance
empagliflozin/linagliptin	Glyxambi
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	glipizide
glipizide	Glucotrol
glipizide	Glucotrol XL
glipizide/metformin HCl	glipizide-metformin
glyburide	glyburide
glyburide,micronized	glyburide micronized
glyburide,micronized	Glynase
glyburide/metformin HCl	Glucovance
glyburide/metformin HCl	glyburide-metformin
linagliptin	Tradjenta
linagliptin/metformin HCl	Jentadueto
linagliptin/metformin HCl	Jentadueto 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	metformin
metformin HCl	Riomet
metformin HCl	Riomet ER
metformin HCl/blood sugar diagnostic	DM2
mifepristone	Korlym

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
mifepristone	Mifeprex
mifepristone	mifepristone
miglitol	Glyset
miglitol	miglitol
nateglinide	nateglinide
nateglinide	Starlix
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	repaglinide-metformin
rosiglitazone maleate	Avandia
rosiglitazone maleate/metformin HCl	Avandamet
saxagliptin HCl	Onglyza
saxagliptin HCl/metformin HCl	Kombiglyze XR
semaglutide	Ozempic
semaglutide	Rybelsus
semaglutide	Wegovy
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
tolazamide	tolazamide
tolbutamide	tolbutamide
Opioids	
acetaminophen with codeine phosphate	acetaminophen-codeine
acetaminophen with codeine phosphate	Capital with Codeine
acetaminophen with codeine phosphate	Tylenol-Codeine #3
acetaminophen with codeine phosphate	Tylenol-Codeine #4
acetaminophen/caffeine/dihydrocodeine bitartrate	acetaminophen-caff-dihydrocod
acetaminophen/caffeine/dihydrocodeine bitartrate	Dvorah
acetaminophen/caffeine/dihydrocodeine bitartrate	Panlor(acetam-caff-dihydrocod)
acetaminophen/caffeine/dihydrocodeine bitartrate	Trezix
alfentanil HCl	alfentanil
aspirin/caffeine/dihydrocodeine bitartrate	aspirin-caffeine-dihydrocodein
aspirin/caffeine/dihydrocodeine bitartrate	Synalgos-DC
benzhydrocodone HCl/acetaminophen	Apadaz
benzhydrocodone HCl/acetaminophen	benzhydrocodone-acetaminophen
buprenorphine	buprenorphine

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
buprenorphine	Butrans
buprenorphine	Sublocade
buprenorphine HCl	Belbuca
buprenorphine HCl	Buprenex
buprenorphine HCl	buprenorphine HCl
buprenorphine HCl	Probuphine
butalbital/acetaminophen/caffeine/codeine phosphate	butalbital-acetaminop-caf-cod
butalbital/acetaminophen/caffeine/codeine phosphate	Fioricet with Codeine
butorphanol tartrate	butorphanol
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	codeine-butalbital-ASA-caff
codeine phosphate/butalbital/aspirin/caffeine	Fiorinal-Codeine #3
codeine sulfate	codeine sulfate
fentanyl	Duragesic
fentanyl	fentanyl
fentanyl	Subsys
fentanyl citrate	Abstral
fentanyl citrate	Actiq
fentanyl citrate	fentanyl citrate
fentanyl citrate	Fentora
fentanyl citrate	Lazanda
fentanyl citrate in 0.9 % sodium chloride/PF	fentanyl citrate (PF)-0.9%NaCl
fentanyl citrate in dextrose 5% in water/PF	fentanyl citrate in D5W (PF)
fentanyl citrate/bupivacaine HCl in 0.9 % sodium chloride/PF	fentanyl (PF)-bupivacaine-NaCl
fentanyl citrate/PF	fentanyl citrate (PF)
fentanyl citrate/ropivacaine HCl/sodium chloride 0.9%/PF	fentanyl-ropivacaine-NaCl (PF)
fentanyl HCl	Ionsys
hydrocodone bitartrate	hydrocodone bitartrate
hydrocodone bitartrate	Hysingla ER
hydrocodone bitartrate	Zohydro ER
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen
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

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
hydrocodone bitartrate/acetaminophen	Xodol 5/300
hydrocodone bitartrate/acetaminophen	Xodol 7.5/300
hydrocodone bitartrate/acetaminophen	Zamicet
hydrocodone/ibuprofen	hydrocodone-ibuprofen
hydrocodone/ibuprofen	Ibudone
hydrocodone/ibuprofen	Reprexain
hydromorphone HCl	Dilaudid
hydromorphone HCl	Exalgo ER
hydromorphone HCl	hydromorphone
hydromorphone HCl in 0.9 % sodium chloride	hydromorphone in 0.9 % NaCl
hydromorphone HCl in 0.9 % sodium chloride/PF	hydromorphone (PF)-0.9 % NaCl
hydromorphone HCl in dextrose 5 %-water/PF	hydromorphone in D5W (PF)
hydromorphone HCl in sterile water/PF	hydromorphone (PF) in water
hydromorphone HCl/bupivacaine HCl in 0.9% sodium chloride/PF	hydromorphone-bupiv (PF)-NaCl
hydromorphone HCl/PF	Dilaudid (PF)
hydromorphone HCl/PF	hydromorphone (PF)
hydromorphone HCl/ropivacaine in 0.9 % sodium chloride/PF	hydromorph(PF)-ropiv-0.9% NaCl
ibuprofen/oxycodone HCl	ibuprofen-oxycodone
levorphanol tartrate	levorphanol tartrate
meloxicam	meloxicam
meperidine HCl	Demerol
meperidine HCl	meperidine
meperidine HCl in 0.9 % sodium chloride	meperidine in 0.9 % NaCl
meperidine HCl in 0.9 % sodium chloride/PF	meperidine (PF) in 0.9 % NaCl
meperidine HCl/PF	Demerol (PF)
meperidine HCl/PF	meperidine (PF)
methadone HCl	Diskets
methadone HCl	Dolophine
methadone HCl	methadone
methadone HCl	Methadone Intensol
methadone HCl	Methadose
methadone hydrochloride in 0.9 % sodium chloride	methadone in 0.9 % sod.chlorid
morphine sulfate	Arymo ER
morphine sulfate	Kadian
morphine sulfate	MorphaBond ER
morphine sulfate	morphine
morphine sulfate	morphine concentrate
morphine sulfate	MS Contin
morphine sulfate in 0.9 % sodium chloride	morphine in 0.9 % sodium chlor
morphine sulfate in 0.9 % sodium chloride/PF	morphine (PF) in 0.9 % sod chl
morphine sulfate/dextrose 5 % in water	morphine in dextrose 5 %
morphine sulfate/dextrose 5%-water/PF	morphine (PF) in dextrose 5 %
morphine sulfate/naltrexone HCl	Embeda
morphine sulfate/PF	Duramorph (PF)
morphine sulfate/PF	Infumorph P/F

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
morphine sulfate/PF	Mitigo (PF)
morphine sulfate/PF	morphine (PF)
nalbuphine HCl	nalbuphine
oxycodone HCl	Oxaydo
oxycodone HCl	oxycodone
oxycodone HCl	OxyContin
oxycodone HCl	Roxicodone
oxycodone HCl	RoxyBond
oxycodone HCl/acetaminophen	Endocet
oxycodone HCl/acetaminophen	Nalocet
oxycodone HCl/acetaminophen	oxycodone-acetaminophen
oxycodone HCl/acetaminophen	Percocet
oxycodone HCl/acetaminophen	Primlev
oxycodone HCl/acetaminophen	Prolate
oxycodone HCl/acetaminophen	Xartemis XR
oxycodone HCl/aspirin	oxycodone-aspirin
oxycodone myristate	Xtampza ER
oxymorphone HCl	Opana
oxymorphone HCl	Opana ER
oxymorphone HCl	oxymorphone
pentazocine HCl/naloxone HCl	pentazocine-naloxone
pentazocine lactate	Talwin
sufentanil citrate	Dsuvia
sufentanil citrate	sufentanil citrate
sufentanil citrate/bupivacaine HCl/0.9 % sodium chloride/PF	sufentanil-bupivacain-NaCl(PF)
tapentadol HCl	Nucynta
tapentadol HCl	Nucynta ER
tramadol HCl	ConZip
tramadol HCl	Qdolo
tramadol HCl	tramadol
tramadol HCl	Ultram
tramadol HCl	Ultram ER
tramadol HCl/acetaminophen	tramadol-acetaminophen
tramadol HCl/acetaminophen	Ultracet
Parkinson's Medications	
amantadine HCl	amantadine HCl
amantadine HCl	Gocovri
amantadine HCl	Osmolex ER
apomorphine HCl	APOKYN
apomorphine HCl	apomorphine
apomorphine HCl	Kynmobi
benztropine mesylate	benztropine
benztropine mesylate	Cogentin
bromocriptine mesylate	bromocriptine
bromocriptine mesylate	Cycloset

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
bromocriptine mesylate	Parlodel
carbidopa	carbidopa
carbidopa	Lodosyn
carbidopa/levodopa	carbidopa-levodopa
carbidopa/levodopa	Dhivy
carbidopa/levodopa	Duopa
carbidopa/levodopa	Rytary
carbidopa/levodopa	Sinemet
carbidopa/levodopa	Sinemet CR
carbidopa/levodopa/entacapone	carbidopa-levodopa-entacapone
carbidopa/levodopa/entacapone	Stalevo 100
carbidopa/levodopa/entacapone	Stalevo 125
carbidopa/levodopa/entacapone	Stalevo 150
carbidopa/levodopa/entacapone	Stalevo 200
carbidopa/levodopa/entacapone	Stalevo 50
carbidopa/levodopa/entacapone	Stalevo 75
entacapone	Comtan
entacapone	entacapone
levodopa	Inbrija
pramipexole di-HCl	Mirapex
pramipexole di-HCl	Mirapex ER
pramipexole di-HCl	pramipexole
rasagiline mesylate	Azilect
rasagiline mesylate	rasagiline
ropinirole HCl	Requip
ropinirole HCl	Requip XL
ropinirole HCl	ropinirole
rotigotine	Neupro
selegiline	Emsam
selegiline HCl	selegiline HCl
selegiline HCl	Zelapar
tolcapone	Tasmar
tolcapone	tolcapone
trihexyphenidyl HCl	trihexyphenidyl
Proton Pump Inhibitors	
aspirin/omeprazole	aspirin-omeprazole
aspirin/omeprazole	Yosprala
dexlansoprazole	Dexilant
dexlansoprazole	dexlansoprazole
esomeprazole magnesium	esomeprazole magnesium
esomeprazole magnesium	Heartburn Treatment
esomeprazole magnesium	Nexium
esomeprazole magnesium	Nexium 24HR
esomeprazole magnesium	Nexium Packet
esomeprazole magnesium/glycerin	Esomep-EZS

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
esomeprazole sodium	esomeprazole sodium
esomeprazole sodium	Nexium IV
esomeprazole strontium	esomeprazole strontium
LANSOPRAZOLE	FIRST-Lansoprazole
lansoprazole	Heartburn Treatment 24 Hour
lansoprazole	lansoprazole
lansoprazole	Prevacid
lansoprazole	Prevacid 24Hr
lansoprazole	Prevacid SoluTab
lansoprazole/amoxicillin trihydrate/clarithromycin	amoxicil-clarithromy-lansopraz
lansoprazole/amoxicillin trihydrate/clarithromycin	Prevpac
OMEPRAZOLE	FIRST-Omeprazole
omeprazole	omeprazole
OMEPRAZOLE	Omeprazole+SyrSpend SF Alka
omeprazole	Prilosec
omeprazole magnesium	Acid Reducer (omeprazole)
omeprazole magnesium	omeprazole magnesium
omeprazole magnesium	Prilosec
omeprazole magnesium	Prilosec OTC
omeprazole magnesium/amoxicillin trihydrate/rifabutin	Talicia
omeprazole/clarithromycin/amoxicillin trihydrate	Omeclamox-Pak
omeprazole/sodium bicarbonate	OmePPi
omeprazole/sodium bicarbonate	omeprazole-sodium bicarbonate
omeprazole/sodium bicarbonate	Zegerid
omeprazole/sodium bicarbonate	Zegerid OTC
pantoprazole sodium	pantoprazole
pantoprazole sodium	Protonix
rabeprazole sodium	AcipHex
rabeprazole sodium	AcipHex Sprinkle
rabeprazole sodium	rabeprazole
Therapeutic 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
citrate dextrose solution	ACD-A
citrate phosphate dextros soln	anticoag citrate phos dextrose
dabigatran etexilate mesylate	Pradaxa
dalteparin sodium,porcine	Fragmin
desirudin	Iprivask

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
dextrose-water/sodium citrate/citric acid	ACD Solution A
dextrose-water/sodium citrate/citric acid	ACD-A
edoxaban tosylate	Savaysa
enoxaparin sodium	enoxaparin
enoxaparin sodium	Lovenox
fondaparinux sodium	Arixtra
fondaparinux sodium	fondaparinux
heparin sodium,porcine	heparin (porcine)
heparin sodium,porcine	heparin lock flush (porcine)
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 (porcine) in 0.9% NaCl
heparin sodium,porcine in 0.9 % sodium chloride	Heparin Flush
heparin sodium,porcine in 0.9 % sodium chloride	heparin flush(porcine)-0.9NaCl
heparin sodium,porcine IN 0.9 % sodium chloride/PF	heparin (porcine) in NaCl (PF)
heparin sodium,porcine/dextrose 5 % in water	heparin (porcine) in 5 % dex
heparin sodium,porcine/PF	Hep Flush-10 (PF)
heparin sodium,porcine/PF	Heparin LockFlush(Porcine)(PF)
heparin sodium,porcine/PF	heparin, porcine (PF)
heparin sodium,porcine/PF	Monoject Prefill (PF)
rivaroxaban	Xarelto
rivaroxaban	Xarelto DVT-PE Treat 30d Start
sodium chloride/sodium citrate	Regiocit (EUA)
sodium citrate	sodium citrate
sodium citrate dihydrate	TriCitrasol
sodium citrate in 0.9 % sodium chloride	sodium citrate in 0.9 % NaCl
warfarin sodium	Coumadin
warfarin sodium	Jantoven
warfarin sodium	warfarin
Long-Acting Beta Agonist (LABA)	
arformoterol tartrate	arformoterol
arformoterol tartrate	Brovana
formoterol fumarate	Foradil Aerolizer
formoterol fumarate	formoterol fumarate
formoterol fumarate	Perforomist
formoterol fumarate dihydrate, micronized	formoterol fum dihyd,mic(bulk)
indacaterol maleate	Arcapta Neohaler
olodaterol HCl	Striverdi Respimat
salmeterol xinafoate	Serevent Diskus
Inhaled Corticosteroid (ICS)	
beclomethasone dipropionate	Qvar
beclomethasone dipropionate	Qvar RediHaler
budesonide	budesonide
budesonide	Pulmicort
budesonide	Pulmicort Flexhaler

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
budesonide	Tarpeyo
ciclesonide	Alvesco
fluticasone furoate	Arnuity Ellipta
fluticasone propionate	ArmonAir Digihaler
fluticasone propionate	ArmonAir RespiClick
fluticasone propionate	Flovent Diskus
fluticasone propionate	Flovent HFA
fluticasone propionate	fluticasone propionate
mometasone furoate	Asmanex HFA
mometasone furoate	Asmanex Twisthaler
Long-Acting Muscarinic Antagonist (LAMA)	
aclidinium bromide	Tudorza Pressair
glycopyrrolate	Seebri Neohaler
glycopyrrolate/nebulizer accessories	Lonhala Magnair Refill
glycopyrrolate/nebulizer and accessories	Lonhala Magnair Starter
revefenacin	Yupelri
tiotropium bromide	Spiriva Respimat
tiotropium bromide	Spiriva with HandiHaler
umeclidinium bromide	Incruse Ellipta
ICS/LABA	
budesonide/formoterol fumarate	Symbicort
budesonide/formoterol fumarate	budesonide-formoterol
fluticasone furoate/vilanterol trifenatate	Breo Ellipta
mometasone furoate/formoterol fumarate	Dulera
fluticasone propionate/salmeterol xinafoate	fluticasone propion-salmeterol
fluticasone propionate/salmeterol xinafoate	Advair Diskus
fluticasone propionate/salmeterol xinafoate	Advair HFA
fluticasone propionate/salmeterol xinafoate	Wixela Inhub
fluticasone propionate/salmeterol xinafoate	AirDuo Digihaler
fluticasone propionate/salmeterol xinafoate	AirDuo RespiClick
LABA/LAMA	
glycopyrrolate/formoterol fumarate	Bevespi Aerosphere
indacaterol maleate/glycopyrrolate	Utibron Neohaler
tiotropium bromide/olodaterol HCl	Stiolto Respimat
umeclidinium bromide/vilanterol trifenatate	Anoro Ellipta
Single Inhaler Triple Therapy (SITT), ICS/LABA/LAMA	
budesonide/glycopyrrolate/formoterol fumarate	Breztri Aerosphere
fluticasone furoate/umeclidinium bromide/vilanterol trifenat	Trelegy Ellipta
Non-Azithromycin Antibiotics	
amoxicillin	amoxicillin
amoxicillin	Moxatag
amoxicillin/potassium clavulanate	amoxicillin-pot clavulanate
amoxicillin/potassium clavulanate	Augmentin
amoxicillin/potassium clavulanate	Augmentin XR
ampicillin trihydrate	ampicillin

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
bismuth subsalicylate/metronidazole/tetracycline HCl	Helidac
cefaclor	cefaclor
cefadroxil	cefadroxil
cefdinir	cefdinir
cefixime	cefixime
cefixime	Suprax
cefpodoxime proxetil	cefpodoxime
cefprozil	cefprozil
ceftibuten	Cedax
ceftibuten	ceftibuten
cefuroxime axetil	Ceftin
cefuroxime axetil	cefuroxime axetil
cephalexin	cephalexin
cephalexin	Daxbia
cephalexin	Keflex
ciprofloxacin HCl	Cipro
ciprofloxacin HCl	ciprofloxacin HCl
ciprofloxacin/ciprofloxacin HCl	Cipro XR
ciprofloxacin/ciprofloxacin HCl	ciprofloxacin (mixture)
clarithromycin	Biaxin
clarithromycin	clarithromycin
colloidal bismuth subcitrate/metronidazole/tetracycline HCl	Pylera
demeclocycline HCl	demeclocycline
dicloxacillin sodium	dicloxacillin
doxycycline hyclate	Acticlate
doxycycline hyclate	Doryx
doxycycline hyclate	Doryx MPC
doxycycline hyclate	doxycycline hyclate
doxycycline hyclate	LymePak
doxycycline hyclate	Morgidox
doxycycline hyclate	Soloxide
doxycycline hyclate	Targadox
doxycycline hyclate	Vibramycin
doxycycline monohydrate	Avidoxy
doxycycline monohydrate	doxycycline monohydrate
doxycycline monohydrate	Mondoxyne NL
doxycycline monohydrate	Monodox
doxycycline monohydrate	Okebo
doxycycline monohydrate	Oracea
erythromycin base	Ery-Tab
erythromycin base	erythromycin
erythromycin base	PCE
erythromycin ethylsuccinate	E.E.S. 400
erythromycin ethylsuccinate	erythromycin ethylsuccinate
erythromycin stearate	Erythrocin (as stearate)

Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
erythromycin stearate	erythromycin stearate
gemifloxacin mesylate	Factive
levofloxacin	Levaquin
levofloxacin	levofloxacin
linezolid	linezolid
linezolid	Zyvox
minocycline HCl	CoreMino
minocycline HCl	Minocin
minocycline HCl	minocycline
minocycline HCl	Minolira ER
minocycline HCl	Solodyn
minocycline HCl	Ximino
moxifloxacin HCl	Avelox
moxifloxacin HCl	Avelox ABC Pack
moxifloxacin HCl	moxifloxacin
ofloxacin	Floxin
ofloxacin	ofloxacin
penicillin V potassium	penicillin V potassium
sulfamethoxazole/trimethoprim	Bactrim
sulfamethoxazole/trimethoprim	Bactrim DS
sulfamethoxazole/trimethoprim	sulfamethoxazole-trimethoprim
tedizolid phosphate	Sivextro
tetracycline HCl	tetracycline
Oral Corticosteroids	
cortisone acetate	cortisone
deflazacort	Emflaza
dexamethasone	Decadron
dexamethasone	Dexabliss
dexamethasone	dexamethasone
dexamethasone	Dexamethasone Intensol
dexamethasone	DexPak 10 day
dexamethasone	DexPak 13 Day
dexamethasone	DexPak 6 Day
dexamethasone	Dxevo
dexamethasone	Hemady
dexamethasone	HiDex
dexamethasone	LoCort
dexamethasone	TaperDex
dexamethasone	ZCort
dexamethasone	ZoDex
dexamethasone	ZonaCort
fludrocortisone acetate	fludrocortisone
hydrocortisone	Alkindi Sprinkle
hydrocortisone	Cortef
hydrocortisone	hydrocortisone

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
methylprednisolone	Medrol
methylprednisolone	Medrol (Pak)
methylprednisolone	Methylpred DP
methylprednisolone	methylprednisolone
prednisolone	Millipred
prednisolone	Millipred DP
prednisolone	prednisolone
prednisolone acetate	Flo-Pred
prednisolone sodium phosphate	Orapred ODT
prednisolone sodium phosphate	Pediapred
prednisolone sodium phosphate	prednisolone sodium phosphate
prednisolone sodium phosphate	Veripred 20
prednisone	Deltasone
prednisone	prednisone
prednisone	Prednisone Intensol
prednisone	Rayos
Azithromycin	
azithromycin	Zithromax
azithromycin	Zithromax Z-Pak
azithromycin	Zithromax TRI-PAK
azithromycin	azithromycin
COVID-19 Vaccination	
COVID-19 vaccine, AZD-1222 (AstraZeneca)/PF	AstraZeneca COVID19 Vac(Unapp)
COVID-19 vaccine, AZD-1222 (AstraZeneca)/PF	AstraZeneca COVID19 Vac(Unapp)
COVID-19 vaccine, mRNA, BNT162b2, LNP-S (Pfizer)/PF	Comirnaty (PF)
COVID-19 vaccine, mRNA, BNT162b2, LNP-S (Pfizer)/PF	Comirnaty (PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Comirnaty tris Vaccine(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Comirnaty tris Vaccine(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Comirnaty tris Vaccine(PF)
COVID-19 vac, Ad26.COV2.S (Janssen)/PF	Janssen COVID-19 Vaccine (EUA)
COVID-19 vac, Ad26.COV2.S (Janssen)/PF	Janssen COVID-19 Vaccine (EUA)
COVID-19 vaccine, mRNA, cx-024414, LNP-S (Moderna)/PF	Moderna COVID-19 (6-11yr)(EUA)
COVID-19 vaccine, mRNA, cx-024414, LNP-S (Moderna)/PF	Moderna COVID-19 (6-11yr)(EUA)
COVID-19 vaccine, mRNA, cx-024414, LNP-S (Moderna)/PF	Moderna COVID-19 Vaccine (EUA)
COVID-19 vaccine, mRNA, cx-024414, LNP-S (Moderna)/PF	Moderna COVID-19 Vaccine (EUA)
COVID-19 vaccine, mRNA, cx-024414, LNP-S (Moderna)/PF	Moderna COVID-19 Vaccine (EUA)
COVID-19 vaccine, mRNA, cx-024414, LNP-S (Moderna)/PF	Moderna COVID-19 Vaccine (EUA)
COVID-19 vaccine, bivalent, mRNA/preservative free	Moderna COVID Biv Boostr(Unap)
COVID-19 vaccine, bivalent, mRNA/preservative free	Moderna COVID Biv Boostr(Unap)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Moderna)/PF	Moderna COVID Bival(6m-5y)-PF
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Moderna)/PF	Moderna COVID Bival(6m-5y)-PF
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Moderna)/PF	Moderna COVID Bival(6m up)(PF)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Moderna)/PF	Moderna COVID Bival(6m up)(PF)
COVID-19 vaccine, mRNA, LNP-S, pediatric (Moderna)/PF	Moderna COVID(6-11y) Vac(DNU)
COVID-19 vaccine, mRNA, LNP-S, pediatric (Moderna)/PF	Moderna COVID(6-11y) Vac(DNU)

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Appendix I. Generic and Brand Names of Medical Products Used to Define Baseline Characteristics in this Request

Generic Name	Brand Name
COVID-19 vaccine, mRNA, LNP-S, pediatric (Moderna)/PF	Moderna COVID(6m-5y) Vacc(EUA)
COVID-19 vaccine, mRNA, LNP-S, pediatric (Moderna)/PF	Moderna COVID(6m-5y) Vacc(EUA)
COVID-19 vaccine, recombinant (Novavax)/adjuvant-Matrix/PF	Novavax COVID-19 Vacc,Adj(EUA)
COVID-19 vaccine, recombinant (Novavax)/adjuvant-Matrix/PF	Novavax COVID-19 Vacc,Adj(EUA)
COVID-19 vaccine, recombinant (Novavax)/adjuvant-Matrix/PF	Novavax COVID-19 Vacc,Adj(EUA)
COVID-19 vaccine, recombinant (Novavax)/adjuvant-Matrix/PF	Novavax COVID-19 Vacc,Adj(EUA)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vac mRNA,tris(Pfizer)/PF	Pfizer COVID-19 tris Vaccn(PF)
COVID-19 vaccine, mRNA, BNT162b2, LNP-S (Pfizer)/PF	Pfizer COVID-19 Vaccine (EUA)
COVID-19 vaccine, mRNA, BNT162b2, LNP-S (Pfizer)/PF	Pfizer COVID-19 Vaccine (EUA)
COVID-19 vaccine, mRNA, BNT162b2, LNP-S (Pfizer)/PF	Pfizer COVID-19 Vaccine (EUA)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Pfizer)/PF	Pfizer COVID Bival(12y up)(PF)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Pfizer)/PF	Pfizer COVID Bival(12y up)(PF)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Pfizer)/PF	Pfizer COVID Bival(12y up)(PF)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Pfizer)/PF	Pfizer COVID Bival(12y up)(PF)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Pfizer)/PF	Pfizer COVID Bival(5-11yr)(PF)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Pfizer)/PF	Pfizer COVID Bival(5-11yr)(PF)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Pfizer)/PF	Pfizer COVID Bival(6mo-4y)(PF)
COVID-19 vaccine mRNA,Original,Omicron BA.4/5(Pfizer)/PF	Pfizer COVID Bival(6mo-4y)(PF)
COVID-19 vaccine, recombinant antigen (Sanofi)/PF	Sanofi COVID Booster-Ag Compnt
COVID-19 vaccine, recombinant antigen (Sanofi)/PF	Sanofi COVID Booster-Ag Compnt
COVID-19 vaccine, mRNA, cx-024414, LNP-S (Moderna)/PF	Spikevax (PF)
COVID-19 vaccine, mRNA, cx-024414, LNP-S (Moderna)/PF	Spikevax (PF)

Appendix J.1. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) tool v12.1.2 to investigate the use of Single-Inhaler Triple Therapy (SITT) and Multiple-Inhaler Triple Therapy (MITT) among patients with chronic obstructive pulmonary disease (COPD) in the Sentinel Distributed Database (SDD).

Query period: October 1, 2017 - December 31, 2021
Coverage requirement: Medical & Drug Coverage
Pre-index enrollment requirement: 365 days
Post-index requirement: N/A
Enrollment gap: 45 days
Age groups: 40-64 years, 65-74 years, 75+ years
Stratifications: Sex, Age, Chronic Bronchitis
Censor output categorization: 0-30 days, 31-90 days, 91-180 days, 181-365 days, 366-730 days, 731-1095 days, 1096-1460 days, 1461+ days
Restrictions: .
Distribution of index-defining codes: Yes
Envelope macro: *Reclassification except on inpatient Adate
Freeze data: N

			Exposure							
Scenario:	**Index Exposure:**	**Cohort definition:**	**Incident exposure washout period:**	**Exclude evidence of days supply if exposure washout includes dispensings:**	**Exposure episode length:**	**Treatment episode gap:**	**Treatment episode extension:**	**Create Baseline Table?:**	**Forced supply to attach to dispensings:**	**Censor treatment episode at evidence of:**
1	Single-Inhaler Triple Therapy (SITT)	Include all valid exposure episodes during query period	0 (Imposed as inclusion/exclusion criteria)	Lookback period should search for evidence of a date or an interval	As treated (N/A)	50%	14	Yes	N/A	Death; Data Partner (DP) end date; Query end date; Switch to MITT
2	Multiple-Inhaler Triple Therapy (MITT; stepping up from baseline separate Inhaled Corticosteroid (ICS) and Long-Acting Beta-Agonist (LABA) inhalers or combination ICS/LABA inhaler)	Include all valid exposure episodes during query period	0 (Imposed as inclusion/exclusion criteria)	Lookback period should search for evidence of a date or an interval	As treated (N/A)	50%	14	Yes	N/A	Death; Data Partner (DP) end date; Query end date; Switch to SITT
3	Multiple-Inhaler Triple Therapy (MITT; stepping up from baseline separate LABA and Long-Acting Muscarinic Antagonist (LAMA) inhalers or combination LABA/LAMA inhaler)	Include all valid exposure episodes during query period	0 (Imposed as inclusion/exclusion criteria)	Lookback period should search for evidence of a date or an interval	As treated (N/A)	50%	14	Yes	N/A	Death; Data Partner (DP) end date; Query end date; Switch to SITT

International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Edition, Clinical Modification (ICD-10-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology (CPT) codes are provided by Optum360.

National Drug Codes (NDC) are checked against First Data Bank's FDB MedKnowledge®.

N/A: Not Applicable

Appendix J.1. Specifications Defining Parameters for this Request (continued)

	Inclusion/Exclusion Criteria										
Scenario	Inclusion/ Exclusion group	Criteria	Care setting	Principal diagnosis position	Evaluation period start	Evaluation period end	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Number of instances the criteria should be found in evaluation period	Minimum Days Supplied	Minimum Days Covered	Forced supply to attach to dispensings
1	Chronic Obstructive Pulmonary Disease (COPD)	Inclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Chronic inhaled dual therapy	Inclusion	N/A	N/A	-365	-1	N/A	1	N/A	180	N/A
	Recent inhaled dual therapy	Inclusion	N/A	N/A	-60	-1	N/A	1	N/A	N/A	N/A
	Prior "any" COPD exacerbation	Inclusion	See Appendix K.6	See Appendix K.6	-365	-1	N/A	1	N/A	N/A	N/A
	Current moderate-severe exacerbation	Exclusion	See Appendix K.6	See Appendix K.6	0	0	N/A	1	N/A	N/A	N/A
	Chronic inahled triple therapy	Exclusion	N/A	N/A	-365	-1	N/A	1	N/A	45	N/A
	Recent inhaled triple therapy	Exclusion	N/A	N/A	-60	-1	N/A	1	N/A	N/A	N/A
	Pre-existing other lung disease (See Appendix G)	Exclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Roflumilast	Exclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Chronic azithromycin	Exclusion	Any	Any	-365	-1	N/A	1	N/A	14	N/A
	Inpatient encounter	Exclusion	Inpatient	Any	0	0	N/A	1	N/A	N/A	N/A
2	COPD	Inclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Chronic inhaled dual therapy with Inhaled Corticosteroid (ICS) and Long-Acting Beta-Agonist (LABA)	Inclusion	N/A	N/A	-365	-1	N/A	1	N/A	180	N/A
	Recent inhaled dual therapy with ICS and LABA	Inclusion	N/A	N/A	-60	-1	N/A	1	N/A	60	N/A
	Prior "any" COPD exacerbation	Inclusion	See Appendix K.6	See Appendix K.6	-365	-1	N/A	1	N/A	N/A	N/A
	Current moderate-severe exacerbation	Exclusion	See Appendix K.6	See Appendix K.6	0	0	N/A	1	N/A	N/A	N/A
	Chronic inahled triple therapy	Exclusion	N/A	N/A	-365	-1	N/A	1	N/A	45	N/A
	Recent inhaled triple therapy	Exclusion	N/A	N/A	-60	-1	N/A	1	N/A	N/A	N/A
	Pre-existing other lung disease (See Appendix G)	Exclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Roflumilast	Exclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Chronic azithromycin	Exclusion	Any	Any	-365	-1	N/A	1	N/A	14	N/A
	Inpatient encounter	Exclusion	Inpatient	Any	0	0	N/A	1	N/A	N/A	N/A

Appendix J.1. Specifications Defining Parameters for this Request (continued)

	Inclusion/Exclusion Criteria										
Scenario	Inclusion/ Exclusion group	Criteria	Care setting	Principal diagnosis position	Evaluation period start	Evaluation period end	Exclude evidence of days supply if inclusion/exclusion evaluation period includes dispensings	Number of instances the criteria should be found in evaluation period	Minimum Days Supplied	Minimum Days Covered	Forced supply to attach to dispensings
3	COPD	Inclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Chronic inhaled dual therapy with LABA and Long-Acting Muscarinic Antagonist (LAMA)	Inclusion	N/A	N/A	-365	-1	N/A	1	N/A	180	N/A
	Recent inhaled dual therapy with LABA and LAMA	Inclusion	N/A	N/A	-60	-1	N/A	1	N/A	60	N/A
	Prior "any" COPD exacerbation	Inclusion	See Appendix K.6	See Appendix K.6	-365	-1	N/A	1	N/A	N/A	N/A
	Current moderate-severe exacerbation	Exclusion	See Appendix K.6	See Appendix K.6	0	0	N/A	1	N/A	N/A	N/A
	Chronic inahled triple therapy	Exclusion	N/A	N/A	-365	-1	N/A	1	N/A	45	N/A
	Recent inhaled triple therapy	Exclusion	N/A	N/A	-60	-1	N/A	1	N/A	N/A	N/A
	Pre-existing other lung disease (See Appendix G)	Exclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Roflumilast	Exclusion	Any	Any	-365	-1	N/A	1	N/A	N/A	N/A
	Chronic azithromycin	Exclusion	Any	Any	-365	-1	N/A	1	N/A	14	N/A
	Inpatient encounter	Exclusion	Inpatient	Any	0	0	N/A	1	N/A	N/A	N/A

International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Edition, Clinical Modification (ICD-10-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology (CPT) codes are provided by Optum360.

National Drug Codes (NDC) are checked against First Data Bank's FDB MedKnowledge®.
N/A: Not Applicable

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Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
2	At least 1 exacerbation episode, set up for inclusion [-365,-1]		-365	-1	Any	Any	N/A	Adate	Dummy value
3	Mean number of moderate or severe exacerbations		-365	-1	Any	Any	N/A	Adate	Dummy value
5	Prior history of 0 severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	N/A
6	Mean number of severe exacerbations		-365	-1	Any	Any	N/A	Adate	Dummy value
7	Prior history of exactly 1 moderate or severe exacerbation episode		-365	-1	Any	Any	N/A	Adate	Exactly 1 time
8	Prior history of exactly 2 moderate or severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	Exactly 2 times
9	Prior history of exactly 3 moderate or severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	Exactly 3 times
10	Prior history of exactly 4 moderate or severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	Exactly 4 times
11	Prior history of at least 5 moderate or severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	At least 5 times
12	Prior history of 0 moderate or severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	N/A
13	Prior history of exactly 1 severe exacerbation episode		-365	-1	Any	Any	N/A	Adate	Exactly 1 time
14	Prior history of exactly 2 severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	Exactly 2 times

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
15	Prior history of exactly 3 severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	Exactly 3 times
16	Prior history of exactly 4 severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	Exactly 4 times
17	Prior history of at least 5 severe exacerbation episodes		-365	-1	Any	Any	N/A	Adate	At least 5 times
28	At least 1 exacerbation episode, set up for exclusion [0,0]		0	0	Any	Any	N/A	Adate	Dummy value
31	Northeast		0	0	Any	Any	N/A	Adate	Dummy value
32	Midwest		0	0	Any	Any	N/A	Adate	Dummy value
33	South		0	0	Any	Any	N/A	Adate	Dummy value
34	West		0	0	Any	Any	N/A	Adate	Dummy value
35	US Territories or Unknown Region		0	0	Any	Any	N/A	Adate	Dummy value
36	Percent Unemployment (q1-q5, missing)		0	0	Any	Any	N/A	Adate	Dummy value
37	Median Household Income (q1-q5, missing)		0	0	Any	Any	N/A	Adate	Dummy value
38	Median Property Value (q1-q5, missing)		0	0	Any	Any	N/A	Adate	Dummy value
39	Spring		0	0	Any	Any	N/A	Adate	Dummy value
40	Summer		0	0	Any	Any	N/A	Adate	Dummy value
41	Fall		0	0	Any	Any	N/A	Adate	Dummy value
42	Winter		0	0	Any	Any	N/A	Adate	Dummy value
43	Anxiety		-365	-1	Any	Any	N/A	Adate	Dummy value
45	Number of antibiotic dispensings (excluding chronic azithromycin)		-365	-1	Any	Any	N/A	Dispensed date	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
46	Number of corticosteroid dispensings		-365	-1	Any	Any	N/A	Dispensed date	At least 1
47	PFT		-365	-1	Any	Any	N/A	Adate	Dummy value
48	Median Household Income Q1		0	0	Any	Any	N/A	Adate	Dummy value
49	Median Household Income Q2		0	0	Any	Any	N/A	Adate	Dummy value
50	Median Household Income Q3		0	0	Any	Any	N/A	Adate	Dummy value
51	Median Household Income Q4		0	0	Any	Any	N/A	Adate	Dummy value
52	Median Household Income Q5		0	0	Any	Any	N/A	Adate	Dummy value
53	Median Household Income Missing		0	0	Any	Any	N/A	Adate	Dummy value
54	Median Property Value Q1		0	0	Any	Any	N/A	Adate	Dummy value
55	Median Property Value Q2		0	0	Any	Any	N/A	Adate	Dummy value
56	Median Property Value Q3		0	0	Any	Any	N/A	Adate	Dummy value
57	Median Property Value Q4		0	0	Any	Any	N/A	Adate	Dummy value
58	Median Property Value Q5		0	0	Any	Any	N/A	Adate	Dummy value
59	Median Property Value Missing		0	0	Any	Any	N/A	Adate	Dummy value
60	Percent Unemployment Q1		0	0	Any	Any	N/A	Adate	Dummy value
61	Percent Unemployment Q2		0	0	Any	Any	N/A	Adate	Dummy value
62	Percent Unemployment Q3		0	0	Any	Any	N/A	Adate	Dummy value
63	Percent Unemployment Q4		0	0	Any	Any	N/A	Adate	Dummy value
64	Percent Unemployment Q5		0	0	Any	Any	N/A	Adate	Dummy value
65	Percent Unemployment Missing		0	0	Any	Any	N/A	Adate	Dummy value

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics									
Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
66	Atrial fibrillation		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
67	Atrial or ventricular arrythmias		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
68	Cachexia		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
69	Chronic bronchitis		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
70	Chronic kidney disease		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
71	Congestive heart failure		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
72	Cardiovascular disease (myocardial infarction, stroke, heart failure, angina or transient ischemic attack)		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
73	Diabetes		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
74	Emphysematous phenotype		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
75	Gastroesophageal reflux disease (GERD)		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
76	Hypertension		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
77	Lung cancer		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
78	Major depressive disorder		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
79	Obesity		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
80	Obstructive sleep apnea		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
81	Osteoporosis		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
82	Other (non-lung) cancer		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
83	Pneumonia		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
84	Pulmonary embolus		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
85	Pulmonary hypertension		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
86	Angiotensin-converting enzyme inhibitors (ACEIs) or Angiotensin receptor blockers (ARBs)		-365	-1	Any	Any	N/A	Dispensed date	At least 1
87	Amiodarone		-365	-1	Any	Any	N/A	Dispensed date	At least 1
88	Anticonvulsants		-365	-1	Any	Any	N/A	Dispensed date	At least 1
89	Antidepressants		-365	-1	Any	Any	N/A	Dispensed date	At least 1
90	Antipsychotics		-365	-1	Any	Any	N/A	Dispensed date	At least 1
91	Anxiolytics or hypnotics		-365	-1	Any	Any	N/A	Dispensed date	At least 1
92	Benzodiazepine		-365	-1	Any	Any	N/A	Dispensed date	At least 1
93	Beta blockers or calcium channel blockers		-365	-1	Any	Any	N/A	Dispensed date	At least 1
94	Dementia medications		-365	-1	Any	Any	N/A	Dispensed date	At least 1
95	Digoxin		-365	-1	Any	Any	N/A	Dispensed date	At least 1
96	Diuretics		-365	-1	Any	Any	N/A	Dispensed date	At least 1
97	Insulin		-365	-1	Any	Any	N/A	Dispensed date	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
98	Non-insulin antidiabetic medications		-365	-1	Any	Any	N/A	Dispensed date	At least 1
99	Opioids		-365	-1	Any	Any	N/A	Dispensed date	At least 1
100	Parkinsons medications		-365	-1	Any	Any	N/A	Dispensed date	At least 1
101	Proton pump inhibitors		-365	-1	Any	Any	N/A	Dispensed date	At least 1
102	Therapeutic anticoagulants		-365	-1	Any	Any	N/A	Dispensed date	At least 1
103	Colon cancer screening		Entire history	-1	Any	Any	N/A	Dispensed date	At least 1
104	Influenza vaccination		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
105	Breast cancer screening (mammogram)		Entire history	-1	Any	Any	N/A	Procedure date	At least 1
106	Cervical cancer screening (pap smear)		Entire history	-1	Any	Any	N/A	Procedure date	At least 1
107	Pneumococcal vaccination		Entire history	-1	Any	Any	N/A	Procedure date	At least 1
108	Prostate cancer screening		Entire history	-1	Any	Any	N/A	Procedure date	At least 1
109	History of smoking		Entire history	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
110	Oxygen therapy		-365	-1	Any	Any	N/A	Procedure date	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
117	Cirrhosis		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
118	History of pulmonary rehabiliation		-365	-1	Any	Any	N/A	Procedure date	At least 1
119	Any institutional stay (binary)		-365	-1	Any	Any	N/A	Admission date for diagnosis	At least 1
121	PFT 0-1		-365	-1	Any	Any	N/A	Adate	Dummy value
122	PFT 2-3		-365	-1	Any	Any	N/A	Adate	Dummy value
123	PFT >=4		-365	-1	Any	Any	N/A	Adate	Dummy value
124	Respiratory failure		-365	-1	Any	Any	N/A	Procedure date	At least 1
125	Intubation		-365	-1	Any	Any	N/A	Procedure date	At least 1
126	Mechanical ventilation		-365	-1	Any	Any	N/A	Procedure date	At least 1
127	Respiratory failure with intubation and mechanical ventilation (CC)	Characteristics 124 AND 125 AND 126	N/A	N/A	N/A	N/A	N/A	N/A	Dummy value
147	Any Single Inhaler Triple Therapy (SITT) Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
148	Any Single-Agent Inhaled Corticosteroid (ICS) Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
149	Any Single-Agent Long-Acting Beta Agonist (LABA) Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
150	Any Single-Agent Long-Acting Muscarinic Antagonist (LAMA) Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
151	Any Single-Agent ICS AND Any Single-Agent LABA AND Any Single-Agent LAMA Prior to Baseline	Characteristics 148 AND 149 AND 150	Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
152	Any Dual-Agent ICS-LABA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
153	Any Dual-Agent LABA-LAMA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
154	Any Single-Agent LABA OR Dual-Agent ICS-LABA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
155	Any Single-Agent LAMA OR Dual-Agent LABA-LAMA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
156	Any Dual-Agent ICS-LABA AND Any Single-Agent LAMA Prior to Baseline	Characteristics 152 AND 150	Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
157	Any Dual-Agent LABA-LAMA AND Any Single-Agent ICS Prior to Baseline	Characteristics 153 AND 148	Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
158	Any Inhaled Triple Therapy Prior to Baseline	Characteristic 147 OR (148 AND 149 AND 150) OR (152 AND 150) OR (153 AND 148)	Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
159	>=45d SITT Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1

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Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
160	>=45d Single-Agent ICS Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
161	>=45d Single-Agent LABA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
162	>=45d Single-Agent LAMA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
163	>=45d Single-Agent ICS AND >=45d Single-Agent LABA AND >=45d Single-Agent LAMA Prior to Baseline	Characteristics 160 AND 161 AND 162	Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
164	>=45d Dual-Agent ICS-LABA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
165	>=45d Dual-Agent LABA-LAMA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
166	>=45d Single-Agent LABA OR Dual-Agent ICS-LABA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
167	>=45d Single-Agent LAMA OR Dual-Agent LABA-LAMA Prior to Baseline		Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
168	>=45d Dual-Agent ICS-LABA AND >=45d Single-Agent LAMA Prior to Baseline	Characteristics 164 AND 162	Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
169	>=45d Dual-Agent LABA-LAMA AND >=45d Single-Agent ICS Prior to Baseline	Characteristics 165 AND 160	Entire history	-366	Any	Any	N/A	Dispensed date	At least 1

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Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
170	>=45d Inhaled Triple Therapy Prior to Baseline	Characteristics (159) OR (160 AND 161 AND 162) OR (164 AND 162) OR (165 AND 160)	Entire history	-366	Any	Any	N/A	Dispensed date	At least 1
171	Any Single Inhaler Triple Therapy (SITT) [0, 0]		0	0	Any	Any	N/A	Dispensed date	At least 1
172	Any Single Inhaler Triple Therapy (SITT) [1, 29]		1	29	Any	Any	N/A	Dispensed date	At least 1
173	Any Single Inhaler Triple Therapy (SITT) [30, 59]		30	59	Any	Any	N/A	Dispensed date	At least 1
174	Any Single Inhaler Triple Therapy (SITT) [60, 89]		60	89	Any	Any	N/A	Dispensed date	At least 1
175	Any Single Inhaler Triple Therapy (SITT) [90, 179]		90	179	Any	Any	N/A	Dispensed date	At least 1
176	Any Single Inhaler Triple Therapy (SITT) [180, 269]		180	269	Any	Any	N/A	Dispensed date	At least 1
177	Any Single Inhaler Triple Therapy (SITT) [270, 359]		270	359	Any	Any	N/A	Dispensed date	At least 1
178	Any Single Inhaler Triple Therapy (SITT) [360, 365]		360	365	Any	Any	N/A	Dispensed date	At least 1
179	Any Single-Agent ICS [0, 0]		0	0	Any	Any	N/A	Dispensed date	At least 1
180	Any Single-Agent ICS [1, 29]		1	29	Any	Any	N/A	Dispensed date	At least 1
181	Any Single-Agent ICS [30, 59]		30	59	Any	Any	N/A	Dispensed date	At least 1
182	Any Single-Agent ICS [60, 89]		60	89	Any	Any	N/A	Dispensed date	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
183	Any Single-Agent ICS [90, 179]		90	179	Any	Any	N/A	Dispensed date	At least 1
184	Any Single-Agent ICS [180, 269]		180	269	Any	Any	N/A	Dispensed date	At least 1
185	Any Single-Agent ICS [270, 359]		270	359	Any	Any	N/A	Dispensed date	At least 1
186	Any Single-Agent ICS [360, 365]		360	365	Any	Any	N/A	Dispensed date	At least 1
187	Any Single-Agent LABA [0, 0]		0	0	Any	Any	N/A	Dispensed date	At least 1
188	Any Single-Agent LABA [1, 29]		1	29	Any	Any	N/A	Dispensed date	At least 1
189	Any Single-Agent LABA [30, 59]		30	59	Any	Any	N/A	Dispensed date	At least 1
190	Any Single-Agent LABA [60, 89]		60	89	Any	Any	N/A	Dispensed date	At least 1
191	Any Single-Agent LABA [90, 179]		90	179	Any	Any	N/A	Dispensed date	At least 1
192	Any Single-Agent LABA [180, 269]		180	269	Any	Any	N/A	Dispensed date	At least 1
193	Any Single-Agent LABA [270, 359]		270	359	Any	Any	N/A	Dispensed date	At least 1
194	Any Single-Agent LABA [360, 365]		360	365	Any	Any	N/A	Dispensed date	At least 1
195	Any Single-Agent LAMA [0, 0]		0	0	Any	Any	N/A	Dispensed date	At least 1
196	Any Single-Agent LAMA [1, 29]		1	29	Any	Any	N/A	Dispensed date	At least 1
197	Any Single-Agent LAMA [30, 59]		30	59	Any	Any	N/A	Dispensed date	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
198	Any Single-Agent LAMA [60, 89]		60	89	Any	Any	N/A	Dispensed date	At least 1
199	Any Single-Agent LAMA [90, 179]		90	179	Any	Any	N/A	Dispensed date	At least 1
200	Any Single-Agent LAMA [180, 269]		180	269	Any	Any	N/A	Dispensed date	At least 1
201	Any Single-Agent LAMA [270, 359]		270	359	Any	Any	N/A	Dispensed date	At least 1
202	Any Single-Agent LAMA [360, 365]		360	365	Any	Any	N/A	Dispensed date	At least 1
203	Any Dual-Agent ICS-LABA [0, 0]		0	0	Any	Any	N/A	Dispensed date	At least 1
204	Any Dual-Agent ICS-LABA [1, 29]		1	29	Any	Any	N/A	Dispensed date	At least 1
205	Any Dual-Agent ICS-LABA [30, 59]		30	59	Any	Any	N/A	Dispensed date	At least 1
206	Any Dual-Agent ICS-LABA [60, 89]		60	89	Any	Any	N/A	Dispensed date	At least 1
207	Any Dual-Agent ICS-LABA [90, 179]		90	179	Any	Any	N/A	Dispensed date	At least 1
208	Any Dual-Agent ICS-LABA [180, 269]		180	269	Any	Any	N/A	Dispensed date	At least 1
209	Any Dual-Agent ICS-LABA [270, 359]		270	359	Any	Any	N/A	Dispensed date	At least 1
210	Any Dual-Agent ICS-LABA [360, 365]		360	365	Any	Any	N/A	Dispensed date	At least 1
211	Any Dual-Agent LABA-LAMA [0, 0]		0	0	Any	Any	N/A	Dispensed date	At least 1
212	Any Dual-Agent LABA-LAMA [1, 29]		1	29	Any	Any	N/A	Dispensed date	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
213	Any Dual-Agent LABA-LAMA [30, 59]		30	59	Any	Any	N/A	Dispensed date	At least 1
214	Any Dual-Agent LABA-LAMA [60, 89]		60	89	Any	Any	N/A	Dispensed date	At least 1
215	Any Dual-Agent LABA-LAMA [90, 179]		90	179	Any	Any	N/A	Dispensed date	At least 1
216	Any Dual-Agent LABA-LAMA [180, 269]		180	269	Any	Any	N/A	Dispensed date	At least 1
217	Any Dual-Agent LABA-LAMA [270, 359]		270	359	Any	Any	N/A	Dispensed date	At least 1
218	Any Dual-Agent LABA-LAMA [360, 365]		360	365	Any	Any	N/A	Dispensed date	At least 1
219	Any Single Agent (ICS and LABA and LAMA) [0, 0]	Characteristics 179 AND 187 AND 195	0	0	Any	Any	N/A	Dispensed date	At least 1
220	Any Single Agent (ICS and LABA and LAMA) [1, 29]	Characteristics 180 AND 188 AND 196	1	29	Any	Any	N/A	Dispensed date	At least 1
221	Any Single Agent (ICS and LABA and LAMA) [30, 59]	Characteristics 181 AND 189 AND 197	30	59	Any	Any	N/A	Dispensed date	At least 1
222	Any Single Agent (ICS and LABA and LAMA) [60, 89]	Characteristics 182 AND 190 AND 198	60	89	Any	Any	N/A	Dispensed date	At least 1
223	Any Single Agent (ICS and LABA and LAMA) [90, 179]	Characteristics 183 AND 191 AND 199	90	179	Any	Any	N/A	Dispensed date	At least 1
224	Any Single Agent (ICS and LABA and LAMA) [180, 269]	Characteristics 184 AND 192 AND 200	180	269	Any	Any	N/A	Dispensed date	At least 1
225	Any Single Agent (ICS and LABA and LAMA) [270, 359]	Characteristics 185 AND 193 AND 201	270	359	Any	Any	N/A	Dispensed date	At least 1
226	Any Single Agent (ICS and LABA and LAMA) [360, 365]	Characteristics 186 AND 194 AND 202	360	365	Any	Any	N/A	Dispensed date	At least 1
227	Any Dual-Agent ICS-LABA and Single-Agent LAMA [0, 0]	Characteristics 203 AND 195	0	0	Any	Any	N/A	Dispensed date	At least 1

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Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
228	Any Dual-Agent ICS-LABA and Single-Agent LAMA [1, 29]	Characteristics 204 AND 196	1	29	Any	Any	N/A	Dispensed date	At least 1
229	Any Dual-Agent ICS-LABA and Single-Agent LAMA [30, 59]	Characteristics 205 AND 197	30	59	Any	Any	N/A	Dispensed date	At least 1
230	Any Dual-Agent ICS-LABA and Single-Agent LAMA [60, 89]	Characteristics 206 AND 198	60	89	Any	Any	N/A	Dispensed date	At least 1
231	Any Dual-Agent ICS-LABA and Single-Agent LAMA [90, 179]	Characteristics 207 AND 199	90	179	Any	Any	N/A	Dispensed date	At least 1
232	Any Dual-Agent ICS-LABA and Single-Agent LAMA [180, 269]	Characteristics 208 AND 200	180	269	Any	Any	N/A	Dispensed date	At least 1
233	Any Dual-Agent ICS-LABA and Single-Agent LAMA [270, 359]	Characteristics 209 AND 201	270	359	Any	Any	N/A	Dispensed date	At least 1
234	Any Dual-Agent ICS-LABA and Single-Agent LAMA [360, 365]	Characteristics 210 AND 202	360	365	Any	Any	N/A	Dispensed date	At least 1
235	Any Dual-Agent LABA-LAMA and Single-Agent ICS [0, 0]	Characteristics 211 AND 179	0	0	Any	Any	N/A	Dispensed date	At least 1
236	Any Dual-Agent LABA-LAMA and Single-Agent ICS [1, 29]	Characteristics 212 AND 180	1	29	Any	Any	N/A	Dispensed date	At least 1
237	Any Dual-Agent LABA-LAMA and Single-Agent ICS [30, 59]	Characteristics 213 AND 181	30	59	Any	Any	N/A	Dispensed date	At least 1
238	Any Dual-Agent LABA-LAMA and Single-Agent ICS [60, 89]	Characteristics 214 AND 182	60	89	Any	Any	N/A	Dispensed date	At least 1
239	Any Dual-Agent LABA-LAMA and Single-Agent ICS [90, 179]	Characteristics 215 AND 183	90	179	Any	Any	N/A	Dispensed date	At least 1
240	Any Dual-Agent LABA-LAMA and Single-Agent ICS [180, 269]	Characteristics 216 AND 184	180	269	Any	Any	N/A	Dispensed date	At least 1

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Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
241	Any Dual-Agent LABA-LAMA and Single-Agent ICS [270, 359]	Characteristics 217 AND 185	270	359	Any	Any	N/A	Dispensed date	At least 1
242	Any Dual-Agent LABA-LAMA and Single-Agent ICS [360, 365]	Characteristics 218 AND 186	360	365	Any	Any	N/A	Dispensed date	At least 1
243	Any Multiple Inhaler Triple Therapy (MITT) [0, 0]	Characteristics (179 AND 187 AND 195) OR (203 AND 195) OR (211 AND 179)	0	0	Any	Any	N/A	Dispensed date	At least 1
244	Any Multiple Inhaler Triple Therapy (MITT) [1, 29]	Characteristics (180 AND 188 AND 196) OR (204 AND 196) OR (212 AND 180)	1	29	Any	Any	N/A	Dispensed date	At least 1
245	Any Multiple Inhaler Triple Therapy (MITT) [30, 59]	Characteristics (181 AND 188 AND 197) OR (205 AND 197) OR (213 AND 181)	30	59	Any	Any	N/A	Dispensed date	At least 1
246	Any Multiple Inhaler Triple Therapy (MITT) [60, 89]	Characteristics (182 AND 189 AND 198) OR (206 AND 198) OR (214 AND 182)	60	89	Any	Any	N/A	Dispensed date	At least 1
247	Any Multiple Inhaler Triple Therapy (MITT) [90, 179]	Characteristics (183 AND 190 AND 199) OR (207 AND 199) OR (215 AND 183)	90	179	Any	Any	N/A	Dispensed date	At least 1
248	Any Multiple Inhaler Triple Therapy (MITT) [180, 269]	Characteristics (184 AND 191 AND 200) OR (208 AND 200) OR (216 AND 184)	180	269	Any	Any	N/A	Dispensed date	At least 1

Sentinel

Appendix J.2 Specifications Defining Parameters for this Request, Baseline Characteristics

Baseline Characteristics

Covariate Number*	Baseline Characteristic	Code Definition	Evaluation Period Start	Evaluation Period End	Care Setting	Principal Diagnosis Position	Forced Days Supply?	Evaluate Evidence of:	Number of instances the covariate should be found in evaluation period**
249	Any Multiple Inhaler Triple Therapy (MITT) [270, 359]	Characteristics (185 AND 192 AND 201) OR (209 AND 201) OR (217 AND 185)	270	359	Any	Any	N/A	Dispensed date	At least 1
250	Any Multiple Inhaler Triple Therapy (MITT) [360, 365]	Characteristics (186 AND 193 AND 202) OR (210 AND 202) OR (218 AND 186)	360	365	Any	Any	N/A	Dispensed date	At least 1
251	Any Multiple Inhaler Triple Therapy (MITT) [0, 365]		0	365	Any	Any	N/A	Dispensed date	At least 1
252	Any Single Inhaler Triple Therapy (SITT) [0, 365]	Characteristics 171 OR 172 OR 173 OR 174 OR 175 OR 176 OR 177 OR 178	0	365	Any	Any	N/A	Dispensed date	At least 1

*Gray highlights indicate custom covariates

N/A: Not Applicable

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Appendix J.3 Specifications Defining Parameters for this Request, Stockpiling

Stockpiling

Stockpiling Group	Same Day Dispensing Processing for Days Supplied	Same Day Dispensing Processing for Amount Supplied	Range of Allowable Days Supplied Values	Range of Allowable Amount Supplied Values	Overlap Percentage
AZI14ormore (Index defining)	Adds all days supplied values for dispensings in the same stockgroup on the same day	Adds all amount values for dispensings in the same stockgroup on the same day	14-HIGH	Default: 0-HIGH	Default
AZIlessthan14	Adds all days supplied values for dispensings in the same stockgroup on the same day	Adds all amount values for dispensings in the same stockgroup on the same day	LOW-<14	Default: 0-HIGH	Default

Appendix J.4 Specifications Defining Parameters for this Request, Comorbidity

Comorbidity Score

Evaluation Period Start	Evaluation Period End
-365	-1

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Appendix J.5 Specifications Defining Parameters for this Request, Utilization

Utilization

Medical Utilization Evaluation Period	Medical Utilization Evaluation Period End	Medical Visit Care Settings	Drug Utilization Evaluation Period Start	Drug Utilization Evaluation Period End
-365	-1	*Inpatient hospital stay; *Non-acute institutional stay; *Emergency department encounter; *Ambulatory visit; *Other ambulatory visit; *Any care setting	-365	-1

Appendix J.6 Specifications Defining Parameters for this Request, Exacerbation Definition

Exacerbation Episode Definition

Outcome	Description	Care Setting	Episode Gap	Episode Extension
Severe exacerbation event*	Chronic obstructive pulmonary disease (COPD) exacerbation code in any position OR COPD diagnosis code in the primary position OR Acute respiratory failure diagnosis code in the primary position AND COPD diagnosis code in any position (same day)	IP	14 days	14 days
Moderate exacerbation event*	COPD diagnosis code AND (At least 3 days supply of oral corticosteroids [3,inf] within 7 days (+/- 7) OR corticosteroids (injectibles, HCPCS) date of administration within 7 days (+/- 7) OR non-azithromycin antibiotics [3,15] days supply OR azithromycin [3,13] days supply within 7 days (+/- 7)) If oral corticosteroids are [14,inf] AND if another oral corticosteroid [14,inf] is dispensed in the previous 30 days, THEN don't count as exacerbation.	AV/ED/OA**	14 days	14 days

*For both severe and moderate exacerbation events, events will be evaluated sequentially for patients in the cohort from their left censor date (earliest time frame of required data) to their right censor date. Evaluation will only start after the left censor date, i.e., components prior to the start of baseline (-365 days) will be ignored. Evaluation will not look past right censor date, i.e., components after the end of follow-up time for that cohort will be ignored (prior to accounting for censoring criteria, this would be end of treatment episode for as-treated cohorts and max episode length of 365 days for intent to treat cohorts).

For severe exacerbation events, event date will be assigned to the date of the IP diagnosis. For moderate events, event dates will be assigned to the earlier of the paired RX or DX. For moderate exacerbation event components, any single valid RX code can only be paired with one DX code.

** Should an AV/ED/OA COPD diagnosis (not exacerbation) code occur during an IP encounter, this COPD diagnosis will be reclassified as a IPX due to the envelope macro. In this case, the COPD diagnosis will qualify neither as a severe exacerbation event (unless an acute respiratory failure IPP code is present on the same day) nor as a moderate exacerbation event component.

Appendix J.6 Specifications Defining Parameters for this Request, Exacerbation Definition

Exacerbation Episodes for Moderate or Severe Exacerbation Events:

For every patient with qualifying index date of ROF or AZI_CHRONIC, generate patient record of **exacerbation episodes** as follows:

Starting with left censor date (365 days prior to first qualifying index) through right censor date (end of follow-up time, defined as earliest of: death, disenrollment, DP max date, max episode length of 365 days or treatment episode end for as-treated cohort only), calculate exacerbation episodes by:

1. Find all evidence of severe exacerbations as defined by code lists, retaining admission date (ADATE) and discharge date (DDATE)

2. Find all evidence of moderate exacerbation events defined by code lists with required concomitant OCS/ABX medications, retaining ADATE (which is always equal to DDATE given the AV/OA/ED encounter type and **is the FIRST of the RX/DX pair to occur**)

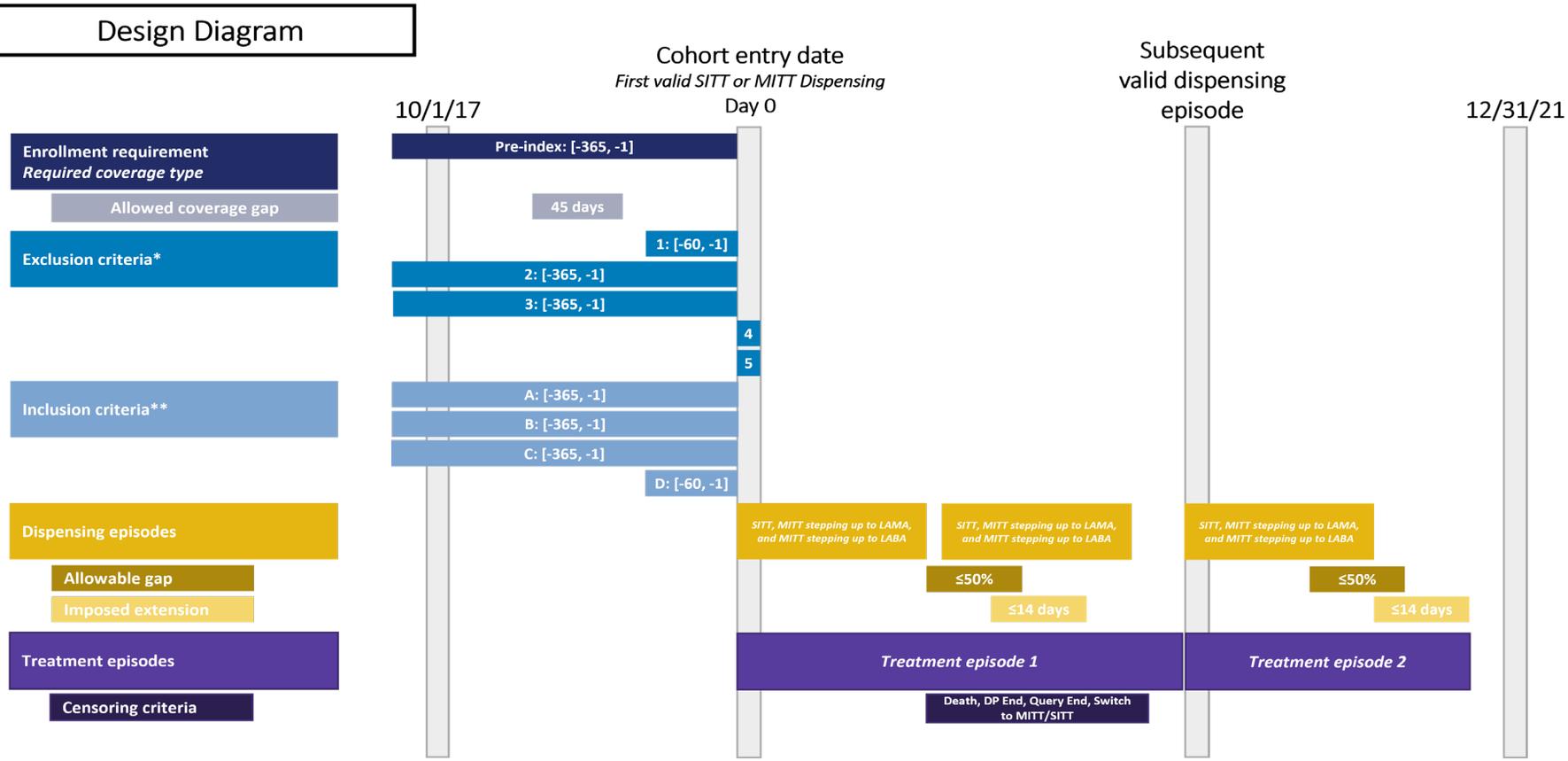
This should result in various points-in-times (flags) for exacerbation events as described above.

3. Concatenate exacerbation episodes similarly to how treatment episodes are concatenated using the above mentioned ADATE and DDATE by a) overlapping exacerbation events - i.e., no "stockpiling" equivalent, b) using gap parameter of 14 days to concatenate exacerbation events and c) adding final 14 day extension to last exacerbation event. When exacerbation events form an episode, this is counted as 1 outcome event within the moderate or severe exacerbation outcome counts.

When considering exacerbation episodes for exclusion criteria, note that the length of the exacerbation episode includes the 14-day extension.

If exacerbation episode has ANY serious exacerbation flag within it, assign episode as serious. Otherwise, episode remains classified as a moderate exacerbation.

Appendix K. Design Diagram for Cohort Defining Criteria



*Exclusion Criteria
Window 1: *Recent inhaled triple therapy*
Window 2: *Chronic inhaled triple therapy*
Window 3: *Certain pre-existing lung diseases, roflumilast, azithromycin ≥14 days*
Window 4: *Inpatient encounter*
Window 5: *Moderate or severe COPD exacerbation*

**Inclusion Criteria
Window A: *COPD*
Window B: *COPD exacerbation*
Window C: *Chronic inhaled dual therapy*
Window D: *Recent inhaled dual therapy*