

## **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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## Overview for Request: cder\_mpl1p\_wp072

**Request ID:** cder\_mpl1p\_wp072

**Request Description:** In this report we describe the clinical characteristics of pregnancies among individuals who received treatment with select medications for multiple sclerosis (MS) such as fingolimod, dimethyl fumarate, beta interferons, or no treatment with medications indicated to treat MS (beta interferons, glatiramer acetate, mitoxantrone, natalizumab, fingolimod, dimethyl fumarate, PEGylated beta interferon, alemtuzumab, ocrelizumab, siponimod, or diroxime fumarate) in the first trimester of pregnancy. We describe the occurrence of cardiac, urinary, other non-cardiac and non-urinary, or any congenital malformations during the pregnancy or post-delivery period based on evidence available in the mothers' records in the Sentinel Distributed Database (SDD).

**Sentinel Routine Querying Module:** We used Cohort Identification and Descriptive Analysis (CIDA) tool, version 12.0.0, with custom programming to fulfill this request.

**Data Source:** We distributed this request to 12 Sentinel Data Partners on January 9, 2023. These 12 Data Partners are a subset of the SDD and include Medicaid patients. The cohort selection period includes live birth deliveries from January 1, 2011 up to August 1, 2022. Please see Appendix A for a list of data availability dates and dates of cohort selection for each Data Partner.

**Study Design:** We identified females between 15 and 50 years of age with evidence of a live birth delivery who were exposed to MS treatments of interest and met specific inclusion/exclusion criteria (please see below). We assessed use during the first trimester of pregnancy, as a sensitivity analysis, and between X days prior to pregnancy through the end of the first trimester of pregnancy, where X equals five times the half-life of the MS treatment specified. We also described clinical characteristics and outcomes of interest. This is a Type 4 analysis in the Query Request Package (QRP) documentation.

**Cohort Eligibility Criteria:** Two runs of the program were executed to meet different enrollment requirements and inclusion/exclusion criteria. To be included in this analysis, an episode of pregnancy was required to have evidence of the MS treatment of interest (please see below) and evidence of:

**In Run 1:**

- A live birth delivery
- Continuous enrollment in a health plan with medical and drug coverage for at least 301 before live birth delivery, during which gaps of up to 45 days were permissible
- No live birth delivery recorded in the 273 days prior to the live birth delivery being evaluated
- No malformations resulting from chromosomal abnormalities recorded during the pregnancy or up to 30 days after live birth delivery
- No use of teratogens in the first trimester of pregnancy, defined as the estimated start of pregnancy to 90 days

**In Run 2:**

- A live birth delivery
- Continuous enrollment in a health plan with medical and drug coverage for at least 431 days, equaling maximum pregnancy duration (301 days) plus max duration of MS therapy with longest five times half-life (130 days), before live birth delivery, during which gaps of up to 45 days were permissible.
- No live birth delivery recorded in the 273 days prior to the live birth delivery being evaluated
- No malformations resulting from chromosomal abnormalities recorded during the pregnancy or up to 30 days after live birth delivery
- No use of teratogens in the 130 days before and 90 days after the estimated start of pregnancy, estimated using the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP) Algorithm.

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An individual was allowed to contribute multiple qualifying episodes of pregnancies during the cohort selection period to the analysis.

Please see Appendices D, E, and F for Lists of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS), Current Procedural Terminology, Fourth Edition (CPT-4), and the Healthcare Common Procedure Coding System (HCPCS) codes, used to define MS treatments of interest, chromosomal abnormalities, teratogens, and live birth delivery.

MS Treatments of Interest: We created separate cohorts of pregnancies that were exposed to:

- fingolimod, but not beta interferons or dimethyl fumarate
- dimethyl fumarate, but not fingolimod or beta interferons
- beta interferons, but not fingolimod or dimethyl fumarate

Additionally, we created a separate cohort of pregnancies that had evidence of a diagnosis of MS in all available history and no treatment with any therapeutic agent indicated for MS (beta interferons, glatiramer acetate, mitoxantrone, natalizumab, fingolimod, dimethyl fumarate, PEGylated beta interferon, alemtuzumab, ocrelizumab, siponimod, or diroximel fumarate)

We evaluated exposure to MS treatments of interest in two different time windows:

- (Time period A) From the estimated start of pregnancy to the end of the first trimester (90 days), with no exposure to comparator drugs during the same period
- (Time period B) From X days prior to estimated start of pregnancy to the end of the first trimester of pregnancy, with no exposure to comparator drugs X days prior to estimated pregnancy start, where X equals five times the half-life of the MS treatment specified

All MS treatment and no treatment cohorts were assessed during both time windows.

Please see Appendices B and C for non-proprietary and brand names and Level II HCPCS codes used to identify MS treatments of interest.

**Baseline Characteristics:** For each of the time windows below, the following clinical characteristics were assessed:

### In Run 1:

a) *First trimester defined as the estimated start of pregnancy to 90 days:*

- Use of psychotropic medications, non-insulin antidiabetic medications, antihypertensive medications, buprenorphine, insulin, methadone, naloxone, naltrexone, opioids, and suspected teratogens such as fluconazole, methimazole, danazol, propylthiouracil, progestins, angiotensin converting enzyme inhibitors, and corticosteroids.

b) *Entire pregnancy defined as 301 days prior to and including the date of live birth delivery:*

- Psychiatric and neurological conditions, substance use disorder, use of nicotine, diabetes, hypertension, obesity, and urinary disease

c) *Entire available medical record to date of live birth delivery:*

- Multiple sclerosis

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### In Run 2:

#### a) 130 days prior to the estimated start of pregnancy to 90 days after the date of live birth delivery:

- Psychiatric and neurological conditions, substance use disorder, use of nicotine, diabetes, hypertension, obesity, urinary disease, psychotropic medications, non-insulin antidiabetic medications, antihypertensive medications, buprenorphine, insulin, methadone, naloxone, naltrexone, opioids, and suspected teratogens such as fluconazole, methimazole, danazol, propylthiouracil, progestins, angiotensin converting enzyme inhibitors, and corticosteroids.

#### b) Entire available medical record to date of live birth delivery:

- Multiple sclerosis

See Appendices G and H for ICD-9-CM, ICD-10-CM, ICD-10-PCS, and CPT-4 codes used to identify baseline characteristics.

**Outcomes of Interest:** We evaluated the occurrence of specific congenital malformations namely cardiac malformations, urinary malformations, other non-cardiac or urinary malformations, and any (cardiac, urinary, or other) malformations.

We searched for evidence of a single code representing cardiac, urinary, other, or any malformations in the first, second, or third trimesters of pregnancy in the mothers' records and within 30 days of delivery in the mothers' records. Separately, we searched for at least two instances of codes representing cardiac, urinary, other, or any malformations in the first, second, or third trimesters of pregnancy in the mothers' records and within 30 days of delivery in the mothers' records.

Please see Appendix I for ICD-9-CM, ICD-10-CM, and CPT-4 codes used to identify specific congenital malformations of interest.

For detailed specifications of parameters used in this analysis, please refer to Appendix J to define cohort entry, Appendix K for half-lives of MS treatments, Appendix L to define baseline characteristics and specific congenital malformations of interest, and Appendix M for a design diagram.

**Pregnancy Episode Creation:** We used a validated algorithm from Sentinel's Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP)<sup>1,2</sup> to estimate the length of pregnancy episodes via gestational age codes, including pre-/post-term delivery codes that occurred within seven days of a delivery date in the inpatient care setting. In the absence of pre-/post-term codes, pregnancy duration was set to 273 days. See Appendix F for a list of ICD-9-CM, ICD-10-CM, ICD-10-PCS, and CPT-4 codes used to define live birth delivery. See Appendix G for a list of ICD-9-CM and ICD-10-CM codes and algorithm information used to define gestational age.

**Please see Appendix J for the specifications of parameters used in the analyses for this request.**

**Limitations:** Algorithms used to define live birth delivery, gestational age, and specific congenital malformations are imperfect; thus, it is possible that there may be misclassification.

**Notes:** Please contact the Sentinel Operations Center (info@sentinelssystem.org) for questions and to provide comments/suggestions for future enhancements to this document.

<sup>1</sup>Pregnancy Episodes Cohort Identification Strategy. Sentinel Initiative. Available from: <https://dev.sentinelssystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse/files/file150-type04-pregepi.md>

<sup>2</sup>Li Q, Andrade SE, Cooper WO, et al. Validation of an algorithm to estimate gestational age in electronic health plan databases. *Pharmacoepidemiol Drug Saf.* 2013;22:524-32.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

**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



**Table 1a. Aggregated Characteristics of Pregnancies with Fingolimod, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Fingolimod		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Unique patients	104	N/A
Unique episodes	107	N/A
<b>Demographic Characteristics</b>		
Age (years)	31.2	5.4
Age		
15-17 years	*****	*****
18-34 years	80	74.8%
35-50 years	*****	*****
Sex		
Female	104	100.0%
Race <sup>4</sup>		
American Indian or Alaska Native	0	0.0%
Asian	*****	*****
Black or African American	*****	*****
Multi-racial	0	0.0%
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	76	73.1%
White	20	19.2%
Hispanic origin		
Yes	*****	*****
No	*****	*****
Unknown	80	76.9%
Year		
2011	0	0.0%
2012	*****	*****
2013	*****	*****
2014	*****	*****
2015	*****	*****
2016	*****	*****
2017	25	23.4%
2018	23	21.5%
2019	15	14.0%
2020	*****	*****
2021	*****	*****
2022	*****	*****
<b>Pregnancy Characteristics</b>		
Pre-Term (0-258 days)	14	13.1%
Term (259-280 days)	61	57.0%
Post-Term (281-301 days)	15	14.0%
Unknown Term	17	15.9%
Gestational age <sup>5</sup> at delivery	39.2	2.1
<b>Health Characteristics</b>		
Cardiac malformations in the first trimester	*****	*****
Cardiac malformations in the second trimester	0	0.0%

**Table 1a. Aggregated Characteristics of Pregnancies with Fingolimod, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Fingolimod		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Cardiac malformations in the third trimester	*****	*****
Cardiac malformations in the second or third trimester	*****	*****
Cardiac malformations post-delivery	0	0.0%
Cardiac malformations in the first trimester (2 codes)	0	0.0%
Cardiac malformations in the second trimester (2 codes)	0	0.0%
Cardiac malformations in the third trimester (2 codes)	0	0.0%
Cardiac malformations in the second or third trimester (2 codes)	0	0.0%
Cardiac malformations post-delivery (2 codes)	0	0.0%
Urinary malformations in the first trimester	0	0.0%
Urinary malformations in the second trimester	0	0.0%
Urinary malformations in the third trimester	0	0.0%
Urinary malformations in the second or third trimester	0	0.0%
Urinary malformations post-delivery	0	0.0%
Urinary malformations in the first trimester (2 codes)	0	0.0%
Urinary malformations in the second trimester (2 codes)	0	0.0%
Urinary malformations in the third trimester (2 codes)	0	0.0%
Urinary malformations in the second or third trimester (2 codes)	0	0.0%
Urinary malformations post-delivery (2 codes)	0	0.0%
Cardiac or Urinary malformations in the first trimester	*****	*****
Cardiac or Urinary malformations in the second trimester	0	0.0%
Cardiac or Urinary malformations in the third trimester	*****	*****
Cardiac or Urinary malformations in the second or third trimester	*****	*****
Cardiac or Urinary malformations post-delivery	0	0.0%
Cardiac or Urinary malformations in the first trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations in the second trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations in the third trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations in the second or third trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations post-delivery (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the first trimester	0	0.0%
Any non-cardiac/urinary malformations in the second trimester	0	0.0%
Any non-cardiac/urinary malformations in the third trimester	*****	*****
Any non-cardiac/urinary malformations in the second or third trimester	*****	*****
Any non-cardiac/urinary malformations post-delivery	0	0.0%
Any non-cardiac/urinary malformations in the first trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second or third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations post-delivery (2 codes)	0	0.0%

**Table 1a. Aggregated Characteristics of Pregnancies with Fingolimod, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Fingolimod		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Any malformations in the first trimester	*****	*****
Any malformations in the second trimester	0	0.0%
Any malformations in the third trimester	*****	*****
Any malformations in the second or third trimester	*****	*****
Any malformations post-delivery	0	0.0%
Any malformations in the first trimester (2 codes)	0	0.0%
Any malformations in the second trimester (2 codes)	0	0.0%
Any malformations in the third trimester (2 codes)	0	0.0%
Any malformations in the second or third trimester (2 codes)	0	0.0%
Any malformations post-delivery (2 codes)	0	0.0%
<b>Baseline Health Characteristics</b>		
Multiple Sclerosis Diagnosis	107	100.0%
Psychiatric and neurological conditions	29	27.1%
Substance Use Disorder	*****	*****
Nicotine use	17	15.9%
Diabetes	*****	*****
Hypertension	14	13.1%
Obesity	31	29.0%
Urinary disease	0	0.0%
<b>Medical Product Use</b>		
Psychotropic medications	36	33.6%
Antidiabetic medications	*****	*****
Antihypertensive medications	14	13.1%
Buprenorphine	0	0.0%
Insulin	0	0.0%
Methadone	0	0.0%
Naloxone	0	0.0%
Naltrexone	0	0.0%
Opioids	11	10.3%
Suspected teratogens	14	13.1%

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Baseline period in reference to user-defined index date (start of first valid exposed pregnancy resulting in live birth delivery, exposure date, or delivery date).

<sup>3</sup>Value represents standard deviation where no % follows the value.

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

<sup>5</sup>Gestational age estimated using a claims-based algorithm, previously validated in the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP), to identify pregnancies ending in a live birth. ICD-10-CM diagnosis codes indicative of weeks of gestation, and ICD-9-CM and ICD-10-CM diagnosis codes for pre-term and post-term deliveries, were used to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days.

\*\*\*\*\*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 1b. Aggregated Characteristics of Pregnancies with Fingolimod, 45 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Fingolimod Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Unique patients	110	N/A
Unique episodes	112	N/A
<b>Demographic Characteristics</b>		
Age (years)	31.5	5.0
Age		
15-17 years	*****	*****
18-34 years	86	76.8%
35-50 years	*****	*****
Sex		
Female	110	100.0%
Race <sup>4</sup>		
American Indian or Alaska Native	0	0.0%
Asian	*****	*****
Black or African American	*****	*****
Multi-racial	0	0.0%
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	77	70.0%
White	26	23.6%
Hispanic origin		
Yes	*****	*****
No	*****	*****
Unknown	83	75.5%
Year		
2011	0	0.0%
2012	*****	*****
2013	*****	*****
2014	*****	*****
2015	*****	*****
2016	*****	*****
2017	24	21.4%
2018	24	21.4%
2019	15	13.4%
2020	11	9.8%
2021	*****	*****
2022	*****	*****
<b>Pregnancy Characteristics</b>		
Pre-Term (0-258 days)	11	9.8%
Term (259-280 days)	65	58.0%
Post-Term (281-301 days)	16	14.3%
Unknown Term	20	17.9%
Gestational age <sup>5</sup> at delivery	39.3	1.9
<b>Health Characteristics</b>		
Cardiac malformations in the first trimester	*****	*****

**Table 1b. Aggregated Characteristics of Pregnancies with Fingolimod, 45 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Fingolimod Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Cardiac malformations in the second trimester	0	0.0%
Cardiac malformations in the third trimester	*****	*****
Cardiac malformations in the second or third trimester	*****	*****
Cardiac malformations post-delivery	0	0.0%
Cardiac malformations in the first trimester (2 codes)	0	0.0%
Cardiac malformations in the second trimester (2 codes)	0	0.0%
Cardiac malformations in the third trimester (2 codes)	0	0.0%
Cardiac malformations in the second or third trimester (2 codes)	0	0.0%
Cardiac malformations post-delivery (2 codes)	0	0.0%
Urinary malformations in the first trimester	0	0.0%
Urinary malformations in the second trimester	0	0.0%
Urinary malformations in the third trimester	0	0.0%
Urinary malformations in the second or third trimester	0	0.0%
Urinary malformations post-delivery	0	0.0%
Urinary malformations in the first trimester (2 codes)	0	0.0%
Urinary malformations in the second trimester (2 codes)	0	0.0%
Urinary malformations in the third trimester (2 codes)	0	0.0%
Urinary malformations in the second or third trimester (2 codes)	0	0.0%
Urinary malformations post-delivery (2 codes)	0	0.0%
Cardiac or Urinary malformations in the first trimester	*****	*****
Cardiac or Urinary malformations in the second trimester	0	0.0%
Cardiac or Urinary malformations in the third trimester	*****	*****
Cardiac or Urinary malformations in the second or third trimester	*****	*****
Cardiac or Urinary malformations post-delivery	0	0.0%
Cardiac or Urinary malformations in the first trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations in the second trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations in the third trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations in the second or third trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations post-delivery (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the first trimester	0	0.0%
Any non-cardiac/urinary malformations in the second trimester	0	0.0%
Any non-cardiac/urinary malformations in the third trimester	*****	*****
Any non-cardiac/urinary malformations in the second or third trimester	*****	*****
Any non-cardiac/urinary malformations post-delivery	0	0.0%
Any non-cardiac/urinary malformations in the first trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second or third trimester (2 codes)	0	0.0%

**Table 1b. Aggregated Characteristics of Pregnancies with Fingolimod, 45 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Fingolimod Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Any non-cardiac/urinary malformations post-delivery (2 codes)	0	0.0%
Any malformations in the first trimester	*****	*****
Any malformations in the second trimester	0	0.0%
Any malformations in the third trimester	*****	*****
Any malformations in the second or third trimester	*****	*****
Any malformations post-delivery	0	0.0%
Any malformations in the first trimester (2 codes)	0	0.0%
Any malformations in the second trimester (2 codes)	0	0.0%
Any malformations in the third trimester (2 codes)	0	0.0%
Any malformations in the second or third trimester (2 codes)	0	0.0%
Any malformations post-delivery (2 codes)	0	0.0%
<b>Baseline Health Characteristics</b>		
Multiple Sclerosis Diagnosis	112	100.0%
Psychiatric and neurological conditions	34	30.4%
Substance Use Disorder	*****	*****
Nicotine use	14	12.5%
Diabetes	*****	*****
Hypertension	11	9.8%
Obesity	14	12.5%
Urinary disease	0	0.0%
<b>Medical Product Use</b>		
Psychotropic medications	49	43.8%
Antidiabetic medications	*****	*****
Antihypertensive medications	18	16.1%
Buprenorphine	0	0.0%
Insulin	0	0.0%
Methadone	0	0.0%
Naloxone	0	0.0%
Naltrexone	0	0.0%
Opioids	16	14.3%
Suspected teratogens	17	15.2%

**Table 1b. Aggregated Characteristics of Pregnancies with Fingolimod, 45 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Fingolimod Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Baseline period in reference to user-defined index date (start of first valid exposed pregnancy resulting in live birth delivery, exposure date, or delivery date).

<sup>3</sup>Value represents standard deviation where no % follows the value.

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

<sup>5</sup>Gestational age estimated using a claims-based algorithm, previously validated in the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP), to identify pregnancies ending in a live birth. ICD-10-CM diagnosis codes indicative of weeks of gestation, and ICD-9-CM and ICD-10-CM diagnosis codes for pre-term and post-term deliveries, were used to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days.

\*\*\*\*\*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 1c. Aggregated Characteristics of Pregnancies with Beta Interferon, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Beta Interferons		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Unique patients	268	N/A
Unique episodes	276	N/A
<b>Demographic Characteristics</b>		
Age (years)	32.2	5.1
Age		
15-17 years	*****	*****
18-34 years	193	69.9%
35-50 years	*****	*****
Sex		
Female	268	100.0%
Race <sup>4</sup>		
American Indian or Alaska Native	0	0.0%
Asian	*****	*****
Black or African American	*****	*****
Multi-racial	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	196	73.1%
White	42	15.7%
Hispanic origin		
Yes	*****	*****
No	*****	*****
Unknown	207	77.2%
Year		
2011	42	15.2%
2012	36	13.0%
2013	37	13.4%
2014	21	7.6%
2015	26	9.4%
2016	23	8.3%
2017	36	13.0%
2018	32	11.6%
2019	11	4.0%
2020	*****	*****
2021	*****	*****
2022	*****	*****
<b>Pregnancy Characteristics</b>		
Pre-Term (0-258 days)	30	10.9%
Term (259-280 days)	68	24.6%
Post-Term (281-301 days)	50	18.1%
Unknown Term	128	46.4%
Gestational age <sup>5</sup> at delivery	39.6	1.9
<b>Health Characteristics</b>		
Cardiac malformations in the first trimester	*****	*****
Cardiac malformations in the second trimester	*****	*****



**Table 1c. Aggregated Characteristics of Pregnancies with Beta Interferon, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Mother Characteristics <sup>2</sup>	Beta Interferons	
	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Cardiac malformations in the third trimester	*****	*****
Cardiac malformations in the second or third trimester	*****	*****
Cardiac malformations post-delivery	0	0.0%
Cardiac malformations in the first trimester (2 codes)	0	0.0%
Cardiac malformations in the second trimester (2 codes)	0	0.0%
Cardiac malformations in the third trimester (2 codes)	*****	*****
Cardiac malformations in the second or third trimester (2 codes)	*****	*****
Cardiac malformations post-delivery (2 codes)	0	0.0%
Urinary malformations in the first trimester	*****	*****
Urinary malformations in the second trimester	*****	*****
Urinary malformations in the third trimester	*****	*****
Urinary malformations in the second or third trimester	*****	*****
Urinary malformations post-delivery	0	0.0%
Urinary malformations in the first trimester (2 codes)	*****	*****
Urinary malformations in the second trimester (2 codes)	*****	*****
Urinary malformations in the third trimester (2 codes)	*****	*****
Urinary malformations in the second or third trimester (2 codes)	*****	*****
Urinary malformations post-delivery (2 codes)	0	0.0%
Cardiac or Urinary malformations in the first trimester	*****	*****
Cardiac or Urinary malformations in the second trimester	*****	*****
Cardiac or Urinary malformations in the third trimester	*****	*****
Cardiac or Urinary malformations in the second or third trimester	*****	*****
Cardiac or Urinary malformations post-delivery	0	0.0%
Cardiac or Urinary malformations in the first trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the second trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the third trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the second or third trimester (2 codes)	*****	*****
Cardiac or Urinary malformations post-delivery (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the first trimester	0	0.0%
Any non-cardiac/urinary malformations in the second trimester	0	0.0%
Any non-cardiac/urinary malformations in the third trimester	*****	*****
Any non-cardiac/urinary malformations in the second or third trimester	*****	*****
Any non-cardiac/urinary malformations post-delivery	0	0.0%
Any non-cardiac/urinary malformations in the first trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second or third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations post-delivery (2 codes)	0	0.0%
Any malformations in the first trimester	*****	*****

**Table 1c. Aggregated Characteristics of Pregnancies with Beta Interferon, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Beta Interferons		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Any malformations in the second trimester	*****	*****
Any malformations in the third trimester	*****	*****
Any malformations in the second or third trimester	*****	*****
Any malformations post-delivery	0	0.0%
Any malformations in the first trimester (2 codes)	*****	*****
Any malformations in the second trimester (2 codes)	*****	*****
Any malformations in the third trimester (2 codes)	*****	*****
Any malformations in the second or third trimester (2 codes)	*****	*****
Any malformations post-delivery (2 codes)	0	0.0%
<b>Baseline Health Characteristics</b>		
Multiple Sclerosis Diagnosis	275	99.6%
Psychiatric and neurological conditions	81	29.3%
Substance Use Disorder	20	7.2%
Nicotine use	44	15.9%
Diabetes	*****	*****
Hypertension	17	6.2%
Obesity	54	19.6%
Urinary disease	*****	*****
<b>Medical Product Use</b>		
Psychotropic medications	77	27.9%
Antidiabetic medications	*****	*****
Antihypertensive medications	19	6.9%
Buprenorphine	*****	*****
Insulin	*****	*****
Methadone	*****	*****
Naloxone	*****	*****
Naltrexone	0	0.0%
Opioids	30	10.9%
Suspected teratogens	41	14.9%

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Baseline period in reference to user-defined index date (start of first valid exposed pregnancy resulting in live birth delivery, exposure date, or delivery date).

<sup>3</sup>Value represents standard deviation where no % follows the value.

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

<sup>5</sup>Gestational age estimated using a claims-based algorithm, previously validated in the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP), to identify pregnancies ending in a live birth. ICD-10-CM diagnosis codes indicative of weeks of gestation, and ICD-9-CM and ICD-10-CM diagnosis codes for pre-term and post-term deliveries, were used to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days.

\*\*\*\*\*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 1d. Aggregated Characteristics of Pregnancies with Beta Interferon, 22 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Mother Characteristics <sup>2</sup>	Beta Interferons Sensitivity Analysis	
	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Unique patients	266	N/A
Unique episodes	274	N/A
<b>Demographic Characteristics</b>		
Age (years)	32.4	5.3
Age		
15-17 years	*****	*****
18-34 years	185	67.5%
35-50 years	*****	*****
Sex		
Female	266	100.0%
Race <sup>4</sup>		
American Indian or Alaska Native	0	0.0%
Asian	*****	*****
Black or African American	*****	*****
Multi-racial	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	200	75.2%
White	40	15.0%
Hispanic origin		
Yes	*****	*****
No	*****	*****
Unknown	215	80.8%
Year		
2011	41	15.0%
2012	49	17.9%
2013	34	12.4%
2014	19	6.9%
2015	26	9.5%
2016	20	7.3%
2017	31	11.3%
2018	29	10.6%
2019	*****	*****
2020	*****	*****
2021	*****	*****
2022	*****	*****
<b>Pregnancy Characteristics</b>		
Pre-Term (0-258 days)	28	10.2%
Term (259-280 days)	64	23.4%
Post-Term (281-301 days)	52	19.0%
Unknown Term	130	47.4%
Gestational age <sup>5</sup> at delivery	39.7	1.6
<b>Health Characteristics</b>		
Cardiac malformations in the first trimester	*****	*****

**Table 1d. Aggregated Characteristics of Pregnancies with Beta Interferon, 22 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Mother Characteristics <sup>2</sup>	Beta Interferons Sensitivity Analysis	
	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Cardiac malformations in the second trimester	*****	*****
Cardiac malformations in the third trimester	*****	*****
Cardiac malformations in the second or third trimester	*****	*****
Cardiac malformations post-delivery	*****	*****
Cardiac malformations in the first trimester (2 codes)	0	0.0%
Cardiac malformations in the second trimester (2 codes)	0	0.0%
Cardiac malformations in the third trimester (2 codes)	*****	*****
Cardiac malformations in the second or third trimester (2 codes)	*****	*****
Cardiac malformations post-delivery (2 codes)	0	0.0%
Urinary malformations in the first trimester	*****	*****
Urinary malformations in the second trimester	*****	*****
Urinary malformations in the third trimester	*****	*****
Urinary malformations in the second or third trimester	*****	*****
Urinary malformations post-delivery	0	0.0%
Urinary malformations in the first trimester (2 codes)	*****	*****
Urinary malformations in the second trimester (2 codes)	*****	*****
Urinary malformations in the third trimester (2 codes)	*****	*****
Urinary malformations in the second or third trimester (2 codes)	*****	*****
Urinary malformations post-delivery (2 codes)	0	0.0%
Cardiac or Urinary malformations in the first trimester	*****	*****
Cardiac or Urinary malformations in the second trimester	*****	*****
Cardiac or Urinary malformations in the third trimester	*****	*****
Cardiac or Urinary malformations in the second or third trimester	*****	*****
Cardiac or Urinary malformations post-delivery	*****	*****
Cardiac or Urinary malformations in the first trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the second trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the third trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the second or third trimester (2 codes)	*****	*****
Cardiac or Urinary malformations post-delivery (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the first trimester	0	0.0%
Any non-cardiac/urinary malformations in the second trimester	0	0.0%
Any non-cardiac/urinary malformations in the third trimester	*****	*****
Any non-cardiac/urinary malformations in the second or third trimester	*****	*****
Any non-cardiac/urinary malformations post-delivery	0	0.0%
Any non-cardiac/urinary malformations in the first trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the third trimester (2 codes)	0	0.0%

**Table 1d. Aggregated Characteristics of Pregnancies with Beta Interferon, 22 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Mother Characteristics <sup>2</sup>	Beta Interferons Sensitivity Analysis	
	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Any non-cardiac/urinary malformations in the second or third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations post-delivery (2 codes)	0	0.0%
Any malformations in the first trimester	*****	*****
Any malformations in the second trimester	*****	*****
Any malformations in the third trimester	*****	*****
Any malformations in the second or third trimester	*****	*****
Any malformations post-delivery	*****	*****
Any malformations in the first trimester (2 codes)	*****	*****
Any malformations in the second trimester (2 codes)	*****	*****
Any malformations in the third trimester (2 codes)	*****	*****
Any malformations in the second or third trimester (2 codes)	*****	*****
Any malformations post-delivery (2 codes)	0	0.0%
<b>Baseline Health Characteristics</b>		
Multiple Sclerosis Diagnosis	273	99.6%
Psychiatric and neurological conditions	84	30.7%
Substance Use Disorder	*****	*****
Nicotine use	23	8.4%
Diabetes	*****	*****
Hypertension	15	5.5%
Obesity	19	6.9%
Urinary disease	0	0.0%
<b>Medical Product Use</b>		
Psychotropic medications	95	34.7%
Antidiabetic medications	*****	*****
Antihypertensive medications	22	8.0%
Buprenorphine	*****	*****
Insulin	*****	*****
Methadone	0	0.0%
Naloxone	*****	*****
Naltrexone	0	0.0%
Opioids	48	17.5%
Suspected teratogens	33	12.0%

**Table 1d. Aggregated Characteristics of Pregnancies with Beta Interferon, 22 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Mother Characteristics <sup>2</sup>	Beta Interferons Sensitivity Analysis	
	Number/Mean	Percent/ Standard Deviation <sup>3</sup>

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Baseline period in reference to user-defined index date (start of first valid exposed pregnancy resulting in live birth delivery, exposure date, or delivery date).

<sup>3</sup>Value represents standard deviation where no % follows the value.

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

<sup>5</sup>Gestational age estimated using a claims-based algorithm, previously validated in the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP), to identify pregnancies ending in a live birth. ICD-10-CM diagnosis codes indicative of weeks of gestation, and ICD-9-CM and ICD-10-CM diagnosis codes for pre-term and post-term deliveries, were used to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days.

\*\*\*\*\*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 1e. Aggregated Characteristics of Pregnancies with Dimethyl Fumarate, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Mother Characteristics <sup>2</sup>	Dimethyl Fumarate	
	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Unique patients	220	N/A
Unique episodes	231	N/A
<b>Demographic Characteristics</b>		
Age (years)	32.5	5.2
Age		
15-17 years	0	0.0%
18-34 years	151	65.4%
35-50 years	80	34.6%
Sex		
Female	220	100.0%
Race <sup>4</sup>		
American Indian or Alaska Native	0	0.0%
Asian	*****	*****
Black or African American	28	12.7%
Multi-racial	*****	*****
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	157	71.4%
White	32	14.5%
Hispanic origin		
Yes	13	5.9%
No	49	22.3%
Unknown	158	71.8%
Year		
2011	0	0.0%
2012	0	0.0%
2013	0	0.0%
2014	*****	*****
2015	18	7.8%
2016	31	13.4%
2017	42	18.2%
2018	47	20.3%
2019	22	9.5%
2020	34	14.7%
2021	23	10.0%
2022	*****	*****
<b>Pregnancy Characteristics</b>		
Pre-Term (0-258 days)	34	14.7%
Term (259-280 days)	118	51.1%
Post-Term (281-301 days)	46	19.9%
Unknown Term	33	14.3%
Gestational age <sup>5</sup> at delivery	39.3	2.3
<b>Health Characteristics</b>		
Cardiac malformations in the first trimester	*****	*****
Cardiac malformations in the second trimester	*****	*****

**Table 1e. Aggregated Characteristics of Pregnancies with Dimethyl Fumarate, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Mother Characteristics <sup>2</sup>	Dimethyl Fumarate	
	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Cardiac malformations in the third trimester	*****	*****
Cardiac malformations in the second or third trimester	*****	*****
Cardiac malformations post-delivery	*****	*****
Cardiac malformations in the first trimester (2 codes)	0	0.0%
Cardiac malformations in the second trimester (2 codes)	*****	*****
Cardiac malformations in the third trimester (2 codes)	0	0.0%
Cardiac malformations in the second or third trimester (2 codes)	*****	*****
Cardiac malformations post-delivery (2 codes)	0	0.0%
Urinary malformations in the first trimester	0	0.0%
Urinary malformations in the second trimester	*****	*****
Urinary malformations in the third trimester	*****	*****
Urinary malformations in the second or third trimester	*****	*****
Urinary malformations post-delivery	0	0.0%
Urinary malformations in the first trimester (2 codes)	0	0.0%
Urinary malformations in the second trimester (2 codes)	*****	*****
Urinary malformations in the third trimester (2 codes)	*****	*****
Urinary malformations in the second or third trimester (2 codes)	*****	*****
Urinary malformations post-delivery (2 codes)	0	0.0%
Cardiac or Urinary malformations in the first trimester	*****	*****
Cardiac or Urinary malformations in the second trimester	*****	*****
Cardiac or Urinary malformations in the third trimester	*****	*****
Cardiac or Urinary malformations in the second or third trimester	*****	*****
Cardiac or Urinary malformations post-delivery	*****	*****
Cardiac or Urinary malformations in the first trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations in the second trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the third trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the second or third trimester (2 codes)	*****	*****
Cardiac or Urinary malformations post-delivery (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the first trimester	*****	*****
Any non-cardiac/urinary malformations in the second trimester	0	0.0%
Any non-cardiac/urinary malformations in the third trimester	0	0.0%
Any non-cardiac/urinary malformations in the second or third trimester	0	0.0%
Any non-cardiac/urinary malformations post-delivery	0	0.0%
Any non-cardiac/urinary malformations in the first trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second or third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations post-delivery (2 codes)	0	0.0%
Any malformations in the first trimester	*****	*****



**Table 1e. Aggregated Characteristics of Pregnancies with Dimethyl Fumarate, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Mother Characteristics <sup>2</sup>	Dimethyl Fumarate	
	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Any malformations in the second trimester	*****	*****
Any malformations in the third trimester	*****	*****
Any malformations in the second or third trimester	*****	*****
Any malformations post-delivery	*****	*****
Any malformations in the first trimester (2 codes)	0	0.0%
Any malformations in the second trimester (2 codes)	*****	*****
Any malformations in the third trimester (2 codes)	*****	*****
Any malformations in the second or third trimester (2 codes)	*****	*****
Any malformations post-delivery (2 codes)	0	0.0%
<b>Baseline Health Characteristics</b>		
Multiple Sclerosis Diagnosis	231	100.0%
Psychiatric and neurological conditions	78	33.8%
Substance Use Disorder	*****	*****
Nicotine use	47	20.3%
Diabetes	*****	*****
Hypertension	20	8.7%
Obesity	67	29.0%
Urinary disease	*****	*****
<b>Medical Product Use</b>		
Psychotropic medications	68	29.4%
Antidiabetic medications	*****	*****
Antihypertensive medications	18	7.8%
Buprenorphine	0	0.0%
Insulin	*****	*****
Methadone	0	0.0%
Naloxone	0	0.0%
Naltrexone	*****	*****
Opioids	20	8.7%
Suspected teratogens	32	13.9%

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Baseline period in reference to user-defined index date (start of first valid exposed pregnancy resulting in live birth delivery, exposure date, or delivery date).

<sup>3</sup>Value represents standard deviation where no % follows the value.

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

<sup>5</sup>Gestational age estimated using a claims-based algorithm, previously validated in the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP), to identify pregnancies ending in a live birth. ICD-10-CM diagnosis codes indicative of weeks of gestation, and ICD-9-CM and ICD-10-CM diagnosis codes for pre-term and post-term deliveries, were used to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days.

\*\*\*\*\*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 1f. Aggregated Characteristics of Pregnancies with Dimethyl Fumarate, in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Dimethyl Fumarate Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Unique patients	188	N/A
Unique episodes	197	N/A
<b>Demographic Characteristics</b>		
Age (years)	32.8	5.1
Age		
15-17 years	0	0.0%
18-34 years	124	62.9%
35-50 years	73	37.1%
Sex		
Female	188	100.0%
Race <sup>4</sup>		
American Indian or Alaska Native	0	0.0%
Asian	0	0.0%
Black or African American	20	10.6%
Multi-racial	0	0.0%
Native Hawaiian or Other Pacific Islander	0	0.0%
Unknown	141	75.0%
White	27	14.4%
Hispanic origin		
Yes	11	5.9%
No	38	20.2%
Unknown	139	73.9%
Year		
2011	0	0.0%
2012	0	0.0%
2013	0	0.0%
2014	*****	*****
2015	12	6.1%
2016	23	11.7%
2017	33	16.8%
2018	46	23.4%
2019	18	9.1%
2020	32	16.2%
2021	23	11.7%
2022	*****	*****
<b>Pregnancy Characteristics</b>		
Pre-Term (0-258 days)	31	15.7%
Term (259-280 days)	101	51.3%
Post-Term (281-301 days)	40	20.3%
Unknown Term	25	12.7%
Gestational age <sup>5</sup> at delivery	39.2	2.4
<b>Health Characteristics</b>		
Cardiac malformations in the first trimester	*****	*****
Cardiac malformations in the second trimester	*****	*****

**Table 1f. Aggregated Characteristics of Pregnancies with Dimethyl Fumarate, in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Dimethyl Fumarate Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Cardiac malformations in the third trimester	*****	*****
Cardiac malformations in the second or third trimester	*****	*****
Cardiac malformations post-delivery	*****	*****
Cardiac malformations in the first trimester (2 codes)	0	0.0%
Cardiac malformations in the second trimester (2 codes)	*****	*****
Cardiac malformations in the third trimester (2 codes)	0	0.0%
Cardiac malformations in the second or third trimester (2 codes)	*****	*****
Cardiac malformations post-delivery (2 codes)	0	0.0%
Urinary malformations in the first trimester	0	0.0%
Urinary malformations in the second trimester	*****	*****
Urinary malformations in the third trimester	*****	*****
Urinary malformations in the second or third trimester	*****	*****
Urinary malformations post-delivery	0	0.0%
Urinary malformations in the first trimester (2 codes)	0	0.0%
Urinary malformations in the second trimester (2 codes)	*****	*****
Urinary malformations in the third trimester (2 codes)	*****	*****
Urinary malformations in the second or third trimester (2 codes)	*****	*****
Urinary malformations post-delivery (2 codes)	0	0.0%
Cardiac or Urinary malformations in the first trimester	*****	*****
Cardiac or Urinary malformations in the second trimester	*****	*****
Cardiac or Urinary malformations in the third trimester	*****	*****
Cardiac or Urinary malformations in the second or third trimester	*****	*****
Cardiac or Urinary malformations post-delivery	*****	*****
Cardiac or Urinary malformations in the first trimester (2 codes)	0	0.0%
Cardiac or Urinary malformations in the second trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the third trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the second or third trimester (2 codes)	*****	*****
Cardiac or Urinary malformations post-delivery (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the first trimester	0	0.0%
Any non-cardiac/urinary malformations in the second trimester	0	0.0%
Any non-cardiac/urinary malformations in the third trimester	0	0.0%
Any non-cardiac/urinary malformations in the second or third trimester	0	0.0%
Any non-cardiac/urinary malformations post-delivery	0	0.0%
Any non-cardiac/urinary malformations in the first trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations in the second or third trimester (2 codes)	0	0.0%
Any non-cardiac/urinary malformations post-delivery (2 codes)	0	0.0%

**Table 1f. Aggregated Characteristics of Pregnancies with Dimethyl Fumarate, in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

Dimethyl Fumarate Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Any malformations in the first trimester	*****	*****
Any malformations in the second trimester	*****	*****
Any malformations in the third trimester	*****	*****
Any malformations in the second or third trimester	*****	*****
Any malformations post-delivery	*****	*****
Any malformations in the first trimester (2 codes)	0	0.0%
Any malformations in the second trimester (2 codes)	*****	*****
Any malformations in the third trimester (2 codes)	*****	*****
Any malformations in the second or third trimester (2 codes)	*****	*****
Any malformations post-delivery (2 codes)	0	0.0%
<b>Baseline Health Characteristics</b>		
Multiple Sclerosis Diagnosis	197	100.0%
Psychiatric and neurological conditions	68	34.5%
Substance Use Disorder	*****	*****
Nicotine use	22	11.2%
Diabetes	*****	*****
Hypertension	11	5.6%
Obesity	21	10.7%
Urinary disease	*****	*****
<b>Medical Product Use</b>		
Psychotropic medications	81	41.1%
Antidiabetic medications	*****	*****
Antihypertensive medications	16	8.1%
Buprenorphine	0	0.0%
Insulin	*****	*****
Methadone	0	0.0%
Naloxone	0	0.0%
Naltrexone	0	0.0%
Opioids	33	16.8%
Suspected teratogens	26	13.2%

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Baseline period in reference to user-defined index date (start of first valid exposed pregnancy resulting in live birth delivery, exposure date, or delivery date).

<sup>3</sup>Value represents standard deviation where no % follows the value.

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

<sup>5</sup>Gestational age estimated using a claims-based algorithm, previously validated in the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP), to identify pregnancies ending in a live birth. ICD-10-CM diagnosis codes indicative of weeks of gestation, and ICD-9-CM and ICD-10-CM diagnosis codes for pre-term and post-term deliveries, were used to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days.

\*\*\*\*\*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 1g. Aggregated Characteristics of Pregnancies with Multiple Sclerosis (MS) with No MS Treatment, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

No Treatment		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Unique patients	7,064	N/A
Unique episodes	7,798	N/A
<b>Demographic Characteristics</b>		
Age (years)	31.9	5.0
Age		
15-17 years	33	0.4%
18-34 years	5,557	71.3%
35-50 years	2,208	28.3%
Sex		
Female	7,064	100.0%
Race <sup>4</sup>		
American Indian or Alaska Native	*****	*****
Asian	39	0.6%
Black or African American	467	6.6%
Multi-racial	38	0.5%
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	5,247	74.3%
White	1,235	17.5%
Hispanic origin		
Yes	289	4.1%
No	1,392	19.7%
Unknown	5,383	76.2%
Year		
2011	519	6.7%
2012	533	6.8%
2013	569	7.3%
2014	580	7.4%
2015	696	8.9%
2016	881	11.3%
2017	1,149	14.7%
2018	1,114	14.3%
2019	528	6.8%
2020	512	6.6%
2021	534	6.8%
2022	183	2.3%
<b>Pregnancy Characteristics</b>		
Pre-Term (0-258 days)	841	10.8%
Term (259-280 days)	3,327	42.7%
Post-Term (281-301 days)	1,281	16.4%
Unknown Term	2,349	30.1%
Gestational age <sup>5</sup> at delivery	39.4	2.1
<b>Health Characteristics</b>		
Cardiac malformations in the first trimester	*****	*****
Cardiac malformations in the second trimester	64	0.8%

**Table 1g. Aggregated Characteristics of Pregnancies with Multiple Sclerosis (MS) with No MS Treatment, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

No Treatment		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Cardiac malformations in the third trimester	95	1.2%
Cardiac malformations in the second or third trimester	126	1.6%
Cardiac malformations post-delivery	*****	*****
Cardiac malformations in the first trimester (2 codes)	*****	*****
Cardiac malformations in the second trimester (2 codes)	*****	*****
Cardiac malformations in the third trimester (2 codes)	31	0.4%
Cardiac malformations in the second or third trimester (2 codes)	52	0.7%
Cardiac malformations post-delivery (2 codes)	*****	*****
Urinary malformations in the first trimester	*****	*****
Urinary malformations in the second trimester	11	0.1%
Urinary malformations in the third trimester	42	0.5%
Urinary malformations in the second or third trimester	44	0.6%
Urinary malformations post-delivery	*****	*****
Urinary malformations in the first trimester (2 codes)	*****	*****
Urinary malformations in the second trimester (2 codes)	*****	*****
Urinary malformations in the third trimester (2 codes)	13	0.2%
Urinary malformations in the second or third trimester (2 codes)	17	0.2%
Urinary malformations post-delivery (2 codes)	*****	*****
Cardiac or Urinary malformations in the first trimester	31	0.4%
Cardiac or Urinary malformations in the second trimester	75	1.0%
Cardiac or Urinary malformations in the third trimester	137	1.8%
Cardiac or Urinary malformations in the second or third trimester	170	2.2%
Cardiac or Urinary malformations post-delivery	26	0.3%
Cardiac or Urinary malformations in the first trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the second trimester (2 codes)	24	0.3%
Cardiac or Urinary malformations in the third trimester (2 codes)	44	0.6%
Cardiac or Urinary malformations in the second or third trimester (2 codes)	69	0.9%
Cardiac or Urinary malformations post-delivery (2 codes)	*****	*****
Any non-cardiac/urinary malformations in the first trimester	*****	*****
Any non-cardiac/urinary malformations in the second trimester	14	0.2%
Any non-cardiac/urinary malformations in the third trimester	27	0.3%
Any non-cardiac/urinary malformations in the second or third trimester	36	0.5%
Any non-cardiac/urinary malformations post-delivery	13	0.2%
Any non-cardiac/urinary malformations in the first trimester (2 codes)	*****	*****
Any non-cardiac/urinary malformations in the second trimester (2 codes)	*****	*****
Any non-cardiac/urinary malformations in the third trimester (2 codes)	*****	*****
Any non-cardiac/urinary malformations in the second or third trimester (2 codes)	*****	*****
Any non-cardiac/urinary malformations post-delivery (2 codes)	*****	*****

**Table 1g. Aggregated Characteristics of Pregnancies with Multiple Sclerosis (MS) with No MS Treatment, in the First Trimester, No Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

No Treatment		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Any malformations in the first trimester	40	0.5%
Any malformations in the second trimester	88	1.1%
Any malformations in the third trimester	159	2.0%
Any malformations in the second or third trimester	199	2.6%
Any malformations post-delivery	37	0.5%
Any malformations in the first trimester (2 codes)	*****	*****
Any malformations in the second trimester (2 codes)	27	0.3%
Any malformations in the third trimester (2 codes)	50	0.6%
Any malformations in the second or third trimester (2 codes)	78	1.0%
Any malformations post-delivery (2 codes)	*****	*****
<b>Baseline Health Characteristics</b>		
Multiple Sclerosis Diagnosis	7,798	100.0%
Psychiatric and neurological conditions	2,742	35.2%
Substance Use Disorder	439	5.6%
Nicotine use	1,294	16.6%
Diabetes	244	3.1%
Hypertension	464	6.0%
Obesity	1,388	17.8%
Urinary disease	40	0.5%
<b>Medical Product Use</b>		
Psychotropic medications	1,675	21.5%
Antidiabetic medications	172	2.2%
Antihypertensive medications	409	5.2%
Buprenorphine	17	0.2%
Insulin	75	1.0%
Methadone	*****	*****
Naloxone	*****	*****
Naltrexone	*****	*****
Opioids	675	8.7%
Suspected teratogens	1,370	17.6%

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Baseline period in reference to user-defined index date (start of first valid exposed pregnancy resulting in live birth delivery, exposure date, or delivery date).

<sup>3</sup>Value represents standard deviation where no % follows the value.

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

<sup>5</sup>Gestational age estimated using a claims-based algorithm, previously validated in the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP), to identify pregnancies ending in a live birth. ICD-10-CM diagnosis codes indicative of weeks of gestation, and ICD-9-CM and ICD-10-CM diagnosis codes for pre-term and post-term deliveries, were used to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days.

\*\*\*\*\*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 1h. Aggregated Characteristics of Pregnancies with Multiple Sclerosis (MS) with No MS Treatment, in up to 130 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

No Treatment Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Unique patients	5,622	N/A
Unique episodes	6,182	N/A
<b>Demographic Characteristics</b>		
Age (years)	32.0	5.0
Age		
15-17 years	26	0.4%
18-34 years	4,363	70.6%
35-50 years	1,793	29.0%
Sex		
Female	5,622	100.0%
Race <sup>4</sup>		
American Indian or Alaska Native	*****	*****
Asian	32	0.6%
Black or African American	357	6.4%
Multi-racial	33	0.6%
Native Hawaiian or Other Pacific Islander	*****	*****
Unknown	4,201	74.7%
White	969	17.2%
Hispanic origin		
Yes	219	3.9%
No	1,065	18.9%
Unknown	4,338	77.2%
Year		
2011	415	6.7%
2012	431	7.0%
2013	464	7.5%
2014	458	7.4%
2015	546	8.8%
2016	691	11.2%
2017	913	14.8%
2018	919	14.9%
2019	421	6.8%
2020	388	6.3%
2021	400	6.5%
2022	136	2.2%
<b>Pregnancy Characteristics</b>		
Pre-Term (0-258 days)	641	10.4%
Term (259-280 days)	2,628	42.5%
Post-Term (281-301 days)	1,011	16.4%
Unknown Term	1,902	30.8%
Gestational age <sup>5</sup> at delivery	39.5	2.0
<b>Health Characteristics</b>		
Cardiac malformations in the first trimester	*****	*****



**Table 1h. Aggregated Characteristics of Pregnancies with Multiple Sclerosis (MS) with No MS Treatment, in up to 130 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

No Treatment Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Cardiac malformations in the second trimester	*****	*****
Cardiac malformations in the third trimester	67	1.1%
Cardiac malformations in the second or third trimester	95	1.5%
Cardiac malformations post-delivery	*****	*****
Cardiac malformations in the first trimester (2 codes)	*****	*****
Cardiac malformations in the second trimester (2 codes)	*****	*****
Cardiac malformations in the third trimester (2 codes)	*****	*****
Cardiac malformations in the second or third trimester (2 codes)	38	0.6%
Cardiac malformations post-delivery (2 codes)	*****	*****
Urinary malformations in the first trimester	*****	*****
Urinary malformations in the second trimester	*****	*****
Urinary malformations in the third trimester	35	0.6%
Urinary malformations in the second or third trimester	37	0.6%
Urinary malformations post-delivery	*****	*****
Urinary malformations in the first trimester (2 codes)	0	0.0%
Urinary malformations in the second trimester (2 codes)	*****	*****
Urinary malformations in the third trimester (2 codes)	*****	*****
Urinary malformations in the second or third trimester (2 codes)	12	0.2%
Urinary malformations post-delivery (2 codes)	*****	*****
Cardiac or Urinary malformations in the first trimester	*****	*****
Cardiac or Urinary malformations in the second trimester	60	1.0%
Cardiac or Urinary malformations in the third trimester	102	1.6%
Cardiac or Urinary malformations in the second or third trimester	132	2.1%
Cardiac or Urinary malformations post-delivery	19	0.3%
Cardiac or Urinary malformations in the first trimester (2 codes)	*****	*****
Cardiac or Urinary malformations in the second trimester (2 codes)	18	0.3%
Cardiac or Urinary malformations in the third trimester (2 codes)	30	0.5%
Cardiac or Urinary malformations in the second or third trimester (2 codes)	50	0.8%
Cardiac or Urinary malformations post-delivery (2 codes)	*****	*****
Any non-cardiac/urinary malformations in the first trimester	*****	*****
Any non-cardiac/urinary malformations in the second trimester	11	0.2%
Any non-cardiac/urinary malformations in the third trimester	21	0.3%
Any non-cardiac/urinary malformations in the second or third trimester	28	0.5%
Any non-cardiac/urinary malformations post-delivery	*****	*****
Any non-cardiac/urinary malformations in the first trimester (2 codes)	*****	*****
Any non-cardiac/urinary malformations in the second trimester (2 codes)	*****	*****
Any non-cardiac/urinary malformations in the third trimester (2 codes)	*****	*****
Any non-cardiac/urinary malformations in the second or third trimester (2 codes)	*****	*****
Any non-cardiac/urinary malformations post-delivery (2 codes)	*****	*****
Any malformations in the first trimester	27	0.4%
Any malformations in the second trimester	70	1.1%

**Table 1h. Aggregated Characteristics of Pregnancies with Multiple Sclerosis (MS) with No MS Treatment, in up to 130 Days Before Estimated Pregnancy Start and in the First Trimester, 130 Days of Pre-Pregnancy Enrollment, in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

No Treatment Sensitivity Analysis		
Mother Characteristics <sup>2</sup>	Number/Mean	Percent/ Standard Deviation <sup>3</sup>
Any malformations in the third trimester	119	1.9%
Any malformations in the second or third trimester	154	2.5%
Any malformations post-delivery	25	0.4%
Any malformations in the first trimester (2 codes)	*****	*****
Any malformations in the second trimester (2 codes)	21	0.3%
Any malformations in the third trimester (2 codes)	34	0.5%
Any malformations in the second or third trimester (2 codes)	57	0.9%
Any malformations post-delivery (2 codes)	*****	*****
<b>Baseline Health Characteristics</b>		
Multiple Sclerosis Diagnosis	6,182	100.0%
Psychiatric and neurological conditions	2,075	33.6%
Substance Use Disorder	241	3.9%
Nicotine use	681	11.0%
Diabetes	150	2.4%
Hypertension	302	4.9%
Obesity	540	8.7%
Urinary disease	26	0.4%
<b>Medical Product Use</b>		
Psychotropic medications	1,834	29.7%
Antidiabetic medications	143	2.3%
Antihypertensive medications	430	7.0%
Buprenorphine	22	0.4%
Insulin	65	1.1%
Methadone	*****	*****
Naloxone	*****	*****
Naltrexone	14	0.2%
Opioids	1,144	18.5%
Suspected teratogens	1,000	16.2%

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Baseline period in reference to user-defined index date (start of first valid exposed pregnancy resulting in live birth delivery, exposure date, or delivery date).

<sup>3</sup>Value represents standard deviation where no % follows the value.

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

<sup>5</sup>Gestational age estimated using a claims-based algorithm, previously validated in the Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP), to identify pregnancies ending in a live birth. ICD-10-CM diagnosis codes indicative of weeks of gestation, and ICD-9-CM and ICD-10-CM diagnosis codes for pre-term and post-term deliveries, were used to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days.

\*\*\*\*\*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 2. Summary of Episode Level Cohort Attrition in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

	Fingolimod		Fingolimod Sensitivity Analysis		Beta Interferons		Beta Interferons Sensitivity Analysis	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
<b>Members meeting enrollment and demographic requirements</b>								
Enrolled at any point during the query period	342,700,549	N/A	342,700,549	N/A	342,700,549	N/A	342,700,549	N/A
Had required coverage type (medical and/or drug coverage)	253,591,261	89,109,288	253,591,261	89,109,288	253,591,261	89,109,288	253,591,261	89,109,288
Enrolled during specified age range	162,867,751	90,723,510	162,867,751	90,723,510	162,867,751	90,723,510	162,867,751	90,723,510
Had requestable medical charts	162,867,751	0	162,867,751	0	162,867,751	0	162,867,751	0
Met demographic requirements (sex, race, and Hispanic origin)	84,296,184	78,571,567	84,296,184	78,571,567	84,296,184	78,571,567	84,296,184	78,571,567
<b>Members with a valid index event</b>								
Had a live birth delivery claim during the query period	7,155,029	77,141,155	7,155,029	77,141,155	7,155,029	77,141,155	7,155,029	77,141,155
<b>Live birth deliveries with a valid index date</b>								
Total number of live birth deliveries during the query period	11,023,427	N/A	11,023,427	N/A	11,023,427	N/A	11,023,427	N/A
Live birth delivery recorded during specified age range	11,009,150	14,277	11,009,150	14,277	11,009,150	14,277	11,009,150	14,277
Pregnancy episode recorded during the query period	8,200,772	2,808,378	8,200,772	2,808,378	8,200,772	2,808,378	8,200,772	2,808,378
<b>Pregnancy episodes with required pre-index history</b>								
Had sufficient pre-index continuous enrollment	4,600,597	3,600,175	3,787,752	4,413,020	4,600,597	3,600,175	3,787,752	4,413,020
Met inclusion and exclusion criteria	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0
<b>Pregnancy episodes with required post-index follow-up</b>								
Had sufficient post-index continuous enrollment	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0
<b>Final cohort</b>								
Number of members	4,045,232	N/A	3,337,170	N/A	4,045,232	N/A	3,337,170	N/A
Number of pregnancy episodes	4,600,597	N/A	3,787,752	N/A	4,600,597	N/A	3,787,752	N/A
Number of non-pregnant matched comparator	0	N/A	0	N/A	0	N/A	0	N/A
<b>Members meeting mother-infant linkage requirements</b>								
Pregnancy episodes met initial cohort eligibility requirements	4,600,597	N/A	3,787,752	N/A	4,600,597	N/A	3,787,752	N/A
Medical product of interest recorded during pregnancy episode	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0
Linked infant met sex requirement	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0
Linked mother excluded due to prior initiation of other exposure group	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0

**Table 2. Summary of Episode Level Cohort Attrition in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

	Fingolimod		Fingolimod Sensitivity Analysis		Beta Interferons		Beta Interferons Sensitivity Analysis	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Linked live birth delivery recorded during specified age range	4,595,396	5,201	3,783,594	4,158	4,595,396	5,201	3,783,594	4,158
Linked mother had sufficient pre-index continuous enrollment	4,595,396	0	3,783,594	0	4,595,396	0	3,783,594	0
Linked mother met inclusion and exclusion criteria <sup>2</sup>	107	4,595,289	112	3,783,482	276	4,595,120	274	3,783,320
<i>Evidence of Alemtuzumab</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of Beta Beta Interferon 1a or 1b</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of Chromosomal abnormalities</i>	N/A	18,298	N/A	15,475	N/A	18,298	N/A	15,475
<i>Evidence of Dimethyl fumarate</i>	N/A	248	N/A	*****	N/A	248	N/A	*****
<i>Evidence of Diroximel fumarate</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of Fingolimod</i>	N/A	N/A	N/A	N/A	N/A	114	N/A	111
<i>Evidence of Glatiramer acetate</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of Beta Interferon beta 1a or 1b</i>	N/A	288	N/A	177	N/A	N/A	N/A	N/A
<i>Evidence of Mitoxantrone</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of Natalizumab</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of Ocrelizumab</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of PEGylated Beta Interferon</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of Siponimod</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>Evidence of Teratogens</i>	N/A	68,881	N/A	209,127	N/A	68,881	N/A	209,127
<i>No evidence of Dimethyl fumarate</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>No evidence of Fingolimod</i>	N/A	4,595,282	N/A	3,783,471	N/A	N/A	N/A	N/A
<i>No evidence of Beta Interferon beta 1a or 1b</i>	N/A	N/A	N/A	N/A	N/A	4,595,108	N/A	3,783,300
<i>No evidence of Multiple Sclerosis</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Restricted to first valid pregnancy episode	107	0	112	0	276	0	274	0

**Table 2. Summary of Episode Level Cohort Attrition in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

	Dimethyl Fumarate		Dimethyl Fumarate Sensitivity Analysis		No Treatment		No Treatment Sensitivity Analysis	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
<b>Members meeting enrollment and demographic require</b>								
Enrolled at any point during the query period	342,700,549	N/A	342,700,549	N/A	342,700,549	N/A	342,700,549	N/A
Had required coverage type (medical and/or drug coverage)	253,591,261	89,109,288	253,591,261	89,109,288	253,591,261	89,109,288	253,591,261	89,109,288
Enrolled during specified age range	162,867,751	90,723,510	162,867,751	90,723,510	162,867,751	90,723,510	162,867,751	90,723,510
Had requestable medical charts	162,867,751	0	162,867,751	0	162,867,751	0	162,867,751	0
Met demographic requirements (sex, race, and Hispanic origin)	84,296,184	78,571,567	84,296,184	78,571,567	84,296,184	78,571,567	84,296,184	78,571,567
<b>Members with a valid index event</b>								
Had a live birth delivery claim during the query period	7,155,029	77,141,155	7,155,029	77,141,155	7,155,029	77,141,155	7,155,029	77,141,155
<b>Live birth deliveries with a valid index date</b>								
Total number of live birth deliveries during the query period	11,023,427	N/A	11,023,427	N/A	11,023,427	N/A	11,023,427	N/A
Live birth delivery recorded during specified age range	11,009,150	14,277	11,009,150	14,277	11,009,150	14,277	11,009,150	14,277
Pregnancy episode recorded during the query period	8,200,772	2,808,378	8,200,772	2,808,378	8,200,772	2,808,378	8,200,772	2,808,378
<b>Pregnancy episodes with required pre-index history</b>								
Had sufficient pre-index continuous enrollment	4,600,597	3,600,175	3,787,752	4,413,020	4,600,597	3,600,175	3,787,752	4,413,020
Met inclusion and exclusion criteria	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0
<b>Pregnancy episodes with required post-index follow-up</b>								
Had sufficient post-index continuous enrollment	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0
<b>Final cohort</b>								
Number of members	4,045,232	N/A	3,337,170	N/A	4,045,232	N/A	3,337,170	N/A
Number of pregnancy episodes	4,600,597	N/A	3,787,752	N/A	4,600,597	N/A	3,787,752	N/A
Number of non-pregnant matched comparator episodes	0	N/A	0	N/A	0	N/A	0	N/A
<b>Members meeting mother-infant linkage requirements</b>								
Pregnancy episodes met initial cohort eligibility requirements	4,600,597	N/A	3,787,752	N/A	4,600,597	N/A	3,787,752	N/A
Medical product of interest recorded during pregnancy episode	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0
Linked infant met sex requirement	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0
Linked mother excluded due to prior initiation of other exposure group	4,600,597	0	3,787,752	0	4,600,597	0	3,787,752	0

**Table 2. Summary of Episode Level Cohort Attrition in the Sentinel Distributed Database (SDD) from January 1, 2011 to August 1, 2022<sup>1</sup>**

	Dimethyl Fumarate		Dimethyl Fumarate Sensitivity Analysis		No Treatment		No Treatment Sensitivity Analysis	
	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded	Remaining	Excluded
Linked live birth delivery recorded during specified age range	4,595,396	5,201	3,783,594	4,158	4,595,396	5,201	3,783,594	4,158
Linked mother had sufficient pre-index continuous enrollment	4,595,396	0	3,783,594	0	4,595,396	0	3,783,594	0
Linked mother met inclusion and exclusion criteria <sup>2</sup>	231	4,595,165	197	3,783,397	7,798	4,587,598	6,182	3,777,412
<i>Evidence of Alemtuzumab</i>	N/A	N/A	N/A	N/A	N/A	*****	N/A	*****
<i>Evidence of Beta Beta Interferon 1a or 1b</i>	N/A	N/A	N/A	N/A	N/A	288	N/A	294
<i>Evidence of Chromosomal abnormalities</i>	N/A	18,298	N/A	15,475	N/A	18,298	N/A	15,475
<i>Evidence of Dimethyl fumarate</i>	N/A	N/A	N/A	N/A	N/A	248	N/A	218
<i>Evidence of Diroximel fumarate</i>	N/A	N/A	N/A	N/A	N/A	*****	N/A	*****
<i>Evidence of Fingolimod</i>	N/A	114	N/A	111	N/A	114	N/A	123
<i>Evidence of Glatiramer acetate</i>	N/A	N/A	N/A	N/A	N/A	833	N/A	744
<i>Evidence of Beta Interferon beta 1a or 1b</i>	N/A	288	N/A	177	N/A	N/A	N/A	N/A
<i>Evidence of Mitoxantrone</i>	N/A	N/A	N/A	N/A	N/A	0	N/A	0
<i>Evidence of Natalizumab</i>	N/A	N/A	N/A	N/A	N/A	209	N/A	247
<i>Evidence of Ocrelizumab</i>	N/A	N/A	N/A	N/A	N/A	12	N/A	110
<i>Evidence of PEGylated Beta Interferon</i>	N/A	N/A	N/A	N/A	N/A	16	N/A	15
<i>Evidence of Siponimod</i>	N/A	N/A	N/A	N/A	N/A	*****	N/A	*****
<i>Evidence of Teratogens</i>	N/A	68,881	N/A	209,127	N/A	68,881	N/A	209,127
<i>No evidence of Dimethyl fumarate</i>	N/A	4,595,148	N/A	3,783,377	N/A	N/A	N/A	N/A
<i>No evidence of Fingolimod</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>No evidence of Beta Interferon beta 1a or 1b</i>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
<i>No evidence of Multiple Sclerosis</i>	N/A	N/A	N/A	N/A	N/A	4,585,581	N/A	3,774,924
Restricted to first valid pregnancy episode	231	0	197	0	7,798	0	6,182	0

<sup>1</sup>Pregnancy is defined as a pregnancy that resulted in a live birth delivery identified using the method specified in the overview section of this report.

<sup>2</sup>Pregnancy episodes can meet multiple inclusion and/or exclusion criteria; therefore, the total number of pregnancy episodes excluded overall may not equal the sum of all pregnancy episodes 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

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

<b>Masked DP ID</b>	<b>DP Start Date</b>	<b>DP End Date<sup>1</sup></b>	<b>Cohort Selection End Date - 30 Days before DP End Date</b>
DP01	01/01/2000	08/31/2022	08/01/2022
DP02	01/01/2000	07/31/2022	07/01/2022
DP03	01/01/2000	05/31/2022	05/01/2022
DP04	01/01/2004	05/31/2021	05/01/2021
DP05	01/01/2007	05/31/2022	05/01/2022
DP06	01/01/2008	04/30/2022	03/31/2022
DP07	01/01/2005	07/31/2022	07/01/2022
DP08	01/01/2000	08/31/2022	08/01/2022
DP09	01/01/2000	05/31/2021	05/01/2021
DP10	01/01/2014	12/31/2018	12/01/2018
DP11	01/01/2008	06/30/2022	05/31/2022
DP12	01/01/2006	06/30/2022	05/31/2022

<sup>1</sup>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.

**Appendix B. List of Non-Proprietary and Brand Names of Medical Products Used to Define Exposures in this Request**

<b>Non-Proprietary Name</b>	<b>Brand Name</b>
<b>Dimethyl Fumarate</b>	
dimethyl fumarate	Tecfidera
dimethyl fumarate	Dimethyl Fumarate
<b>Fingolimod</b>	
fingolimod HCl	Gilenya
<b>Beta Interferons</b>	
beta interferon beta-1a	Avonex
beta interferon beta-1a/albumin human	Avonex (with albumin)
beta interferon beta-1a/albumin human	Rebif (with albumin)
beta interferon beta-1a/albumin human	Rebif Rebidose
beta interferon beta-1a/albumin human	Rebif Titration Pack
beta interferon beta-1b	Betaseron
beta interferon beta-1b	Extavia



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

Code	Description	Code Category	Code Type
<b>Beta Interferons</b>			
J1825	Injection, Beta Interferon beta-1a, 33 mcg	Procedure	HCPCS
J1826	Injection, Beta Interferon beta-1a, 30 mcg	Procedure	HCPCS
J1830	Injection Beta Interferon beta-1b, 0.25 mg (code may be used for Medicare when drug administered under the direct supervision of a physician, not for use when drug is self-administered)	Procedure	HCPCS
Q3025	Injection, Beta Interferon beta-1a, 11 mcg for intramuscular use	Procedure	HCPCS
Q3026	Injection, Beta Interferon beta-1a, 11 mcg for subcutaneous use	Procedure	HCPCS
Q3027	Injection, Beta Interferon beta-1a, 1 mcg for intramuscular use	Procedure	HCPCS
Q3028	Injection, Beta Interferon beta-1a, 1 mcg for subcutaneous use	Procedure	HCPCS

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
<b>Antineoplastic Agents</b>	
BCG live	Theracys
BCG live	Tice BCG
Tositumomab Iodine-131 (with Maltose)	Bexxar 131 Iodine
abemaciclib	Verzenio
abiraterone acetate	Zytiga
abiraterone acetate	abiraterone
abiraterone acetate, submicronized	Yonsa
acalabrutinib	Calquence
ado-trastuzumab emtansine	Kadcyla
afatinib dimaleate	Gilotrif
aldesleukin	Proleukin
alectinib HCl	Alecensa
alemtuzumab	Campath
alemtuzumab	Lemtrada
alitretinoin	Panretin
alpelisib	Piqray
alpelisib	Vijoice
altretamine	Hexalen
anastrozole	Arimidex
anastrozole	anastrozole
apalutamide	Erleada
arsenic trioxide	Trisenox
arsenic trioxide	arsenic trioxide
asparaginase	Elspar
asparaginase (Erwinia chrysanthemi)	Erwinase
asparaginase (Erwinia chrysanthemi)	Erwinaze
asparaginase Erwinia chrysanthemi (recombinant)-rywn	Rylaze
atezolizumab	Tecentriq
avapritinib	Ayvakit
avelumab	Bavencio
axicabtagene ciloleucel	Yescarta
axitinib	Inlyta
azacitidine	Onureg
azacitidine	Vidaza
azacitidine	azacitidine

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
belinostat	Beleodaq
bendamustine HCl	Belrapzo
bendamustine HCl	Bendeka
bendamustine HCl	Treanda
bendamustine HCl	bendamustine
bevacizumab	Avastin
bevacizumab	bevacizumab
bevacizumab-awwb	Mvasi
bevacizumab-bvzr	Zirabev
bevacizumab-maly	Alymsys
bexarotene	Targretin
bexarotene	bexarotene
bicalutamide	Casodex
bicalutamide	bicalutamide
binimetinib	Mektovi
bleomycin sulfate	Bleo 15K
bleomycin sulfate	bleomycin
blinatumomab	Blincyto
bortezomib	Velcade
bortezomib	bortezomib
bosutinib	Bosulif
brentuximab vedotin	Adcetris
brigatinib	Alunbrig
busulfan	Busulfex
busulfan	Myleran
busulfan	busulfan
cabazitaxel	Jevtana
cabozantinib s-malate	Cabometyx
cabozantinib s-malate	Cometriq
calaspargase pegol-mknl	Asparlas
capecitabine	Xeloda
capecitabine	capecitabine
carboplatin	Paraplatin
carboplatin	carboplatin
carfilzomib	Kyprolis
carmustine	BICNU

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
carmustine	carmustine
carmustine in polifeprosan 20	Gliadel Wafer
cemiplimab-rwlc	Libtayo
ceritinib	Zykadia
cetuximab	Erbitux
chlorambucil	Leukeran
cisplatin	cisplatin
cladribine	Leustatin
cladribine	Mavenclad (10 tablet pack)
cladribine	Mavenclad (4 tablet pack)
cladribine	Mavenclad (5 tablet pack)
cladribine	Mavenclad (6 tablet pack)
cladribine	Mavenclad (7 tablet pack)
cladribine	Mavenclad (8 tablet pack)
cladribine	Mavenclad (9 tablet pack)
cladribine	cladribine
clindamycin phosphate/tretinoin	Veltin
clindamycin phosphate/tretinoin	Ziana
clindamycin phosphate/tretinoin	clindamycin-tretinoin
clofarabine	Clolar
clofarabine	clofarabine
cobimetinib fumarate	Cotellic
copanlisib di-HCl	Aliqopa
crizotinib	Xalkori
cromolyn sodium	Crolom
cromolyn sodium	Gastrocrom
cromolyn sodium	Nasal Allergy Symptom Control
cromolyn sodium	Nasalcrom
cromolyn sodium	cromolyn
cyclophosphamide	cyclophosphamide
cytarabine	cytarabine
cytarabine liposome/PF	DepoCyt (PF)
cytarabine/PF	cytarabine (PF)
dabrafenib mesylate	Tafinlar
dacarbazine	dacarbazine
dacomitinib	Vizimpro

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
dactinomycin	Cosmegen
dactinomycin	dactinomycin
daratumumab	Darzalex
daratumumab-hyaluronidase-fihj	Darzalex Faspro
darolutamide	Nubeqa
dasatinib	Sprycel
daunorubicin HCl	Cerubidine
daunorubicin HCl	daunorubicin
daunorubicin citrate liposomal	DaunoXome
daunorubicin/cytarabine liposomal	Vyxeos
decitabine	Dacogen
decitabine	decitabine
decitabine/cedazuridine	Inqovi
degarelix acetate	Firmagon
degarelix acetate	Firmagon kit w diluent syringe
denileukin diftitox	Ontak
dinutuximab	Unituxin
docetaxel	Docefrez
docetaxel	Taxotere
docetaxel	docetaxel
doxorubicin HCl	Adriamycin
doxorubicin HCl	Adriamycin PFS
doxorubicin HCl	doxorubicin
doxorubicin HCl pegylated liposomal	Doxil
doxorubicin HCl pegylated liposomal	Lipodox
doxorubicin HCl pegylated liposomal	Lipodox 50
doxorubicin HCl pegylated liposomal	doxorubicin, peg-liposomal
durvalumab	Imfinzi
duvelisib	Copiktra
elotuzumab	Empliciti
enasidenib mesylate	Idhifa
encorafenib	Braftovi
enfortumab vedotin-ejfv	Padcev
entrectinib	Rozlytrek
enzalutamide	Xtandi
epirubicin HCl	Ellence

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
epirubicin HCl	epirubicin
erdafitinib	Balversa
eribulin mesylate	Halaven
erlotinib HCl	Tarceva
erlotinib HCl	erlotinib
estramustine phosphate sodium	Emcyt
estrogens, conjugated/medroxyprogesterone acetate	Premphase
estrogens, conjugated/medroxyprogesterone acetate	Prempro
etoposide	Toposar
etoposide	etoposide
etoposide phosphate	Etopophos
everolimus	Afinitor
everolimus	Afinitor Disperz
everolimus	Zortress
everolimus	everolimus (antineoplastic)
everolimus	everolimus (immunosuppressive)
exemestane	Aromasin
exemestane	exemestane
fam-trastuzumab deruxtecan-nxki	Enhertu
fedratinib dihydrochloride	Inrebic
floxuridine	floxuridine
fludarabine phosphate	Fludara
fludarabine phosphate	Oforta
fludarabine phosphate	fludarabine
fluocinolone acetonide/tretinoin/hydroquinone	Tri-Luma
fluorouracil	Adrucil
fluorouracil	Carac
fluorouracil	Efudex
fluorouracil	Fluoroplex
fluorouracil	Tolak
fluorouracil	fluorouracil
flutamide	Eulexin
flutamide	flutamide
fulvestrant	Faslodex
fulvestrant	fulvestrant
gefitinib	Iressa

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
gemcitabine HCl	Gemzar
gemcitabine HCl	gemcitabine
gemcitabine HCl in 0.9 % sodium chloride	Infugem
gemtuzumab ozogamicin	Mylotarg
gilteritinib fumarate	Xospata
glasdegib maleate	Daurismo
goserelin acetate	Zoladex
histrelin acetate	Supprelin LA
histrelin acetate	Vantas
hydroquinone/tretinoin/hydrocortisone	Katarya
hydroquinone/tretinoin/hydrocortisone	Kataryaxn
hydroquinone/tretinoin/hydrocortisone	Ketarya
hydroquinone/tretinoin/hydrocortisone	Kevarya
hydroquinone/tretinoin/hydrocortisone	Kutaryaxm
hydroquinone/tretinoin/hydrocortisone	Kutaryaxmpa
hydroquinone/tretinoin/hydrocortisone	Kuvarya
hydroquinone/tretinoin/hydrocortisone	Kuvarye
hydroquinone/tretinoin/hydrocortisone	hydroquin-tretinoin-hydrocort
hydroxyurea	Droxia
hydroxyurea	Hydrea
hydroxyurea	Siklos
hydroxyurea	hydroxyurea
ibrutinib	Imbruvica
idarubicin HCl	Idamycin PFS
idarubicin HCl	idarubicin
idelalisib	Zydelig
ifosfamide	Ifex
ifosfamide	ifosfamide
ifosfamide/mesna	ifosfamide-mesna
imatinib mesylate	Gleevec
imatinib mesylate	imatinib
imiquimod/tretinoin/levocetirizine dihydrochloride	Quihoxvar
imiquimod/tretinoin/levocetirizine dihydrochloride	imiquimod-tretinoin-levocetir
inotuzumab ozogamicin	Besponsa
Beta Interferon alfa-2b, recomb.	Intron A
iobenguane iodine-131	Azedra Dosimetric

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
iobenguane iodine-131	Azedra Therapeutic
ipilimumab	Yervoy
irinotecan HCl	Camptosar
irinotecan HCl	irinotecan
irinotecan liposomal	Onivyde
ivosidenib	Tibsovo
ixabepilone	Ixempra
ixazomib citrate	Ninlaro
kit for prep indium-111/ibritumomab tiuxetan/albumin human	Zevalin (In-111)
kit for prep yttrium-90/ibritumomab tiuxetan/albumin human	Zevalin (Y-90)
lapatinib ditosylate	Tykerb
lapatinib ditosylate	lapatinib
larotrectinib sulfate	Vitrakvi
lenalidomide	Revlimid
lenalidomide	lenalidomide
lenvatinib mesylate	Lenvima
letrozole	Femara
letrozole	letrozole
leuprolide acetate	Eligard
leuprolide acetate	Eligard (3 month)
leuprolide acetate	Eligard (4 month)
leuprolide acetate	Eligard (6 month)
leuprolide acetate	Fensolvi
leuprolide acetate	Lupron Depot
leuprolide acetate	Lupron Depot (3 month)
leuprolide acetate	Lupron Depot (4 month)
leuprolide acetate	Lupron Depot (6 Month)
leuprolide acetate	Lupron Depot-Ped
leuprolide acetate	Lupron Depot-Ped (3 month)
leuprolide acetate	leuprolide
leuprolide acetate/norethindrone acetate	Lupaneta Pack (1 month)
leuprolide acetate/norethindrone acetate	Lupaneta Pack (3 month)
lomustine	CeeNU
lomustine	Gleostine
lomustine	lomustine
lorlatinib	Lorbrena



**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
lutetium Lu 177 dotatate	Lutathera
mechlorethamine HCl	Mustargen
mechlorethamine HCl	Valchlor
medroxyprogesterone acetate	Depo-Provera
medroxyprogesterone acetate	Depo-SubQ provera 104
medroxyprogesterone acetate	Provera
medroxyprogesterone acetate	medroxyprogesterone
megestrol acetate	Megace
megestrol acetate	Megace ES
megestrol acetate	megestrol
melphalan	Alkeran
melphalan	melphalan
melphalan HCl	Alkeran (as HCl)
melphalan HCl	melphalan HCl
melphalan HCl/betadex sulfobutyl ether sodium	Evomela
melphalan flufenamide hydrochloride	Pepaxto
mercaptopurine	Purinethol
mercaptopurine	Purixan
mercaptopurine	mercaptopurine
methotrexate	Xatmep
methotrexate sodium	Methotrexate (Anti-Rheumatic)
methotrexate sodium	Rheumatrex
methotrexate sodium	Trexall
methotrexate sodium	methotrexate sodium
methotrexate sodium/PF	methotrexate sodium (PF)
methotrexate/PF	Otrexup (PF)
methotrexate/PF	Rasuvo (PF)
methotrexate/PF	RediTrex (PF)
methoxsalen	8-Mop
methoxsalen	Oxsoralen
methoxsalen	Oxsoralen Ultra
methoxsalen	Uvadex
methoxsalen	methoxsalen
midostaurin	Rydapt
minoxidil/progesterone/tretinoin	minoxidil-progesterone-tretin
mitomycin	Jelmyto

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
mitomycin	Mitosol
mitomycin	Mutamycin
mitomycin	mitomycin
mitomycin in sterile water/PF	mitomycin (PF) in water
mitotane	Lysodren
mitoxantrone HCl	Novantrone
mitoxantrone HCl	mitoxantrone
mogamulizumab-kpkc	Poteligeo
moxetumomab pasudotox-tdfk	Lumoxiti
necitumumab	Portrazza
nelarabine	Arranon
nelarabine	nelarabine
neratinib maleate	Nerlynx
nilotinib HCl	Tasigna
nilutamide	Nilandron
nilutamide	nilutamide
nintedanib esylate	Ofev
niraparib tosylate	Zejula
nivolumab	Opdivo
nivolumab-relatlimab-rmbw	Opdualag
obinutuzumab	Gazyva
ofatumumab	Arzerra
ofatumumab	Kesimpta Pen
olaparib	Lynparza
olaratumab	Lartruvo
omacetaxine mepesuccinate	Synribo
osimertinib mesylate	Tagrisso
oxaliplatin	Eloxatin
oxaliplatin	oxaliplatin
paclitaxel	paclitaxel
paclitaxel protein-bound	Abraxane
paclitaxel protein-bound	paclitaxel protein-bound
palbociclib	Ibrance
panitumumab	Vectibix
panobinostat lactate	Farydak
pazopanib HCl	Votrient

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
pegaspargase	Oncaspar
pegBeta Interferon alfa-2b	PegIntron
pegBeta Interferon alfa-2b	PegIntron Redipen
pegBeta Interferon alfa-2b	Sylatron
pegBeta Interferon alfa-2b	Sylatron 4-Pack
pembrolizumab	Keytruda
pemetrexed disodium	Alimta
pemetrexed disodium	pemetrexed disodium
pentostatin	Nipent
pentostatin	pentostatin
pertuzumab	Perjeta
pertuzumab-trastuzumab-hyaluronidase-zzxf	Phesgo
pexidartinib hydrochloride	Turalio
polatuzumab vedotin-piiq	Polivy
pomalidomide	Pomalyst
ponatinib HCl	Iclusig
porfimer sodium	Photofrin
pralatrexate	Folotyn
procarbazine HCl	Matulane
radium-223 dichloride	Xofigo
ramucirumab	Cyramza
regorafenib	Stivarga
ribociclib succinate	Kisqali
ribociclib succinate/letrozole	Kisqali Femara Co-Pack
rituximab	Rituxan
rituximab-abbs	Truxima
rituximab-arrx	Riabni
rituximab-pvvr	Ruxience
rituximab/hyaluronidase, human recombinant	Rituxan Hycela
romidepsin	Istodax
romidepsin	romidepsin
ropegBeta Interferon alfa-2b-njft	Besremi
rucaparib camsylate	Rubraca
ruxolitinib phosphate	Jakafi
ruxolitinib phosphate	Opzelura
samarium Sm 153 lexidronam	Quadramet

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
selinexor	Xpovio
siltuximab	Sylvant
sipuleucel-T/lactated ringers solution	Provenge
sodium iodide-131	Hicon
sodium iodide-131	sodium iodide-131
sonidegib phosphate	Odomzo
sorafenib tosylate	Nexavar
sorafenib tosylate	sorafenib
streptozocin	Zanosar
strontium-89 chloride	Metastron
strontium-89 chloride	strontium-89 chloride
sunitinib malate	Sutent
sunitinib malate	sunitinib
tagraxofusp-erzs	Elzonris
talazoparib tosylate	Talzenna
talimogene laherparepvec	Imlygic
tamoxifen citrate	Soltamox
tamoxifen citrate	tamoxifen
tazemetostat hydrobromide	Tazverik
temozolomide	Temodar
temozolomide	temozolomide
temsirolimus	Torisel
temsirolimus	temsirolimus
teniposide	Vumon
teniposide	teniposide
thioguanine	Tabloid
thiotepa	Tepadina
thiotepa	thiotepa
tisagenlecleucel	Kymriah
topotecan HCl	Hycamtin
topotecan HCl	topotecan
toremifene citrate	Fareston
toremifene citrate	toremifene
tositumomab (with maltose)	Bexxar Dosimetric
tositumomab (with maltose)	Bexxar Therapeutic
trabectedin	Yondelis

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
trametinib dimethyl sulfoxide	Mekinist
trastuzumab	Herceptin
trastuzumab-anns	Kanjinti
trastuzumab-dkst	Ogivri
trastuzumab-dttb	Ontruzant
trastuzumab-hyaluronidase-oysk	Herceptin Hylecta
trastuzumab-pkrb	Herzuma
trastuzumab-qyyp	Trazimera
tretinoin	Altreno
tretinoin	Atralin
tretinoin	Avita
tretinoin	Retin-A
tretinoin	Retinoic Acid
tretinoin	TRETIN-X
tretinoin	Tretinoin Acid
tretinoin	tretinoin
tretinoin	tretinoin (antineoplastic)
tretinoin microspheres	Retin-A Micro
tretinoin microspheres	Retin-A Micro Pump
tretinoin microspheres	tretinoin microspheres
tretinoin/benzoyl peroxide	Twynéo
tretinoin/benzoyl peroxide/clindamycin phosphate/niacinamide	tretinoin-benzoyl-clinda-niac
tretinoin/clindamycin phosphate/niacinamide	Tardeoxia
tretinoin/clindamycin phosphate/niacinamide	tretinoin-clindamycin-niacin
tretinoin/clindamycin phosphate/spironolactone/niacinamide	tretinoin-clinda-spiron-niacin
tretinoin/emollient base	Refissa
tretinoin/emollient base	Renova
tretinoin/emollient base	tretinoin (emollient)
tretinoin/emollient combination no.9/skin cleanser no.1	TRETIN-X Cream Kit
tretinoin/emollient combination no.9/skin cleanser no.1/gel	TRETIN-X (gel)
tretinoin/hyaluronate sodium/niacinamide	Oxiatar
tretinoin/hyaluronate sodium/niacinamide	Oxiavarry
tretinoin/hyaluronate sodium/niacinamide	Oxiazar
tretinoin/hyaluronate sodium/niacinamide	tretinoin-hyaluronate-niacin
tretinoin/menthol/zinc oxide/silicone, adhesive	Dermapak Plus
tretinoin/mequinol	Solage

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

<b>Non-Proprietary Name</b>	<b>Brand Name</b>
tretinoin/niacinamide	Taroxia
tretinoin/niacinamide	Varoxia
tretinoin/niacinamide	tretinoin-niacinamide
tretinoin/spironolactone/niacinamide	Tardimaxia
tretinoin/spironolactone/niacinamide	Vardimaxia
tretinoin/spironolactone/niacinamide	tretinoin-spironolact-niacin
trifluridine/tipiracil HCl	Lonsurf
triptorelin pamoate	Trelstar
triptorelin pamoate	Triptodur
valrubicin	Valstar
valrubicin	valrubicin
vandetanib	Caprelsa
vandetanib	vandetanib
vemurafenib	Zelboraf
venetoclax	Venclexta
venetoclax	Venclexta Starting Pack
vinblastine sulfate	vinblastine
vincristine sulfate	Vincasar PFS
vincristine sulfate	vincristine
vincristine sulfate liposomal	Marqibo
vinorelbine tartrate	Navelbine
vinorelbine tartrate	vinorelbine
vismodegib	Erivedge
vorinostat	Zolinza
zanubrutinib	Brukinsa
ziv-aflibercept	Zaltrap
<b>Misoprostol</b>	
diclofenac sodium/misoprostol	Arthrotec 50
diclofenac sodium/misoprostol	Arthrotec 75
diclofenac sodium/misoprostol	diclofenac-misoprostol
misoprostol	Cytotec
misoprostol	misoprostol
<b>Dimethyl Fumarate</b>	
Dimethyl Fumarate	Tecfidera
Dimethyl Fumarate	Dimethyl Fumarate
<b>Diroximel Fumarate</b>	

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Non-Proprietary Name	Brand Name
diroximel fumarate	Vumerity
<b>Fingolimod</b>	
fingolimod HCl	Gilenya
<b>Glatiramer Acetate</b>	
glatiramer acetate	Copaxone
glatiramer acetate	Glatopa
glatiramer acetate	glatiramer
<b>Beta Interferons</b>	
interferon beta-1a	Avonex
interferon beta-1a/albumin human	Avonex (with albumin)
interferon beta-1a/albumin human	Rebif (with albumin)
interferon beta-1a/albumin human	Rebif Rebidose
interferon beta-1a/albumin human	Rebif Titration Pack
interferon beta-1b	Betaseron
interferon beta-1b	Extavia
<b>Isotretinoin</b>	
isotretinoin	Absorica
isotretinoin	Accutane
isotretinoin	Amnesteem
isotretinoin	Claravis
isotretinoin	Myorisan
isotretinoin	Sotret
isotretinoin	Zenatane
isotretinoin	isotretinoin
isotretinoin, micronized	Absorica LD
<b>Leflunomide</b>	
leflunomide	Arava
leflunomide	leflunomide
<b>Lithium</b>	
lithium carbonate	Lithobid
lithium carbonate	lithium carbonate
lithium citrate	lithium citrate
<b>Natalizumab</b>	
natalizumab	Tysabri
<b>Ocrelizumab</b>	
ocrelizumab	Ocrevus

**Appendix D. List of Non-Proprietary and Brand Names of Medical Products Used to Define Inclusion and Exclusion Criteria in this Request**

Non-Proprietary Name	Brand Name
<b>PEGylated Beta Interferon</b>	
pegBeta Interferon beta-1a	Plegridy
<b>Siponimod</b>	
siponimod	Mayzent
siponimod	Mayzent Starter Pack
siponimod	Mayzent Starter(for 1mg maint)
<b>Teriflunomide</b>	
teriflunomide	Aubagio
<b>Thalidomide</b>	
thalidomide	Thalomid
<b>Topiramate</b>	
topiramate	Eprontia
topiramate	Qudexy XR
topiramate	Topamax
topiramate	Topiragen
topiramate	Trokendi XR
topiramate	topiramate
<b>Warfarin</b>	
warfarin sodium	Coumadin
warfarin sodium	Jantoven
warfarin sodium	warfarin



**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
<b>Chromosomal Abnormalities</b>			
758.0	Down's syndrome	Diagnosis	ICD-9-CM
758.1	Patau's syndrome	Diagnosis	ICD-9-CM
758.2	Edwards' syndrome	Diagnosis	ICD-9-CM
758.3	Autosomal deletion syndromes	Diagnosis	ICD-9-CM
758.31	Cri-du-chat syndrome	Diagnosis	ICD-9-CM
758.32	Velo-cardio-facial syndrome	Diagnosis	ICD-9-CM
758.33	Autosomal deletion syndromes, other microdeletions	Diagnosis	ICD-9-CM
758.39	Autosomal deletion syndromes, other autosomal deletions	Diagnosis	ICD-9-CM
758.4	Balanced autosomal translocation in normal individual	Diagnosis	ICD-9-CM
758.5	Other conditions due to autosomal anomalies	Diagnosis	ICD-9-CM
758.6	Gonadal dysgenesis	Diagnosis	ICD-9-CM
758.7	Klinefelter's syndrome	Diagnosis	ICD-9-CM
758.8	Other conditions due to chromosome anomalies	Diagnosis	ICD-9-CM
758.81	Other conditions due to sex chromosome anomalies	Diagnosis	ICD-9-CM
758.89	Other conditions due to chromosome anomalies	Diagnosis	ICD-9-CM
758.9	Conditions due to anomaly of unspecified chromosome	Diagnosis	ICD-9-CM
759.81	Prader-Willi syndrome	Diagnosis	ICD-9-CM
759.82	Marfan's syndrome	Diagnosis	ICD-9-CM
759.83	Fragile X syndrome	Diagnosis	ICD-9-CM
Q87.1	Congenital malformation syndromes predominantly associated with short	Diagnosis	ICD-10-CM
Q87.11	Prader-Willi syndrome	Diagnosis	ICD-10-CM
Q87.40	Marfan's syndrome, unspecified	Diagnosis	ICD-10-CM
Q87.410	Marfan's syndrome with aortic dilation	Diagnosis	ICD-10-CM
Q87.418	Marfan's syndrome with other cardiovascular manifestations	Diagnosis	ICD-10-CM
Q87.42	Marfan's syndrome with ocular manifestations	Diagnosis	ICD-10-CM
Q87.43	Marfan's syndrome with skeletal manifestation	Diagnosis	ICD-10-CM
Q87.81	Alport syndrome	Diagnosis	ICD-10-CM
Q87.82	Arterial tortuosity syndrome	Diagnosis	ICD-10-CM
Q90.0	Trisomy 21, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Q90.1	Trisomy 21, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Q90.2	Trisomy 21, translocation	Diagnosis	ICD-10-CM
Q90.9	Down syndrome, unspecified	Diagnosis	ICD-10-CM
Q91.0	Trisomy 18, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Q91.1	Trisomy 18, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
Q91.2	Trisomy 18, translocation	Diagnosis	ICD-10-CM
Q91.3	Trisomy 18, unspecified	Diagnosis	ICD-10-CM
Q91.4	Trisomy 13, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Q91.5	Trisomy 13, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Q91.6	Trisomy 13, translocation	Diagnosis	ICD-10-CM
Q91.7	Trisomy 13, unspecified	Diagnosis	ICD-10-CM
Q92.0	Whole chromosome trisomy, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Q92.1	Whole chromosome trisomy, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Q92.2	Partial trisomy	Diagnosis	ICD-10-CM
Q92.5	Duplications with other complex rearrangements	Diagnosis	ICD-10-CM
Q92.6	Marker chromosomes	Diagnosis	ICD-10-CM
Q92.61	Marker chromosomes in normal individual	Diagnosis	ICD-10-CM
Q92.62	Marker chromosomes in abnormal individual	Diagnosis	ICD-10-CM
Q92.7	Triploidy and polyploidy	Diagnosis	ICD-10-CM
Q92.8	Other specified trisomies and partial trisomies of autosomes	Diagnosis	ICD-10-CM
Q92.9	Trisomy and partial trisomy of autosomes, unspecified	Diagnosis	ICD-10-CM
Q93.0	Whole chromosome monosomy, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Q93.1	Whole chromosome monosomy, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Q93.2	Chromosome replaced with ring, dicentric or isochromosome	Diagnosis	ICD-10-CM
Q93.3	Deletion of short arm of chromosome 4	Diagnosis	ICD-10-CM
Q93.4	Deletion of short arm of chromosome 5	Diagnosis	ICD-10-CM
Q93.5	Other deletions of part of a chromosome	Diagnosis	ICD-10-CM
Q93.51	Angelman syndrome	Diagnosis	ICD-10-CM
Q93.59	Other deletions of part of a chromosome	Diagnosis	ICD-10-CM
Q93.7	Deletions with other complex rearrangements	Diagnosis	ICD-10-CM
Q93.8	Other deletions from the autosomes	Diagnosis	ICD-10-CM
Q93.81	Velo-cardio-facial syndrome	Diagnosis	ICD-10-CM
Q93.82	Williams syndrome	Diagnosis	ICD-10-CM
Q93.88	Other microdeletions	Diagnosis	ICD-10-CM
Q93.89	Other deletions from the autosomes	Diagnosis	ICD-10-CM
Q93.9	Deletion from autosomes, unspecified	Diagnosis	ICD-10-CM
Q95.0	Balanced translocation and insertion in normal individual	Diagnosis	ICD-10-CM
Q95.1	Chromosome inversion in normal individual	Diagnosis	ICD-10-CM
Q95.2	Balanced autosomal rearrangement in abnormal individual	Diagnosis	ICD-10-CM
Q95.3	Balanced sex/autosomal rearrangement in abnormal individual	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
Q95.5	Individual with autosomal fragile site	Diagnosis	ICD-10-CM
Q95.8	Other balanced rearrangements and structural markers	Diagnosis	ICD-10-CM
Q95.9	Balanced rearrangement and structural marker, unspecified	Diagnosis	ICD-10-CM
Q96.0	Karyotype 45, X	Diagnosis	ICD-10-CM
Q96.1	Karyotype 46, X iso (Xq)	Diagnosis	ICD-10-CM
Q96.2	Karyotype 46, X with abnormal sex chromosome, except iso (Xq)	Diagnosis	ICD-10-CM
Q96.3	Mosaicism, 45, X/46, XX or XY	Diagnosis	ICD-10-CM
Q96.4	Mosaicism, 45, X/other cell line(s) with abnormal sex chromosome	Diagnosis	ICD-10-CM
Q96.8	Other variants of Turner's syndrome	Diagnosis	ICD-10-CM
Q96.9	Turner's syndrome, unspecified	Diagnosis	ICD-10-CM
Q97.0	Karyotype 47, XXX	Diagnosis	ICD-10-CM
Q97.1	Female with more than three X chromosomes	Diagnosis	ICD-10-CM
Q97.2	Mosaicism, lines with various numbers of X chromosomes	Diagnosis	ICD-10-CM
Q97.3	Female with 46, XY karyotype	Diagnosis	ICD-10-CM
Q97.8	Other specified sex chromosome abnormalities, female phenotype	Diagnosis	ICD-10-CM
Q97.9	Sex chromosome abnormality, female phenotype, unspecified	Diagnosis	ICD-10-CM
Q98.0	Klinefelter syndrome karyotype 47, XXY	Diagnosis	ICD-10-CM
Q98.1	Klinefelter syndrome, male with more than two X chromosomes	Diagnosis	ICD-10-CM
Q98.3	Other male with 46, XX karyotype	Diagnosis	ICD-10-CM
Q98.4	Klinefelter syndrome, unspecified	Diagnosis	ICD-10-CM
Q98.5	Karyotype 47, XYY	Diagnosis	ICD-10-CM
Q98.6	Male with structurally abnormal sex chromosome	Diagnosis	ICD-10-CM
Q98.7	Male with sex chromosome mosaicism	Diagnosis	ICD-10-CM
Q98.8	Other specified sex chromosome abnormalities, male phenotype	Diagnosis	ICD-10-CM
Q98.9	Sex chromosome abnormality, male phenotype, unspecified	Diagnosis	ICD-10-CM
Q99.0	Chimera 46, XX/46, XY	Diagnosis	ICD-10-CM
Q99.1	46, XX true hermaphrodite	Diagnosis	ICD-10-CM
Q99.2	Fragile X chromosome	Diagnosis	ICD-10-CM
Q99.8	Other specified chromosome abnormalities	Diagnosis	ICD-10-CM
Q99.9	Chromosomal abnormality, unspecified	Diagnosis	ICD-10-CM
<b>Antineoplastic Agents</b>			
A9513	Lutetium Lu 177, dotatate, therapeutic, 1 mCi	Procedure	HCPCS
A9600	Supply of therapeutic radiopharmaceutical, strontium-89 chloride, per mci	Procedure	HCPCS
A9604	Samarium Sm-153 lexidronam, therapeutic, per treatment dose, up to 150 mCi	Procedure	HCPCS
A9605	Supply of therapeutic radiopharmaceutical, samarium Sm 153 lexidronam, 50	Procedure	HCPCS

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Code	Description	Code Category	Code Type
C9021	Injection, obinutuzumab, 10 mg	Procedure	HCPCS
C9024	Injection, liposomal, 1 mg daunorubicin and 2.27 mg cytarabine	Procedure	HCPCS
C9025	Injection, ramucirumab, 5 mg	Procedure	HCPCS
C9027	Injection, pembrolizumab, 1 mg	Procedure	HCPCS
C9028	Injection, inotuzumab ozogamicin, 0.1 mg	Procedure	HCPCS
C9031	Lutetium Lu 177, dotatate, therapeutic, 1 mCi	Procedure	HCPCS
C9038	Injection, mogamulizumab-kpkc, 1 mg	Procedure	HCPCS
C9042	Injection, bendamustine HCl (Belrapzo), 1 mg	Procedure	HCPCS
C9043	Injection, levoleucovorin, 1 mg	Procedure	HCPCS
C9044	Injection, cemiplimab-rwlc, 1 mg	Procedure	HCPCS
C9045	Injection, moxetumomab pasudotox-tdfk, 0.01 mg	Procedure	HCPCS
C9049	Injection, tagraxofusp-erzs, 10 mcg	Procedure	HCPCS
C9062	Injection, daratumumab 10 mg and hyaluronidase-fihj	Procedure	HCPCS
C9064	Mitomycin pyelocalyceal instillation, 1 mg	Procedure	HCPCS
C9065	Injection, romidepsin, non-lyophilized (e.g. liquid), 1 mg	Procedure	HCPCS
C9069	Injection, belantamab mafodotin-blmf, 0.5 mg	Procedure	HCPCS
C9070	Injection, tafasitamab-cxix, 2 mg	Procedure	HCPCS
C9080	Injection, melphalan flufenamide HCl, 1 mg	Procedure	HCPCS
C9082	Injection, dostarlimab-gxly, 100 mg	Procedure	HCPCS
C9131	Injection, ado-trastuzumab emtansine, 1 mg	Procedure	HCPCS
C9257	Injection, bevacizumab, 0.25 mg	Procedure	HCPCS
C9259	Injection, pralatrexate, 1 mg	Procedure	HCPCS
C9260	Injection, ofatumumab, 10 mg	Procedure	HCPCS
C9262	Fludarabine phosphate, oral, 1 mg	Procedure	HCPCS
C9265	Injection, romidepsin, 1 mg	Procedure	HCPCS
C9276	Injection, cabazitaxel, 1 mg	Procedure	HCPCS
C9280	Injection, eribulin mesylate, 1 mg	Procedure	HCPCS
C9284	Injection, ipilimumab, 1 mg	Procedure	HCPCS
C9287	Injection, brentuximab vedotin, 1 mg	Procedure	HCPCS
C9289	Injection, asparaginase Erwinia chrysanthemi, 1,000 IU	Procedure	HCPCS
C9291	Injection, aflibercept, 2 mg vial	Procedure	HCPCS
C9292	Injection, pertuzumab, 10 mg	Procedure	HCPCS
C9293	Injection, glucarpidase, 10 units	Procedure	HCPCS
C9295	Injection, carfilzomib, 1 mg	Procedure	HCPCS
C9296	Injection, ziv-aflibercept, 1 mg	Procedure	HCPCS

**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
C9297	Injection, omacetaxine mepesuccinate, 0.01 mg	Procedure	HCPCS
C9442	Injection, belinostat, 10 mg	Procedure	HCPCS
C9449	Injection, blinatumomab, 1 mcg	Procedure	HCPCS
C9453	Injection, nivolumab, 1 mg	Procedure	HCPCS
C9455	Injection, siltuximab, 10 mg	Procedure	HCPCS
C9467	Injection, rituximab and hyaluronidase, 10 mg	Procedure	HCPCS
C9472	Injection, talimogene laherparepvec, 1 million plaque forming units (PFU)	Procedure	HCPCS
C9475	Injection, necitumumab, 1 mg	Procedure	HCPCS
C9476	Injection, daratumumab, 10 mg	Procedure	HCPCS
C9477	Injection, elotuzumab, 1 mg	Procedure	HCPCS
C9480	Injection, trabectedin, 0.1 mg	Procedure	HCPCS
C9483	Injection, atezolizumab, 10 mg	Procedure	HCPCS
C9485	Injection, olaratumab, 10 mg	Procedure	HCPCS
C9491	Injection, avelumab, 10 mg	Procedure	HCPCS
C9492	Injection, durvalumab, 10 mg	Procedure	HCPCS
G9835	Trastuzumab administered within 12 months of diagnosis	Procedure	HCPCS
J0178	Injection, aflibercept, 1 mg	Procedure	HCPCS
J0202	Injection, alemtuzumab, 1 mg	Procedure	HCPCS
J0594	Injection, busulfan, 1 mg	Procedure	HCPCS
J0640	Injection, leucovorin calcium, per 50 mg	Procedure	HCPCS
J0641	Injection, levoleucovorin, not otherwise specified, 0.5 mg	Procedure	HCPCS
J0642	Injection, levoleucovorin (Khapzory), 0.5 mg	Procedure	HCPCS
J0894	Injection, decitabine, 1 mg	Procedure	HCPCS
J1050	Injection, medroxyprogesterone acetate, 1 mg	Procedure	HCPCS
J1051	Injection, medroxyprogesterone acetate, 50 mg	Procedure	HCPCS
J1055	Injection, medroxyprogesterone acetate for contraceptive use, 150 mg	Procedure	HCPCS
J1056	Injection, medroxyprogesterone acetate/estradiol cypionate, 5 mg/25 mg	Procedure	HCPCS
J1675	Injection, histrelin acetate, 10 mcg	Procedure	HCPCS
J1950	Injection, leuprolide acetate (for depot suspension), per 3.75 mg	Procedure	HCPCS
J1951	Injection, leuprolide acetate for depot suspension (Fensolvi), 0.25 mg	Procedure	HCPCS
J2860	Injection, siltuximab, 10 mg	Procedure	HCPCS
J3315	Injection, triptorelin pamoate, 3.75 mg	Procedure	HCPCS
J7308	Aminolevulinic acid HCl for topical administration, 20%, single unit dosage form	Procedure	HCPCS
J7315	Mitomycin, ophthalmic, 0.2 mg	Procedure	HCPCS
J7345	Aminolevulinic acid HCl for topical administration, 10% gel, 10 mg	Procedure	HCPCS

**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
J7527	Everolimus, oral, 0.25 mg	Procedure	HCPCS
J7631	Cromolyn sodium, inhalation solution, FDA-approved final product, noncompounded, administered through DME, unit dose form, per 10 mg	Procedure	HCPCS
J7632	Cromolyn sodium, inhalation solution, compounded product, administered through DME, unit dose form, per 10 mg	Procedure	HCPCS
J8510	Busulfan; oral, 2 mg	Procedure	HCPCS
J8520	Capecitabine, oral, 150 mg	Procedure	HCPCS
J8521	Capecitabine, oral, 500 mg	Procedure	HCPCS
J8530	Cyclophosphamide, oral, 25 mg	Procedure	HCPCS
J8560	Etoposide, oral, 50 mg	Procedure	HCPCS
J8561	Everolimus, oral, 0.25 mg	Procedure	HCPCS
J8562	Fludarabine phosphate, oral, 10 mg	Procedure	HCPCS
J8565	Gefitinib, oral, 250 mg	Procedure	HCPCS
J8600	Melphalan, oral 2 mg	Procedure	HCPCS
J8610	Methotrexate, oral, 2.5 mg	Procedure	HCPCS
J8700	Temozolomide, oral, 5 mg	Procedure	HCPCS
J9000	Injection, doxorubicin HCl, 10 mg	Procedure	HCPCS
J9001	Injection, doxorubicin HCl, all lipid formulations, 10 mg	Procedure	HCPCS
J9010	Injection, alemtuzumab, 10 mg	Procedure	HCPCS
J9015	Injection, aldesleukin, per single use vial	Procedure	HCPCS
J9017	Injection, arsenic trioxide, 1 mg	Procedure	HCPCS
J9019	Injection, asparaginase (Erwinaze), 1,000 IU	Procedure	HCPCS
J9020	Injection, asparaginase, not otherwise specified, 10,000 units	Procedure	HCPCS
J9022	Injection, atezolizumab, 10 mg	Procedure	HCPCS
J9023	Injection, avelumab, 10 mg	Procedure	HCPCS
J9025	Injection, azacitidine, 1 mg	Procedure	HCPCS
J9027	Injection, clofarabine, 1 mg	Procedure	HCPCS
J9030	BCG live intravesical instillation, 1 mg	Procedure	HCPCS
J9032	Injection, belinostat, 10 mg	Procedure	HCPCS
J9033	Injection, bendamustine HCl (Treanda), 1 mg	Procedure	HCPCS
J9034	Injection, bendamustine HCl (Bendeka), 1 mg	Procedure	HCPCS
J9035	Injection, bevacizumab, 10 mg	Procedure	HCPCS
J9037	Injection, belantamab mafodotin-blmf, 0.5 mg	Procedure	HCPCS
J9039	Injection, blinatumomab, 1 mcg	Procedure	HCPCS
J9040	Injection, bleomycin sulfate, 15 units	Procedure	HCPCS

**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
J9041	Injection, bortezomib (Velcade), 0.1 mg	Procedure	HCPCS
J9042	Injection, brentuximab vedotin, 1 mg	Procedure	HCPCS
J9043	Injection, cabazitaxel, 1 mg	Procedure	HCPCS
J9044	Injection, bortezomib, not otherwise specified, 0.1 mg	Procedure	HCPCS
J9045	Injection, carboplatin, 50 mg	Procedure	HCPCS
J9047	Injection, carfilzomib, 1 mg	Procedure	HCPCS
J9050	Injection, carmustine, 100 mg	Procedure	HCPCS
J9055	Injection, cetuximab, 10 mg	Procedure	HCPCS
J9060	Injection, cisplatin, powder or solution, 10 mg	Procedure	HCPCS
J9062	Cisplatin, 50 mg	Procedure	HCPCS
J9065	Injection, cladribine, per 1 mg	Procedure	HCPCS
J9070	Cyclophosphamide, 100 mg	Procedure	HCPCS
J9080	Cyclophosphamide, 200 mg	Procedure	HCPCS
J9090	Cyclophosphamide, 500 mg	Procedure	HCPCS
J9091	Cyclophosphamide, 1 g	Procedure	HCPCS
J9092	Cyclophosphamide, 2 g	Procedure	HCPCS
J9093	Cyclophosphamide, lyophilized, 100 mg	Procedure	HCPCS
J9094	Cyclophosphamide, lyophilized, 200 mg	Procedure	HCPCS
J9095	Cyclophosphamide, lyophilized, 500 mg	Procedure	HCPCS
J9096	Cyclophosphamide, lyophilized, 1 g	Procedure	HCPCS
J9097	Cyclophosphamide, lyophilized, 2 g	Procedure	HCPCS
J9098	Injection, cytarabine liposome, 10 mg	Procedure	HCPCS
J9100	Cytarabine, 100 mg	Procedure	HCPCS
J9110	Injection, cytarabine, 500 mg	Procedure	HCPCS
J9118	Injection, calaspargase pegol-mknl, 10 units	Procedure	HCPCS
J9119	Injection, cemiplimab-rwlc, 1 mg	Procedure	HCPCS
J9120	Injection, dactinomycin, 0.5 mg	Procedure	HCPCS
J9130	Dacarbazine, 100 mg	Procedure	HCPCS
J9140	Dacarbazine, 200 mg	Procedure	HCPCS
J9144	Injection, daratumumab, 10 mg and hyaluronidase-fihj	Procedure	HCPCS
J9145	Injection, daratumumab, 10 mg	Procedure	HCPCS
J9151	Injection, daunorubicin citrate, liposomal formulation, 10 mg	Procedure	HCPCS
J9153	Injection, liposomal, 1 mg daunorubicin and 2.27 mg cytarabine	Procedure	HCPCS
J9160	Injection, denileukin diftitox, 300 mcg	Procedure	HCPCS
J9171	Injection, docetaxel, 1 mg	Procedure	HCPCS



**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
J9173	Injection, durvalumab, 10 mg	Procedure	HCPCS
J9176	Injection, elotuzumab, 1 mg	Procedure	HCPCS
J9177	Injection, enfortumab vedotin-ejfv, 0.25 mg	Procedure	HCPCS
J9178	Injection, epirubicin HCl, 2 mg	Procedure	HCPCS
J9179	Injection, eribulin mesylate, 0.1 mg	Procedure	HCPCS
J9181	Injection, etoposide, 10 mg	Procedure	HCPCS
J9185	Injection, fludarabine phosphate, 50 mg	Procedure	HCPCS
J9190	Injection, fluorouracil, 500 mg	Procedure	HCPCS
J9199	Injection, gemcitabine HCl (Infugem), 200 mg	Procedure	HCPCS
J9200	Floxuridine, 500 mg	Procedure	HCPCS
J9201	Injection, gemcitabine HCl, not otherwise specified, 200 mg	Procedure	HCPCS
J9202	Goserelin acetate implant, per 3.6 mg	Procedure	HCPCS
J9203	Injection, gemtuzumab ozogamicin, 0.1 mg	Procedure	HCPCS
J9204	Injection, mogamulizumab-kpkc, 1 mg	Procedure	HCPCS
J9207	Injection, ixabepilone, 1 mg	Procedure	HCPCS
J9208	Injection, ifosfamide, 1 g	Procedure	HCPCS
J9209	Injection, mesna, 200 mg	Procedure	HCPCS
J9211	Idarubicin HCl, 5 mg	Procedure	HCPCS
J9214	Injection, Beta Interferon, alfa-2b, recombinant, 1 million units	Procedure	HCPCS
J9217	Leuprolide acetate (for depot suspension), 7.5 mg	Procedure	HCPCS
J9218	Leuprolide acetate, per 1 mg	Procedure	HCPCS
J9219	Leuprolide acetate implant, 65 mg	Procedure	HCPCS
J9223	Injection, lurbinectedin, 0.1 mg	Procedure	HCPCS
J9227	Injection, isatuximab-irfc, 10 mg	Procedure	HCPCS
J9228	Injection, ipilimumab, 1 mg	Procedure	HCPCS
J9229	Injection, inotuzumab ozogamicin, 0.1 mg	Procedure	HCPCS
J9230	Injection, mechlorethamine HCl, (nitrogen mustard), 10 mg	Procedure	HCPCS
J9245	Injection, melphalan hydrochloride, not otherwise specified, 50 mg	Procedure	HCPCS
J9246	Injection, melphalan (Evomela), 1 mg	Procedure	HCPCS
J9247	Injection, melphalan flufenamide, 1 mg	Procedure	HCPCS
J9250	Methotrexate sodium, 5 mg	Procedure	HCPCS
J9260	Methotrexate sodium, 50 mg	Procedure	HCPCS
J9261	Injection, nelarabine, 50 mg	Procedure	HCPCS
J9262	Injection, omacetaxine mepesuccinate, 0.01 mg	Procedure	HCPCS
J9263	Injection, oxaliplatin, 0.5 mg	Procedure	HCPCS



**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
J9264	Injection, paclitaxel protein-bound particles, 1 mg	Procedure	HCPCS
J9265	Injection, paclitaxel, 30 mg	Procedure	HCPCS
J9266	Injection, pegaspargase, per single dose vial	Procedure	HCPCS
J9267	Injection, paclitaxel, 1 mg	Procedure	HCPCS
J9268	Pentostatin, per 10 mg	Procedure	HCPCS
J9269	Injection, tagraxofusp-erzs, 10 mcg	Procedure	HCPCS
J9270	Plicamycin, 2.5 mg	Procedure	HCPCS
J9271	Injection, pembrolizumab, 1 mg	Procedure	HCPCS
J9280	Mitomycin, 5 mg	Procedure	HCPCS
J9281	Mitomycin pyelocalyceal instillation, 1 mg	Procedure	HCPCS
J9285	Injection, olaratumab, 10 mg	Procedure	HCPCS
J9290	Mitomycin, 20 mg	Procedure	HCPCS
J9291	Mitomycin, 40 mg	Procedure	HCPCS
J9293	Injection, mitoxantrone HCl, per 5 mg	Procedure	HCPCS
J9295	Injection, necitumumab, 1 mg	Procedure	HCPCS
J9299	Injection, nivolumab, 1 mg	Procedure	HCPCS
J9300	Injection, gemtuzumab ozogamicin, 5 mg	Procedure	HCPCS
J9301	Injection, obinutuzumab, 10 mg	Procedure	HCPCS
J9302	Injection, ofatumumab, 10 mg	Procedure	HCPCS
J9303	Injection, panitumumab, 10 mg	Procedure	HCPCS
J9306	Injection, pertuzumab, 1 mg	Procedure	HCPCS
J9307	Injection, pralatrexate, 1 mg	Procedure	HCPCS
J9308	Injection, ramucirumab, 5 mg	Procedure	HCPCS
J9309	Injection, polatuzumab vedotin-piiq, 1 mg	Procedure	HCPCS
J9310	Injection, rituximab, 100 mg	Procedure	HCPCS
J9311	Injection, rituximab 10 mg and hyaluronidase	Procedure	HCPCS
J9312	Injection, rituximab, 10 mg	Procedure	HCPCS
J9313	Injection, moxetumomab pasudotox-tdfk, 0.01 mg	Procedure	HCPCS
J9315	Injection, romidepsin, 1 mg	Procedure	HCPCS
J9316	Injection, pertuzumab, trastuzumab, and hyaluronidase-zzxf, per 10 mg	Procedure	HCPCS
J9318	Injection, romidepsin, nonlyophilized, 0.1 mg	Procedure	HCPCS
J9319	Injection, romidepsin, lyophilized, 0.1 mg	Procedure	HCPCS
J9320	Streptozocin, 1 g	Procedure	HCPCS
J9325	Injection, talimogene laherparepvec, per 1 million plaque forming units	Procedure	HCPCS
J9328	Injection, temozolomide, 1 mg	Procedure	HCPCS

**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
J9330	Injection, temsirolimus, 1 mg	Procedure	HCPCS
J9340	Thiotepa, 15 mg	Procedure	HCPCS
J9349	Injection, tafasitamab-cxix, 2 mg	Procedure	HCPCS
J9352	Injection, trabectedin, 0.1 mg	Procedure	HCPCS
J9354	Injection, ado-trastuzumab emtansine, 1 mg	Procedure	HCPCS
J9355	Injection, trastuzumab, 10 mg	Procedure	HCPCS
J9356	Injection, trastuzumab, 10 mg and hyaluronidase-oysk	Procedure	HCPCS
J9357	Injection, valrubicin, intravesical, 200 mg	Procedure	HCPCS
J9358	Injection, fam-trastuzumab deruxtecan-nxki, 1 mg	Procedure	HCPCS
J9360	Injection, vinblastine sulfate, 1 mg	Procedure	HCPCS
J9370	Vincristine sulfate, 1 mg	Procedure	HCPCS
J9371	Injection, vincristine sulfate liposome, 1 mg	Procedure	HCPCS
J9375	Vincristine sulfate, 2 mg	Procedure	HCPCS
J9380	Vincristine sulfate, 5 mg	Procedure	HCPCS
J9390	Vinorelbine tartrate, per 10 mg	Procedure	HCPCS
J9395	Injection, fulvestrant, 25 mg	Procedure	HCPCS
J9400	Injection, ziv-aflibercept, 1 mg	Procedure	HCPCS
J9600	Porfimer sodium, 75 mg	Procedure	HCPCS
Q2017	Injection, teniposide, 50 mg	Procedure	HCPCS
Q2025	Fludarabine phosphate, oral, 1 mg	Procedure	HCPCS
Q2040	Tisagenlecleucel, up to 250 million CAR-positive viable T cells, including leukapheresis and dose preparation procedures, per infusion	Procedure	HCPCS
Q2041	Axicabtagene ciloleucel, up to 200 million autologous anti-CD19 CAR positive T cells, including leukapheresis and dose preparation procedures, per therapeutic dose	Procedure	HCPCS
Q2042	Tisagenlecleucel, up to 600 million CAR-positive viable T cells, including leukapheresis and dose preparation procedures, per therapeutic dose	Procedure	HCPCS
Q2046	Injection, aflibercept, 1 mg	Procedure	HCPCS
Q2049	Injection, doxorubicin HCl, liposomal, imported Lipodox, 10 mg	Procedure	HCPCS
Q2050	Injection, doxorubicin HCl, liposomal, not otherwise specified, 10 mg	Procedure	HCPCS
Q5107	Injection, bevacizumab-awwb, biosimilar, (Mvasi), 10 mg	Procedure	HCPCS
Q5112	Injection, trastuzumab-dttb, biosimilar, (Ontruzant), 10 mg	Procedure	HCPCS
Q5113	Injection, trastuzumab-pkrb, biosimilar, (Herzuma), 10 mg	Procedure	HCPCS
Q5114	Injection, Trastuzumab-dkst, biosimilar, (Ogivri), 10 mg	Procedure	HCPCS
Q5115	Injection, rituximab-abbs, biosimilar, (Truxima), 10 mg	Procedure	HCPCS
Q5116	Injection, trastuzumab-qyyp, biosimilar, (Trazimera), 10 mg	Procedure	HCPCS

**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
Q5117	Injection, trastuzumab-anns, biosimilar, (Kanjinti), 10 mg	Procedure	HCPCS
Q5118	Injection, bevacizumab-bvzr, biosimilar, (Zirabev), 10 mg	Procedure	HCPCS
Q5119	Injection, rituximab-pvvr, biosimilar, (RUXIENCE), 10 mg	Procedure	HCPCS
Q5123	Injection, rituximab-arrx, biosimilar, (Riabni), 10 mg	Procedure	HCPCS
Q9979	Injection, Alemtuzumab, 1 mg	Procedure	HCPCS
S0108	Mercaptopurine, oral, 50 mg	Procedure	HCPCS
S0117	Tretinoin, topical, 5 g	Procedure	HCPCS
S0156	Exemestane, 25 mg	Procedure	HCPCS
S0170	Anastrozole, oral, 1 mg	Procedure	HCPCS
S0172	Chlorambucil, oral, 2 mg	Procedure	HCPCS
S0175	Flutamide, oral, 125 mg	Procedure	HCPCS
S0176	Hydroxyurea, oral, 500 mg	Procedure	HCPCS
S0178	Lomustine, oral, 10 mg	Procedure	HCPCS
S0179	Megestrol acetate, oral, 20 mg	Procedure	HCPCS
S0182	Procarbazine HCl, oral, 50 mg	Procedure	HCPCS
S0187	Tamoxifen citrate, oral, 10 mg	Procedure	HCPCS
<b>Ocrelizumab</b>			
C9494	Injection, ocrelizumab, 1 mg	Procedure	HCPCS
J2350	Injection, ocrelizumab, 1 mg	Procedure	HCPCS
<b>Alemtuzumab</b>			
J0202	Injection, alemtuzumab, 1 mg	Procedure	HCPCS
J9010	Injection, alemtuzumab, 10 mg	Procedure	HCPCS
Q9979	Injection, Alemtuzumab, 1 mg	Procedure	HCPCS
<b>Glatiramer Acetate</b>			
J1595	Injection, glatiramer acetate, 20 mg	Procedure	HCPCS
<b>Beta Interferons</b>			
J1825	Injection, Beta Interferon beta-1a, 33 mcg	Procedure	HCPCS
J1826	Injection, Beta Interferon beta-1a, 30 mcg	Procedure	HCPCS
J1830	Injection Beta Interferon beta-1b, 0.25 mg (code may be used for Medicare when drug administered under the direct supervision of a physician, not for use when drug is self-administered)	Procedure	HCPCS
Q3025	Injection, Beta Interferon beta-1a, 11 mcg for intramuscular use	Procedure	HCPCS
Q3026	Injection, Beta Interferon beta-1a, 11 mcg for subcutaneous use	Procedure	HCPCS
Q3027	Injection, Beta Interferon beta-1a, 1 mcg for intramuscular use	Procedure	HCPCS
Q3028	Injection, Beta Interferon beta-1a, 1 mcg for subcutaneous use	Procedure	HCPCS

**Appendix E. List of Healthcare Common Procedure Coding System, Level II (HCPCS), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), and International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Inclusion and Exclusion Criteria in this Request**

Code	Description	Code Category	Code Type
<b>Natalizumab</b>			
J2323	Injection, natalizumab, 1 mg	Procedure	HCPCS
Q4079	Injection, natalizumab, 1 mg	Procedure	HCPCS
<b>Cladribine</b>			
J9065	Injection, cladribine, per 1 mg	Procedure	HCPCS
<b>Mitoxantron</b>			
J9293	Injection, mitoxantrone HCl, per 5 mg	Procedure	HCPCS
<b>Misoprostol</b>			
S0191	Misoprostol, oral, 200 mcg	Procedure	HCPCS

**Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Live Birth Delivery in this Request**

Code	Description	Code Category	Code Type
<b>Delivery</b>			
0W8NXZZ	Division of Female Perineum, External Approach	Procedure	ICD-10-PCS
10900ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Open Approach	Procedure	ICD-10-PCS
10903ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Percutaneous Approach	Procedure	ICD-10-PCS
10904ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Percutaneous Endoscopic Approach	Procedure	ICD-10-PCS
10907ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10908ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Via Natural or Artificial Opening Endoscopic	Procedure	ICD-10-PCS
10D00Z0	Extraction of Products of Conception, Classical, Open Approach	Procedure	ICD-10-PCS
10D00Z1	Extraction of Products of Conception, Low Cervical, Open Approach	Procedure	ICD-10-PCS
10D00Z2	Extraction of Products of Conception, Extraperitoneal, Open Approach	Procedure	ICD-10-PCS
10D07Z3	Extraction of Products of Conception, Low Forceps, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z4	Extraction of Products of Conception, Mid Forceps, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z5	Extraction of Products of Conception, High Forceps, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z6	Extraction of Products of Conception, Vacuum, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z7	Extraction of Products of Conception, Internal Version, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10D07Z8	Extraction of Products of Conception, Other, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
10E0XZZ	Delivery of Products of Conception, External Approach	Procedure	ICD-10-PCS
10S07ZZ	Reposition Products of Conception, Via Natural or Artificial Opening	Procedure	ICD-10-PCS
59400	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care	Procedure	CPT-4
59409	Vaginal delivery only (with or without episiotomy and/or forceps);	Procedure	CPT-4
59410	Vaginal delivery only (with or without episiotomy and/or forceps); including postpartum care	Procedure	CPT-4
59510	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care	Procedure	CPT-4
59514	Cesarean delivery only;	Procedure	CPT-4
59515	Cesarean delivery only; including postpartum care	Procedure	CPT-4
59610	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care, after previous cesarean delivery	Procedure	CPT-4
59612	Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps);	Procedure	CPT-4
59614	Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps); including postpartum care	Procedure	CPT-4
59618	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care, following attempted vaginal delivery after previous cesarean delivery	Procedure	CPT-4
59620	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery;	Procedure	CPT-4

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Code	Description	Code Category	Code Type
59622	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery; including postpartum care	Procedure	CPT-4
64101	Placenta previa without hemorrhage, with delivery	Diagnosis	ICD-9-CM
64111	Hemorrhage from placenta previa, with delivery	Diagnosis	ICD-9-CM
64121	Premature separation of placenta, with delivery	Diagnosis	ICD-9-CM
64131	Antepartum hemorrhage associated with coagulation defects, with delivery	Diagnosis	ICD-9-CM
64181	Other antepartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
64191	Unspecified antepartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
64201	Benign essential hypertension with delivery	Diagnosis	ICD-9-CM
64202	Benign essential hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64211	Hypertension secondary to renal disease, with delivery	Diagnosis	ICD-9-CM
64212	Hypertension secondary to renal disease, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64221	Other pre-existing hypertension, with delivery	Diagnosis	ICD-9-CM
64222	Other pre-existing hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64231	Transient hypertension of pregnancy, with delivery	Diagnosis	ICD-9-CM
64232	Transient hypertension of pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64241	Mild or unspecified pre-eclampsia, with delivery	Diagnosis	ICD-9-CM
64242	Mild or unspecified pre-eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64251	Severe pre-eclampsia, with delivery	Diagnosis	ICD-9-CM
64252	Severe pre-eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64261	Eclampsia, with delivery	Diagnosis	ICD-9-CM
64262	Eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64271	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery	Diagnosis	ICD-9-CM
64272	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64291	Unspecified hypertension, with delivery	Diagnosis	ICD-9-CM
64292	Unspecified hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64301	Mild hyperemesis gravidarum, delivered	Diagnosis	ICD-9-CM
64311	Hyperemesis gravidarum with metabolic disturbance, delivered	Diagnosis	ICD-9-CM
64321	Late vomiting of pregnancy, delivered	Diagnosis	ICD-9-CM
64381	Other vomiting complicating pregnancy, delivered	Diagnosis	ICD-9-CM
64391	Unspecified vomiting of pregnancy, delivered	Diagnosis	ICD-9-CM
64421	Early onset of delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64501	Prolonged pregnancy, with delivery	Diagnosis	ICD-9-CM
64511	Post term pregnancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64521	Prolonged pregnancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64601	Papyraceous fetus, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64611	Edema or excessive weight gain in pregnancy, with delivery, with or without mention of antepartum complication	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
64612	Edema or excessive weight gain in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64621	Unspecified renal disease in pregnancy, with delivery	Diagnosis	ICD-9-CM
64622	Unspecified renal disease in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64631	Pregnancy complication, recurrent pregnancy loss, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64641	Peripheral neuritis in pregnancy, with delivery	Diagnosis	ICD-9-CM
64642	Peripheral neuritis in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64651	Asymptomatic bacteriuria in pregnancy, with delivery	Diagnosis	ICD-9-CM
64652	Asymptomatic bacteriuria in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64661	Infections of genitourinary tract in pregnancy, with delivery	Diagnosis	ICD-9-CM
64662	Infections of genitourinary tract in pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64671	Liver and biliary tract disorders in pregnancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64681	Other specified complication of pregnancy, with delivery	Diagnosis	ICD-9-CM
64682	Other specified complications of pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64691	Unspecified complication of pregnancy, with delivery	Diagnosis	ICD-9-CM
64701	Maternal syphilis, complicating pregnancy, with delivery	Diagnosis	ICD-9-CM
64702	Maternal syphilis, complicating pregnancy, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64711	Maternal gonorrhea with delivery	Diagnosis	ICD-9-CM
64712	Maternal gonorrhea, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64721	Other maternal venereal diseases with delivery	Diagnosis	ICD-9-CM
64722	Other maternal venereal diseases with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64731	Maternal tuberculosis with delivery	Diagnosis	ICD-9-CM
64732	Maternal tuberculosis with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64741	Maternal malaria with delivery	Diagnosis	ICD-9-CM
64742	Maternal malaria with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64751	Maternal rubella with delivery	Diagnosis	ICD-9-CM
64752	Maternal rubella with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64761	Other maternal viral disease with delivery	Diagnosis	ICD-9-CM
64762	Other maternal viral disease with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64781	Other specified maternal infectious and parasitic disease with delivery	Diagnosis	ICD-9-CM
64782	Other specified maternal infectious and parasitic disease with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64791	Unspecified maternal infection or infestation with delivery	Diagnosis	ICD-9-CM
64792	Unspecified maternal infection or infestation with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64801	Maternal diabetes mellitus with delivery	Diagnosis	ICD-9-CM



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Code	Description	Code Category	Code Type
64802	Maternal diabetes mellitus with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64811	Maternal thyroid dysfunction with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64812	Maternal thyroid dysfunction with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64821	Maternal anemia, with delivery	Diagnosis	ICD-9-CM
64822	Maternal anemia with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64831	Maternal drug dependence, with delivery	Diagnosis	ICD-9-CM
64832	Maternal drug dependence, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64841	Maternal mental disorders, with delivery	Diagnosis	ICD-9-CM
64842	Maternal mental disorders, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64851	Maternal congenital cardiovascular disorders, with delivery	Diagnosis	ICD-9-CM
64852	Maternal congenital cardiovascular disorders, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64861	Other maternal cardiovascular diseases, with delivery	Diagnosis	ICD-9-CM
64862	Other maternal cardiovascular diseases, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64871	Bone and joint disorders of maternal back, pelvis, and lower limbs, with delivery	Diagnosis	ICD-9-CM
64872	Bone and joint disorders of maternal back, pelvis, and lower limbs, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64881	Abnormal maternal glucose tolerance, with delivery	Diagnosis	ICD-9-CM
64882	Abnormal maternal glucose tolerance, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64891	Other current maternal conditions classifiable elsewhere, with delivery	Diagnosis	ICD-9-CM
64892	Other current maternal conditions classifiable elsewhere, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64901	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64902	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64911	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64912	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64921	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64922	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64931	Coagulation defects complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64932	Coagulation defects complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM



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Code	Description	Code Category	Code Type
64941	Epilepsy complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64942	Epilepsy complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64951	Spotting complicating pregnancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64961	Uterine size date discrepancy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64962	Uterine size date discrepancy, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
64971	Cervical shortening, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64981	Onset (spontaneous) of labor after 37 completed weeks of gestation but before 39 completed weeks gestation, with delivery by (planned) cesarean section, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
64982	Onset (spontaneous) of labor after 37 completed weeks of gestation but before 39 completed weeks gestation, with delivery by (planned) cesarean section, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
650	Normal delivery	Diagnosis	ICD-9-CM
65101	Twin pregnancy, delivered	Diagnosis	ICD-9-CM
65111	Triplet pregnancy, delivered	Diagnosis	ICD-9-CM
65121	Quadruplet pregnancy, delivered	Diagnosis	ICD-9-CM
65131	Twin pregnancy with fetal loss and retention of one fetus, delivered	Diagnosis	ICD-9-CM
65141	Triplet pregnancy with fetal loss and retention of one or more, delivered	Diagnosis	ICD-9-CM
65151	Quadruplet pregnancy with fetal loss and retention of one or more, delivered	Diagnosis	ICD-9-CM
65161	Other multiple pregnancy with fetal loss and retention of one or more fetus(es), delivered	Diagnosis	ICD-9-CM
65171	Multiple gestation following (elective) fetal reduction, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65181	Other specified multiple gestation, delivered	Diagnosis	ICD-9-CM
65191	Unspecified multiple gestation, delivered	Diagnosis	ICD-9-CM
65201	Unstable lie of fetus, delivered	Diagnosis	ICD-9-CM
65211	Breech or other malpresentation successfully converted to cephalic presentation, delivered	Diagnosis	ICD-9-CM
65221	Breech presentation without mention of version, delivered	Diagnosis	ICD-9-CM
65231	Transverse or oblique fetal presentation, delivered	Diagnosis	ICD-9-CM
65241	Fetal face or brow presentation, delivered	Diagnosis	ICD-9-CM
65251	High fetal head at term, delivered	Diagnosis	ICD-9-CM
65261	Multiple gestation with malpresentation of one fetus or more, delivered	Diagnosis	ICD-9-CM
65271	Prolapsed arm of fetus, delivered	Diagnosis	ICD-9-CM
65281	Other specified malposition or malpresentation of fetus, delivered	Diagnosis	ICD-9-CM
65291	Unspecified malposition or malpresentation of fetus, delivered	Diagnosis	ICD-9-CM
65301	Major abnormality of bony pelvis, not further specified, delivered	Diagnosis	ICD-9-CM
65311	Generally contracted pelvis in pregnancy, delivered	Diagnosis	ICD-9-CM
65321	Inlet contraction of pelvis in pregnancy, delivered	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
65331	Outlet contraction of pelvis in pregnancy, delivered	Diagnosis	ICD-9-CM
65341	Fetopelvic disproportion, delivered	Diagnosis	ICD-9-CM
65351	Unusually large fetus causing disproportion, delivered	Diagnosis	ICD-9-CM
65361	Hydrocephalic fetus causing disproportion, delivered	Diagnosis	ICD-9-CM
65371	Other fetal abnormality causing disproportion, delivered	Diagnosis	ICD-9-CM
65381	Fetal disproportion of other origin, delivered	Diagnosis	ICD-9-CM
65391	Unspecified fetal disproportion, delivered	Diagnosis	ICD-9-CM
65401	Congenital abnormalities of pregnant uterus, delivered	Diagnosis	ICD-9-CM
65402	Congenital abnormalities of pregnant uterus, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65411	Tumors of body of uterus, delivered	Diagnosis	ICD-9-CM
65412	Tumors of body of uterus, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65421	Previous cesarean delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65431	Retroverted and incarcerated gravid uterus, delivered	Diagnosis	ICD-9-CM
65432	Retroverted and incarcerated gravid uterus, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65441	Other abnormalities in shape or position of gravid uterus and of neighboring structures, delivered	Diagnosis	ICD-9-CM
65442	Other abnormalities in shape or position of gravid uterus and of neighboring structures, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65451	Cervical incompetence, delivered	Diagnosis	ICD-9-CM
65452	Cervical incompetence, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65461	Other congenital or acquired abnormality of cervix, with delivery	Diagnosis	ICD-9-CM
65462	Other congenital or acquired abnormality of cervix, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65471	Congenital or acquired abnormality of vagina, with delivery	Diagnosis	ICD-9-CM
65472	Congenital or acquired abnormality of vagina, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65481	Congenital or acquired abnormality of vulva, with delivery	Diagnosis	ICD-9-CM
65482	Congenital or acquired abnormality of vulva, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65491	Other and unspecified abnormality of organs and soft tissues of pelvis, with delivery	Diagnosis	ICD-9-CM
65492	Other and unspecified abnormality of organs and soft tissues of pelvis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
65501	Central nervous system malformation in fetus, with delivery	Diagnosis	ICD-9-CM
65511	Chromosomal abnormality in fetus, affecting management of mother, with delivery	Diagnosis	ICD-9-CM
65521	Hereditary disease in family possibly affecting fetus, affecting management of mother, with delivery	Diagnosis	ICD-9-CM
65531	Suspected damage to fetus from viral disease in mother, affecting management of mother, with delivery	Diagnosis	ICD-9-CM
65541	Suspected damage to fetus from other disease in mother, affecting management of mother, with delivery	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
65551	Suspected damage to fetus from drugs, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65561	Suspected damage to fetus from radiation, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65571	Decreased fetal movements, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65581	Other known or suspected fetal abnormality, not elsewhere classified, affecting management of mother, delivery	Diagnosis	ICD-9-CM
65591	Unspecified fetal abnormality affecting management of mother, delivery	Diagnosis	ICD-9-CM
65601	Fetal-maternal hemorrhage, with delivery	Diagnosis	ICD-9-CM
65611	Rhesus isoimmunization affecting management of mother, delivered	Diagnosis	ICD-9-CM
65621	Isoimmunization from other and unspecified blood-group incompatibility, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65631	Fetal distress affecting management of mother, delivered	Diagnosis	ICD-9-CM
65641	Intrauterine death affecting management of mother, delivered	Diagnosis	ICD-9-CM
65651	Poor fetal growth, affecting management of mother, delivered	Diagnosis	ICD-9-CM
65661	Excessive fetal growth affecting management of mother, delivered	Diagnosis	ICD-9-CM
65671	Other placental conditions affecting management of mother, delivered	Diagnosis	ICD-9-CM
65681	Other specified fetal and placental problems affecting management of mother, delivered	Diagnosis	ICD-9-CM
65691	Unspecified fetal and placental problem affecting management of mother, delivered	Diagnosis	ICD-9-CM
65701	Polyhydramnios, with delivery	Diagnosis	ICD-9-CM
65801	Oligohydramnios, delivered	Diagnosis	ICD-9-CM
65811	Premature rupture of membranes in pregnancy, delivered	Diagnosis	ICD-9-CM
65821	Delayed delivery after spontaneous or unspecified rupture of membranes, delivered	Diagnosis	ICD-9-CM
65831	Delayed delivery after artificial rupture of membranes, delivered	Diagnosis	ICD-9-CM
65841	Infection of amniotic cavity, delivered	Diagnosis	ICD-9-CM
65881	Other problem associated with amniotic cavity and membranes, delivered	Diagnosis	ICD-9-CM
65891	Unspecified problem associated with amniotic cavity and membranes, delivered	Diagnosis	ICD-9-CM
65901	Failed mechanical induction of labor, delivered	Diagnosis	ICD-9-CM
65911	Failed medical or unspecified induction of labor, delivered	Diagnosis	ICD-9-CM
65921	Unspecified maternal pyrexia during labor, delivered	Diagnosis	ICD-9-CM
65931	Generalized infection during labor, delivered	Diagnosis	ICD-9-CM
65941	Grand multiparity, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65951	Elderly primigravida, delivered	Diagnosis	ICD-9-CM
65961	Elderly multigravida, delivered, with mention of antepartum condition	Diagnosis	ICD-9-CM
65971	Abnormality in fetal heart rate or rhythm, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
65981	Other specified indication for care or intervention related to labor and delivery, delivered	Diagnosis	ICD-9-CM
65991	Unspecified indication for care or intervention related to labor and delivery, delivered	Diagnosis	ICD-9-CM
66001	Obstruction caused by malposition of fetus at onset of labor, delivered	Diagnosis	ICD-9-CM
66011	Obstruction by bony pelvis during labor and delivery, delivered	Diagnosis	ICD-9-CM
66021	Obstruction by abnormal pelvic soft tissues during labor and delivery, delivered	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
66031	Deep transverse arrest and persistent occipitoposterior position during labor and deliver, delivered	Diagnosis	ICD-9-CM
66041	Shoulder (girdle) dystocia during labor and deliver, delivered	Diagnosis	ICD-9-CM
66051	Locked twins, delivered	Diagnosis	ICD-9-CM
66061	Unspecified failed trial of labor, delivered	Diagnosis	ICD-9-CM
66071	Unspecified failed forceps or vacuum extractor, delivered	Diagnosis	ICD-9-CM
66081	Other causes of obstructed labor, delivered	Diagnosis	ICD-9-CM
66091	Unspecified obstructed labor, with delivery	Diagnosis	ICD-9-CM
66101	Primary uterine inertia, with delivery	Diagnosis	ICD-9-CM
66111	Secondary uterine inertia, with delivery	Diagnosis	ICD-9-CM
66121	Other and unspecified uterine inertia, with delivery	Diagnosis	ICD-9-CM
66131	Precipitate labor, with delivery	Diagnosis	ICD-9-CM
66141	Hypertonic, incoordinate, or prolonged uterine contractions, with delivery	Diagnosis	ICD-9-CM
66191	Unspecified abnormality of labor, with delivery	Diagnosis	ICD-9-CM
66201	Prolonged first stage of labor, delivered	Diagnosis	ICD-9-CM
66211	Unspecified prolonged labor, delivered	Diagnosis	ICD-9-CM
66221	Prolonged second stage of labor, delivered	Diagnosis	ICD-9-CM
66231	Delayed delivery of second twin, triplet, etc., delivered	Diagnosis	ICD-9-CM
66301	Prolapse of cord, complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66311	Cord around neck, with compression, complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66321	Other and unspecified cord entanglement, with compression, complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66331	Other and unspecified cord entanglement, without mention of compression, complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66341	Short cord complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66351	Vasa previa complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66361	Vascular lesions of cord complicating labor and delivery, delivered	Diagnosis	ICD-9-CM
66381	Other umbilical cord complications during labor and delivery, delivered	Diagnosis	ICD-9-CM
66391	Unspecified umbilical cord complication during labor and delivery, delivered	Diagnosis	ICD-9-CM
66401	First-degree perineal laceration, with delivery	Diagnosis	ICD-9-CM
66411	Second-degree perineal laceration, with delivery	Diagnosis	ICD-9-CM
66421	Third-degree perineal laceration, with delivery	Diagnosis	ICD-9-CM
66431	Fourth-degree perineal laceration, with delivery	Diagnosis	ICD-9-CM
66441	Unspecified perineal laceration, with delivery	Diagnosis	ICD-9-CM
66451	Vulvar and perineal hematoma, with delivery	Diagnosis	ICD-9-CM
66461	Anal sphincter tear complicating delivery, not associated with third-degree perineal laceration, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66481	Other specified trauma to perineum and vulva, with delivery	Diagnosis	ICD-9-CM
66491	Unspecified trauma to perineum and vulva, with delivery	Diagnosis	ICD-9-CM
66501	Rupture of uterus before onset of labor, with delivery	Diagnosis	ICD-9-CM
66511	Rupture of uterus during labor, with delivery	Diagnosis	ICD-9-CM
66522	Inversion of uterus, delivered with postpartum complication	Diagnosis	ICD-9-CM
66531	Laceration of cervix, with delivery	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
66541	High vaginal laceration, with delivery	Diagnosis	ICD-9-CM
66551	Other injury to pelvic organs, with delivery	Diagnosis	ICD-9-CM
66561	Damage to pelvic joints and ligaments, with delivery	Diagnosis	ICD-9-CM
66571	Pelvic hematoma, with delivery	Diagnosis	ICD-9-CM
66572	Pelvic hematoma, delivered with postpartum complication	Diagnosis	ICD-9-CM
66581	Other specified obstetrical trauma, with delivery	Diagnosis	ICD-9-CM
66582	Other specified obstetrical trauma, delivered, with postpartum	Diagnosis	ICD-9-CM
66591	Unspecified obstetrical trauma, with delivery	Diagnosis	ICD-9-CM
66592	Unspecified obstetrical trauma, delivered, with postpartum complication	Diagnosis	ICD-9-CM
66602	Third-stage postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
66612	Other immediate postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
66622	Delayed and secondary postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
66632	Postpartum coagulation defects, with delivery	Diagnosis	ICD-9-CM
66702	Retained placenta without hemorrhage, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66712	Retained portions of placenta or membranes, without hemorrhage, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66801	Pulmonary complications of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66802	Pulmonary complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66811	Cardiac complications of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66812	Cardiac complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66821	Central nervous system complications of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66822	Central nervous system complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66881	Other complications of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66882	Other complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66891	Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, delivered	Diagnosis	ICD-9-CM
66892	Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66901	Maternal distress, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66902	Maternal distress, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66911	Shock during or following labor and delivery, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
66912	Shock during or following labor and delivery, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66921	Maternal hypotension syndrome, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66922	Maternal hypotension syndrome, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66932	Acute kidney failure following labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66941	Other complications of obstetrical surgery and procedures, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66942	Other complications of obstetrical surgery and procedures, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
66951	Forceps or vacuum extractor delivery without mention of indication, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66961	Breech extraction, without mention of indication, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66971	Cesarean delivery, without mention of indication, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66981	Other complication of labor and delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66982	Other complication of labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
66991	Unspecified complication of labor and delivery, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
66992	Unspecified complication of labor and delivery, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67002	Major puerperal infection, unspecified, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67012	Puerperal endometritis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67022	Puerperal sepsis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67032	Puerperal septic thrombophlebitis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67082	Other major puerperal infection, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67101	Varicose veins of legs, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67102	Varicose veins of legs, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67111	Varicose veins of vulva and perineum, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67112	Varicose veins of vulva and perineum, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67121	Superficial thrombophlebitis with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67122	Superficial thrombophlebitis with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM



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Code	Description	Code Category	Code Type
67131	Deep phlebothrombosis, antepartum, with delivery	Diagnosis	ICD-9-CM
67142	Deep phlebothrombosis, postpartum, with delivery	Diagnosis	ICD-9-CM
67151	Other phlebitis and thrombosis with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67152	Other phlebitis and thrombosis with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67181	Other venous complication, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67182	Other venous complication, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67191	Unspecified venous complication, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67192	Unspecified venous complication, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67202	Puerperal pyrexia of unknown origin, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67301	Obstetrical air embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67302	Obstetrical air embolism, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67311	Amniotic fluid embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67312	Amniotic fluid embolism, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67321	Obstetrical blood-clot embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67322	Obstetrical blood-clot embolism, with mention of postpartum complication	Diagnosis	ICD-9-CM
67331	Obstetrical pyemic and septic embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67332	Obstetrical pyemic and septic embolism, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67381	Other obstetrical pulmonary embolism, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67382	Other obstetrical pulmonary embolism, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67401	Cerebrovascular disorder, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67402	Cerebrovascular disorder, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67412	Disruption of cesarean wound, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67422	Disruption of perineal wound, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67432	Other complication of obstetrical surgical wounds, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67442	Placental polyp, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67451	Peripartum cardiomyopathy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
67452	Peripartum cardiomyopathy, delivered, with mention of postpartum condition	Diagnosis	ICD-9-CM
67482	Other complication of puerperium, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67492	Unspecified complications of puerperium, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67501	Infection of nipple associated with childbirth, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67502	Infection of nipple associated with childbirth, delivered with mention of postpartum complication	Diagnosis	ICD-9-CM
67511	Abscess of breast associated with childbirth, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67512	Abscess of breast associated with childbirth, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67521	Nonpurulent mastitis, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67522	Nonpurulent mastitis, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67581	Other specified infection of the breast and nipple associated with childbirth, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67582	Other specified infection of the breast and nipple associated with childbirth, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67591	Unspecified infection of the breast and nipple, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67592	Unspecified infection of the breast and nipple, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67601	Retracted nipple, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67602	Retracted nipple, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67611	Cracked nipple, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67612	Cracked nipple, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67621	Engorgement of breasts, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67622	Engorgement of breasts, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67631	Other and unspecified disorder of breast associated with childbirth, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67632	Other and unspecified disorder of breast associated with childbirth, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67641	Failure of lactation, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67642	Failure of lactation, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67651	Suppressed lactation, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67652	Suppressed lactation, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67661	Galactorrhea, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67662	Galactorrhea, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67681	Other disorder of lactation, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM



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Code	Description	Code Category	Code Type
67682	Other disorder of lactation, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67691	Unspecified disorder of lactation, with delivery, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67692	Unspecified disorder of lactation, with delivery, with mention of postpartum complication	Diagnosis	ICD-9-CM
67801	Fetal hematologic conditions, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67811	Fetal conjoined twins, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67901	Maternal complications from in utero procedure, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67902	Maternal complications from in utero procedure, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
67911	Fetal complications from in utero procedure, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
67912	Fetal complications from in utero procedure, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
72	Forceps, vacuum, and breech delivery	Procedure	ICD-9-CM
720	Low forceps operation	Procedure	ICD-9-CM
721	Low forceps operation with episiotomy	Procedure	ICD-9-CM
722	Mid forceps operation	Procedure	ICD-9-CM
7221	Mid forceps operation with episiotomy	Procedure	ICD-9-CM
7229	Other mid forceps operation	Procedure	ICD-9-CM
723	High forceps operation	Procedure	ICD-9-CM
7231	High forceps operation with episiotomy	Procedure	ICD-9-CM
7239	Other high forceps operation	Procedure	ICD-9-CM
724	Forceps rotation of fetal head	Procedure	ICD-9-CM
725	Breech extraction	Procedure	ICD-9-CM
7251	Partial breech extraction with forceps to aftercoming head	Procedure	ICD-9-CM
7252	Other partial breech extraction	Procedure	ICD-9-CM
7253	Total breech extraction with forceps to aftercoming head	Procedure	ICD-9-CM
7254	Other total breech extraction	Procedure	ICD-9-CM
726	Forceps application to aftercoming head	Procedure	ICD-9-CM
727	Vacuum extraction	Procedure	ICD-9-CM
7271	Vacuum extraction with episiotomy	Procedure	ICD-9-CM
7279	Other vacuum extraction	Procedure	ICD-9-CM
728	Other specified instrumental delivery	Procedure	ICD-9-CM
729	Unspecified instrumental delivery	Procedure	ICD-9-CM
73	Other procedures inducing or assisting delivery	Procedure	ICD-9-CM
730	Artificial rupture of membranes	Procedure	ICD-9-CM
7301	Induction of labor by artificial rupture of membranes	Procedure	ICD-9-CM
7309	Other artificial rupture of membranes	Procedure	ICD-9-CM
731	Other surgical induction of labor	Procedure	ICD-9-CM
732	Internal and combined version and extraction	Procedure	ICD-9-CM

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Code	Description	Code	
		Category	Code Type
7321	Internal and combined version without extraction	Procedure	ICD-9-CM
7322	Internal and combined version with extraction	Procedure	ICD-9-CM
733	Failed forceps	Procedure	ICD-9-CM
734	Medical induction of labor	Procedure	ICD-9-CM
735	Manually assisted delivery	Procedure	ICD-9-CM
7351	Manual rotation of fetal head	Procedure	ICD-9-CM
7359	Other manually assisted delivery	Procedure	ICD-9-CM
736	Episiotomy	Procedure	ICD-9-CM
738	Operations on fetus to facilitate delivery	Procedure	ICD-9-CM
739	Other operations assisting delivery	Procedure	ICD-9-CM
7391	External version to assist delivery	Procedure	ICD-9-CM
7392	Replacement of prolapsed umbilical cord	Procedure	ICD-9-CM
7393	Incision of cervix to assist delivery	Procedure	ICD-9-CM
7394	Pubiotomy to assist delivery	Procedure	ICD-9-CM
7399	Other operations to assist delivery	Procedure	ICD-9-CM
740	Classical cesarean section	Procedure	ICD-9-CM
741	Low cervical cesarean section	Procedure	ICD-9-CM
742	Extraperitoneal cesarean section	Procedure	ICD-9-CM
744	Cesarean section of other specified type	Procedure	ICD-9-CM
749	Cesarean section of unspecified type	Procedure	ICD-9-CM
7499	Other cesarean section of unspecified type	Procedure	ICD-9-CM
7630	Fetus or newborn affected by breech delivery and extraction	Diagnosis	ICD-9-CM
7632	Fetus or newborn affected by forceps delivery	Diagnosis	ICD-9-CM
7633	Fetus or newborn affected by delivery by vacuum extractor	Diagnosis	ICD-9-CM
7634	Fetus or newborn affected by cesarean delivery	Diagnosis	ICD-9-CM
7636	Fetus or newborn affected by precipitate delivery	Diagnosis	ICD-9-CM
7680	Fetal death from asphyxia or anoxia before onset of labor or at unspecified time	Diagnosis	ICD-9-CM
7681	Fetal death from asphyxia or anoxia during labor	Diagnosis	ICD-9-CM
O1002	Pre-existing essential hypertension complicating childbirth	Diagnosis	ICD-10-CM
O1012	Pre-existing hypertensive heart disease complicating childbirth	Diagnosis	ICD-10-CM
O1022	Pre-existing hypertensive chronic kidney disease complicating childbirth	Diagnosis	ICD-10-CM
O1032	Pre-existing hypertensive heart and chronic kidney disease complicating childbirth	Diagnosis	ICD-10-CM
O1042	Pre-existing secondary hypertension complicating childbirth	Diagnosis	ICD-10-CM
O1092	Unspecified pre-existing hypertension complicating childbirth	Diagnosis	ICD-10-CM
O114	Pre-existing hypertension with pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
O1204	Gestational edema, complicating childbirth	Diagnosis	ICD-10-CM
O1214	Gestational proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O1224	Gestational edema with proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O134	Gestational [pregnancy-induced] hypertension without significant proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O1404	Mild to moderate pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
O1414	Severe pre-eclampsia complicating childbirth	Diagnosis	ICD-10-CM
O1424	HELLP syndrome, complicating childbirth	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O1494	Unspecified pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
O164	Unspecified maternal hypertension, complicating childbirth	Diagnosis	ICD-10-CM
O2402	Pre-existing type 1 diabetes mellitus, in childbirth	Diagnosis	ICD-10-CM
O2412	Pre-existing type 2 diabetes mellitus, in childbirth	Diagnosis	ICD-10-CM
O2432	Unspecified pre-existing diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O24420	Gestational diabetes mellitus in childbirth, diet controlled	Diagnosis	ICD-10-CM
O24424	Gestational diabetes mellitus in childbirth, insulin controlled	Diagnosis	ICD-10-CM
O24425	Gestational diabetes mellitus in childbirth, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24429	Gestational diabetes mellitus in childbirth, unspecified control	Diagnosis	ICD-10-CM
O2482	Other pre-existing diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O2492	Unspecified diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O252	Malnutrition in childbirth	Diagnosis	ICD-10-CM
O2662	Liver and biliary tract disorders in childbirth	Diagnosis	ICD-10-CM
O2672	Subluxation of symphysis (pubis) in childbirth	Diagnosis	ICD-10-CM
O6012X0	Preterm labor second trimester with preterm delivery second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6012X1	Preterm labor second trimester with preterm delivery second trimester, fetus 1	Diagnosis	ICD-10-CM
O6012X2	Preterm labor second trimester with preterm delivery second trimester, fetus 2	Diagnosis	ICD-10-CM
O6012X3	Preterm labor second trimester with preterm delivery second trimester, fetus 3	Diagnosis	ICD-10-CM
O6012X4	Preterm labor second trimester with preterm delivery second trimester, fetus 4	Diagnosis	ICD-10-CM
O6012X5	Preterm labor second trimester with preterm delivery second trimester, fetus 5	Diagnosis	ICD-10-CM
O6012X9	Preterm labor second trimester with preterm delivery second trimester, other fetus	Diagnosis	ICD-10-CM
O6013X0	Preterm labor second trimester with preterm delivery third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6013X1	Preterm labor second trimester with preterm delivery third trimester, fetus 1	Diagnosis	ICD-10-CM
O6013X2	Preterm labor second trimester with preterm delivery third trimester, fetus 2	Diagnosis	ICD-10-CM
O6013X3	Preterm labor second trimester with preterm delivery third trimester, fetus 3	Diagnosis	ICD-10-CM
O6013X4	Preterm labor second trimester with preterm delivery third trimester, fetus 4	Diagnosis	ICD-10-CM
O6013X5	Preterm labor second trimester with preterm delivery third trimester, fetus 5	Diagnosis	ICD-10-CM
O6013X9	Preterm labor second trimester with preterm delivery third trimester, other fetus	Diagnosis	ICD-10-CM
O6014X0	Preterm labor third trimester with preterm delivery third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6014X1	Preterm labor third trimester with preterm delivery third trimester, fetus 1	Diagnosis	ICD-10-CM
O6014X2	Preterm labor third trimester with preterm delivery third trimester, fetus 2	Diagnosis	ICD-10-CM
O6014X3	Preterm labor third trimester with preterm delivery third trimester, fetus 3	Diagnosis	ICD-10-CM
O6014X4	Preterm labor third trimester with preterm delivery third trimester, fetus 4	Diagnosis	ICD-10-CM
O6014X5	Preterm labor third trimester with preterm delivery third trimester, fetus 5	Diagnosis	ICD-10-CM
O6014X9	Preterm labor third trimester with preterm delivery third trimester, other fetus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O6022X0	Term delivery with preterm labor, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6022X1	Term delivery with preterm labor, second trimester, fetus 1	Diagnosis	ICD-10-CM
O6022X2	Term delivery with preterm labor, second trimester, fetus 2	Diagnosis	ICD-10-CM
O6022X3	Term delivery with preterm labor, second trimester, fetus 3	Diagnosis	ICD-10-CM
O6022X4	Term delivery with preterm labor, second trimester, fetus 4	Diagnosis	ICD-10-CM
O6022X5	Term delivery with preterm labor, second trimester, fetus 5	Diagnosis	ICD-10-CM
O6022X9	Term delivery with preterm labor, second trimester, other fetus	Diagnosis	ICD-10-CM
O6023X0	Term delivery with preterm labor, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
O6023X1	Term delivery with preterm labor, third trimester, fetus 1	Diagnosis	ICD-10-CM
O6023X2	Term delivery with preterm labor, third trimester, fetus 2	Diagnosis	ICD-10-CM
O6023X3	Term delivery with preterm labor, third trimester, fetus 3	Diagnosis	ICD-10-CM
O6023X4	Term delivery with preterm labor, third trimester, fetus 4	Diagnosis	ICD-10-CM
O6023X5	Term delivery with preterm labor, third trimester, fetus 5	Diagnosis	ICD-10-CM
O6023X9	Term delivery with preterm labor, third trimester, other fetus	Diagnosis	ICD-10-CM
O632	Delayed delivery of second twin, triplet, etc	Diagnosis	ICD-10-CM
O670	Intrapartum hemorrhage with coagulation defect	Diagnosis	ICD-10-CM
O678	Other intrapartum hemorrhage	Diagnosis	ICD-10-CM
O679	Intrapartum hemorrhage, unspecified	Diagnosis	ICD-10-CM
O68	Labor and delivery complicated by abnormality of fetal acid-base balance	Diagnosis	ICD-10-CM
O690XX0	Labor and delivery complicated by prolapse of cord, not applicable or unspecified	Diagnosis	ICD-10-CM
O690XX1	Labor and delivery complicated by prolapse of cord, fetus 1	Diagnosis	ICD-10-CM
O690XX2	Labor and delivery complicated by prolapse of cord, fetus 2	Diagnosis	ICD-10-CM
O690XX3	Labor and delivery complicated by prolapse of cord, fetus 3	Diagnosis	ICD-10-CM
O690XX4	Labor and delivery complicated by prolapse of cord, fetus 4	Diagnosis	ICD-10-CM
O690XX5	Labor and delivery complicated by prolapse of cord, fetus 5	Diagnosis	ICD-10-CM
O690XX9	Labor and delivery complicated by prolapse of cord, other fetus	Diagnosis	ICD-10-CM
O691XX0	Labor and delivery complicated by cord around neck, with compression, not applicable or unspecified	Diagnosis	ICD-10-CM
O691XX1	Labor and delivery complicated by cord around neck, with compression, fetus 1	Diagnosis	ICD-10-CM
O691XX2	Labor and delivery complicated by cord around neck, with compression, fetus 2	Diagnosis	ICD-10-CM
O691XX3	Labor and delivery complicated by cord around neck, with compression, fetus 3	Diagnosis	ICD-10-CM
O691XX4	Labor and delivery complicated by cord around neck, with compression, fetus 4	Diagnosis	ICD-10-CM
O691XX5	Labor and delivery complicated by cord around neck, with compression, fetus 5	Diagnosis	ICD-10-CM
O691XX9	Labor and delivery complicated by cord around neck, with compression, other fetus	Diagnosis	ICD-10-CM
O692XX0	Labor and delivery complicated by other cord entanglement, with compression, not applicable or unspecified	Diagnosis	ICD-10-CM
O692XX1	Labor and delivery complicated by other cord entanglement, with compression, fetus 1	Diagnosis	ICD-10-CM
O692XX2	Labor and delivery complicated by other cord entanglement, with compression, fetus 2	Diagnosis	ICD-10-CM
O692XX3	Labor and delivery complicated by other cord entanglement, with compression, fetus 3	Diagnosis	ICD-10-CM
O692XX4	Labor and delivery complicated by other cord entanglement, with compression, fetus 4	Diagnosis	ICD-10-CM
O692XX5	Labor and delivery complicated by other cord entanglement, with compression, fetus 5	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O692XX9	Labor and delivery complicated by other cord entanglement, with compression, other fetus	Diagnosis	ICD-10-CM
O693XX0	Labor and delivery complicated by short cord, not applicable or unspecified	Diagnosis	ICD-10-CM
O693XX1	Labor and delivery complicated by short cord, fetus 1	Diagnosis	ICD-10-CM
O693XX2	Labor and delivery complicated by short cord, fetus 2	Diagnosis	ICD-10-CM
O693XX3	Labor and delivery complicated by short cord, fetus 3	Diagnosis	ICD-10-CM
O693XX4	Labor and delivery complicated by short cord, fetus 4	Diagnosis	ICD-10-CM
O693XX5	Labor and delivery complicated by short cord, fetus 5	Diagnosis	ICD-10-CM
O693XX9	Labor and delivery complicated by short cord, other fetus	Diagnosis	ICD-10-CM
O694XX0	Labor and delivery complicated by vasa previa, not applicable or unspecified	Diagnosis	ICD-10-CM
O694XX1	Labor and delivery complicated by vasa previa, fetus 1	Diagnosis	ICD-10-CM
O694XX2	Labor and delivery complicated by vasa previa, fetus 2	Diagnosis	ICD-10-CM
O694XX3	Labor and delivery complicated by vasa previa, fetus 3	Diagnosis	ICD-10-CM
O694XX4	Labor and delivery complicated by vasa previa, fetus 4	Diagnosis	ICD-10-CM
O694XX5	Labor and delivery complicated by vasa previa, fetus 5	Diagnosis	ICD-10-CM
O694XX9	Labor and delivery complicated by vasa previa, other fetus	Diagnosis	ICD-10-CM
O695XX0	Labor and delivery complicated by vascular lesion of cord, not applicable or unspecified	Diagnosis	ICD-10-CM
O695XX1	Labor and delivery complicated by vascular lesion of cord, fetus 1	Diagnosis	ICD-10-CM
O695XX2	Labor and delivery complicated by vascular lesion of cord, fetus 2	Diagnosis	ICD-10-CM
O695XX3	Labor and delivery complicated by vascular lesion of cord, fetus 3	Diagnosis	ICD-10-CM
O695XX4	Labor and delivery complicated by vascular lesion of cord, fetus 4	Diagnosis	ICD-10-CM
O695XX5	Labor and delivery complicated by vascular lesion of cord, fetus 5	Diagnosis	ICD-10-CM
O695XX9	Labor and delivery complicated by vascular lesion of cord, other fetus	Diagnosis	ICD-10-CM
O6981X0	Labor and delivery complicated by cord around neck, without compression, not applicable or unspecified	Diagnosis	ICD-10-CM
O6981X1	Labor and delivery complicated by cord around neck, without compression, fetus 1	Diagnosis	ICD-10-CM
O6981X2	Labor and delivery complicated by cord around neck, without compression, fetus 2	Diagnosis	ICD-10-CM
O6981X3	Labor and delivery complicated by cord around neck, without compression, fetus 3	Diagnosis	ICD-10-CM
O6981X4	Labor and delivery complicated by cord around neck, without compression, fetus 4	Diagnosis	ICD-10-CM
O6981X5	Labor and delivery complicated by cord around neck, without compression, fetus 5	Diagnosis	ICD-10-CM
O6981X9	Labor and delivery complicated by cord around neck, without compression, other fetus	Diagnosis	ICD-10-CM
O6982X0	Labor and delivery complicated by other cord entanglement, without compression, not applicable or unspecified	Diagnosis	ICD-10-CM
O6982X1	Labor and delivery complicated by other cord entanglement, without compression, fetus 1	Diagnosis	ICD-10-CM
O6982X2	Labor and delivery complicated by other cord entanglement, without compression, fetus 2	Diagnosis	ICD-10-CM
O6982X3	Labor and delivery complicated by other cord entanglement, without compression, fetus 3	Diagnosis	ICD-10-CM
O6982X4	Labor and delivery complicated by other cord entanglement, without compression, fetus 4	Diagnosis	ICD-10-CM



**Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Live Birth Delivery in this Request**

Code	Description	Code Category	Code Type
O6982X5	Labor and delivery complicated by other cord entanglement, without compression, fetus 5	Diagnosis	ICD-10-CM
O6982X9	Labor and delivery complicated by other cord entanglement, without compression, other fetus	Diagnosis	ICD-10-CM
O6989X0	Labor and delivery complicated by other cord complications, not applicable or unspecified	Diagnosis	ICD-10-CM
O6989X1	Labor and delivery complicated by other cord complications, fetus 1	Diagnosis	ICD-10-CM
O6989X2	Labor and delivery complicated by other cord complications, fetus 2	Diagnosis	ICD-10-CM
O6989X3	Labor and delivery complicated by other cord complications, fetus 3	Diagnosis	ICD-10-CM
O6989X4	Labor and delivery complicated by other cord complications, fetus 4	Diagnosis	ICD-10-CM
O6989X5	Labor and delivery complicated by other cord complications, fetus 5	Diagnosis	ICD-10-CM
O6989X9	Labor and delivery complicated by other cord complications, other fetus	Diagnosis	ICD-10-CM
O699XX0	Labor and delivery complicated by cord complication, unspecified, not applicable or unspecified	Diagnosis	ICD-10-CM
O699XX1	Labor and delivery complicated by cord complication, unspecified, fetus 1	Diagnosis	ICD-10-CM
O699XX2	Labor and delivery complicated by cord complication, unspecified, fetus 2	Diagnosis	ICD-10-CM
O699XX3	Labor and delivery complicated by cord complication, unspecified, fetus 3	Diagnosis	ICD-10-CM
O699XX4	Labor and delivery complicated by cord complication, unspecified, fetus 4	Diagnosis	ICD-10-CM
O699XX5	Labor and delivery complicated by cord complication, unspecified, fetus 5	Diagnosis	ICD-10-CM
O699XX9	Labor and delivery complicated by cord complication, unspecified, other fetus	Diagnosis	ICD-10-CM
O700	First degree perineal laceration during delivery	Diagnosis	ICD-10-CM
O701	Second degree perineal laceration during delivery	Diagnosis	ICD-10-CM
O7020	Third degree perineal laceration during delivery, unspecified	Diagnosis	ICD-10-CM
O7021	Third degree perineal laceration during delivery, IIIa	Diagnosis	ICD-10-CM
O7022	Third degree perineal laceration during delivery, IIIb	Diagnosis	ICD-10-CM
O7023	Third degree perineal laceration during delivery, IIIc	Diagnosis	ICD-10-CM
O703	Fourth degree perineal laceration during delivery	Diagnosis	ICD-10-CM
O704	Anal sphincter tear complicating delivery, not associated with third degree laceration	Diagnosis	ICD-10-CM
O709	Perineal laceration during delivery, unspecified	Diagnosis	ICD-10-CM
O740	Aspiration pneumonitis due to anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O741	Other pulmonary complications of anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O742	Cardiac complications of anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O743	Central nervous system complications of anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O744	Toxic reaction to local anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O745	Spinal and epidural anesthesia-induced headache during labor and delivery	Diagnosis	ICD-10-CM
O746	Other complications of spinal and epidural anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O747	Failed or difficult intubation for anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O748	Other complications of anesthesia during labor and delivery	Diagnosis	ICD-10-CM
O749	Complication of anesthesia during labor and delivery, unspecified	Diagnosis	ICD-10-CM
O750	Maternal distress during labor and delivery	Diagnosis	ICD-10-CM
O751	Shock during or following labor and delivery	Diagnosis	ICD-10-CM
O755	Delayed delivery after artificial rupture of membranes	Diagnosis	ICD-10-CM
O7581	Maternal exhaustion complicating labor and delivery	Diagnosis	ICD-10-CM

**Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Live Birth Delivery in this Request**

Code	Description	Code Category	Code Type
07582	Onset (spontaneous) of labor after 37 completed weeks of gestation but before 39 completed weeks gestation, with delivery by (planned) cesarean section	Diagnosis	ICD-10-CM
07589	Other specified complications of labor and delivery	Diagnosis	ICD-10-CM
0759	Complication of labor and delivery, unspecified	Diagnosis	ICD-10-CM
076	Abnormality in fetal heart rate and rhythm complicating labor and delivery	Diagnosis	ICD-10-CM
0770	Labor and delivery complicated by meconium in amniotic fluid	Diagnosis	ICD-10-CM
0778	Labor and delivery complicated by other evidence of fetal stress	Diagnosis	ICD-10-CM
0779	Labor and delivery complicated by fetal stress, unspecified	Diagnosis	ICD-10-CM
080	Encounter for full-term uncomplicated delivery	Diagnosis	ICD-10-CM
082	Encounter for cesarean delivery without indication	Diagnosis	ICD-10-CM
08802	Air embolism in childbirth	Diagnosis	ICD-10-CM
08812	Amniotic fluid embolism in childbirth	Diagnosis	ICD-10-CM
08822	Thromboembolism in childbirth	Diagnosis	ICD-10-CM
08832	Pyemic and septic embolism in childbirth	Diagnosis	ICD-10-CM
08882	Other embolism in childbirth	Diagnosis	ICD-10-CM
09802	Tuberculosis complicating childbirth	Diagnosis	ICD-10-CM
09812	Syphilis complicating childbirth	Diagnosis	ICD-10-CM
09822	Gonorrhea complicating childbirth	Diagnosis	ICD-10-CM
09832	Other infections with a predominantly sexual mode of transmission complicating childbirth	Diagnosis	ICD-10-CM
09842	Viral hepatitis complicating childbirth	Diagnosis	ICD-10-CM
09852	Other viral diseases complicating childbirth	Diagnosis	ICD-10-CM
09862	Protozoal diseases complicating childbirth	Diagnosis	ICD-10-CM
09872	Human immunodeficiency virus [HIV] disease complicating childbirth	Diagnosis	ICD-10-CM
09882	Other maternal infectious and parasitic diseases complicating childbirth	Diagnosis	ICD-10-CM
09892	Unspecified maternal infectious and parasitic disease complicating childbirth	Diagnosis	ICD-10-CM
09902	Anemia complicating childbirth	Diagnosis	ICD-10-CM
09912	Other diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism complicating childbirth	Diagnosis	ICD-10-CM
099214	Obesity complicating childbirth	Diagnosis	ICD-10-CM
099284	Endocrine, nutritional and metabolic diseases complicating childbirth	Diagnosis	ICD-10-CM
099314	Alcohol use complicating childbirth	Diagnosis	ICD-10-CM
099324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
099334	Smoking (tobacco) complicating childbirth	Diagnosis	ICD-10-CM
099344	Other mental disorders complicating childbirth	Diagnosis	ICD-10-CM
099354	Diseases of the nervous system complicating childbirth	Diagnosis	ICD-10-CM
09942	Diseases of the circulatory system complicating childbirth	Diagnosis	ICD-10-CM
09952	Diseases of the respiratory system complicating childbirth	Diagnosis	ICD-10-CM
09962	Diseases of the digestive system complicating childbirth	Diagnosis	ICD-10-CM
09972	Diseases of the skin and subcutaneous tissue complicating childbirth	Diagnosis	ICD-10-CM
099814	Abnormal glucose complicating childbirth	Diagnosis	ICD-10-CM
099824	Streptococcus B carrier state complicating childbirth	Diagnosis	ICD-10-CM
099834	Other infection carrier state complicating childbirth	Diagnosis	ICD-10-CM

**Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Live Birth Delivery in this Request**

Code	Description	Code Category	Code Type
O99844	Bariatric surgery status complicating childbirth	Diagnosis	ICD-10-CM
O9A12	Malignant neoplasm complicating childbirth	Diagnosis	ICD-10-CM
O9A22	Injury, poisoning and certain other consequences of external causes complicating childbirth	Diagnosis	ICD-10-CM
O9A32	Physical abuse complicating childbirth	Diagnosis	ICD-10-CM
O9A42	Sexual abuse complicating childbirth	Diagnosis	ICD-10-CM
O9A52	Psychological abuse complicating childbirth	Diagnosis	ICD-10-CM
P030	Newborn affected by breech delivery and extraction	Diagnosis	ICD-10-CM
P032	Newborn affected by forceps delivery	Diagnosis	ICD-10-CM
P033	Newborn affected by delivery by vacuum extractor [ventouse]	Diagnosis	ICD-10-CM
P034	Newborn affected by Cesarean delivery	Diagnosis	ICD-10-CM
P035	Newborn affected by precipitate delivery	Diagnosis	ICD-10-CM
P0700	Extremely low birth weight newborn, unspecified weight	Diagnosis	ICD-10-CM
P0701	Extremely low birth weight newborn, less than 500 grams	Diagnosis	ICD-10-CM
P0702	Extremely low birth weight newborn, 500-749 grams	Diagnosis	ICD-10-CM
P0703	Extremely low birth weight newborn, 750-999 grams	Diagnosis	ICD-10-CM
P0710	Other low birth weight newborn, unspecified weight	Diagnosis	ICD-10-CM
P0714	Other low birth weight newborn, 1000-1249 grams	Diagnosis	ICD-10-CM
P0715	Other low birth weight newborn, 1250-1499 grams	Diagnosis	ICD-10-CM
P0716	Other low birth weight newborn, 1500-1749 grams	Diagnosis	ICD-10-CM
P0717	Other low birth weight newborn, 1750-1999 grams	Diagnosis	ICD-10-CM
P0718	Other low birth weight newborn, 2000-2499 grams	Diagnosis	ICD-10-CM
P0720	Extreme immaturity of newborn, unspecified weeks of gestation	Diagnosis	ICD-10-CM
P0721	Extreme immaturity of newborn, gestational age less than 23 completed weeks	Diagnosis	ICD-10-CM
P0722	Extreme immaturity of newborn, gestational age 23 completed weeks	Diagnosis	ICD-10-CM
P0723	Extreme immaturity of newborn, gestational age 24 completed weeks	Diagnosis	ICD-10-CM
P0724	Extreme immaturity of newborn, gestational age 25 completed weeks	Diagnosis	ICD-10-CM
P0725	Extreme immaturity of newborn, gestational age 26 completed weeks	Diagnosis	ICD-10-CM
P0726	Extreme immaturity of newborn, gestational age 27 completed weeks	Diagnosis	ICD-10-CM
P0730	Preterm newborn, unspecified weeks of gestation	Diagnosis	ICD-10-CM
P0731	Preterm newborn, gestational age 28 completed weeks	Diagnosis	ICD-10-CM
P0732	Preterm newborn, gestational age 29 completed weeks	Diagnosis	ICD-10-CM
P0733	Preterm newborn, gestational age 30 completed weeks	Diagnosis	ICD-10-CM
P0734	Preterm newborn, gestational age 31 completed weeks	Diagnosis	ICD-10-CM
P0735	Preterm newborn, gestational age 32 completed weeks	Diagnosis	ICD-10-CM
P0736	Preterm newborn, gestational age 33 completed weeks	Diagnosis	ICD-10-CM
P0737	Preterm newborn, gestational age 34 completed weeks	Diagnosis	ICD-10-CM
P0738	Preterm newborn, gestational age 35 completed weeks	Diagnosis	ICD-10-CM
P0739	Preterm newborn, gestational age 36 completed weeks	Diagnosis	ICD-10-CM
P0821	Post-term newborn	Diagnosis	ICD-10-CM
P0822	Prolonged gestation of newborn	Diagnosis	ICD-10-CM
V27	Outcome of delivery	Diagnosis	ICD-9-CM
V270	Outcome of delivery, single liveborn	Diagnosis	ICD-9-CM



**Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Live Birth Delivery in this Request**

Code	Description	Code Category	Code Type
V271	Outcome of delivery, single stillborn	Diagnosis	ICD-9-CM
V272	Outcome of delivery, twins, both liveborn	Diagnosis	ICD-9-CM
V273	Outcome of delivery, twins, one liveborn and one stillborn	Diagnosis	ICD-9-CM
V274	Outcome of delivery, twins, both stillborn	Diagnosis	ICD-9-CM
V275	Outcome of delivery, other multiple birth, all liveborn	Diagnosis	ICD-9-CM
V276	Outcome of delivery, other multiple birth, some liveborn	Diagnosis	ICD-9-CM
V277	Outcome of delivery, other multiple birth, all stillborn	Diagnosis	ICD-9-CM
V279	Outcome of delivery, unspecified	Diagnosis	ICD-9-CM
V30	Single liveborn	Diagnosis	ICD-9-CM
V300	Single liveborn, born in hospital	Diagnosis	ICD-9-CM
V3000	Single liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3001	Single liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V301	Single liveborn, born before admission to hospital	Diagnosis	ICD-9-CM
V302	Single liveborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V31	Twin birth, mate liveborn	Diagnosis	ICD-9-CM
V310	Twin, mate liveborn, born in hospital	Diagnosis	ICD-9-CM
V3100	Twin, mate liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3101	Twin, mate liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V311	Twin birth, mate liveborn, born before admission to hospital	Diagnosis	ICD-9-CM
V312	Twin birth, mate liveborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V32	Twin birth, mate stillborn	Diagnosis	ICD-9-CM
V320	Twin, mate stillborn, born in hospital	Diagnosis	ICD-9-CM
V3200	Twin, mate stillborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3201	Twin, mate stillborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V321	Twin birth, mate stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V322	Twin birth, mate stillborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V33	Twin birth, unspecified whether mate liveborn or stillborn	Diagnosis	ICD-9-CM
V330	Twin, unspecified, born in hospital	Diagnosis	ICD-9-CM
V3300	Twin, unspecified whether mate stillborn or liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3301	Twin, unspecified whether mate stillborn or liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V331	Twin birth, unspecified whether mate liveborn or stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V332	Twin birth, unspecified whether mate liveborn or stillborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V34	Other multiple birth (three or more), mates all liveborn	Diagnosis	ICD-9-CM
V340	Other multiple, mates all liveborn, born in hospital	Diagnosis	ICD-9-CM
V3400	Other multiple, mates all liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3401	Other multiple, mates all liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM

**Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Live Birth Delivery in this Request**

Code	Description	Code Category	Code Type
V341	Other multiple birth (three or more), mates all liveborn, born before admission to hospital	Diagnosis	ICD-9-CM
V342	Other multiple birth (three or more), mates all liveborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V35	Other multiple birth (three or more), mates all stillborn	Diagnosis	ICD-9-CM
V350	Other multiple, mates all stillborn, born in hospital	Diagnosis	ICD-9-CM
V3500	Other multiple, mates all stillborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3501	Other multiple, mates all stillborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V351	Other multiple birth (three or more), mates all stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V352	Other multiple birth (three or more), mates all stillborn, born outside of hospital and not hospitalized	Diagnosis	ICD-9-CM
V36	Other multiple birth (three or more), mates liveborn and stillborn	Diagnosis	ICD-9-CM
V360	Other multiple, mates liveborn and stillborn, born in hospital	Diagnosis	ICD-9-CM
V3600	Other multiple, mates liveborn and stillborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3601	Other multiple, mates liveborn and stillborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V361	Other multiple birth (three or more), mates liveborn and stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V362	Other multiple birth (three or more), mates liveborn and stillborn, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM
V37	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn	Diagnosis	ICD-9-CM
V370	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital	Diagnosis	ICD-9-CM
V3700	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3701	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital, delivered by cesarean delivery	Diagnosis	ICD-9-CM
V371	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn, born before admission to hospital	Diagnosis	ICD-9-CM
V372	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn, born outside of hospital	Diagnosis	ICD-9-CM
V39	Liveborn, unspecified whether single, twin, or multiple	Diagnosis	ICD-9-CM
V390	Other liveborn, unspecified whether single, twin, or multiple, born in hospital	Diagnosis	ICD-9-CM
V3900	Liveborn infant, unspecified whether single, twin, or multiple, born in hospital, delivered without mention of cesarean delivery	Diagnosis	ICD-9-CM
V3901	Liveborn infant, unspecified whether single, twin, or multiple, born in hospital, delivered by cesarean	Diagnosis	ICD-9-CM
V391	Liveborn, unspecified whether single, twin or multiple, born before admission to hospital	Diagnosis	ICD-9-CM
V392	Liveborn, unspecified whether single, twin or multiple, born outside hospital and not hospitalized	Diagnosis	ICD-9-CM

**Appendix F. List of Current Procedural Terminology, Fourth Edition (CPT-4), International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and International Classification of Diseases, Tenth Revision, Procedural Coding System (ICD-10-PCS) Codes Used to Define Live Birth Delivery in this Request**

Code	Description	Code	
		Category	Code Type
Z370	Single live birth	Diagnosis	ICD-10-CM
Z372	Twins, both liveborn	Diagnosis	ICD-10-CM
Z373	Twins, one liveborn and one stillborn	Diagnosis	ICD-10-CM
Z3750	Multiple births, unspecified, all liveborn	Diagnosis	ICD-10-CM
Z3751	Triplets, all liveborn	Diagnosis	ICD-10-CM
Z3752	Quadruplets, all liveborn	Diagnosis	ICD-10-CM
Z3753	Quintuplets, all liveborn	Diagnosis	ICD-10-CM
Z3754	Sextuplets, all liveborn	Diagnosis	ICD-10-CM
Z3759	Other multiple births, all liveborn	Diagnosis	ICD-10-CM
Z3760	Multiple births, unspecified, some liveborn	Diagnosis	ICD-10-CM
Z3761	Triplets, some liveborn	Diagnosis	ICD-10-CM
Z3762	Quadruplets, some liveborn	Diagnosis	ICD-10-CM
Z3763	Quintuplets, some liveborn	Diagnosis	ICD-10-CM
Z3764	Sextuplets, some liveborn	Diagnosis	ICD-10-CM
Z3769	Other multiple births, some liveborn	Diagnosis	ICD-10-CM
Z379	Outcome of delivery, unspecified	Diagnosis	ICD-10-CM
Z3800	Single liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3801	Single liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z381	Single liveborn infant, born outside hospital	Diagnosis	ICD-10-CM
Z382	Single liveborn infant, unspecified as to place of birth	Diagnosis	ICD-10-CM
Z3830	Twin liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3831	Twin liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z384	Twin liveborn infant, born outside hospital	Diagnosis	ICD-10-CM
Z385	Twin liveborn infant, unspecified as to place of birth	Diagnosis	ICD-10-CM
Z3861	Triplet liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3862	Triplet liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z3863	Quadruplet liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3864	Quadruplet liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z3865	Quintuplet liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3866	Quintuplet liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z3868	Other multiple liveborn infant, delivered vaginally	Diagnosis	ICD-10-CM
Z3869	Other multiple liveborn infant, delivered by cesarean	Diagnosis	ICD-10-CM
Z387	Other multiple liveborn infant, born outside hospital	Diagnosis	ICD-10-CM
Z388	Other multiple liveborn infant, unspecified as to place of birth	Diagnosis	ICD-10-CM

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
<b>Other Hypnotics</b>	
DIPHENHYDRAMINE HCL	Dicopanor
chloral hydrate	Somnote
chloral hydrate	chloral hydrate
dexmedetomidine HCl	Precedex
dexmedetomidine HCl	dexmedetomidine
dexmedetomidine HCl in 0.9 % sodium chloride	Precedex in 0.9 % sodium chlor
dexmedetomidine HCl in 0.9 % sodium chloride	dexmedetomidine in 0.9 % NaCl
dexmedetomidine in 5 % dextrose in water	dexmedetomidine in dextrose 5%
diphenhydramine HCl	Aler-Cap
diphenhydramine HCl	Aler-Tab
diphenhydramine HCl	Alka-Seltzer Plus Allergy
diphenhydramine HCl	Aller-G-Time
diphenhydramine HCl	Allergy
diphenhydramine HCl	Allergy (diphenhydramine)
diphenhydramine HCl	Allergy Medication
diphenhydramine HCl	Allergy Medicine
diphenhydramine HCl	Allergy Relief(diphenhydramin)
diphenhydramine HCl	Altaryl
diphenhydramine HCl	Antihist
diphenhydramine HCl	Antihistamine
diphenhydramine HCl	Banophen
diphenhydramine HCl	Banophen Allergy
diphenhydramine HCl	Benadryl
diphenhydramine HCl	Benadryl Allergy
diphenhydramine HCl	Benadryl Allergy Quick Dissolv
diphenhydramine HCl	Benadryl Dye-Free Allergy
diphenhydramine HCl	Child Allergy Relief (diphen)
diphenhydramine HCl	Child's Benadryl Allergy
diphenhydramine HCl	Children's Allergy (diphenhyd)
diphenhydramine HCl	Children's Allergy Medicine
diphenhydramine HCl	Children's Aurodryl Allergy
diphenhydramine HCl	Children's Benadryl Allergy
diphenhydramine HCl	Children's Complete 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	Diphedryl
diphenhydramine HCl	Diphedryl Allergy
diphenhydramine HCl	Diphen
diphenhydramine HCl	Diphenhist
diphenhydramine HCl	Dytuss
diphenhydramine HCl	EZ Nite Sleep
diphenhydramine HCl	Genahist
diphenhydramine HCl	Geri-Dryl

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
diphenhydramine HCl	Hydramine
diphenhydramine HCl	M-Dryl
diphenhydramine HCl	Medi-Phedryl
diphenhydramine HCl	Naramin
diphenhydramine HCl	NightTime Sleep Aid (diphen)
diphenhydramine HCl	Nighttime Sleep
diphenhydramine HCl	Nighttime Allergy Relief
diphenhydramine HCl	Nyt-Time Sleep
diphenhydramine HCl	Nytol
diphenhydramine HCl	Ormir
diphenhydramine HCl	PediaClear Cough
diphenhydramine HCl	Pharbedryl
diphenhydramine HCl	Q-Dryl
diphenhydramine HCl	Quenalin
diphenhydramine HCl	Rest Simply Nighttime Sleep
diphenhydramine HCl	Restfully Sleep
diphenhydramine HCl	Siladryl SA
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	Sleep-Eze 3
diphenhydramine HCl	Sleep-Tabs
diphenhydramine HCl	Sleepgels
diphenhydramine HCl	Sleeping
diphenhydramine HCl	Sominex
diphenhydramine HCl	Sominex Maximum Strength
diphenhydramine HCl	Theraflu Multi Symptom
diphenhydramine HCl	Total Allergy Medicine
diphenhydramine HCl	Triaminic Allergy
diphenhydramine HCl	Triaminic Cough/Runny Nose
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 Child's Allergy
diphenhydramine HCl	Vanamine PD
diphenhydramine HCl	Vicks QlearQuil Nighttime Rlf
diphenhydramine HCl	Wal-Dryl Allergy
diphenhydramine HCl	Wal-Sleep Z
diphenhydramine HCl	Wal-Som (diphenhydramine)
diphenhydramine HCl	Z-Sleep

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
diphenhydramine HCl	ZzzQuil
diphenhydramine HCl	diphenhydramine HCl
eszopiclone	Lunesta
eszopiclone	eszopiclone
melatonin	Children's Sleep (melatonin)
melatonin	Meladox
melatonin	Melatin
melatonin	VitaJoy Melatonin
melatonin	melatonin
ramelteon	Rozerem
ramelteon	ramelteon
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	Zolpimist
zolpidem tartrate	zolpidem
<b>Anticonvulsants</b>	
GABAPENTIN	Fanatrex
brivaracetam	Briviact
cannabidiol (CBD)	Epidiolex
carbamazepine	Carbatrol
carbamazepine	Epitol
carbamazepine	Equetro
carbamazepine	Tegretol
carbamazepine	Tegretol XR
carbamazepine	carbamazepine
cenobamate	Xcopri
cenobamate	Xcopri Maintenance Pack
cenobamate	Xcopri Titration Pack
clobazam	Onfi
clobazam	Sympazan
clobazam	clobazam
clonazepam	Klonopin
clonazepam	clonazepam
clorazepate dipotassium	Tranxene T-Tab
clorazepate dipotassium	clorazepate dipotassium
diazepam	Diastat
diazepam	Diastat AcuDial
diazepam	Diazepam Intensol
diazepam	Valium

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
diazepam	Valtoco
diazepam	diazepam
divalproex sodium	Depakote
divalproex sodium	Depakote ER
divalproex sodium	Depakote Sprinkles
divalproex sodium	divalproex
eslicarbazepine acetate	Aptiom
ethosuximide	Zarontin
ethosuximide	ethosuximide
ethotoin	Peganone
ezogabine	Potiga
felbamate	Felbatol
felbamate	felbamate
fenfluramine HCl	Fintepla
fosphenytoin sodium	Cerebyx
fosphenytoin sodium	fosphenytoin
gabapentin/dietary supplement, misc combo no.11	Therapentin-60
gabapentin/dietary supplement, misc combo no.11	Therapentin-90
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	Subvenite
lamotrigine	Subvenite Starter (Blue) Kit
lamotrigine	Subvenite Starter (Green) Kit
lamotrigine	Subvenite Starter (Orange) Kit
lamotrigine	lamotrigine
levetiracetam	Elepsia XR
levetiracetam	Keppra
levetiracetam	Keppra XR
levetiracetam	Roweepra
levetiracetam	Roweepra XR
levetiracetam	Spritam
levetiracetam	levetiracetam
levetiracetam in sodium chloride, iso-osmotic	levetiracetam in NaCl (iso-os)
lorazepam	Ativan
lorazepam	Lorazepam Intensol
lorazepam	Loreev XR

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
lorazepam	lorazepam
lorazepam in 0.9 % sodium chloride	lorazepam in 0.9% sod chloride
lorazepam in 5 % dextrose and water	lorazepam in dextrose 5 %
methsuximide	Celontin
midazolam	Nayzilam
oxcarbazepine	Oxtellar XR
oxcarbazepine	Trileptal
oxcarbazepine	oxcarbazepine
perampanel	Fycompa
phenobarbital	phenobarbital
phenobarbital sodium	Luminal
phenobarbital sodium	phenobarbital sodium
phenytoin	Dilantin Infatabs
phenytoin	Dilantin-125
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	Lyrica CR
pregabalin	pregabalin
primidone	Mysoline
primidone	primidone
rufinamide	Banzel
rufinamide	rufinamide
stiripentol	Diacomit
tiagabine HCl	Gabitril
tiagabine HCl	tiagabine
topiramate	Qudexy XR
topiramate	Topamax
topiramate	Topiragen
topiramate	Trokendi XR
topiramate	topiramate
valproic acid	Depakene
valproic acid	Stavzor
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	Vigadrone
vigabatrin	vigabatrin
zonisamide	Zonegran



**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
zonisamide	zonisamide
<b>Progestins</b>	
PROGESTERONE	FIRST-Progesterone VGS 100
PROGESTERONE	FIRST-Progesterone VGS 200
PROGESTERONE	FIRST-Progesterone VGS 25
PROGESTERONE	FIRST-Progesterone VGS 50
PROGESTERONE	First-Progesterone VGS 400
estradiol valerate/dienogest	Natazia
ethynodiol diacetate-ethinyl estradiol	Demulen 1/50 (28)
ethynodiol diacetate-ethinyl estradiol	Kelnor 1-50 (28)
ethynodiol diacetate-ethinyl estradiol	Kelnor 1/35 (28)
ethynodiol diacetate-ethinyl estradiol	Zovia 1-35 (28)
ethynodiol diacetate-ethinyl estradiol	Zovia 1/35E (28)
ethynodiol diacetate-ethinyl estradiol	Zovia 1/50E (28)
ethynodiol diacetate-ethinyl estradiol	ethynodiol diac-eth estradiol
hydroxyprogesterone caproate	Makena
hydroxyprogesterone caproate	hydroxyprogesterone cap(ppres)
hydroxyprogesterone caproate	hydroxyprogesterone caproate
hydroxyprogesterone caproate/PF	Makena
hydroxyprogesterone caproate/PF	Makena (PF)
hydroxyprogesterone caproate/PF	hydroxyprogest(PF)(preg presv)
medroxyprogesterone acetate	Depo-Provera
medroxyprogesterone acetate	Depo-SubQ provera 104
medroxyprogesterone acetate	Provera
medroxyprogesterone acetate	medroxyprogesterone
megestrol acetate	Megace
megestrol acetate	Megace ES
megestrol acetate	megestrol
megestrol acetate,micronized	megestrol acetate,micro (bulk)
norethindrone acetate	Aygestin
norethindrone acetate	norethindrone acetate
progesterone	Progesterone in Oil
progesterone	progesterone
progesterone, micronized	Crinone
progesterone, micronized	Endometrin
progesterone, micronized	Prochieve
progesterone, micronized	Prometrium
progesterone, micronized	progesterone micronized
<b>Corticosteroids</b>	
Prednisolone Sodium Phosphate/Peak Flow Meter	Asmalpred
Prednisolone Sodium Phosphate/Peak Flow Meter	Asmalpred Plus
betamethasone	Celestone
betamethasone acetate and sodium phos in sterile water/PF	betameth ac,sod phos(PF)-water
betamethasone acetate/betamethasone sodium phosphate	Celestone Soluspan
betamethasone acetate/betamethasone sodium phosphate	betamethasone acet,sod phos
betamethasone acetate/betamethasone sodium phosphate/water	betamethasone ace,sod phos-wtr

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
betamethasone sodium phosph in sterile water for injection	betamethasone sod phosph-water
bupivacaine HCl/dexamethasone sodium phos in sterile water	bupivacaine-dexameth in water
cortisone acetate	cortisone
dexamethasone	Baycadron
dexamethasone	Decadron
dexamethasone	DexPak 10 day
dexamethasone	DexPak 13 Day
dexamethasone	DexPak 6 Day
dexamethasone	Dexabliss
dexamethasone	Dexamethasone Intensol
dexamethasone	Dxevo
dexamethasone	Hemady
dexamethasone	HiDex
dexamethasone	LoCort
dexamethasone	TaperDex
dexamethasone	ZCort
dexamethasone	Zema-Pak
dexamethasone	ZoDex
dexamethasone	ZonaCort
dexamethasone	dexamethasone
dexamethasone acetate and sodium phosphate in sterile water	dexamethasone ac, sod ph-water
dexamethasone acetate in sodium chloride, iso-osmotic	dexamethasone ace-NaCl,iso-osm
dexamethasone sodium phosphate	dexamethasone sodium phosphate
dexamethasone sodium phosphate in 0.9 % sodium chloride	dexamethasone-0.9 % sod. chlor
dexamethasone sodium phosphate/PF	dexamethasone sodium phos (PF)
dexamethasone sodium phosphate/lidocaine HCl	Lidocidex-I
hydrocortisone	Alkindi Sprinkle
hydrocortisone	Cortef
hydrocortisone	hydrocortisone
hydrocortisone sod succinate	A-Hydrocort
hydrocortisone sod succinate	Solu-Cortef
hydrocortisone sod succinate	Solu-Cortef Act-O-Vial
hydrocortisone sodium succinate/PF	Solu-Cortef Act-O-Vial (PF)
methylprednisolone	Medrol
methylprednisolone	Medrol (Pak)
methylprednisolone	Meprozone Unipak
methylprednisolone	Methylpred DP
methylprednisolone	methylprednisolone
methylprednisolone acetate	Depo-Medrol
methylprednisolone acetate	methylprednisolone acetate
methylprednisolone acetate in sodium chloride,iso-osmotic/PF	methylpred ac(PF)-NaCl,iso-osm
methylprednisolone acetate in sterile water for injection	methylprednisolone acet-water
methylprednisolone acetate/bupivacaine HCl in sterile water	methylprednisol ac-bupivac-wat
methylprednisolone sodium succinate	A-Methapred
methylprednisolone sodium succinate	Solu-Medrol
methylprednisolone sodium succinate	methylprednisolone sodium succ
methylprednisolone sodium succinate/PF	Solu-Medrol (PF)

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
prednisolone	Millipred
prednisolone	Millipred DP
prednisolone	Prelone
prednisolone	prednisolone
prednisolone acetate	Flo-Pred
prednisolone sodium phosphate	Millipred
prednisolone sodium phosphate	Orapred
prednisolone sodium phosphate	Orapred ODT
prednisolone sodium phosphate	Pediapred
prednisolone sodium phosphate	Veripred 20
prednisolone sodium phosphate	prednisolone sodium phosphate
prednisone	Deltasone
prednisone	Prednisone Intensol
prednisone	Rayos
prednisone	prednisone
triamcinolone acetonide	Kenalog
triamcinolone acetonide	Kenalog-40
triamcinolone acetonide	Kenalog-80
triamcinolone acetonide	triamcinolone acetonide
triamcinolone acetonide in 0.9 % sodium chloride	triamcinolone acetone-0.9% NaCl
triamcinolone acetonide/0.9% sodium chloride/PF	triamcinol ac (PF) in 0.9%NaCl
triamcinolone acetonide/bupivacaine/in 0.9% sodium chloride	triamcinol ace-bupiv-0.9% NaCl
triamcinolone acetonide/lidocaine HCl	Lidocilone I
triamcinolone diacetate in 0.9 % sodium chloride	triamcinolone diacet-0.9% NaCl
triamcinolone diacetate in 0.9 % sodium chloride/PF	triamcinolone dia(PF)-0.9%NaCl
triamcinolone hexacetonide	Aristospan Intra-Articular
triamcinolone hexacetonide	Aristospan Intralesional
triamcinolone hexacetonide	Hexatrione
<b>Antidiabetics (non-insulin)</b>	
acarbose	Precose
acarbose	acarbose
albiglutide	Tanzeum
alogliptin benzoate	Nesina
alogliptin benzoate	alogliptin
alogliptin benzoate/metformin HCl	Kazano
alogliptin benzoate/metformin HCl	alogliptin-metformin
alogliptin benzoate/pioglitazone HCl	Oseni
alogliptin benzoate/pioglitazone HCl	alogliptin-pioglitazone
canagliflozin	Invokana
canagliflozin/metformin HCl	Invokamet
canagliflozin/metformin HCl	Invokamet XR
chlorpropamide	chlorpropamide
dapagliflozin propanediol	Farxiga
dapagliflozin propanediol/metformin HCl	Xigduo XR
dapagliflozin propanediol/saxagliptin HCl	Qtern
dulaglutide	Trulicity
empagliflozin	Jardiance

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
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	Glucotrol
glipizide	Glucotrol XL
glipizide	glipizide
glipizide/metformin HCl	Metaglip
glipizide/metformin HCl	glipizide-metformin
glyburide	Diabeta
glyburide	glyburide
glyburide,micronized	Glynase
glyburide,micronized	glyburide micronized
glyburide/metformin HCl	Glucovance
glyburide/metformin HCl	glyburide-metformin
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	Riomet
metformin HCl	Riomet ER
metformin HCl	metformin
metformin/amino acids no.7/herbal cmb.125/choline bitartrate	Appformin-D
metformin/cafeine/amino acids 7/herbal comb 125/choline bit	Appformin
miglitol	Glyset
miglitol	miglitol
nateglinide	Starlix
nateglinide	nateglinide
pioglitazone HCl	Actos
pioglitazone HCl	pioglitazone
pioglitazone HCl/glimepiride	DUETACT
pioglitazone HCl/glimepiride	pioglitazone-glimepiride
pioglitazone HCl/metformin HCl	Actoplus MET
pioglitazone HCl/metformin HCl	Actoplus Met XR

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
pioglitazone HCl/metformin HCl	pioglitazone-metformin
pramlintide acetate	Symlin
pramlintide acetate	SymlinPen 120
pramlintide acetate	SymlinPen 60
repaglinide	Prandin
repaglinide	repaglinide
repaglinide/metformin HCl	Prandimet
repaglinide/metformin HCl	repaglinide-metformin
rosiglitazone maleate	Avandia
rosiglitazone maleate/glimepiride	Avandaryl
rosiglitazone maleate/metformin HCl	Avandamet
saxagliptin HCl	Onglyza
saxagliptin HCl/metformin HCl	Kombiglyze XR
semaglutide	Ozempic
semaglutide	Rybelsus
sitagliptin phosphate	Januvia
sitagliptin phosphate/metformin HCl	Janumet
sitagliptin phosphate/metformin HCl	Janumet XR
sitagliptin phosphate/simvastatin	Juvisync
tolazamide	tolazamide
tolbutamide	tolbutamide
<b>Opioids</b>	
acetaminophen with codeine phosphate	Capital with Codeine
acetaminophen with codeine phosphate	Tylenol-Codeine #3
acetaminophen with codeine phosphate	Tylenol-Codeine #4
acetaminophen with codeine phosphate	acetaminophen-codeine
acetaminophen/caffeine/dihydrocodeine bitartrate	Panlor DC
acetaminophen/caffeine/dihydrocodeine bitartrate	Panlor SS
alfentanil HCl	Alfenta
alfentanil HCl	alfentanil
aspirin/caffeine/dihydrocodeine bitartrate	Synalgos-DC
benzhydrocodone HCl/acetaminophen	Apadaz
benzhydrocodone HCl/acetaminophen	benzhydrocodone-acetaminophen
butalbital/acetaminophen/caffeine/codeine phosphate	butalbital-acetaminop-caf-cod
butorphanol tartrate	butorphanol
codeine phosphate	codeine phosphate
codeine phosphate/butalbital/aspirin/caffeine	Butalbital Compound W/Codeine
codeine phosphate/butalbital/aspirin/caffeine	Fiorinal-Codeine #3
codeine sulfate	codeine sulfate
fentanyl	fentanyl
fentanyl citrate	Lazanda
fentanyl citrate	Onsolis
fentanyl citrate	fentanyl citrate
fentanyl citrate in 0.9 % sodium chloride/PF	fentanyl citrate (PF)-0.9%NaCl
fentanyl citrate/PF	Sublimaze (PF)
fentanyl citrate/PF	fentanyl citrate (PF)
hydrocodone bitartrate/acetaminophen	Co-Gesic

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
hydrocodone bitartrate/acetaminophen	Hycet
hydrocodone bitartrate/acetaminophen	Hydrogesic
hydrocodone bitartrate/acetaminophen	Lorcet 10/650
hydrocodone bitartrate/acetaminophen	Lorcet Plus
hydrocodone bitartrate/acetaminophen	Lortab Elixir
hydrocodone bitartrate/acetaminophen	Margesic-H
hydrocodone bitartrate/acetaminophen	Norco
hydrocodone bitartrate/acetaminophen	Vicodin
hydrocodone bitartrate/acetaminophen	Vicodin ES
hydrocodone bitartrate/acetaminophen	Vicodin HP
hydrocodone bitartrate/acetaminophen	Zamicet
hydrocodone bitartrate/acetaminophen	Zolvit
hydrocodone bitartrate/acetaminophen	hydrocodone-acetaminophen
hydrocodone/ibuprofen	Vicoprofen
hydrocodone/ibuprofen	hydrocodone-ibuprofen
hydromorphone HCl	hydromorphone
hydromorphone HCl/PF	hydromorphone (PF)
ibuprofen/oxycodone HCl	Combunox
ibuprofen/oxycodone HCl	ibuprofen-oxycodone
levorphanol tartrate	levorphanol tartrate
meperidine HCl	Demerol
meperidine HCl	meperidine
meperidine HCl/PF	Demerol (PF)
meperidine HCl/PF	meperidine (PF)
morphine sulfate	Kadian
morphine sulfate	morphine
morphine sulfate	morphine concentrate
morphine sulfate/PF	Astramorph-PF
morphine sulfate/PF	Duramorph (PF)
morphine sulfate/PF	Infumorph P/F
morphine sulfate/PF	morphine (PF)
morphine sulfate/dextrose 5%-water/PF	morphine (PF) in dextrose 5 %
nalbuphine HCl	nalbuphine
oxycodone HCl	oxycodone
oxycodone HCl/acetaminophen	Roxicet
oxycodone HCl/acetaminophen	Tylox
oxycodone HCl/acetaminophen	oxycodone-acetaminophen
oxycodone HCl/aspirin	oxycodone-aspirin
oxycodone HCl/oxycodone terephthalate/aspirin	oxycodone HCl-oxycodone-ASA
oxymorphone HCl	oxymorphone
pentazocine HCl/acetaminophen	Talacen
pentazocine HCl/acetaminophen	pentazocine-acetaminophen
pentazocine HCl/naloxone HCl	Talwin NX
pentazocine lactate	Talwin
propoxyphene HCl	propoxyphene
propoxyphene HCl/acetaminophen	propoxyphene-acetaminophen
propoxyphene napsylate/acetaminophen	Balacet 325

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
propoxyphene napsylate/acetaminophen	propoxyphene N-acetaminophen
sufentanil citrate	Sufenta
sufentanil citrate	sufentanil citrate
tramadol HCl	Ultram ER
tramadol HCl	tramadol
tramadol HCl/acetaminophen	Ultracet
tramadol HCl/acetaminophen	tramadol-acetaminophen
<b>Anxiolytics</b>	
alprazolam	Alprazolam Intensol
alprazolam	Niravam
alprazolam	Xanax
alprazolam	Xanax XR
alprazolam	alprazolam
alprazolam/dietary supplement,misc combo no.17	Gabazolamine
buspirone HCl	BuSpar
buspirone HCl	Vanspar
buspirone HCl	buspirone
chlordiazepoxide HCl	chlordiazepoxide HCl
hydroxyzine HCl	hydroxyzine HCl
hydroxyzine pamoate	Vistaril
hydroxyzine pamoate	hydroxyzine pamoate
meprobamate	meprobamate
oxazepam	oxazepam
<b>Antidepressants</b>	
amitriptyline HCl	amitriptyline
amitriptyline HCl/chlordiazepoxide	Limbitrol
amitriptyline HCl/chlordiazepoxide	amitriptyline-chlordiazepoxide
amoxapine	amoxapine
brexanolone	Zulresso
bupropion HBr	Aplenzin
bupropion HCl	Budeprion SR
bupropion HCl	Budeprion XL
bupropion HCl	Buproban
bupropion HCl	Forfivo XL
bupropion HCl	Wellbutrin
bupropion HCl	Wellbutrin SR
bupropion HCl	Wellbutrin XL
bupropion HCl	Zyban
bupropion HCl	bupropion HCl
bupropion HCl	bupropion HCl (smoking deter)
bupropion HCl/dietary supplement combination no.15	Appbutamone-D
bupropion HCl/dietary supplement combination no.16	Appbutamone
citalopram hydrobromide	Celexa
citalopram hydrobromide	citalopram
clomipramine HCl	Anafranil
clomipramine HCl	clomipramine
desipramine HCl	Norpramin

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
desipramine HCl	desipramine
desvenlafaxine	Khedezla
desvenlafaxine	desvenlafaxine
desvenlafaxine fumarate	desvenlafaxine fumarate
desvenlafaxine succinate	Pristiq
desvenlafaxine succinate	desvenlafaxine succinate
doxepin HCl	Silenor
doxepin HCl	doxepin
duloxetine HCl	Cymbalta
duloxetine HCl	Drizalma Sprinkle
duloxetine HCl	Irenka
duloxetine HCl	duloxetine
escitalopram oxalate	Lexapro
escitalopram oxalate	escitalopram oxalate
esketamine HCl	Spravato
fluoxetine HCl	Prozac
fluoxetine HCl	Prozac Weekly
fluoxetine HCl	Sarafem
fluoxetine HCl	Selfemra
fluoxetine HCl	fluoxetine
fluoxetine HCl/dietary supplement no.17	Gaboxetine
fluoxetine HCl/dietary supplement no.8	Sentroxatine
fluvoxamine maleate	Luvox CR
fluvoxamine maleate	fluvoxamine
imipramine HCl	Tofranil
imipramine HCl	imipramine HCl
imipramine pamoate	Tofranil-PM
imipramine pamoate	imipramine pamoate
isocarboxazid	Marplan
levomilnacipran HCl	Fetzima
maprotiline HCl	maprotiline
milnacipran HCl	Savella
mirtazapine	Remeron
mirtazapine	Remeron SolTab
mirtazapine	mirtazapine
nefazodone HCl	nefazodone
nortriptyline HCl	Pamelor
nortriptyline HCl	nortriptyline
olanzapine/fluoxetine HCl	Symbyax
olanzapine/fluoxetine HCl	olanzapine-fluoxetine
paroxetine HCl	Paxil
paroxetine HCl	Paxil CR
paroxetine HCl	paroxetine HCl
paroxetine mesylate	Brisdelle
paroxetine mesylate	Pexeva
paroxetine mesylate	paroxetine mesylate(menop.sym)
perphenazine/amitriptyline HCl	Duo-Vil 2-10



**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
perphenazine/amitriptyline HCl	Duo-Vil 2-25
perphenazine/amitriptyline HCl	perphenazine-amitriptyline
phenelzine sulfate	Nardil
phenelzine sulfate	phenelzine
protriptyline HCl	Vivactil
protriptyline HCl	protriptyline
selegiline	Emsam
sertraline HCl	Zoloft
sertraline HCl	sertraline
tranylcypromine sulfate	Parnate
tranylcypromine sulfate	tranylcypromine
trazodone HCl	Desyrel
trazodone HCl	Oleptro ER
trazodone HCl	trazodone
trazodone HCl/dietary supplement no.8	Trazamine
trimipramine maleate	Surmontil
trimipramine maleate	trimipramine
venlafaxine HCl	Effexor
venlafaxine HCl	Effexor XR
venlafaxine HCl	venlafaxine
vilazodone HCl	Viibryd
viloxazine HCl	Qelbree
vortioxetine hydrobromide	Brintellix
vortioxetine hydrobromide	Trintellix
<b>Ace Inhibitors</b>	
amlodipine besylate/benazepril HCl	Lotrel
amlodipine besylate/benazepril HCl	amlodipine-benazepril
benazepril HCl	Lotensin
benazepril HCl	benazepril
benazepril HCl/hydrochlorothiazide	Lotensin HCT
benazepril HCl/hydrochlorothiazide	benazepril-hydrochlorothiazide
captopril	captopril
captopril/hydrochlorothiazide	captopril-hydrochlorothiazide
enalapril maleate	Epaned
enalapril maleate	Vasotec
enalapril maleate	enalapril maleate
enalapril maleate/hydrochlorothiazide	Vaseretic
enalapril maleate/hydrochlorothiazide	enalapril-hydrochlorothiazide
enalaprilat dihydrate	enalaprilat
fosinopril sodium	fosinopril
fosinopril sodium/hydrochlorothiazide	fosinopril-hydrochlorothiazide
lisinopril	Prinivil
lisinopril	Qbrelis
lisinopril	Zestril
lisinopril	lisinopril
lisinopril/dietary supplement,comb.10	Lytensopril
lisinopril/dietary supplement,comb.10	Lytensopril-90

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

<b>Non-Proprietary Name</b>	<b>Brand Name</b>
lisinopril/hydrochlorothiazide	Prinzide
lisinopril/hydrochlorothiazide	Zestoretic
lisinopril/hydrochlorothiazide	lisinopril-hydrochlorothiazide
moexipril HCl	Univasc
moexipril HCl	moexipril
moexipril HCl/hydrochlorothiazide	Uniretic
moexipril HCl/hydrochlorothiazide	moexipril-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
trandolapril	Mavik
trandolapril	trandolapril
trandolapril/verapamil HCl	Tarka
trandolapril/verapamil HCl	trandolapril-verapamil
<b>Barbiturates</b>	
amobarbital sodium	Amytal
butabarbital sodium	Butisol
mephobarbital	Mebaral
methohexital sodium	Brevital
methohexital sodium in sterile water for injection/PF	methohexital in water (PF)
pentobarbital sodium	Nembutal Sodium
pentobarbital sodium	pentobarbital sodium
phenobarbital sodium in 0.9 % sodium chloride	phenobarbital in 0.9 % sod chl
secobarbital sodium	Seconal Sodium
thiopental sodium	Pentothal
<b>Antipsychotics</b>	
aripiprazole	Abilify
aripiprazole	Abilify Discmelt
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	Saphris
asenapine maleate	Saphris (black cherry)
asenapine maleate	asenapine maleate
brexpiprazole	Rexulti
cariprazine HCl	Vraylar
chlorpromazine HCl	chlorpromazine

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
clozapine	Clozaril
clozapine	FazaClo
clozapine	Versacloz
clozapine	clozapine
fluphenazine HCl	fluphenazine HCl
fluphenazine decanoate	fluphenazine decanoate
haloperidol	haloperidol
haloperidol decanoate	Haldol Decanoate
haloperidol decanoate	haloperidol decanoate
haloperidol lactate	Haldol
haloperidol lactate	haloperidol lactate
iloperidone	Fanapt
loxapine	Adasuve
loxapine succinate	Loxitane
loxapine succinate	loxapine succinate
lumateperone tosylate	Caplyta
lurasidone HCl	Latuda
molindone HCl	Moban
molindone HCl	molindone
olanzapine	Zyprexa
olanzapine	Zyprexa Zydis
olanzapine	olanzapine
olanzapine pamoate	Zyprexa Relprevv
paliperidone	Invega
paliperidone	paliperidone
paliperidone palmitate	Invega Sustenna
paliperidone palmitate	Invega Trinza
perphenazine	perphenazine
pimavanserin tartrate	Nuplazid
pimozide	Orap
pimozide	pimozide
prochlorperazine maleate	Compazine
prochlorperazine maleate	prochlorperazine maleate
quetiapine fumarate	Seroquel
quetiapine fumarate	Seroquel XR
quetiapine fumarate	quetiapine
risperidone	Perseris
risperidone	Risperdal
risperidone	Risperdal M-TAB
risperidone	risperidone
risperidone microspheres	Risperdal Consta
thioridazine HCl	thioridazine
thiothixene	Navane
thiothixene	thiothixene
trifluoperazine HCl	trifluoperazine
ziprasidone HCl	Geodon
ziprasidone HCl	ziprasidone HCl

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
<b>Obesity</b>	
benzphetamine HCl	Didrex
benzphetamine HCl	Regimex
benzphetamine HCl	benzphetamine
diethylpropion HCl	diethylpropion
diethylpropion HCl	diethylpropion HCl (bulk)
liraglutide	Saxenda
lorcaserin HCl	Belviq
lorcaserin HCl	Belviq XR
orlistat	Alli
orlistat	Xenical
phendimetrazine tartrate	Bontril PDM
phendimetrazine tartrate	Bontril SR
phendimetrazine tartrate	Bontril Slow-Release
phendimetrazine tartrate	phendimetrazine tartrate
phentermine HCl	Adipex-P
phentermine HCl	Lomaira
phentermine HCl	Suprenza
phentermine HCl	phentermine
phentermine HCl	phentermine HCl (bulk)
phentermine HCl/topiramate	Qsymia
semaglutide	Wegovy
setmelanotide acetate	Imcivree
sibutramine HCl m-hydrate	Meridia
<b>Buprenorphines</b>	
buprenorphine	Butrans
buprenorphine	Sublocade
buprenorphine	buprenorphine
buprenorphine HCl	Belbuca
buprenorphine HCl	Buprenex
buprenorphine HCl	Probuphine
buprenorphine HCl	Subutex
buprenorphine HCl	buprenorphine HCl
buprenorphine HCl/naloxone HCl	buprenorphine-naloxone
<b>Nicotine Use</b>	
bupropion HCl	bupropion HCl (bulk)
naltrexone HCl/bupropion HCl	Contrave
nicotine	NTS Step 1
nicotine	Nicoderm CQ
nicotine	Nicotrol
nicotine	Nicotrol NS
nicotine	nicotine
nicotine bitartrate	Nicotine Tartrate
nicotine polacrilex	Commit
nicotine polacrilex	Nicorelief
nicotine polacrilex	Nicorette
nicotine polacrilex	Quit 2

# Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request

Non-Proprietary Name	Brand Name
nicotine polacrilex	Quit 4
nicotine polacrilex	Stop Smoking Aid
nicotine polacrilex	Thrive Nicotine
nicotine polacrilex	nicotine (polacrilex)
nicotine polacrilex	nicotine polacrilex (bulk)
varenicline tartrate	Chantix
varenicline tartrate	Chantix Continuing Month Box
varenicline tartrate	Chantix Continuing Month Pak
varenicline tartrate	Chantix Starting Month Box
varenicline tartrate	Chantix Starting Month Pak
varenicline tartrate	Tyrvaya
varenicline tartrate	varenicline
<b>Benzodiazepines</b>	
chlordiazepoxide/clidinium bromide	chlordiazepoxide-clidinium
midazolam HCl/PF	midazolam (PF)
quazepam	quazepam
remimazolam besylate	Byfavo
<b>danazol</b>	
danazol	danazol
<b>Antihypertensives</b>	
ethacrynic acid	Edecrin
losartan potassium	Cozaar
losartan potassium/hydrochlorothiazide	Hyzaar
tadalafil	Cialis
<b>fluconazole</b>	
fluconazole	Diflucan
fluconazole	fluconazole
fluconazole in dextrose, iso-osmotic	Diflucan in dextrose (iso-osm)
fluconazole in dextrose, iso-osmotic	fluconazole in dextrose(iso-o)
fluconazole in sodium chloride, iso-osmotic	Diflucan in NaCl (iso-osm)
fluconazole in sodium chloride, iso-osmotic	fluconazole in NaCl (iso-osm)
<b>Insulin</b>	
insulin NPH human isophane	Humulin N NPH Insulin KwikPen
insulin NPH human isophane	Humulin N NPH U-100 Insulin
insulin NPH human isophane	Humulin N Pen
insulin NPH human isophane	Novolin N InnoLet
insulin NPH human isophane	Novolin N NPH U-100 Insulin
insulin NPH human isophane	Novolin N PenFill
insulin NPH human isophane/insulin regular, human	Humulin 50/50
insulin NPH human isophane/insulin regular, human	Humulin 70/30 Insulin Pen
insulin NPH human isophane/insulin regular, human	Humulin 70/30 U-100 Insulin
insulin NPH human isophane/insulin regular, human	Humulin 70/30 U-100 KwikPen
insulin NPH human isophane/insulin regular, human	Novolin 70-30 FlexPen U-100
insulin NPH human isophane/insulin regular, human	Novolin 70/30 InnoLet Insulin
insulin NPH human isophane/insulin regular, human	Novolin 70/30 PenFill
insulin NPH human isophane/insulin regular, human	Novolin 70/30 U-100 Insulin
insulin aspart	Novolog Flexpen U-100 Insulin

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
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 U-100 Insulin
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30 U-100 Insulin
insulin aspart protamine human/insulin aspart	Novolog Mix 70-30FlexPen U-100
insulin 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 FlexTouch U-100 Insulin
insulin detemir	Levemir Flexpen
insulin detemir	Levemir U-100 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
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 Pen
insulin lispro	Humalog U-100 Insulin
insulin lispro	insulin lispro
insulin lispro protamine and insulin lispro	Humalog Mix 50-50 Insulin 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)Insulin
insulin lispro protamine and insulin lispro	insulin lispro protamin-lispro
insulin regular, human	Afrezza
insulin regular, human	Humulin R Regular U-100 Insulin
insulin regular, human	Humulin R U-500 (Conc) Insulin
insulin regular, human	Humulin R U-500 (Conc) Kwikpen
insulin regular, human	Novolin R InnoLet
insulin regular, human	Novolin R PenFill
insulin regular, human	Novolin R Regular U-100 Insulin
<b>Methadone</b>	
methadone HCl	Diskets
methadone HCl	Dolophine
methadone HCl	Methadone Intensol
methadone HCl	Methadose
methadone HCl	methadone
methadone hydrochloride in 0.9 % sodium chloride	methadone in 0.9 % sod.chlorid

**Appendix G. List of Non-Proprietary and Brand Names of Medical Products Used to Define Covariates in this Request**

Non-Proprietary Name	Brand Name
<b>Methimazole</b>	
methimazole	Tapazole
methimazole	methimazole
<b>Naltrexone</b>	
morphine sulfate/naltrexone HCl	Embeda
naltrexone HCl	Revia
naltrexone HCl	naltrexone
naltrexone microspheres	Vivitrol
<b>Naloxone</b>	
naloxone HCl	Evzio
naloxone HCl	LifEMS Naloxone
naloxone HCl	Narcan
naloxone HCl	naloxone
pentazocine HCl/naloxone HCl	pentazocine-naloxone
<b>Propylthiouracil</b>	
propylthiouracil	propylthiouracil

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

Code	Description	Code Category	Code Type
<b>Diabetes</b>			
249.00	Secondary diabetes mellitus without mention of complication, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.01	Secondary diabetes mellitus without mention of complication, uncontrolled	Diagnosis	ICD-9-CM
249.10	Secondary diabetes mellitus with ketoacidosis, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.11	Secondary diabetes mellitus with ketoacidosis, uncontrolled	Diagnosis	ICD-9-CM
249.20	Secondary diabetes mellitus with hyperosmolarity, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.21	Secondary diabetes mellitus with hyperosmolarity, uncontrolled	Diagnosis	ICD-9-CM
249.30	Secondary diabetes mellitus with other coma, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.31	Secondary diabetes mellitus with other coma, uncontrolled	Diagnosis	ICD-9-CM
249.40	Secondary diabetes mellitus with renal manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.41	Secondary diabetes mellitus with renal manifestations, uncontrolled	Diagnosis	ICD-9-CM
249.50	Secondary diabetes mellitus with ophthalmic manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.51	Secondary diabetes mellitus with ophthalmic manifestations, uncontrolled	Diagnosis	ICD-9-CM
249.60	Secondary diabetes mellitus with neurological manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.61	Secondary diabetes mellitus with neurological manifestations, uncontrolled	Diagnosis	ICD-9-CM
249.70	Secondary diabetes mellitus with peripheral circulatory disorders, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.71	Secondary diabetes mellitus with peripheral circulatory disorders, uncontrolled	Diagnosis	ICD-9-CM
249.80	Secondary diabetes mellitus with other specified manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.81	Secondary diabetes mellitus with other specified manifestations, uncontrolled	Diagnosis	ICD-9-CM
249.90	Secondary diabetes mellitus with unspecified complication, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.91	Secondary diabetes mellitus with unspecified complication, uncontrolled	Diagnosis	ICD-9-CM
250.00	Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.01	Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.02	Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.03	Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.10	Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.11	Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.12	Diabetes with ketoacidosis, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.13	Diabetes with ketoacidosis, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.20	Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.21	Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.22	Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM



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

Code	Description	Code Category	Code Type
250.23	Diabetes with hyperosmolarity, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.30	Diabetes with other coma, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.31	Diabetes with other coma, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.32	Diabetes with other coma, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.33	Diabetes with other coma, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.40	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.41	Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.42	Diabetes with renal manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.43	Diabetes with renal manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.50	Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.51	Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.52	Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.53	Diabetes with ophthalmic manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.60	Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.61	Diabetes with neurological manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.62	Diabetes with neurological manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.63	Diabetes with neurological manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.70	Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.71	Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.72	Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.73	Diabetes with peripheral circulatory disorders, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.80	Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.81	Diabetes with other specified manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.82	Diabetes with other specified manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.83	Diabetes with other specified manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
250.90	Diabetes with unspecified complication, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.91	Diabetes with unspecified complication, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.92	Diabetes with unspecified complication, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.93	Diabetes with unspecified complication, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
357.2	Polyneuropathy in diabetes	Diagnosis	ICD-9-CM
362.01	Background diabetic retinopathy	Diagnosis	ICD-9-CM
362.02	Proliferative diabetic retinopathy	Diagnosis	ICD-9-CM
362.03	Nonproliferative diabetic retinopathy NOS	Diagnosis	ICD-9-CM
362.04	Mild nonproliferative diabetic retinopathy	Diagnosis	ICD-9-CM
362.05	Moderate nonproliferative diabetic retinopathy	Diagnosis	ICD-9-CM
362.06	Severe nonproliferative diabetic retinopathy	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
366.41	Diabetic cataract	Diagnosis	ICD-9-CM
E08.00	Diabetes mellitus due to underlying condition with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E08.01	Diabetes mellitus due to underlying condition with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E08.10	Diabetes mellitus due to underlying condition with ketoacidosis without coma	Diagnosis	ICD-10-CM
E08.11	Diabetes mellitus due to underlying condition with ketoacidosis with coma	Diagnosis	ICD-10-CM
E08.21	Diabetes mellitus due to underlying condition with diabetic nephropathy	Diagnosis	ICD-10-CM
E08.22	Diabetes mellitus due to underlying condition with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E08.29	Diabetes mellitus due to underlying condition with other diabetic kidney complication	Diagnosis	ICD-10-CM
E08.311	Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.319	Diabetes mellitus due to underlying condition with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.321	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3211	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3212	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3213	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3219	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.329	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3291	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3292	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3293	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3299	Diabetes mellitus due to underlying condition with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.331	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3311	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3312	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3313	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3319	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
E08.339	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3391	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3392	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3393	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3399	Diabetes mellitus due to underlying condition with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.341	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3411	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3412	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3413	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3419	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.349	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3491	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3492	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3493	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3499	Diabetes mellitus due to underlying condition with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.351	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E08.3511	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E08.3512	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E08.3513	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E08.3519	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E08.3521	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
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
E08.3532	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E08.3533	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E08.3539	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E08.3541	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E08.3542	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E08.3543	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E08.3549	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E08.3551	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E08.3552	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E08.3553	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E08.3559	Diabetes mellitus due to underlying condition with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E08.359	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E08.3591	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E08.3592	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E08.3593	Diabetes mellitus due to underlying condition with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
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

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Code	Description	Code Category	Code Type
E08.37X1	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E08.37X2	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E08.37X3	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E08.37X9	Diabetes mellitus due to underlying condition with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E08.39	Diabetes mellitus due to underlying condition with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E08.40	Diabetes mellitus due to underlying condition with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E08.41	Diabetes mellitus due to underlying condition with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E08.42	Diabetes mellitus due to underlying condition with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E08.43	Diabetes mellitus due to underlying condition with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E08.44	Diabetes mellitus due to underlying condition with diabetic amyotrophy	Diagnosis	ICD-10-CM
E08.49	Diabetes mellitus due to underlying condition with other diabetic neurological complication	Diagnosis	ICD-10-CM
E08.51	Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E08.52	Diabetes mellitus due to underlying condition with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E08.59	Diabetes mellitus due to underlying condition with other circulatory complications	Diagnosis	ICD-10-CM
E08.610	Diabetes mellitus due to underlying condition with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E08.618	Diabetes mellitus due to underlying condition with other diabetic arthropathy	Diagnosis	ICD-10-CM
E08.620	Diabetes mellitus due to underlying condition with diabetic dermatitis	Diagnosis	ICD-10-CM
E08.621	Diabetes mellitus due to underlying condition with foot ulcer	Diagnosis	ICD-10-CM
E08.622	Diabetes mellitus due to underlying condition with other skin ulcer	Diagnosis	ICD-10-CM
E08.628	Diabetes mellitus due to underlying condition with other skin complications	Diagnosis	ICD-10-CM
E08.630	Diabetes mellitus due to underlying condition with periodontal disease	Diagnosis	ICD-10-CM
E08.638	Diabetes mellitus due to underlying condition with other oral complications	Diagnosis	ICD-10-CM
E08.641	Diabetes mellitus due to underlying condition with hypoglycemia with coma	Diagnosis	ICD-10-CM
E08.649	Diabetes mellitus due to underlying condition with hypoglycemia without coma	Diagnosis	ICD-10-CM
E08.65	Diabetes mellitus due to underlying condition with hyperglycemia	Diagnosis	ICD-10-CM
E08.69	Diabetes mellitus due to underlying condition with other specified complication	Diagnosis	ICD-10-CM
E08.8	Diabetes mellitus due to underlying condition with unspecified complications	Diagnosis	ICD-10-CM
E08.9	Diabetes mellitus due to underlying condition without complications	Diagnosis	ICD-10-CM
E09.00	Drug or chemical induced diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E09.01	Drug or chemical induced diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E09.10	Drug or chemical induced diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E09.11	Drug or chemical induced diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E09.21	Drug or chemical induced diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E09.22	Drug or chemical induced diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E09.29	Drug or chemical induced diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM



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Code	Description	Code Category	Code Type
E09.311	Drug or chemical induced diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.319	Drug or chemical induced diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.321	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.3211	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E09.3212	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3213	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3219	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.329	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3291	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3292	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3293	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3299	Drug or chemical induced diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.331	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.3311	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E09.3312	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3313	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3319	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.339	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3391	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3392	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3393	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E09.3399	Drug or chemical induced diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.341	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.3411	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E09.3412	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3413	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3419	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.349	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3491	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3492	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3493	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3499	Drug or chemical induced diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.351	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E09.3511	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E09.3512	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E09.3513	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3519	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.3521	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E09.3522	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E09.3523	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E09.3529	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E09.3531	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E09.359	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E09.3591	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E09.3592	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E09.3593	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E09.3599	Drug or chemical induced diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E09.36	Drug or chemical induced diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E09.37X1	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E09.37X2	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E09.37X3	Drug or chemical induced diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
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



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

Code	Description	Code Category	Code Type
E09.40	Drug or chemical induced diabetes mellitus with neurological complications with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E09.41	Drug or chemical induced diabetes mellitus with neurological complications with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E09.42	Drug or chemical induced diabetes mellitus with neurological complications with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E09.43	Drug or chemical induced diabetes mellitus with neurological complications with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E09.44	Drug or chemical induced diabetes mellitus with neurological complications with diabetic amyotrophy	Diagnosis	ICD-10-CM
E09.49	Drug or chemical induced diabetes mellitus with neurological complications with other diabetic neurological complication	Diagnosis	ICD-10-CM
E09.51	Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E09.52	Drug or chemical induced diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E09.59	Drug or chemical induced diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E09.610	Drug or chemical induced diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E09.618	Drug or chemical induced diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E09.620	Drug or chemical induced diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E09.621	Drug or chemical induced diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E09.622	Drug or chemical induced diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E09.628	Drug or chemical induced diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E09.630	Drug or chemical induced diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E09.638	Drug or chemical induced diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E09.641	Drug or chemical induced diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E09.649	Drug or chemical induced diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E09.65	Drug or chemical induced diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E09.69	Drug or chemical induced diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E09.8	Drug or chemical induced diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E09.9	Drug or chemical induced diabetes mellitus without complications	Diagnosis	ICD-10-CM
E10.10	Type 1 diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E10.11	Type 1 diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E10.21	Type 1 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E10.29	Type 1 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E10.311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.321	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.3211	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
E10.3212	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3213	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3219	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.329	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3292	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3293	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3299	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.331	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.3311	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3312	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.339	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.341	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.3411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E10.3413	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.349	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3499	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.351	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E10.3511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E10.3512	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E10.3513	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3519	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.3521	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E10.3522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E10.3523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E10.3529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.3531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E10.3532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E10.3533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E10.3539	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E10.3541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E10.3542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E10.359	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E10.3591	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E10.3592	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E10.3593	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E10.3599	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E10.36	Type 1 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E10.37X1	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E10.37X2	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E10.37X3	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E10.37X9	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E10.39	Type 1 diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E10.40	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E10.41	Type 1 diabetes mellitus with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E10.42	Type 1 diabetes mellitus with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E10.43	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E10.44	Type 1 diabetes mellitus with diabetic amyotrophy	Diagnosis	ICD-10-CM
E10.49	Type 1 diabetes mellitus with other diabetic neurological complication	Diagnosis	ICD-10-CM
E10.51	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E10.52	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E10.59	Type 1 diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E10.610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
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

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

Code	Description	Code Category	Code Type
E10.638	Type 1 diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E10.641	Type 1 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E10.649	Type 1 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E10.65	Type 1 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E10.69	Type 1 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E10.8	Type 1 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E10.9	Type 1 diabetes mellitus without complications	Diagnosis	ICD-10-CM
E11.00	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E11.01	Type 2 diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E11.10	Type 2 diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E11.11	Type 2 diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E11.21	Type 2 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E11.311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11.319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.321	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11.3211	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3212	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3213	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3219	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.329	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.3291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.331	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11.3311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E11.3313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.339	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.3391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.341	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11.3411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.349	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.3491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.351	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11.3511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E11.3512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E11.3513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM



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Code	Description	Code Category	Code Type
E11.3521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E11.3522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E11.3523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E11.3529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E11.3531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E11.3532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E11.3533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E11.3539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E11.3541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E11.3542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E11.3543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E11.3549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E11.3551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E11.3552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E11.3553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E11.3559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E11.359	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E11.3591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E11.3592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E11.3593	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E11.3599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E11.36	Type 2 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E11.37X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E11.37X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
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
E11.618	Type 2 diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E11.620	Type 2 diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E11.621	Type 2 diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E11.622	Type 2 diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E11.628	Type 2 diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E11.630	Type 2 diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E11.638	Type 2 diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E11.641	Type 2 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E11.649	Type 2 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E11.65	Type 2 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E11.69	Type 2 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E11.8	Type 2 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E11.9	Type 2 diabetes mellitus without complications	Diagnosis	ICD-10-CM
E13.00	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E13.01	Other specified diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E13.10	Other specified diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E13.11	Other specified diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E13.21	Other specified diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E13.22	Other specified diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E13.29	Other specified diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E13.311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.319	Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.321	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM



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

Code	Description	Code Category	Code Type
E13.3211	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3212	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3219	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.329	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3292	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3293	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3299	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.331	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.3311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3312	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3313	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3319	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.339	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3391	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3392	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3393	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.341	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.3411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
E13.3412	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3413	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.349	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3492	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.351	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13.3511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E13.3512	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E13.3513	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3519	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.3521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E13.3522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E13.3523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E13.3529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E13.3531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E13.3532	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E13.3533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E13.3539	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E13.3541	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E13.3542	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E13.3543	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E13.3549	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E13.3551	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E13.3552	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E13.3553	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E13.3559	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E13.359	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E13.3591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E13.3592	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E13.3593	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E13.3599	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E13.36	Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E13.39	Other specified diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E13.40	Other specified diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E13.41	Other specified diabetes mellitus with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E13.42	Other specified diabetes mellitus with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E13.43	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E13.44	Other specified diabetes mellitus with diabetic amyotrophy	Diagnosis	ICD-10-CM
E13.49	Other specified diabetes mellitus with other diabetic neurological complication	Diagnosis	ICD-10-CM
E13.51	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E13.52	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E13.59	Other specified diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E13.610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E13.618	Other specified diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E13.620	Other specified diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E13.621	Other specified diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E13.622	Other specified diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E13.628	Other specified diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E13.630	Other specified diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E13.638	Other specified diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E13.641	Other specified diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
E13.649	Other specified diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E13.65	Other specified diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E13.69	Other specified diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E13.8	Other specified diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E13.9	Other specified diabetes mellitus without complications	Diagnosis	ICD-10-CM
<b>Urinary Disease</b>			
249.40	Secondary diabetes mellitus with renal manifestations, not stated as uncontrolled, or unspecified	Diagnosis	ICD-9-CM
249.41	Secondary diabetes mellitus with renal manifestations, uncontrolled	Diagnosis	ICD-9-CM
250.40	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
250.41	Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
250.42	Diabetes with renal manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
250.43	Diabetes with renal manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
403.00	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
403.01	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
403.10	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
403.11	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
403.90	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
403.91	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.00	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.01	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.02	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.03	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.10	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.11	Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.12	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.13	Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.90	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
404.91	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
404.92	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
404.93	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
580.4	Acute glomerulonephritis with lesion of rapidly progressive glomerulonephritis	Diagnosis	ICD-9-CM
580.81	Acute glomerulonephritis with other specified pathological lesion in kidney in disease classified elsewhere	Diagnosis	ICD-9-CM
581.0	Nephrotic syndrome with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
581.1	Nephrotic syndrome with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
581.2	Nephrotic syndrome with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM
581.3	Nephrotic syndrome with lesion of minimal change glomerulonephritis	Diagnosis	ICD-9-CM
581.81	Nephrotic syndrome with other specified pathological lesion in kidney in diseases classified elsewhere	Diagnosis	ICD-9-CM
581.89	Other nephrotic syndrome with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
581.9	Nephrotic syndrome with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
582.0	Chronic glomerulonephritis with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
582.1	Chronic glomerulonephritis with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
582.2	Chronic glomerulonephritis with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM
582.4	Chronic glomerulonephritis with lesion of rapidly progressive glomerulonephritis	Diagnosis	ICD-9-CM
582.81	Chronic glomerulonephritis with other specified pathological lesion in kidney in diseases classified elsewhere	Diagnosis	ICD-9-CM
582.89	Other chronic glomerulonephritis with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
582.9	Chronic glomerulonephritis with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
583.0	Nephritis and nephropathy, not specified as acute or chronic, with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
583.1	Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
583.2	Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM
583.4	Nephritis and nephropathy, not specified as acute or chronic, with lesion of rapidly progressive glomerulonephritis	Diagnosis	ICD-9-CM
583.81	Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney, in diseases classified elsewhere	Diagnosis	ICD-9-CM
583.89	Other nephritis and nephropathy, not specified as acute or chronic, with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
583.9	Nephritis and nephropathy, not specified as acute or chronic, with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
585.1	Chronic kidney disease, Stage I	Diagnosis	ICD-9-CM
585.2	Chronic kidney disease, Stage II (mild)	Diagnosis	ICD-9-CM
585.3	Chronic kidney disease, Stage III (moderate)	Diagnosis	ICD-9-CM
585.4	Chronic kidney disease, Stage IV (severe)	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
585.5	Chronic kidney disease, Stage V	Diagnosis	ICD-9-CM
585.6	End stage renal disease	Diagnosis	ICD-9-CM
585.9	Chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
586	Unspecified renal failure	Diagnosis	ICD-9-CM
587	Unspecified renal sclerosis	Diagnosis	ICD-9-CM
588.0	Renal osteodystrophy	Diagnosis	ICD-9-CM
588.1	Nephrogenic diabetes insipidus	Diagnosis	ICD-9-CM
588.81	Secondary hyperparathyroidism (of renal origin)	Diagnosis	ICD-9-CM
588.89	Other specified disorders resulting from impaired renal function	Diagnosis	ICD-9-CM
588.9	Unspecified disorder resulting from impaired renal function	Diagnosis	ICD-9-CM
590.81	Pyelitis or pyelonephritis in diseases classified elsewhere	Diagnosis	ICD-9-CM
590.9	Unspecified infection of kidney	Diagnosis	ICD-9-CM
E08.21	Diabetes mellitus due to underlying condition with diabetic nephropathy	Diagnosis	ICD-10-CM
E08.22	Diabetes mellitus due to underlying condition with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E08.29	Diabetes mellitus due to underlying condition with other diabetic kidney complication	Diagnosis	ICD-10-CM
E09.21	Drug or chemical induced diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E09.22	Drug or chemical induced diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E09.29	Drug or chemical induced diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E10.21	Type 1 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E10.22	Type 1 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E10.29	Type 1 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E11.21	Type 2 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E11.22	Type 2 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E11.29	Type 2 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E13.21	Other specified diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E13.22	Other specified diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E13.29	Other specified diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
I12.0	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease	Diagnosis	ICD-10-CM
I12.9	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.0	Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.10	Hypertensive heart and chronic kidney disease without heart failure, with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I13.11	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I13.2	Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
N01.5	Rapidly progressive nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	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



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

Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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
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
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



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Code	Description	Code Category	Code Type
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
<b>Obesity</b>			
278.0	Overweight and obesity	Diagnosis	9
278.00	Obesity, unspecified	Diagnosis	9
278.01	Morbid obesity	Diagnosis	9
278.03	Obesity hypoventilation syndrome	Diagnosis	9
E66.01	Morbid (severe) obesity due to excess calories	Diagnosis	ICD-10-CM
E66.09	Other obesity due to excess calories	Diagnosis	ICD-10-CM
E66.1	Drug-induced obesity	Diagnosis	ICD-10-CM
E66.2	Morbid (severe) obesity with alveolar hypoventilation	Diagnosis	ICD-10-CM
E66.8	Other obesity	Diagnosis	ICD-10-CM
E66.9	Obesity, unspecified	Diagnosis	ICD-10-CM
V85.3	Body Mass Index between 30-39, adult	Diagnosis	9
V85.30	Body Mass Index 30.0-30.9, adult	Diagnosis	9
V85.31	Body Mass Index 31.0-31.9, adult	Diagnosis	9
V85.32	Body Mass Index 32.0-32.9, adult	Diagnosis	9
V85.33	Body Mass Index 33.0-33.9, adult	Diagnosis	9
V85.34	Body Mass Index 34.0-34.9, adult	Diagnosis	9
V85.35	Body Mass Index 35.0-35.9, adult	Diagnosis	9
V85.36	Body Mass Index 36.0-36.9, adult	Diagnosis	9
V85.37	Body Mass Index 37.0-37.9, adult	Diagnosis	9
V85.38	Body Mass Index 38.0-38.9, adult	Diagnosis	9
V85.39	Body Mass Index 39.0-39.9, adult	Diagnosis	9
V85.4	Body Mass Index 40 and over, adult	Diagnosis	9
V85.41	Body Mass Index 40.0-44.9, adult	Diagnosis	9
V85.42	Body Mass Index 45.0-49.9, adult	Diagnosis	9
V85.43	Body Mass Index 50.0-59.9, adult	Diagnosis	9
V85.44	Body Mass Index 60.0-69.9, adult	Diagnosis	9
V85.45	Body Mass Index 70 and over, adult	Diagnosis	9
Z68.30	Body mass index [BMI] 30.0-30.9, adult	Diagnosis	ICD-10-CM
Z68.31	Body mass index [BMI] 31.0-31.9, adult	Diagnosis	ICD-10-CM
Z68.32	Body mass index [BMI] 32.0-32.9, adult	Diagnosis	ICD-10-CM
Z68.33	Body mass index [BMI] 33.0-33.9, adult	Diagnosis	ICD-10-CM
Z68.34	Body mass index [BMI] 34.0-34.9, adult	Diagnosis	ICD-10-CM
Z68.35	Body mass index [BMI] 35.0-35.9, adult	Diagnosis	ICD-10-CM
Z68.36	Body mass index [BMI] 36.0-36.9, adult	Diagnosis	ICD-10-CM
Z68.37	Body mass index [BMI] 37.0-37.9, adult	Diagnosis	ICD-10-CM
Z68.38	Body mass index [BMI] 38.0-38.9, adult	Diagnosis	ICD-10-CM
Z68.39	Body mass index [BMI] 39.0-39.9, adult	Diagnosis	ICD-10-CM
Z68.41	Body mass index [BMI] 40.0-44.9, adult	Diagnosis	ICD-10-CM
Z68.42	Body mass index [BMI] 45.0-49.9, adult	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
Z68.43	Body mass index [BMI] 50.0-59.9, adult	Diagnosis	ICD-10-CM
Z68.44	Body mass index [BMI] 60.0-69.9, adult	Diagnosis	ICD-10-CM
Z68.45	Body mass index [BMI] 70 or greater, adult	Diagnosis	ICD-10-CM
<b>Substance Use Disorders</b>			
291.0	Alcohol withdrawal delirium	Diagnosis	ICD-9-CM
291.1	Alcohol-induced persisting amnestic disorder	Diagnosis	ICD-9-CM
291.2	Alcohol-induced persisting dementia	Diagnosis	ICD-9-CM
291.3	Alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
291.4	Idiosyncratic alcohol intoxication	Diagnosis	ICD-9-CM
291.5	Alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
291.8	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.81	Alcohol withdrawal	Diagnosis	ICD-9-CM
291.82	Alcohol induced sleep disorders	Diagnosis	ICD-9-CM
291.89	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
291.9	Unspecified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
292.0	Drug withdrawal	Diagnosis	ICD-9-CM
292.1	Drug-induced psychotic disorder	Diagnosis	ICD-9-CM
292.11	Drug-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
292.12	Drug-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
292.2	Pathological drug intoxication	Diagnosis	ICD-9-CM
292.8	Other specified drug-induced mental disorders	Diagnosis	ICD-9-CM
292.81	Drug-induced delirium	Diagnosis	ICD-9-CM
292.82	Drug-induced persisting dementia	Diagnosis	ICD-9-CM
292.83	Drug-induced persisting amnestic disorder	Diagnosis	ICD-9-CM
292.84	Drug-induced mood disorder	Diagnosis	ICD-9-CM
292.85	Drug induced sleep disorders	Diagnosis	ICD-9-CM
292.89	Other specified drug-induced mental disorder	Diagnosis	ICD-9-CM
292.9	Unspecified drug-induced mental disorder	Diagnosis	ICD-9-CM
303.0	Acute alcoholic intoxication	Diagnosis	ICD-9-CM
303.00	Acute alcoholic intoxication, unspecified	Diagnosis	ICD-9-CM
303.01	Acute alcoholic intoxication, continuous	Diagnosis	ICD-9-CM
303.02	Acute alcoholic intoxication, episodic	Diagnosis	ICD-9-CM
303.03	Acute alcoholic intoxication, in remission	Diagnosis	ICD-9-CM
303.9	Other and unspecified alcohol dependence	Diagnosis	ICD-9-CM
303.90	Other and unspecified alcohol dependence, unspecified	Diagnosis	ICD-9-CM
303.91	Other and unspecified alcohol dependence, continuous	Diagnosis	ICD-9-CM
303.92	Other and unspecified alcohol dependence, episodic	Diagnosis	ICD-9-CM
303.93	Other and unspecified alcohol dependence, in remission	Diagnosis	ICD-9-CM
304.0	Opioid type dependence	Diagnosis	ICD-9-CM
304.00	Opioid type dependence, unspecified	Diagnosis	ICD-9-CM
304.01	Opioid type dependence, continuous	Diagnosis	ICD-9-CM
304.02	Opioid type dependence, episodic	Diagnosis	ICD-9-CM
304.03	Opioid type dependence, in remission	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
304.1	Sedative, hypnotic or anxiolytic dependence	Diagnosis	ICD-9-CM
304.10	Sedative, hypnotic or anxiolytic dependence, unspecified	Diagnosis	ICD-9-CM
304.11	Sedative, hypnotic or anxiolytic dependence, continuous	Diagnosis	ICD-9-CM
304.12	Sedative, hypnotic or anxiolytic dependence, episodic	Diagnosis	ICD-9-CM
304.13	Sedative, hypnotic or anxiolytic dependence, in remission	Diagnosis	ICD-9-CM
304.2	Cocaine dependence	Diagnosis	ICD-9-CM
304.20	Cocaine dependence, unspecified	Diagnosis	ICD-9-CM
304.21	Cocaine dependence, continuous	Diagnosis	ICD-9-CM
304.22	Cocaine dependence, episodic	Diagnosis	ICD-9-CM
304.23	Cocaine dependence, in remission	Diagnosis	ICD-9-CM
304.3	Cannabis dependence	Diagnosis	ICD-9-CM
304.30	Cannabis dependence, unspecified	Diagnosis	ICD-9-CM
304.31	Cannabis dependence, continuous	Diagnosis	ICD-9-CM
304.32	Cannabis dependence, episodic	Diagnosis	ICD-9-CM
304.33	Cannabis dependence, in remission	Diagnosis	ICD-9-CM
304.4	Amphetamine and other psychostimulant dependence	Diagnosis	ICD-9-CM
304.40	Amphetamine and other psychostimulant dependence, unspecified	Diagnosis	ICD-9-CM
304.41	Amphetamine and other psychostimulant dependence, continuous	Diagnosis	ICD-9-CM
304.42	Amphetamine and other psychostimulant dependence, episodic	Diagnosis	ICD-9-CM
304.43	Amphetamine and other psychostimulant dependence, in remission	Diagnosis	ICD-9-CM
304.5	Hallucinogen dependence	Diagnosis	ICD-9-CM
304.50	Hallucinogen dependence, unspecified	Diagnosis	ICD-9-CM
304.51	Hallucinogen dependence, continuous	Diagnosis	ICD-9-CM
304.52	Hallucinogen dependence, episodic	Diagnosis	ICD-9-CM
304.53	Hallucinogen dependence, in remission	Diagnosis	ICD-9-CM
304.6	Other specified drug dependence	Diagnosis	ICD-9-CM
304.60	Other specified drug dependence, unspecified	Diagnosis	ICD-9-CM
304.61	Other specified drug dependence, continuous	Diagnosis	ICD-9-CM
304.62	Other specified drug dependence, episodic	Diagnosis	ICD-9-CM
304.63	Other specified drug dependence, in remission	Diagnosis	ICD-9-CM
304.7	Combinations of opioid type drug with any other drug dependence	Diagnosis	ICD-9-CM
304.70	Combinations of opioid type drug with any other drug dependence, unspecified	Diagnosis	ICD-9-CM
304.71	Combinations of opioid type drug with any other drug dependence, continuous	Diagnosis	ICD-9-CM
304.72	Combinations of opioid type drug with any other drug dependence, episodic	Diagnosis	ICD-9-CM
304.73	Combinations of opioid type drug with any other drug dependence, in remission	Diagnosis	ICD-9-CM
304.8	Combinations of drug dependence excluding opioid type drug	Diagnosis	ICD-9-CM
304.80	Combinations of drug dependence excluding opioid type drug, unspecified	Diagnosis	ICD-9-CM
304.81	Combinations of drug dependence excluding opioid type drug, continuous	Diagnosis	ICD-9-CM
304.82	Combinations of drug dependence excluding opioid type drug, episodic	Diagnosis	ICD-9-CM
304.83	Combinations of drug dependence excluding opioid type drug, in remission	Diagnosis	ICD-9-CM
304.9	Unspecified drug dependence	Diagnosis	ICD-9-CM
304.90	Unspecified drug dependence, unspecified	Diagnosis	ICD-9-CM
304.91	Unspecified drug dependence, continuous	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
304.92	Unspecified drug dependence, episodic	Diagnosis	ICD-9-CM
304.93	Unspecified drug dependence, in remission	Diagnosis	ICD-9-CM
305.0	Nondependent alcohol abuse	Diagnosis	ICD-9-CM
305.00	Nondependent alcohol abuse, unspecified	Diagnosis	ICD-9-CM
305.01	Nondependent alcohol abuse, continuous	Diagnosis	ICD-9-CM
305.02	Nondependent alcohol abuse, episodic	Diagnosis	ICD-9-CM
305.03	Nondependent alcohol abuse, in remission	Diagnosis	ICD-9-CM
305.2	Nondependent cannabis abuse	Diagnosis	ICD-9-CM
305.20	Nondependent cannabis abuse, unspecified	Diagnosis	ICD-9-CM
305.21	Nondependent cannabis abuse, continuous	Diagnosis	ICD-9-CM
305.22	Nondependent cannabis abuse, episodic	Diagnosis	ICD-9-CM
305.23	Nondependent cannabis abuse, in remission	Diagnosis	ICD-9-CM
305.3	Nondependent hallucinogen abuse	Diagnosis	ICD-9-CM
305.30	Nondependent hallucinogen abuse, unspecified	Diagnosis	ICD-9-CM
305.31	Nondependent hallucinogen abuse, continuous	Diagnosis	ICD-9-CM
305.32	Nondependent hallucinogen abuse, episodic	Diagnosis	ICD-9-CM
305.33	Nondependent hallucinogen abuse, in remission	Diagnosis	ICD-9-CM
305.4	Nondependent sedative, hypnotic or anxiolytic abuse	Diagnosis	ICD-9-CM
305.40	Nondependent sedative, hypnotic or anxiolytic abuse, unspecified	Diagnosis	ICD-9-CM
305.41	Nondependent sedative hypnotic or anxiolytic abuse, continuous	Diagnosis	ICD-9-CM
305.42	Nondependent sedative, hypnotic or anxiolytic abuse, episodic	Diagnosis	ICD-9-CM
305.43	Nondependent sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-9-CM
305.5	Nondependent opioid abuse	Diagnosis	ICD-9-CM
305.50	Nondependent opioid abuse, unspecified	Diagnosis	ICD-9-CM
305.51	Nondependent opioid abuse, continuous	Diagnosis	ICD-9-CM
305.52	Nondependent opioid abuse, episodic	Diagnosis	ICD-9-CM
305.53	Nondependent opioid abuse, in remission	Diagnosis	ICD-9-CM
305.6	Nondependent cocaine abuse	Diagnosis	ICD-9-CM
305.60	Nondependent cocaine abuse, unspecified	Diagnosis	ICD-9-CM
305.61	Nondependent cocaine abuse, continuous	Diagnosis	ICD-9-CM
305.62	Nondependent cocaine abuse, episodic	Diagnosis	ICD-9-CM
305.63	Nondependent cocaine abuse, in remission	Diagnosis	ICD-9-CM
305.7	Nondependent amphetamine or related acting sympathomimetic abuse	Diagnosis	ICD-9-CM
305.70	Nondependent amphetamine or related acting sympathomimetic abuse, unspecified	Diagnosis	ICD-9-CM
305.71	Nondependent amphetamine or related acting sympathomimetic abuse, continuous	Diagnosis	ICD-9-CM
305.72	Nondependent amphetamine or related acting sympathomimetic abuse, episodic	Diagnosis	ICD-9-CM
305.73	Nondependent amphetamine or related acting sympathomimetic abuse, in remission	Diagnosis	ICD-9-CM
305.8	Nondependent antidepressant type abuse	Diagnosis	ICD-9-CM
305.80	Nondependent antidepressant type abuse, unspecified	Diagnosis	ICD-9-CM
305.81	Nondependent antidepressant type abuse, continuous	Diagnosis	ICD-9-CM
305.82	Nondependent antidepressant type abuse, episodic	Diagnosis	ICD-9-CM
305.83	Nondependent antidepressant type abuse, in remission	Diagnosis	ICD-9-CM
305.9	Other, mixed, or unspecified nondependent drug abuse	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
305.90	Other, mixed, or unspecified nondependent drug abuse, unspecified	Diagnosis	ICD-9-CM
305.91	Other, mixed, or unspecified nondependent drug abuse, continuous	Diagnosis	ICD-9-CM
305.92	Other, mixed, or unspecified nondependent drug abuse, episodic	Diagnosis	ICD-9-CM
305.93	Other, mixed, or unspecified nondependent drug abuse, in remission	Diagnosis	ICD-9-CM
357.5	Alcoholic polyneuropathy	Diagnosis	ICD-9-CM
425.5	Alcoholic cardiomyopathy	Diagnosis	ICD-9-CM
535.3	Alcoholic gastritis	Diagnosis	ICD-9-CM
535.30	Alcoholic gastritis without mention of hemorrhage	Diagnosis	ICD-9-CM
535.31	Alcoholic gastritis with hemorrhage	Diagnosis	ICD-9-CM
571.0	Alcoholic fatty liver	Diagnosis	ICD-9-CM
571.1	Acute alcoholic hepatitis	Diagnosis	ICD-9-CM
571.2	Alcoholic cirrhosis of liver	Diagnosis	ICD-9-CM
571.3	Unspecified alcoholic liver damage	Diagnosis	ICD-9-CM
648.3	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
648.30	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	Diagnosis	ICD-9-CM
648.31	Maternal drug dependence, with delivery	Diagnosis	ICD-9-CM
648.32	Maternal drug dependence, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
648.33	Maternal drug dependence, antepartum	Diagnosis	ICD-9-CM
648.34	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
790.3	Excessive blood level of alcohol	Diagnosis	ICD-9-CM
94.46	Alcoholism counseling	Procedure	ICD-9-CM
94.53	Referral for alcoholism rehabilitation	Procedure	ICD-9-CM
94.6	Alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
94.61	Alcohol rehabilitation	Procedure	ICD-9-CM
94.62	Alcohol detoxification	Procedure	ICD-9-CM
94.63	Alcohol rehabilitation and detoxification	Procedure	ICD-9-CM
94.67	Combined alcohol and drug rehabilitation	Procedure	ICD-9-CM
94.68	Combined alcohol and drug detoxification	Procedure	ICD-9-CM
94.69	Combined alcohol and drug rehabilitation and detoxification	Procedure	ICD-9-CM
E860.0	Accidental poisoning by alcoholic beverages	Diagnosis	ICD-9-CM
F10	Alcohol related disorders	Diagnosis	ICD-10-CM
F10.1	Alcohol abuse	Diagnosis	ICD-10-CM
F10.10	Alcohol abuse, uncomplicated	Diagnosis	ICD-10-CM
F10.11	Alcohol abuse, in remission	Diagnosis	ICD-10-CM
F10.12	Alcohol abuse with intoxication	Diagnosis	ICD-10-CM
F10.120	Alcohol abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.121	Alcohol abuse with intoxication delirium	Diagnosis	ICD-10-CM
F10.129	Alcohol abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.14	Alcohol abuse with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.15	Alcohol abuse with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.150	Alcohol abuse with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM



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

Code	Description	Code Category	Code Type
F10.151	Alcohol abuse with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.159	Alcohol abuse with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.18	Alcohol abuse with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.180	Alcohol abuse with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.181	Alcohol abuse with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.182	Alcohol abuse with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.188	Alcohol abuse with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.19	Alcohol abuse with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.2	Alcohol dependence	Diagnosis	ICD-10-CM
F10.20	Alcohol dependence, uncomplicated	Diagnosis	ICD-10-CM
F10.21	Alcohol dependence, in remission	Diagnosis	ICD-10-CM
F10.22	Alcohol dependence with intoxication	Diagnosis	ICD-10-CM
F10.220	Alcohol dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.221	Alcohol dependence with intoxication delirium	Diagnosis	ICD-10-CM
F10.229	Alcohol dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.23	Alcohol dependence with withdrawal	Diagnosis	ICD-10-CM
F10.230	Alcohol dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10.231	Alcohol dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F10.232	Alcohol dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10.239	Alcohol dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F10.24	Alcohol dependence with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.25	Alcohol dependence with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.250	Alcohol dependence with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.251	Alcohol dependence with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.259	Alcohol dependence with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10.26	Alcohol dependence with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F10.27	Alcohol dependence with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.28	Alcohol dependence with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.280	Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.281	Alcohol dependence with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.282	Alcohol dependence with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.288	Alcohol dependence with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.29	Alcohol dependence with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.9	Alcohol use, unspecified	Diagnosis	ICD-10-CM
F10.92	Alcohol use, unspecified with intoxication	Diagnosis	ICD-10-CM
F10.920	Alcohol use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10.921	Alcohol use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F10.929	Alcohol use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F10.94	Alcohol use, unspecified with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10.95	Alcohol use, unspecified with alcohol-induced psychotic disorder	Diagnosis	ICD-10-CM
F10.950	Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10.951	Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10.959	Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F10.96	Alcohol use, unspecified with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F10.97	Alcohol use, unspecified with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10.98	Alcohol use, unspecified with other alcohol-induced disorders	Diagnosis	ICD-10-CM
F10.980	Alcohol use, unspecified with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10.981	Alcohol use, unspecified with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10.982	Alcohol use, unspecified with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10.988	Alcohol use, unspecified with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F10.99	Alcohol use, unspecified with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F11	Opioid related disorders	Diagnosis	ICD-10-CM
F11.1	Opioid abuse	Diagnosis	ICD-10-CM
F11.10	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
F11.11	Opioid abuse, in remission	Diagnosis	ICD-10-CM
F11.12	Opioid abuse with intoxication	Diagnosis	ICD-10-CM
F11.120	Opioid abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.121	Opioid abuse with intoxication delirium	Diagnosis	ICD-10-CM
F11.122	Opioid abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.129	Opioid abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.14	Opioid abuse with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.15	Opioid abuse with opioid-induced psychotic disorder	Diagnosis	ICD-10-CM
F11.150	Opioid abuse with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.151	Opioid abuse with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.159	Opioid abuse with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.18	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.181	Opioid abuse with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.182	Opioid abuse with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.188	Opioid abuse with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.19	Opioid abuse with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.2	Opioid dependence	Diagnosis	ICD-10-CM
F11.20	Opioid dependence, uncomplicated	Diagnosis	ICD-10-CM
F11.21	Opioid dependence, in remission	Diagnosis	ICD-10-CM
F11.22	Opioid dependence with intoxication	Diagnosis	ICD-10-CM
F11.220	Opioid dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.221	Opioid dependence with intoxication delirium	Diagnosis	ICD-10-CM
F11.222	Opioid dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.229	Opioid dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.23	Opioid dependence with withdrawal	Diagnosis	ICD-10-CM
F11.24	Opioid dependence with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.25	Opioid dependence with opioid-induced psychotic disorder	Diagnosis	ICD-10-CM
F11.250	Opioid dependence with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.251	Opioid dependence with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.259	Opioid dependence with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.28	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.281	Opioid dependence with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F11.282	Opioid dependence with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.288	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.29	Opioid dependence with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.9	Opioid use, unspecified	Diagnosis	ICD-10-CM
F11.90	Opioid use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F11.92	Opioid use, unspecified with intoxication	Diagnosis	ICD-10-CM
F11.920	Opioid use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11.921	Opioid use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F11.922	Opioid use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11.929	Opioid use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F11.93	Opioid use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F11.94	Opioid use, unspecified with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11.95	Opioid use, unspecified with opioid-induced psychotic disorder	Diagnosis	ICD-10-CM
F11.950	Opioid use, unspecified with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11.951	Opioid use, unspecified with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11.959	Opioid use, unspecified with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11.98	Opioid use, unspecified with other specified opioid-induced disorder	Diagnosis	ICD-10-CM
F11.981	Opioid use, unspecified with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11.982	Opioid use, unspecified with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11.988	Opioid use, unspecified with other opioid-induced disorder	Diagnosis	ICD-10-CM
F11.99	Opioid use, unspecified with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F12	Cannabis related disorders	Diagnosis	ICD-10-CM
F12.1	Cannabis abuse	Diagnosis	ICD-10-CM
F12.10	Cannabis abuse, uncomplicated	Diagnosis	ICD-10-CM
F12.11	Cannabis abuse, in remission	Diagnosis	ICD-10-CM
F12.12	Cannabis abuse with intoxication	Diagnosis	ICD-10-CM
F12.120	Cannabis abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.121	Cannabis abuse with intoxication delirium	Diagnosis	ICD-10-CM
F12.122	Cannabis abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.129	Cannabis abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.15	Cannabis abuse with psychotic disorder	Diagnosis	ICD-10-CM
F12.150	Cannabis abuse with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.151	Cannabis abuse with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.159	Cannabis abuse with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.18	Cannabis abuse with cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.180	Cannabis abuse with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.188	Cannabis abuse with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.19	Cannabis abuse with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.2	Cannabis dependence	Diagnosis	ICD-10-CM
F12.20	Cannabis dependence, uncomplicated	Diagnosis	ICD-10-CM
F12.21	Cannabis dependence, in remission	Diagnosis	ICD-10-CM
F12.22	Cannabis dependence with intoxication	Diagnosis	ICD-10-CM
F12.220	Cannabis dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM



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

Code	Description	Code Category	Code Type
F12.221	Cannabis dependence with intoxication delirium	Diagnosis	ICD-10-CM
F12.222	Cannabis dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.229	Cannabis dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.23	Cannabis dependence with withdrawal	Diagnosis	ICD-10-CM
F12.25	Cannabis dependence with psychotic disorder	Diagnosis	ICD-10-CM
F12.250	Cannabis dependence with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.251	Cannabis dependence with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.259	Cannabis dependence with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.28	Cannabis dependence with cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.280	Cannabis dependence with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12.288	Cannabis dependence with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.29	Cannabis dependence with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.9	Cannabis use, unspecified	Diagnosis	ICD-10-CM
F12.90	Cannabis use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F12.92	Cannabis use, unspecified with intoxication	Diagnosis	ICD-10-CM
F12.920	Cannabis use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12.921	Cannabis use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F12.922	Cannabis use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12.929	Cannabis use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F12.93	Cannabis use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F12.95	Cannabis use, unspecified with psychotic disorder	Diagnosis	ICD-10-CM
F12.950	Cannabis use, unspecified with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12.951	Cannabis use, unspecified with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12.959	Cannabis use, unspecified with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12.98	Cannabis use, unspecified with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.980	Cannabis use, unspecified with anxiety disorder	Diagnosis	ICD-10-CM
F12.988	Cannabis use, unspecified with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F12.99	Cannabis use, unspecified with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F13	Sedative, hypnotic, or anxiolytic related disorders	Diagnosis	ICD-10-CM
F13.1	Sedative, hypnotic or anxiolytic-related abuse	Diagnosis	ICD-10-CM
F13.10	Sedative, hypnotic or anxiolytic abuse, uncomplicated	Diagnosis	ICD-10-CM
F13.11	Sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-10-CM
F13.12	Sedative, hypnotic or anxiolytic abuse with intoxication	Diagnosis	ICD-10-CM
F13.120	Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.121	Sedative, hypnotic or anxiolytic abuse with intoxication delirium	Diagnosis	ICD-10-CM
F13.129	Sedative, hypnotic or anxiolytic abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.14	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.15	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder	Diagnosis	ICD-10-CM
F13.150	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
F13.151	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.159	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.18	Sedative, hypnotic or anxiolytic abuse with other sedative, hypnotic or anxiolytic-induced disorders	Diagnosis	ICD-10-CM
F13.180	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.181	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.182	Sedative, hypnotic or anxiolytic abuse with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.188	Sedative, hypnotic or anxiolytic abuse with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.19	Sedative, hypnotic or anxiolytic abuse with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.2	Sedative, hypnotic or anxiolytic-related dependence	Diagnosis	ICD-10-CM
F13.20	Sedative, hypnotic or anxiolytic dependence, uncomplicated	Diagnosis	ICD-10-CM
F13.21	Sedative, hypnotic or anxiolytic dependence, in remission	Diagnosis	ICD-10-CM
F13.22	Sedative, hypnotic or anxiolytic dependence with intoxication	Diagnosis	ICD-10-CM
F13.220	Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.221	Sedative, hypnotic or anxiolytic dependence with intoxication delirium	Diagnosis	ICD-10-CM
F13.229	Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.23	Sedative, hypnotic or anxiolytic dependence with withdrawal	Diagnosis	ICD-10-CM
F13.230	Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.231	Sedative, hypnotic or anxiolytic dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F13.232	Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F13.239	Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.24	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.25	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder	Diagnosis	ICD-10-CM
F13.250	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.251	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.259	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.26	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F13.27	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F13.28	Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorders	Diagnosis	ICD-10-CM
F13.280	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13.281	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.282	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.288	Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.29	Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.9	Sedative, hypnotic or anxiolytic-related use, unspecified	Diagnosis	ICD-10-CM
F13.90	Sedative, hypnotic, or anxiolytic use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F13.92	Sedative, hypnotic or anxiolytic use, unspecified with intoxication	Diagnosis	ICD-10-CM
F13.920	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13.921	Sedative, hypnotic or anxiolytic use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F13.929	Sedative, hypnotic or anxiolytic use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F13.93	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F13.930	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13.931	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F13.932	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal with perceptual disturbances	Diagnosis	ICD-10-CM
F13.939	Sedative, hypnotic or anxiolytic use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F13.94	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13.95	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder	Diagnosis	ICD-10-CM
F13.950	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13.951	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13.959	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F13.96	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F13.97	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13.98	Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorders	Diagnosis	ICD-10-CM
F13.980	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F13.981	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13.982	Sedative, hypnotic or anxiolytic use, unspecified with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13.988	Sedative, hypnotic or anxiolytic use, unspecified with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F13.99	Sedative, hypnotic or anxiolytic use, unspecified with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F14	Cocaine related disorders	Diagnosis	ICD-10-CM
F14.1	Cocaine abuse	Diagnosis	ICD-10-CM
F14.10	Cocaine abuse, uncomplicated	Diagnosis	ICD-10-CM
F14.11	Cocaine abuse, in remission	Diagnosis	ICD-10-CM
F14.12	Cocaine abuse with intoxication	Diagnosis	ICD-10-CM
F14.120	Cocaine abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.121	Cocaine abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F14.122	Cocaine abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.129	Cocaine abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.14	Cocaine abuse with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.15	Cocaine abuse with cocaine-induced psychotic disorder	Diagnosis	ICD-10-CM
F14.150	Cocaine abuse with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.151	Cocaine abuse with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.159	Cocaine abuse with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.18	Cocaine abuse with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.180	Cocaine abuse with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.181	Cocaine abuse with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.182	Cocaine abuse with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.188	Cocaine abuse with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.19	Cocaine abuse with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.2	Cocaine dependence	Diagnosis	ICD-10-CM
F14.20	Cocaine dependence, uncomplicated	Diagnosis	ICD-10-CM
F14.21	Cocaine dependence, in remission	Diagnosis	ICD-10-CM
F14.22	Cocaine dependence with intoxication	Diagnosis	ICD-10-CM
F14.220	Cocaine dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.221	Cocaine dependence with intoxication delirium	Diagnosis	ICD-10-CM
F14.222	Cocaine dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.229	Cocaine dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.23	Cocaine dependence with withdrawal	Diagnosis	ICD-10-CM
F14.24	Cocaine dependence with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.25	Cocaine dependence with cocaine-induced psychotic disorder	Diagnosis	ICD-10-CM
F14.250	Cocaine dependence with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.251	Cocaine dependence with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.259	Cocaine dependence with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.28	Cocaine dependence with other cocaine-induced disorder	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F14.280	Cocaine dependence with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.281	Cocaine dependence with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.282	Cocaine dependence with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.288	Cocaine dependence with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.29	Cocaine dependence with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.9	Cocaine use, unspecified	Diagnosis	ICD-10-CM
F14.90	Cocaine use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F14.92	Cocaine use, unspecified with intoxication	Diagnosis	ICD-10-CM
F14.920	Cocaine use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14.921	Cocaine use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F14.922	Cocaine use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14.929	Cocaine use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F14.94	Cocaine use, unspecified with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14.95	Cocaine use, unspecified with cocaine-induced psychotic disorder	Diagnosis	ICD-10-CM
F14.950	Cocaine use, unspecified with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14.951	Cocaine use, unspecified with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14.959	Cocaine use, unspecified with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14.98	Cocaine use, unspecified with other specified cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.980	Cocaine use, unspecified with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14.981	Cocaine use, unspecified with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14.982	Cocaine use, unspecified with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14.988	Cocaine use, unspecified with other cocaine-induced disorder	Diagnosis	ICD-10-CM
F14.99	Cocaine use, unspecified with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F15	Other stimulant related disorders	Diagnosis	ICD-10-CM
F15.1	Other stimulant abuse	Diagnosis	ICD-10-CM
F15.10	Other stimulant abuse, uncomplicated	Diagnosis	ICD-10-CM
F15.11	Other stimulant abuse, in remission	Diagnosis	ICD-10-CM
F15.12	Other stimulant abuse with intoxication	Diagnosis	ICD-10-CM
F15.120	Other stimulant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.121	Other stimulant abuse with intoxication delirium	Diagnosis	ICD-10-CM
F15.122	Other stimulant abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.129	Other stimulant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.14	Other stimulant abuse with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.15	Other stimulant abuse with stimulant-induced psychotic disorder	Diagnosis	ICD-10-CM
F15.150	Other stimulant abuse with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.151	Other stimulant abuse with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.159	Other stimulant abuse with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.18	Other stimulant abuse with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.180	Other stimulant abuse with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.181	Other stimulant abuse with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.182	Other stimulant abuse with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.188	Other stimulant abuse with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.19	Other stimulant abuse with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM



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

Code	Description	Code Category	Code Type
F15.2	Other stimulant dependence	Diagnosis	ICD-10-CM
F15.20	Other stimulant dependence, uncomplicated	Diagnosis	ICD-10-CM
F15.21	Other stimulant dependence, in remission	Diagnosis	ICD-10-CM
F15.22	Other stimulant dependence with intoxication	Diagnosis	ICD-10-CM
F15.220	Other stimulant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.221	Other stimulant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F15.222	Other stimulant dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.229	Other stimulant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.23	Other stimulant dependence with withdrawal	Diagnosis	ICD-10-CM
F15.24	Other stimulant dependence with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.25	Other stimulant dependence with stimulant-induced psychotic disorder	Diagnosis	ICD-10-CM
F15.250	Other stimulant dependence with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.251	Other stimulant dependence with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.259	Other stimulant dependence with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.28	Other stimulant dependence with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.280	Other stimulant dependence with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.281	Other stimulant dependence with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.282	Other stimulant dependence with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.288	Other stimulant dependence with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.29	Other stimulant dependence with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.9	Other stimulant use, unspecified	Diagnosis	ICD-10-CM
F15.90	Other stimulant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F15.92	Other stimulant use, unspecified with intoxication	Diagnosis	ICD-10-CM
F15.920	Other stimulant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15.921	Other stimulant use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F15.922	Other stimulant use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15.929	Other stimulant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F15.93	Other stimulant use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F15.94	Other stimulant use, unspecified with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15.95	Other stimulant use, unspecified with stimulant-induced psychotic disorder	Diagnosis	ICD-10-CM
F15.950	Other stimulant use, unspecified with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15.951	Other stimulant use, unspecified with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15.959	Other stimulant use, unspecified with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15.98	Other stimulant use, unspecified with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.980	Other stimulant use, unspecified with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15.981	Other stimulant use, unspecified with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15.982	Other stimulant use, unspecified with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15.988	Other stimulant use, unspecified with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F15.99	Other stimulant use, unspecified with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F16	Hallucinogen related disorders	Diagnosis	ICD-10-CM
F16.1	Hallucinogen abuse	Diagnosis	ICD-10-CM
F16.10	Hallucinogen abuse, uncomplicated	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F16.11	Hallucinogen abuse, in remission	Diagnosis	ICD-10-CM
F16.12	Hallucinogen abuse with intoxication	Diagnosis	ICD-10-CM
F16.120	Hallucinogen abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.121	Hallucinogen abuse with intoxication with delirium	Diagnosis	ICD-10-CM
F16.122	Hallucinogen abuse with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F16.129	Hallucinogen abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.14	Hallucinogen abuse with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.15	Hallucinogen abuse with hallucinogen-induced psychotic disorder	Diagnosis	ICD-10-CM
F16.150	Hallucinogen abuse with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.151	Hallucinogen abuse with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.159	Hallucinogen abuse with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.18	Hallucinogen abuse with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.180	Hallucinogen abuse with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.183	Hallucinogen abuse with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.188	Hallucinogen abuse with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.19	Hallucinogen abuse with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.2	Hallucinogen dependence	Diagnosis	ICD-10-CM
F16.20	Hallucinogen dependence, uncomplicated	Diagnosis	ICD-10-CM
F16.21	Hallucinogen dependence, in remission	Diagnosis	ICD-10-CM
F16.22	Hallucinogen dependence with intoxication	Diagnosis	ICD-10-CM
F16.220	Hallucinogen dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.221	Hallucinogen dependence with intoxication with delirium	Diagnosis	ICD-10-CM
F16.229	Hallucinogen dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.24	Hallucinogen dependence with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.25	Hallucinogen dependence with hallucinogen-induced psychotic disorder	Diagnosis	ICD-10-CM
F16.250	Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.251	Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.259	Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.28	Hallucinogen dependence with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.280	Hallucinogen dependence with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.283	Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.288	Hallucinogen dependence with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.29	Hallucinogen dependence with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.9	Hallucinogen use, unspecified	Diagnosis	ICD-10-CM
F16.90	Hallucinogen use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F16.92	Hallucinogen use, unspecified with intoxication	Diagnosis	ICD-10-CM
F16.920	Hallucinogen use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16.921	Hallucinogen use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F16.929	Hallucinogen use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F16.94	Hallucinogen use, unspecified with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16.95	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F16.950	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16.951	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16.959	Hallucinogen use, unspecified with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16.98	Hallucinogen use, unspecified with other specified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.980	Hallucinogen use, unspecified with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16.983	Hallucinogen use, unspecified with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16.988	Hallucinogen use, unspecified with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F16.99	Hallucinogen use, unspecified with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F18	Inhalant related disorders	Diagnosis	ICD-10-CM
F18.1	Inhalant abuse	Diagnosis	ICD-10-CM
F18.10	Inhalant abuse, uncomplicated	Diagnosis	ICD-10-CM
F18.11	Inhalant abuse, in remission	Diagnosis	ICD-10-CM
F18.12	Inhalant abuse with intoxication	Diagnosis	ICD-10-CM
F18.120	Inhalant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.121	Inhalant abuse with intoxication delirium	Diagnosis	ICD-10-CM
F18.129	Inhalant abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.14	Inhalant abuse with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.15	Inhalant abuse with inhalant-induced psychotic disorder	Diagnosis	ICD-10-CM
F18.150	Inhalant abuse with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.151	Inhalant abuse with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.159	Inhalant abuse with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.17	Inhalant abuse with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18.18	Inhalant abuse with other inhalant-induced disorders	Diagnosis	ICD-10-CM
F18.180	Inhalant abuse with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.188	Inhalant abuse with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.19	Inhalant abuse with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.2	Inhalant dependence	Diagnosis	ICD-10-CM
F18.20	Inhalant dependence, uncomplicated	Diagnosis	ICD-10-CM
F18.21	Inhalant dependence, in remission	Diagnosis	ICD-10-CM
F18.22	Inhalant dependence with intoxication	Diagnosis	ICD-10-CM
F18.220	Inhalant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.221	Inhalant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F18.229	Inhalant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.24	Inhalant dependence with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.25	Inhalant dependence with inhalant-induced psychotic disorder	Diagnosis	ICD-10-CM
F18.250	Inhalant dependence with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.251	Inhalant dependence with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.259	Inhalant dependence with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.27	Inhalant dependence with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18.28	Inhalant dependence with other inhalant-induced disorders	Diagnosis	ICD-10-CM



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

Code	Description	Code Category	Code Type
F18.280	Inhalant dependence with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.288	Inhalant dependence with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.29	Inhalant dependence with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.9	Inhalant use, unspecified	Diagnosis	ICD-10-CM
F18.90	Inhalant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F18.92	Inhalant use, unspecified with intoxication	Diagnosis	ICD-10-CM
F18.920	Inhalant use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18.921	Inhalant use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F18.929	Inhalant use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F18.94	Inhalant use, unspecified with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18.95	Inhalant use, unspecified with inhalant-induced psychotic disorder	Diagnosis	ICD-10-CM
F18.950	Inhalant use, unspecified with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18.951	Inhalant use, unspecified with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18.959	Inhalant use, unspecified with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F18.97	Inhalant use, unspecified with inhalant-induced persisting dementia	Diagnosis	ICD-10-CM
F18.98	Inhalant use, unspecified with other inhalant-induced disorders	Diagnosis	ICD-10-CM
F18.980	Inhalant use, unspecified with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18.988	Inhalant use, unspecified with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F18.99	Inhalant use, unspecified with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F19	Other psychoactive substance related disorders	Diagnosis	ICD-10-CM
F19.1	Other psychoactive substance abuse	Diagnosis	ICD-10-CM
F19.10	Other psychoactive substance abuse, uncomplicated	Diagnosis	ICD-10-CM
F19.11	Other psychoactive substance abuse, in remission	Diagnosis	ICD-10-CM
F19.12	Other psychoactive substance abuse with intoxication	Diagnosis	ICD-10-CM
F19.120	Other psychoactive substance abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.121	Other psychoactive substance abuse with intoxication delirium	Diagnosis	ICD-10-CM
F19.122	Other psychoactive substance abuse with intoxication with perceptual disturbances	Diagnosis	ICD-10-CM
F19.129	Other psychoactive substance abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.14	Other psychoactive substance abuse with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.15	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder	Diagnosis	ICD-10-CM
F19.150	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.151	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.159	Other psychoactive substance abuse with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.16	Other psychoactive substance abuse with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.17	Other psychoactive substance abuse with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.18	Other psychoactive substance abuse with other psychoactive substance-induced disorders	Diagnosis	ICD-10-CM
F19.180	Other psychoactive substance abuse with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F19.181	Other psychoactive substance abuse with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.182	Other psychoactive substance abuse with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.188	Other psychoactive substance abuse with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.19	Other psychoactive substance abuse with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.2	Other psychoactive substance dependence	Diagnosis	ICD-10-CM
F19.20	Other psychoactive substance dependence, uncomplicated	Diagnosis	ICD-10-CM
F19.21	Other psychoactive substance dependence, in remission	Diagnosis	ICD-10-CM
F19.22	Other psychoactive substance dependence with intoxication	Diagnosis	ICD-10-CM
F19.220	Other psychoactive substance dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.221	Other psychoactive substance dependence with intoxication delirium	Diagnosis	ICD-10-CM
F19.222	Other psychoactive substance dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.229	Other psychoactive substance dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.23	Other psychoactive substance dependence with withdrawal	Diagnosis	ICD-10-CM
F19.230	Other psychoactive substance dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.231	Other psychoactive substance dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F19.232	Other psychoactive substance dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.239	Other psychoactive substance dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.24	Other psychoactive substance dependence with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.25	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder	Diagnosis	ICD-10-CM
F19.250	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.251	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.259	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.26	Other psychoactive substance dependence with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.27	Other psychoactive substance dependence with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.28	Other psychoactive substance dependence with other psychoactive substance-induced disorders	Diagnosis	ICD-10-CM
F19.280	Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.281	Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.282	Other psychoactive substance dependence with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.288	Other psychoactive substance dependence with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F19.29	Other psychoactive substance dependence with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.9	Other psychoactive substance use, unspecified	Diagnosis	ICD-10-CM
F19.90	Other psychoactive substance use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F19.92	Other psychoactive substance use, unspecified with intoxication	Diagnosis	ICD-10-CM
F19.920	Other psychoactive substance use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19.921	Other psychoactive substance use, unspecified with intoxication with delirium	Diagnosis	ICD-10-CM
F19.922	Other psychoactive substance use, unspecified with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19.929	Other psychoactive substance use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F19.93	Other psychoactive substance use, unspecified with withdrawal	Diagnosis	ICD-10-CM
F19.930	Other psychoactive substance use, unspecified with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19.931	Other psychoactive substance use, unspecified with withdrawal delirium	Diagnosis	ICD-10-CM
F19.932	Other psychoactive substance use, unspecified with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19.939	Other psychoactive substance use, unspecified with withdrawal, unspecified	Diagnosis	ICD-10-CM
F19.94	Other psychoactive substance use, unspecified with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19.95	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder	Diagnosis	ICD-10-CM
F19.950	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19.951	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19.959	Other psychoactive substance use, unspecified with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F19.96	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting amnesic disorder	Diagnosis	ICD-10-CM
F19.97	Other psychoactive substance use, unspecified with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM
F19.98	Other psychoactive substance use, unspecified with other psychoactive substance-induced disorders	Diagnosis	ICD-10-CM
F19.980	Other psychoactive substance use, unspecified with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19.981	Other psychoactive substance use, unspecified with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19.982	Other psychoactive substance use, unspecified with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19.988	Other psychoactive substance use, unspecified with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F19.99	Other psychoactive substance use, unspecified with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F55.0	Abuse of antacids	Diagnosis	ICD-10-CM

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

Code	Description	Code Category	Code Type
F55.1	Abuse of herbal or folk remedies	Diagnosis	ICD-10-CM
F55.2	Abuse of laxatives	Diagnosis	ICD-10-CM
F55.3	Abuse of steroids or hormones	Diagnosis	ICD-10-CM
F55.4	Abuse of vitamins	Diagnosis	ICD-10-CM
F55.8	Abuse of other non-psychoactive substances	Diagnosis	ICD-10-CM
G62.1	Alcoholic polyneuropathy	Diagnosis	ICD-10-CM
HZ2ZZZZ	Detoxification Services for Substance Abuse Treatment	Procedure	ICD-10-PCS
HZ30ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ31ZZZ	Individual Counseling for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ32ZZZ	Individual Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ33ZZZ	Individual Counseling for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ34ZZZ	Individual Counseling for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
HZ35ZZZ	Individual Counseling for Substance Abuse Treatment, Vocational	Procedure	ICD-10-PCS
HZ36ZZZ	Individual Counseling for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ37ZZZ	Individual Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ38ZZZ	Individual Counseling for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ39ZZZ	Individual Counseling for Substance Abuse Treatment, Continuing Care	Procedure	ICD-10-PCS
HZ3BZZZ	Individual Counseling for Substance Abuse Treatment, Spiritual	Procedure	ICD-10-PCS
HZ40ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ41ZZZ	Group Counseling for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ42ZZZ	Group Counseling for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ43ZZZ	Group Counseling for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ44ZZZ	Group Counseling for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
HZ45ZZZ	Group Counseling for Substance Abuse Treatment, Vocational	Procedure	ICD-10-PCS
HZ46ZZZ	Group Counseling for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ47ZZZ	Group Counseling for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ48ZZZ	Group Counseling for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ49ZZZ	Group Counseling for Substance Abuse Treatment, Continuing Care	Procedure	ICD-10-PCS
HZ4BZZZ	Group Counseling for Substance Abuse Treatment, Spiritual	Procedure	ICD-10-PCS
HZ50ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Cognitive	Procedure	ICD-10-PCS
HZ51ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Behavioral	Procedure	ICD-10-PCS
HZ52ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Cognitive-Behavioral	Procedure	ICD-10-PCS
HZ53ZZZ	Individual Psychotherapy for Substance Abuse Treatment, 12-Step	Procedure	ICD-10-PCS
HZ54ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Interpersonal	Procedure	ICD-10-PCS
HZ55ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Interactive	Procedure	ICD-10-PCS
HZ56ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Psychoeducation	Procedure	ICD-10-PCS
HZ57ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Motivational Enhancement	Procedure	ICD-10-PCS
HZ58ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Confrontational	Procedure	ICD-10-PCS
HZ59ZZZ	Individual Psychotherapy for Substance Abuse Treatment, Supportive	Procedure	ICD-10-PCS
HZ5BZZZ	Individual Psychotherapy for Substance Abuse Treatment, Psychoanalysis	Procedure	ICD-10-PCS
HZ5CZZZ	Individual Psychotherapy for Substance Abuse Treatment, Psychodynamic	Procedure	ICD-10-PCS
HZ5DZZZ	Individual Psychotherapy for Substance Abuse Treatment, Psychophysiological	Procedure	ICD-10-PCS
HZ63ZZZ	Family Counseling for Substance Abuse Treatment	Procedure	ICD-10-PCS

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Code	Description	Code Category	Code Type
HZ83ZZZ	Medication Management for Substance Abuse Treatment, Antabuse	Procedure	ICD-10-PCS
HZ86ZZZ	Medication Management for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
HZ88ZZZ	Medication Management for Substance Abuse Treatment, Psychiatric Medication	Procedure	ICD-10-PCS
HZ89ZZZ	Medication Management for Substance Abuse Treatment, Other Replacement Medication	Procedure	ICD-10-PCS
HZ93ZZZ	Pharmacotherapy for Substance Abuse Treatment, Antabuse	Procedure	ICD-10-PCS
HZ96ZZZ	Pharmacotherapy for Substance Abuse Treatment, Clonidine	Procedure	ICD-10-PCS
HZ98ZZZ	Pharmacotherapy for Substance Abuse Treatment, Psychiatric Medication	Procedure	ICD-10-PCS
HZ99ZZZ	Pharmacotherapy for Substance Abuse Treatment, Other Replacement Medication	Procedure	ICD-10-PCS
I42.6	Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
K29.20	Alcoholic gastritis without bleeding	Diagnosis	ICD-10-CM
K29.21	Alcoholic gastritis with bleeding	Diagnosis	ICD-10-CM
K70.0	Alcoholic fatty liver	Diagnosis	ICD-10-CM
K70.10	Alcoholic hepatitis without ascites	Diagnosis	ICD-10-CM
K70.11	Alcoholic hepatitis with ascites	Diagnosis	ICD-10-CM
K70.2	Alcoholic fibrosis and sclerosis of liver	Diagnosis	ICD-10-CM
K70.30	Alcoholic cirrhosis of liver without ascites	Diagnosis	ICD-10-CM
K70.31	Alcoholic cirrhosis of liver with ascites	Diagnosis	ICD-10-CM
K70.40	Alcoholic hepatic failure without coma	Diagnosis	ICD-10-CM
K70.41	Alcoholic hepatic failure with coma	Diagnosis	ICD-10-CM
K70.9	Alcoholic liver disease, unspecified	Diagnosis	ICD-10-CM
O99.320	Drug use complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99.321	Drug use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99.322	Drug use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99.323	Drug use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99.324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
O99.325	Drug use complicating the puerperium	Diagnosis	ICD-10-CM
R78.0	Finding of alcohol in blood	Diagnosis	ICD-10-CM
V11.3	Personal history of alcoholism	Diagnosis	ICD-9-CM
Z65.8	Other specified problems related to psychosocial circumstances	Diagnosis	ICD-10-CM
<b>Anxiety</b>			
293.84	Anxiety disorder in conditions classified elsewhere	Diagnosis	ICD-9-CM
300	Anxiety, dissociative and somatoform disorders	Diagnosis	ICD-9-CM
300.0	Anxiety states	Diagnosis	ICD-9-CM
300.00	Anxiety state, unspecified	Diagnosis	ICD-9-CM
300.01	Panic disorder without agoraphobia	Diagnosis	ICD-9-CM
300.02	Generalized anxiety disorder	Diagnosis	ICD-9-CM
300.09	Other anxiety states	Diagnosis	ICD-9-CM
300.10	Hysteria, unspecified	Diagnosis	ICD-9-CM
300.11	Conversion disorder	Diagnosis	ICD-9-CM
300.12	Dissociative amnesia	Diagnosis	ICD-9-CM
300.13	Dissociative fugue	Diagnosis	ICD-9-CM
300.14	Dissociative identity disorder	Diagnosis	ICD-9-CM
300.15	Dissociative disorder or reaction, unspecified	Diagnosis	ICD-9-CM



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

Code	Description	Code Category	Code Type
300.2	Phobic disorders	Diagnosis	ICD-9-CM
300.20	Phobia, unspecified	Diagnosis	ICD-9-CM
300.21	Agoraphobia with panic disorder	Diagnosis	ICD-9-CM
300.22	Agoraphobia without mention of panic attacks	Diagnosis	ICD-9-CM
300.23	Social phobia	Diagnosis	ICD-9-CM
300.29	Other isolated or specific phobias	Diagnosis	ICD-9-CM
300.3	Obsessive-compulsive disorders	Diagnosis	ICD-9-CM
300.6	Depersonalization disorder	Diagnosis	ICD-9-CM
300.7	Hypochondriasis	Diagnosis	ICD-9-CM
300.81	Somatization disorder	Diagnosis	ICD-9-CM
300.82	Undifferentiated somatoform disorder	Diagnosis	ICD-9-CM
300.89	Other somatoform disorders	Diagnosis	ICD-9-CM
309.24	Adjustment disorder with anxiety	Diagnosis	ICD-9-CM
309.81	Posttraumatic stress disorder	Diagnosis	ICD-9-CM
313.0	Overanxious disorder specific to childhood and adolescence	Diagnosis	ICD-9-CM
F06.4	Anxiety disorder due to known physiological condition	Diagnosis	ICD-10-CM
F40	Phobic anxiety disorders	Diagnosis	ICD-10-CM
F40.0	Agoraphobia	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
F40.1	Social phobias	Diagnosis	ICD-10-CM
F40.10	Social phobia, unspecified	Diagnosis	ICD-10-CM
F40.11	Social phobia, generalized	Diagnosis	ICD-10-CM
F40.2	Specific (isolated) phobias	Diagnosis	ICD-10-CM
F40.21	Animal type phobia	Diagnosis	ICD-10-CM
F40.210	Arachnophobia	Diagnosis	ICD-10-CM
F40.218	Other animal type phobia	Diagnosis	ICD-10-CM
F40.22	Natural environment 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
F40.23	Blood, injection, injury 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
F40.24	Situational type phobia	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
F40.29	Other specified phobia	Diagnosis	ICD-10-CM

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

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
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	Other anxiety disorders	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	Obsessive-compulsive disorder	Diagnosis	ICD-10-CM
F42.4	Excoriation (skin-picking) 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
F43.0	Acute stress reaction	Diagnosis	ICD-10-CM
F43.1	Post-traumatic stress disorder (PTSD)	Diagnosis	ICD-10-CM
F43.10	Post-traumatic stress disorder, unspecified	Diagnosis	ICD-10-CM
F43.11	Post-traumatic stress disorder, acute	Diagnosis	ICD-10-CM
F43.12	Post-traumatic stress disorder, chronic	Diagnosis	ICD-10-CM
F44.9	Dissociative and conversion disorder, unspecified	Diagnosis	ICD-10-CM
F45.8	Other somatoform disorders	Diagnosis	ICD-10-CM
F48.8	Other specified nonpsychotic mental disorders	Diagnosis	ICD-10-CM
F93.0	Separation anxiety disorder of childhood	Diagnosis	ICD-10-CM
<b>Schizophrenia</b>			
295	Schizophrenic disorders	Diagnosis	ICD-9-CM
295.0	Simple type schizophrenia	Diagnosis	ICD-9-CM
295.00	Simple schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.01	Simple schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.02	Simple schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.03	Simple schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.04	Simple schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.05	Simple schizophrenia, in remission	Diagnosis	ICD-9-CM
295.1	Disorganized type schizophrenia	Diagnosis	ICD-9-CM
295.10	Disorganized schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.11	Disorganized schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.12	Disorganized schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.13	Disorganized schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.14	Disorganized schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.15	Disorganized schizophrenia, in remission	Diagnosis	ICD-9-CM
295.2	Catatonic type schizophrenia	Diagnosis	ICD-9-CM
295.20	Catatonic schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.21	Catatonic schizophrenia, subchronic condition	Diagnosis	ICD-9-CM



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Code	Description	Code Category	Code Type
295.22	Catatonic schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.23	Catatonic schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.24	Catatonic schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.25	Catatonic schizophrenia, in remission	Diagnosis	ICD-9-CM
295.3	Paranoid type schizophrenia	Diagnosis	ICD-9-CM
295.30	Paranoid schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.31	Paranoid schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.32	Paranoid schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.33	Paranoid schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.34	Paranoid schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.35	Paranoid schizophrenia, in remission	Diagnosis	ICD-9-CM
295.4	Schizophreniform disorder	Diagnosis	ICD-9-CM
295.40	Schizophreniform disorder, unspecified	Diagnosis	ICD-9-CM
295.41	Schizophreniform disorder, subchronic	Diagnosis	ICD-9-CM
295.42	Schizophreniform disorder, chronic	Diagnosis	ICD-9-CM
295.43	Schizophreniform disorder, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.44	Schizophreniform disorder, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.45	Schizophreniform disorder, in remission	Diagnosis	ICD-9-CM
295.5	Latent schizophrenia	Diagnosis	ICD-9-CM
295.50	Latent schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.51	Latent schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.52	Latent schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.53	Latent schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.54	Latent schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.55	Latent schizophrenia, in remission	Diagnosis	ICD-9-CM
295.6	Schizophrenic disorders, residual type	Diagnosis	ICD-9-CM
295.60	Schizophrenic disorders, residual type, unspecified	Diagnosis	ICD-9-CM
295.61	Schizophrenic disorders, residual type, subchronic	Diagnosis	ICD-9-CM
295.62	Schizophrenic disorders, residual type, chronic	Diagnosis	ICD-9-CM
295.63	Schizophrenic disorders, residual type, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.64	Schizophrenic disorders, residual type, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.65	Schizophrenic disorders, residual type, in remission	Diagnosis	ICD-9-CM
295.7	Schizoaffective disorder	Diagnosis	ICD-9-CM
295.70	Schizoaffective disorder, unspecified	Diagnosis	ICD-9-CM
295.71	Schizoaffective disorder, subchronic	Diagnosis	ICD-9-CM
295.72	Schizoaffective disorder, chronic	Diagnosis	ICD-9-CM
295.73	Schizoaffective disorder, subchronic with acute exacerbation	Diagnosis	ICD-9-CM
295.74	Schizoaffective disorder, chronic with acute exacerbation	Diagnosis	ICD-9-CM
295.75	Schizoaffective disorder, in remission	Diagnosis	ICD-9-CM
295.8	Other specified types of schizophrenia	Diagnosis	ICD-9-CM
295.80	Other specified types of schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.81	Other specified types of schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.82	Other specified types of schizophrenia, chronic condition	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
295.83	Other specified types of schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.84	Other specified types of schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.85	Other specified types of schizophrenia, in remission	Diagnosis	ICD-9-CM
295.9	Unspecified schizophrenia	Diagnosis	ICD-9-CM
295.90	Unspecified schizophrenia, unspecified condition	Diagnosis	ICD-9-CM
295.91	Unspecified schizophrenia, subchronic condition	Diagnosis	ICD-9-CM
295.92	Unspecified schizophrenia, chronic condition	Diagnosis	ICD-9-CM
295.93	Unspecified schizophrenia, subchronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.94	Unspecified schizophrenia, chronic condition with acute exacerbation	Diagnosis	ICD-9-CM
295.95	Unspecified schizophrenia, in remission	Diagnosis	ICD-9-CM
F20	Schizophrenia	Diagnosis	ICD-10-CM
F20.0	Paranoid schizophrenia	Diagnosis	ICD-10-CM
F20.1	Disorganized schizophrenia	Diagnosis	ICD-10-CM
F20.2	Catatonic schizophrenia	Diagnosis	ICD-10-CM
F20.3	Undifferentiated schizophrenia	Diagnosis	ICD-10-CM
F20.5	Residual schizophrenia	Diagnosis	ICD-10-CM
F20.8	Other schizophrenia	Diagnosis	ICD-10-CM
F20.81	Schizophreniform disorder	Diagnosis	ICD-10-CM
F20.89	Other schizophrenia	Diagnosis	ICD-10-CM
F20.9	Schizophrenia, unspecified	Diagnosis	ICD-10-CM
F25	Schizoaffective disorders	Diagnosis	ICD-10-CM
F25.0	Schizoaffective disorder, bipolar type	Diagnosis	ICD-10-CM
F25.1	Schizoaffective disorder, depressive type	Diagnosis	ICD-10-CM
F25.8	Other schizoaffective disorders	Diagnosis	ICD-10-CM
F25.9	Schizoaffective disorder, unspecified	Diagnosis	ICD-10-CM
<b>Bipolar Disorders</b>			
296.0	Bipolar I disorder, single manic episode	Diagnosis	ICD-9-CM
296.00	Bipolar I disorder, single manic episode, unspecified	Diagnosis	ICD-9-CM
296.01	Bipolar I disorder, single manic episode, mild	Diagnosis	ICD-9-CM
296.02	Bipolar I disorder, single manic episode, moderate	Diagnosis	ICD-9-CM
296.03	Bipolar I disorder, single manic episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.04	Bipolar I disorder, single manic episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.05	Bipolar I disorder, single manic episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.06	Bipolar I disorder, single manic episode, in full remission	Diagnosis	ICD-9-CM
296.1	Manic disorder, recurrent episode	Diagnosis	ICD-9-CM
296.10	Manic disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
296.11	Manic disorder, recurrent episode, mild	Diagnosis	ICD-9-CM
296.12	Manic disorder, recurrent episode, moderate	Diagnosis	ICD-9-CM
296.13	Manic disorder, recurrent episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.14	Manic disorder, recurrent episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.15	Manic disorder, recurrent episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.16	Manic disorder, recurrent episode, in full remission	Diagnosis	ICD-9-CM
296.4	Bipolar I disorder, most recent episode (or current) manic	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
296.40	Bipolar I disorder, most recent episode (or current) manic, unspecified	Diagnosis	ICD-9-CM
296.41	Bipolar I disorder, most recent episode (or current) manic, mild	Diagnosis	ICD-9-CM
296.42	Bipolar I disorder, most recent episode (or current) manic, moderate	Diagnosis	ICD-9-CM
296.43	Bipolar I disorder, most recent episode (or current) manic, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.44	Bipolar I disorder, most recent episode (or current) manic, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.45	Bipolar I disorder, most recent episode (or current) manic, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.46	Bipolar I disorder, most recent episode (or current) manic, in full remission	Diagnosis	ICD-9-CM
296.5	Bipolar I disorder, most recent episode (or current), depressed	Diagnosis	ICD-9-CM
296.50	Bipolar I disorder, most recent episode (or current) depressed, unspecified	Diagnosis	ICD-9-CM
296.51	Bipolar I disorder, most recent episode (or current) depressed, mild	Diagnosis	ICD-9-CM
296.52	Bipolar I disorder, most recent episode (or current) depressed, moderate	Diagnosis	ICD-9-CM
296.53	Bipolar I disorder, most recent episode (or current) depressed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.54	Bipolar I disorder, most recent episode (or current) depressed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.55	Bipolar I disorder, most recent episode (or current) depressed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.56	Bipolar I disorder, most recent episode (or current) depressed, in full remission	Diagnosis	ICD-9-CM
296.6	Bipolar I disorder, most recent episode (or current), mixed	Diagnosis	ICD-9-CM
296.60	Bipolar I disorder, most recent episode (or current) mixed, unspecified	Diagnosis	ICD-9-CM
296.61	Bipolar I disorder, most recent episode (or current) mixed, mild	Diagnosis	ICD-9-CM
296.62	Bipolar I disorder, most recent episode (or current) mixed, moderate	Diagnosis	ICD-9-CM
296.63	Bipolar I disorder, most recent episode (or current) mixed, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.64	Bipolar I disorder, most recent episode (or current) mixed, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.65	Bipolar I disorder, most recent episode (or current) mixed, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.66	Bipolar I disorder, most recent episode (or current) mixed, in full remission	Diagnosis	ICD-9-CM
296.7	Bipolar I disorder, most recent episode (or current) unspecified	Diagnosis	ICD-9-CM
296.8	Other and unspecified bipolar disorders	Diagnosis	ICD-9-CM
296.80	Bipolar disorder, unspecified	Diagnosis	ICD-9-CM
296.81	Atypical manic disorder	Diagnosis	ICD-9-CM
296.89	Other and unspecified bipolar disorders	Diagnosis	ICD-9-CM
F30.10	Manic episode without psychotic symptoms, unspecified	Diagnosis	ICD-10-CM
F30.11	Manic episode without psychotic symptoms, mild	Diagnosis	ICD-10-CM
F30.12	Manic episode without psychotic symptoms, moderate	Diagnosis	ICD-10-CM
F30.13	Manic episode, severe, without psychotic symptoms	Diagnosis	ICD-10-CM
F30.2	Manic episode, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F30.3	Manic episode in partial remission	Diagnosis	ICD-10-CM

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<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
F30.4	Manic episode in full remission	Diagnosis	ICD-10-CM
F30.8	Other manic episodes	Diagnosis	ICD-10-CM
F30.9	Manic episode, unspecified	Diagnosis	ICD-10-CM
F31.0	Bipolar disorder, current episode hypomanic	Diagnosis	ICD-10-CM
F31.10	Bipolar disorder, current episode manic without psychotic features, unspecified	Diagnosis	ICD-10-CM
F31.11	Bipolar disorder, current episode manic without psychotic features, mild	Diagnosis	ICD-10-CM
F31.12	Bipolar disorder, current episode manic without psychotic features, moderate	Diagnosis	ICD-10-CM
F31.13	Bipolar disorder, current episode manic without psychotic features, severe	Diagnosis	ICD-10-CM
F31.2	Bipolar disorder, current episode manic severe with psychotic features	Diagnosis	ICD-10-CM
F31.30	Bipolar disorder, current episode depressed, mild or moderate severity, unspecified	Diagnosis	ICD-10-CM
F31.31	Bipolar disorder, current episode depressed, mild	Diagnosis	ICD-10-CM
F31.32	Bipolar disorder, current episode depressed, moderate	Diagnosis	ICD-10-CM
F31.4	Bipolar disorder, current episode depressed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.5	Bipolar disorder, current episode depressed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.60	Bipolar disorder, current episode mixed, unspecified	Diagnosis	ICD-10-CM
F31.61	Bipolar disorder, current episode mixed, mild	Diagnosis	ICD-10-CM
F31.62	Bipolar disorder, current episode mixed, moderate	Diagnosis	ICD-10-CM
F31.63	Bipolar disorder, current episode mixed, severe, without psychotic features	Diagnosis	ICD-10-CM
F31.64	Bipolar disorder, current episode mixed, severe, with psychotic features	Diagnosis	ICD-10-CM
F31.70	Bipolar disorder, currently in remission, most recent episode unspecified	Diagnosis	ICD-10-CM
F31.71	Bipolar disorder, in partial remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.72	Bipolar disorder, in full remission, most recent episode hypomanic	Diagnosis	ICD-10-CM
F31.73	Bipolar disorder, in partial remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.74	Bipolar disorder, in full remission, most recent episode manic	Diagnosis	ICD-10-CM
F31.75	Bipolar disorder, in partial remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.76	Bipolar disorder, in full remission, most recent episode depressed	Diagnosis	ICD-10-CM
F31.77	Bipolar disorder, in partial remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.78	Bipolar disorder, in full remission, most recent episode mixed	Diagnosis	ICD-10-CM
F31.81	Bipolar II disorder	Diagnosis	ICD-10-CM
F31.89	Other bipolar disorder	Diagnosis	ICD-10-CM
F31.9	Bipolar disorder, unspecified	Diagnosis	ICD-10-CM
<b>Depression</b>			
296.2	Major depressive disorder, single episode	Diagnosis	ICD-9-CM
296.20	Major depressive disorder, single episode, unspecified	Diagnosis	ICD-9-CM
296.21	Major depressive disorder, single episode, mild	Diagnosis	ICD-9-CM
296.22	Major depressive disorder, single episode, moderate	Diagnosis	ICD-9-CM
296.23	Major depressive disorder, single episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.24	Major depressive disorder, single episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.25	Major depressive disorder, single episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.26	Major depressive disorder, single episode in full remission	Diagnosis	ICD-9-CM
296.3	Major depressive disorder, recurrent episode	Diagnosis	ICD-9-CM
296.30	Major depressive disorder, recurrent episode, unspecified	Diagnosis	ICD-9-CM
296.31	Major depressive disorder, recurrent episode, mild	Diagnosis	ICD-9-CM

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<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
296.32	Major depressive disorder, recurrent episode, moderate	Diagnosis	ICD-9-CM
296.33	Major depressive disorder, recurrent episode, severe, without mention of psychotic behavior	Diagnosis	ICD-9-CM
296.34	Major depressive disorder, recurrent episode, severe, specified as with psychotic behavior	Diagnosis	ICD-9-CM
296.35	Major depressive disorder, recurrent episode, in partial or unspecified remission	Diagnosis	ICD-9-CM
296.36	Major depressive disorder, recurrent episode, in full remission	Diagnosis	ICD-9-CM
F32.0	Major depressive disorder, single episode, mild	Diagnosis	ICD-10-CM
F32.1	Major depressive disorder, single episode, moderate	Diagnosis	ICD-10-CM
F32.2	Major depressive disorder, single episode, severe without psychotic features	Diagnosis	ICD-10-CM
F32.3	Major depressive disorder, single episode, severe with psychotic features	Diagnosis	ICD-10-CM
F32.4	Major depressive disorder, single episode, in partial remission	Diagnosis	ICD-10-CM
F32.5	Major depressive disorder, single episode, in full remission	Diagnosis	ICD-10-CM
F32.9	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
F33.3	Major depressive disorder, recurrent, severe with psychotic symptoms	Diagnosis	ICD-10-CM
F33.40	Major depressive disorder, recurrent, in remission, unspecified	Diagnosis	ICD-10-CM
F33.41	Major depressive disorder, recurrent, in partial remission	Diagnosis	ICD-10-CM
F33.42	Major depressive disorder, recurrent, in full remission	Diagnosis	ICD-10-CM
F33.8	Other recurrent depressive disorders	Diagnosis	ICD-10-CM
F33.9	Major depressive disorder, recurrent, unspecified	Diagnosis	ICD-10-CM
<b>Personality Disorders</b>			
301	Personality disorders	Diagnosis	ICD-9-CM
301.0	Paranoid personality disorder	Diagnosis	ICD-9-CM
301.1	Affective personality disorder	Diagnosis	ICD-9-CM
301.10	Affective personality disorder, unspecified	Diagnosis	ICD-9-CM
301.11	Chronic hypomanic personality disorder	Diagnosis	ICD-9-CM
301.12	Chronic depressive personality disorder	Diagnosis	ICD-9-CM
301.13	Cyclothymic disorder	Diagnosis	ICD-9-CM
301.2	Schizoid personality disorder	Diagnosis	ICD-9-CM
301.20	Schizoid personality disorder, unspecified	Diagnosis	ICD-9-CM
301.21	Introverted personality	Diagnosis	ICD-9-CM
301.22	Schizotypal personality disorder	Diagnosis	ICD-9-CM
301.3	Explosive personality disorder	Diagnosis	ICD-9-CM
301.4	Obsessive-compulsive personality disorder	Diagnosis	ICD-9-CM
301.5	Histrionic personality disorder	Diagnosis	ICD-9-CM
301.50	Histrionic personality disorder, unspecified	Diagnosis	ICD-9-CM
301.59	Other histrionic personality disorder	Diagnosis	ICD-9-CM
301.6	Dependent personality disorder	Diagnosis	ICD-9-CM
301.7	Antisocial personality disorder	Diagnosis	ICD-9-CM
301.8	Other personality disorders	Diagnosis	ICD-9-CM
301.81	Narcissistic personality disorder	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
301.82	Avoidant personality disorder	Diagnosis	ICD-9-CM
301.83	Borderline personality disorder	Diagnosis	ICD-9-CM
301.84	Passive-aggressive personality	Diagnosis	ICD-9-CM
301.89	Other personality disorder	Diagnosis	ICD-9-CM
F60	Specific personality disorders	Diagnosis	ICD-10-CM
F60.0	Paranoid personality disorder	Diagnosis	ICD-10-CM
F60.1	Schizoid personality disorder	Diagnosis	ICD-10-CM
F60.2	Antisocial personality disorder	Diagnosis	ICD-10-CM
F60.3	Borderline personality disorder	Diagnosis	ICD-10-CM
F60.4	Histrionic personality disorder	Diagnosis	ICD-10-CM
F60.5	Obsessive-compulsive personality disorder	Diagnosis	ICD-10-CM
F60.6	Avoidant personality disorder	Diagnosis	ICD-10-CM
F60.7	Dependent personality disorder	Diagnosis	ICD-10-CM
F60.8	Other specific personality disorders	Diagnosis	ICD-10-CM
F60.81	Narcissistic personality disorder	Diagnosis	ICD-10-CM
F60.89	Other specific personality disorders	Diagnosis	ICD-10-CM
F60.9	Personality disorder, unspecified	Diagnosis	ICD-10-CM
<b>Nicotine Use</b>			
305.1	Nondependent tobacco use disorder	Diagnosis	ICD-9-CM
649.0	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
649.00	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
649.01	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
649.02	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
649.03	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
649.04	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
989.84	Toxic effect of tobacco	Diagnosis	ICD-9-CM
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
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
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



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Code	Description	Code Category	Code Type
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
F17.22	Nicotine dependence, chewing tobacco	Diagnosis	ICD-10-CM
F17.220	Nicotine dependence, chewing tobacco, uncomplicated	Diagnosis	ICD-10-CM
F17.221	Nicotine dependence, chewing tobacco, in remission	Diagnosis	ICD-10-CM
F17.223	Nicotine dependence, chewing tobacco, with withdrawal	Diagnosis	ICD-10-CM
F17.228	Nicotine dependence, chewing tobacco, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.229	Nicotine dependence, chewing tobacco, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.29	Nicotine dependence, other tobacco product	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
F17.293	Nicotine dependence, other tobacco product, with withdrawal	Diagnosis	ICD-10-CM
F17.298	Nicotine dependence, other tobacco product, with other nicotine-induced disorders	Diagnosis	ICD-10-CM
F17.299	Nicotine dependence, other tobacco product, with unspecified nicotine-induced disorders	Diagnosis	ICD-10-CM
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
G8456	Current smokeless tobacco user	Procedure	HCPCS
G8688	Currently a smokeless tobacco user (e.g., chew, snuff) and no exposure to secondhand smoke	Procedure	HCPCS
G8690	Current tobacco smoker or current exposure to secondhand smoke	Procedure	HCPCS
G8692	Current smokeless tobacco user (e.g., chew, snuff) and no exposure to secondhand smoke	Procedure	HCPCS



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<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
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
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
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
T65.211	Toxic effect of chewing tobacco, accidental (unintentional)	Diagnosis	ICD-10-CM
T65.211A	Toxic effect of chewing tobacco, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.212	Toxic effect of chewing tobacco, intentional self-harm	Diagnosis	ICD-10-CM
T65.212A	Toxic effect of chewing tobacco, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.213	Toxic effect of chewing tobacco, assault	Diagnosis	ICD-10-CM
T65.213A	Toxic effect of chewing tobacco, assault, initial encounter	Diagnosis	ICD-10-CM
T65.214	Toxic effect of chewing tobacco, undetermined	Diagnosis	ICD-10-CM
T65.214A	Toxic effect of chewing tobacco, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.221	Toxic effect of tobacco cigarettes, accidental (unintentional)	Diagnosis	ICD-10-CM
T65.221A	Toxic effect of tobacco cigarettes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.222	Toxic effect of tobacco cigarettes, intentional self-harm	Diagnosis	ICD-10-CM
T65.222A	Toxic effect of tobacco cigarettes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.223	Toxic effect of tobacco cigarettes, assault	Diagnosis	ICD-10-CM
T65.223A	Toxic effect of tobacco cigarettes, assault, initial encounter	Diagnosis	ICD-10-CM
T65.224	Toxic effect of tobacco cigarettes, undetermined	Diagnosis	ICD-10-CM
T65.224A	Toxic effect of tobacco cigarettes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65.291	Toxic effect of other tobacco and nicotine, accidental (unintentional)	Diagnosis	ICD-10-CM
T65.291A	Toxic effect of other tobacco and nicotine, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65.292	Toxic effect of other tobacco and nicotine, intentional self-harm	Diagnosis	ICD-10-CM
T65.292A	Toxic effect of other tobacco and nicotine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65.293	Toxic effect of other tobacco and nicotine, assault	Diagnosis	ICD-10-CM
T65.293A	Toxic effect of other tobacco and nicotine, assault, initial encounter	Diagnosis	ICD-10-CM
T65.294	Toxic effect of other tobacco and nicotine, undetermined	Diagnosis	ICD-10-CM
T65.294A	Toxic effect of other tobacco and nicotine, undetermined, initial encounter	Diagnosis	ICD-10-CM
V15.82	Personal history of tobacco use, presenting hazards to health	Diagnosis	ICD-9-CM
Z72.0	Tobacco use	Diagnosis	ICD-10-CM
Z87.891	Personal history of nicotine dependence	Diagnosis	ICD-10-CM
<b>Post-Traumatic Stress Disorder (PTSD)</b>			
309.81	Posttraumatic stress disorder	Diagnosis	ICD-9-CM

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

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
F43.1	Post-traumatic stress disorder (PTSD)	Diagnosis	ICD-10-CM
F43.10	Post-traumatic stress disorder, unspecified	Diagnosis	ICD-10-CM
F43.11	Post-traumatic stress disorder, acute	Diagnosis	ICD-10-CM
F43.12	Post-traumatic stress disorder, chronic	Diagnosis	ICD-10-CM
<b>Attention-Deficit Hyperactivity Disorder (ADHD)</b>			
314.00	Attention deficit disorder of childhood without mention of hyperactivity	Diagnosis	ICD-9-CM
314.01	Attention deficit disorder of childhood with hyperactivity	Diagnosis	ICD-9-CM
314.1	Hyperkinesis of childhood with developmental delay	Diagnosis	ICD-9-CM
314.2	Hyperkinetic conduct disorder of childhood	Diagnosis	ICD-9-CM
314.8	Other specified manifestations of hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
314.9	Unspecified hyperkinetic syndrome of childhood	Diagnosis	ICD-9-CM
F90.0	Attention-deficit hyperactivity disorder, predominantly inattentive type	Diagnosis	ICD-10-CM
F90.1	Attention-deficit hyperactivity disorder, predominantly hyperactive type	Diagnosis	ICD-10-CM
F90.2	Attention-deficit hyperactivity disorder, combined type	Diagnosis	ICD-10-CM
F90.8	Attention-deficit hyperactivity disorder, other type	Diagnosis	ICD-10-CM
F90.9	Attention-deficit hyperactivity disorder, unspecified type	Diagnosis	ICD-10-CM
<b>Pain</b>			
338.2	Chronic pain	Diagnosis	ICD-9-CM
338.21	Chronic pain due to trauma	Diagnosis	ICD-9-CM
338.22	Chronic post-thoracotomy pain	Diagnosis	ICD-9-CM
338.28	Other chronic postoperative pain	Diagnosis	ICD-9-CM
338.29	Other chronic pain	Diagnosis	ICD-9-CM
338.3	Neoplasm related pain (acute) (chronic)	Diagnosis	ICD-9-CM
338.4	Chronic pain syndrome	Diagnosis	ICD-9-CM
723.4	Brachial neuritis or radiculitis NOS	Diagnosis	ICD-9-CM
724.4	Thoracic or lumbosacral neuritis or radiculitis, unspecified	Diagnosis	ICD-9-CM
729.1	Unspecified myalgia and myositis	Diagnosis	ICD-9-CM
729.2	Unspecified neuralgia, neuritis, and radiculitis	Diagnosis	ICD-9-CM
780.71	Chronic fatigue syndrome	Diagnosis	ICD-9-CM
G89.21	Chronic pain due to trauma	Diagnosis	ICD-10-CM
G89.22	Chronic post-thoracotomy pain	Diagnosis	ICD-10-CM
G89.28	Other chronic postprocedural pain	Diagnosis	ICD-10-CM
G89.29	Other chronic pain	Diagnosis	ICD-10-CM
G89.3	Neoplasm related pain (acute) (chronic)	Diagnosis	ICD-10-CM
G89.4	Chronic pain syndrome	Diagnosis	ICD-10-CM
M54.10	Radiculopathy, site unspecified	Diagnosis	ICD-10-CM
M54.11	Radiculopathy, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
M54.12	Radiculopathy, cervical region	Diagnosis	ICD-10-CM
M54.13	Radiculopathy, cervicothoracic region	Diagnosis	ICD-10-CM
M54.14	Radiculopathy, thoracic region	Diagnosis	ICD-10-CM
M54.15	Radiculopathy, thoracolumbar region	Diagnosis	ICD-10-CM
M54.16	Radiculopathy, lumbar region	Diagnosis	ICD-10-CM
M54.17	Radiculopathy, lumbosacral region	Diagnosis	ICD-10-CM

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<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
M54.18	Radiculopathy, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
M60.80	Other myositis, unspecified site	Diagnosis	ICD-10-CM
M60.811	Other myositis, right shoulder	Diagnosis	ICD-10-CM
M60.812	Other myositis, left shoulder	Diagnosis	ICD-10-CM
M60.819	Other myositis, unspecified shoulder	Diagnosis	ICD-10-CM
M60.821	Other myositis, right upper arm	Diagnosis	ICD-10-CM
M60.822	Other myositis, left upper arm	Diagnosis	ICD-10-CM
M60.829	Other myositis, unspecified upper arm	Diagnosis	ICD-10-CM
M60.831	Other myositis, right forearm	Diagnosis	ICD-10-CM
M60.832	Other myositis, left forearm	Diagnosis	ICD-10-CM
M60.839	Other myositis, unspecified forearm	Diagnosis	ICD-10-CM
M60.841	Other myositis, right hand	Diagnosis	ICD-10-CM
M60.842	Other myositis, left hand	Diagnosis	ICD-10-CM
M60.849	Other myositis, unspecified hand	Diagnosis	ICD-10-CM
M60.851	Other myositis, right thigh	Diagnosis	ICD-10-CM
M60.852	Other myositis, left thigh	Diagnosis	ICD-10-CM
M60.859	Other myositis, unspecified thigh	Diagnosis	ICD-10-CM
M60.861	Other myositis, right lower leg	Diagnosis	ICD-10-CM
M60.862	Other myositis, left lower leg	Diagnosis	ICD-10-CM
M60.869	Other myositis, unspecified lower leg	Diagnosis	ICD-10-CM
M60.871	Other myositis, right ankle and foot	Diagnosis	ICD-10-CM
M60.872	Other myositis, left ankle and foot	Diagnosis	ICD-10-CM
M60.879	Other myositis, unspecified ankle and foot	Diagnosis	ICD-10-CM
M60.88	Other myositis, other site	Diagnosis	ICD-10-CM
M60.89	Other myositis, multiple sites	Diagnosis	ICD-10-CM
M60.9	Myositis, unspecified	Diagnosis	ICD-10-CM
M79.2	Neuralgia and neuritis, unspecified	Diagnosis	ICD-10-CM
M79.7	Fibromyalgia	Diagnosis	ICD-10-CM
R53.82	Chronic fatigue, unspecified	Diagnosis	ICD-10-CM
<b>Multiple Sclerosis</b>			
340	Multiple sclerosis	Diagnosis	ICD-9-CM
G35	Multiple sclerosis	Diagnosis	ICD-10-CM
<b>Epilepsy</b>			
345	Epilepsy and recurrent seizures	Diagnosis	ICD-9-CM
345.0	Generalized nonconvulsive epilepsy	Diagnosis	ICD-9-CM
345.00	Generalized nonconvulsive epilepsy without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.01	Generalized nonconvulsive epilepsy with intractable epilepsy	Diagnosis	ICD-9-CM
345.1	Generalized convulsive epilepsy	Diagnosis	ICD-9-CM
345.10	Generalized convulsive epilepsy without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.11	Generalized convulsive epilepsy with intractable epilepsy	Diagnosis	ICD-9-CM
345.2	Epileptic petit mal status	Diagnosis	ICD-9-CM
345.3	Epileptic grand mal status	Diagnosis	ICD-9-CM

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Code	Description	Code Category	Code Type
345.4	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures	Diagnosis	ICD-9-CM
345.40	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.41	Localization-related (focal) (partial) epilepsy and epileptic syndromes with complex partial seizures, with intractable epilepsy	Diagnosis	ICD-9-CM
345.5	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures	Diagnosis	ICD-9-CM
345.50	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.51	Localization-related (focal) (partial) epilepsy and epileptic syndromes with simple partial seizures, with intractable epilepsy	Diagnosis	ICD-9-CM
345.6	Infantile spasms	Diagnosis	ICD-9-CM
345.60	Infantile spasms without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.61	Infantile spasms with intractable epilepsy	Diagnosis	ICD-9-CM
345.7	Epilepsia partialis continua	Diagnosis	ICD-9-CM
345.70	Epilepsia partialis continua without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.71	Epilepsia partialis continua with intractable epilepsy	Diagnosis	ICD-9-CM
345.8	Other forms of epilepsy and recurrent seizures	Diagnosis	ICD-9-CM
345.80	Other forms of epilepsy and recurrent seizures, without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.81	Other forms of epilepsy and recurrent seizures, with intractable epilepsy	Diagnosis	ICD-9-CM
345.9	Unspecified epilepsy	Diagnosis	ICD-9-CM
345.90	Unspecified epilepsy without mention of intractable epilepsy	Diagnosis	ICD-9-CM
345.91	Unspecified epilepsy with intractable epilepsy	Diagnosis	ICD-9-CM
649.4	Epilepsy complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
649.40	Epilepsy complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
649.41	Epilepsy complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
649.42	Epilepsy complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
649.43	Epilepsy complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
649.44	Epilepsy complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
G40.001	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.009	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.011	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.019	Localization-related (focal) (partial) idiopathic epilepsy and epileptic syndromes with seizures of localized onset, intractable, without status epilepticus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
G40.101	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.109	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.111	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.119	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with simple partial seizures, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.201	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.209	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.211	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.219	Localization-related (focal) (partial) symptomatic epilepsy and epileptic syndromes with complex partial seizures, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.301	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.309	Generalized idiopathic epilepsy and epileptic syndromes, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.311	Generalized idiopathic epilepsy and epileptic syndromes, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.319	Generalized idiopathic epilepsy and epileptic syndromes, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.401	Other generalized epilepsy and epileptic syndromes, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.409	Other generalized epilepsy and epileptic syndromes, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.411	Other generalized epilepsy and epileptic syndromes, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.419	Other generalized epilepsy and epileptic syndromes, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.501	Epileptic seizures related to external causes, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.509	Epileptic seizures related to external causes, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.801	Other epilepsy, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.802	Other epilepsy, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.803	Other epilepsy, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.804	Other epilepsy, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.811	Lennox-Gastaut syndrome, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.812	Lennox-Gastaut syndrome, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.813	Lennox-Gastaut syndrome, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.814	Lennox-Gastaut syndrome, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.821	Epileptic spasms, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.822	Epileptic spasms, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.823	Epileptic spasms, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.824	Epileptic spasms, intractable, without status epilepticus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
G40.89	Other seizures	Diagnosis	ICD-10-CM
G40.901	Epilepsy, unspecified, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.909	Epilepsy, unspecified, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.911	Epilepsy, unspecified, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.919	Epilepsy, unspecified, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.A01	Absence epileptic syndrome, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.A09	Absence epileptic syndrome, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.A11	Absence epileptic syndrome, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.A19	Absence epileptic syndrome, intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.B01	Juvenile myoclonic epilepsy, not intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.B09	Juvenile myoclonic epilepsy, not intractable, without status epilepticus	Diagnosis	ICD-10-CM
G40.B11	Juvenile myoclonic epilepsy, intractable, with status epilepticus	Diagnosis	ICD-10-CM
G40.B19	Juvenile myoclonic epilepsy, intractable, without status epilepticus	Diagnosis	ICD-10-CM
<b>Migraine</b>			
346	Migraine	Diagnosis	ICD-9-CM
346.0	Migraine with aura	Diagnosis	ICD-9-CM
346.00	Migraine with aura, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.01	Migraine with aura, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.02	Migraine with aura, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.03	Migraine with aura, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.1	Migraine without aura	Diagnosis	ICD-9-CM
346.10	Migraine without aura, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.11	Migraine without aura, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.12	Migraine without aura, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.13	Migraine without aura, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.2	Variants of migraine, not elsewhere classified	Diagnosis	ICD-9-CM
346.20	Variants of migraine, not elsewhere classified, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.21	Variants of migraine, not elsewhere classified, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.22	Variants of migraine, not elsewhere classified, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.23	Variants of migraine, not elsewhere classified, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.3	Hemiplegic migraine	Diagnosis	ICD-9-CM
346.30	Hemiplegic migraine, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.31	Hemiplegic migraine, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM



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Code	Description	Code Category	Code Type
346.32	Hemiplegic migraine, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.33	Hemiplegic migraine, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.4	Menstrual migraine	Diagnosis	ICD-9-CM
346.40	Menstrual migraine, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.41	Menstrual migraine, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.42	Menstrual migraine, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.43	Menstrual migraine, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.5	Persistent migraine aura without cerebral infarction	Diagnosis	ICD-9-CM
346.50	Persistent migraine aura without cerebral infarction, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.51	Persistent migraine aura without cerebral infarction, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.52	Persistent migraine aura without cerebral infarction, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.53	Persistent migraine aura without cerebral infarction, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.6	Persistent migraine aura with cerebral infarction	Diagnosis	ICD-9-CM
346.60	Persistent migraine aura with cerebral infarction, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.61	Persistent migraine aura with cerebral infarction, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.62	Persistent migraine aura with cerebral infarction, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.63	Persistent migraine aura with cerebral infarction, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.7	Chronic migraine without aura	Diagnosis	ICD-9-CM
346.70	Chronic migraine without aura, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.71	Chronic migraine without aura, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.72	Chronic migraine without aura, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.73	Chronic migraine without aura, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
346.8	Other forms of migraine	Diagnosis	ICD-9-CM
346.80	Other forms of migraine, without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.81	Other forms of migraine, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.82	Other forms of migraine, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.83	Other forms of migraine, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM



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Code	Description	Code Category	Code Type
346.9	Migraine, unspecified	Diagnosis	ICD-9-CM
346.90	Migraine, unspecified without mention of intractable migraine without mention of status migrainosus	Diagnosis	ICD-9-CM
346.91	Migraine, unspecified, with intractable migraine, so stated, without mention of status migrainosus	Diagnosis	ICD-9-CM
346.92	Migraine, unspecified, without mention of intractable migraine with status migrainosus	Diagnosis	ICD-9-CM
346.93	Migraine, unspecified, with intractable migraine, so stated, with status migrainosus	Diagnosis	ICD-9-CM
G43.001	Migraine without aura, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.009	Migraine without aura, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.011	Migraine without aura, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.019	Migraine without aura, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.101	Migraine with aura, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.109	Migraine with aura, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.111	Migraine with aura, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.119	Migraine with aura, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.401	Hemiplegic migraine, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.409	Hemiplegic migraine, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.411	Hemiplegic migraine, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.419	Hemiplegic migraine, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.501	Persistent migraine aura without cerebral infarction, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.509	Persistent migraine aura without cerebral infarction, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.511	Persistent migraine aura without cerebral infarction, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.519	Persistent migraine aura without cerebral infarction, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.601	Persistent migraine aura with cerebral infarction, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.609	Persistent migraine aura with cerebral infarction, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.611	Persistent migraine aura with cerebral infarction, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.619	Persistent migraine aura with cerebral infarction, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.701	Chronic migraine without aura, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.709	Chronic migraine without aura, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.711	Chronic migraine without aura, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.719	Chronic migraine without aura, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.801	Other migraine, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.809	Other migraine, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.811	Other migraine, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.819	Other migraine, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.821	Menstrual migraine, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.829	Menstrual migraine, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.831	Menstrual migraine, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.839	Menstrual migraine, intractable, without status migrainosus	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
G43.901	Migraine, unspecified, not intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.909	Migraine, unspecified, not intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.911	Migraine, unspecified, intractable, with status migrainosus	Diagnosis	ICD-10-CM
G43.919	Migraine, unspecified, intractable, without status migrainosus	Diagnosis	ICD-10-CM
G43.B0	Ophthalmoplegic migraine, not intractable	Diagnosis	ICD-10-CM
G43.B1	Ophthalmoplegic migraine, intractable	Diagnosis	ICD-10-CM
G43.C0	Periodic headache syndromes in child or adult, not intractable	Diagnosis	ICD-10-CM
G43.C1	Periodic headache syndromes in child or adult, intractable	Diagnosis	ICD-10-CM
G43.D0	Abdominal migraine, not intractable	Diagnosis	ICD-10-CM
G43.D1	Abdominal migraine, intractable	Diagnosis	ICD-10-CM
<b>Hypertension</b>			
362.11	Hypertensive retinopathy	Diagnosis	ICD-09-CM
401.0	Essential hypertension, malignant	Diagnosis	ICD-09-CM
401.1	Essential hypertension, benign	Diagnosis	ICD-09-CM
401.9	Unspecified essential hypertension	Diagnosis	ICD-09-CM
402.00	Malignant hypertensive heart disease without heart failure	Diagnosis	ICD-09-CM
402.01	Malignant hypertensive heart disease with heart failure	Diagnosis	ICD-09-CM
402.10	Benign hypertensive heart disease without heart failure	Diagnosis	ICD-09-CM
402.11	Benign hypertensive heart disease with heart failure	Diagnosis	ICD-09-CM
402.90	Unspecified hypertensive heart disease without heart failure	Diagnosis	ICD-09-CM
402.91	Hypertensive heart disease, unspecified, with heart failure	Diagnosis	ICD-09-CM
403.00	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM
403.01	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
403.10	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM
403.11	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
403.90	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM
403.91	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
404.00	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM
404.01	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM
404.02	Hypertensive heart and chronic kidney disease, malignant, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
404.03	Hypertensive heart and chronic kidney disease, malignant, with heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
404.10	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM

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

Code	Description	Code Category	Code Type
404.11	Hypertensive heart and chronic kidney disease, benign, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM
404.12	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
404.13	Hypertensive heart and chronic kidney disease, benign, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
404.90	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM
404.91	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-09-CM
404.92	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
404.93	Hypertensive heart and chronic kidney disease, unspecified, with heart failure and chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-09-CM
405.01	Secondary renovascular hypertension, malignant	Diagnosis	ICD-09-CM
405.09	Other secondary hypertension, malignant	Diagnosis	ICD-09-CM
405.11	Secondary renovascular hypertension, benign	Diagnosis	ICD-09-CM
405.19	Other secondary hypertension, benign	Diagnosis	ICD-09-CM
405.91	Secondary renovascular hypertension, unspecified	Diagnosis	ICD-09-CM
405.99	Other secondary hypertension, unspecified	Diagnosis	ICD-09-CM
437.2	Hypertensive encephalopathy	Diagnosis	ICD-09-CM
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

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

Code	Description	Code	
		Category	Code Type
I15.8	Other secondary hypertension	Diagnosis	ICD-10-CM
I15.9	Secondary hypertension, unspecified	Diagnosis	ICD-10-CM
I67.4	Hypertensive encephalopathy	Diagnosis	ICD-10-CM
N26.2	Page kidney	Diagnosis	ICD-10-CM
<b>Corticosteroids</b>			
J0702	INJECTION, BETAMETHASONE ACETATE AND BETAMETHASONE SODIUM PHOSPHATE, PER 3	Procedure	HCPCS
J1020	Inj methylpred 20 mg	Procedure	HCPCS
J1030	Inj methylpred 40 mg	Procedure	HCPCS
J1040	Inj methylpred 80 mg	Procedure	HCPCS
J1094	Inj dexa acet 1 mg	Procedure	HCPCS
J1100	Inj dexa sod 1 mg	Procedure	HCPCS
J1700	Inj hydro 25 mg	Procedure	HCPCS
J1710	Inj hydro sod 50 mg	Procedure	HCPCS
J1720	Inj hydro sod 100 mg	Procedure	HCPCS
J2650	Injection, prednisolone acetate, up to 1 ml	Procedure	HCPCS
J2920	Inj methylpred sod 40 mg	Procedure	HCPCS
J2930	Inj methyl sod 125 mg	Procedure	HCPCS
J3300	Inj triam acet preservative free 1 mg	Procedure	HCPCS
J3301	Inj triam acet not otherwise specified 10 mg	Procedure	HCPCS
J3302	Inj triam diacet per 5 mg	Procedure	HCPCS
J3303	Inj triam hexa per 5 mg	Procedure	HCPCS
J3304	Inj triam acet extended release microsphere formulation, 1 mg	Procedure	HCPCS
J7509	Methylpred oral 4 mg	Procedure	HCPCS
J7510	Prednisolone oral, per 5 mg	Procedure	HCPCS
J7512	Prednisone, immediate release or delayed release, oral, 1 mg	Procedure	HCPCS
J8540	Dexa oral 0.25 mg	Procedure	HCPCS

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

Code	Description	Code Category	Code Type
<b>Orofacial/Respiratory Malformations</b>			
00102	Anesthesia for procedures involving plastic repair of cleft lip	Procedure	CPT-4
00172	Anesthesia for intraoral procedures, including biopsy; repair of cleft palate	Procedure	CPT-4
27.54	Repair of cleft lip	Procedure	ICD-9-CM
27.62	Correction of cleft palate	Procedure	ICD-9-CM
27.63	Revision of cleft palate repair	Procedure	ICD-9-CM
40700	Plastic repair of cleft lip/nasal deformity; primary, partial or complete, unilateral	Procedure	CPT-4
40701	Plastic repair of cleft lip/nasal deformity; primary bilateral, 1-stage procedure	Procedure	CPT-4
40702	Plastic repair of cleft lip/nasal deformity; primary bilateral, 1 of 2 stages	Procedure	CPT-4
40720	Plastic repair of cleft lip/nasal deformity; secondary, by recreation of defect and reclosure	Procedure	CPT-4
40740	Plastic Repair Of Cleft Lip	Procedure	CPT-4
40761	Plastic repair of cleft lip/nasal deformity; with cross lip pedicle flap (Abbe-Estlander type), including sectioning and inserting of pedicle	Procedure	CPT-4
40799	Unlisted procedure, lips	Procedure	CPT-4
42200	Palatoplasty for cleft palate, soft and/or hard palate only	Procedure	CPT-4
42205	Palatoplasty for cleft palate, with closure of alveolar ridge; soft tissue only	Procedure	CPT-4
42210	Palatoplasty for cleft palate, with closure of alveolar ridge; with bone graft to alveolar ridge (includes obtaining graft)	Procedure	CPT-4
42215	Palatoplasty for cleft palate; major revision	Procedure	CPT-4
42220	Palatoplasty for cleft palate; secondary lengthening procedure	Procedure	CPT-4
42225	Palatoplasty for cleft palate; attachment pharyngeal flap	Procedure	CPT-4
42226	Lengthening of palate, and pharyngeal flap	Procedure	CPT-4
42227	Lengthening of palate, with island flap	Procedure	CPT-4
42235	Repair of anterior palate, including vomer flap	Procedure	CPT-4
42260	Repair of nasolabial fistula	Procedure	CPT-4
748.0	Congenital choanal atresia	Diagnosis	ICD-9-CM
749	Cleft palate and cleft lip	Diagnosis	ICD-9-CM
749.0	Cleft palate	Diagnosis	ICD-9-CM
749.00	Unspecified cleft palate	Diagnosis	ICD-9-CM
749.01	Unilateral cleft palate, complete	Diagnosis	ICD-9-CM
749.02	Unilateral cleft palate, incomplete	Diagnosis	ICD-9-CM
749.03	Bilateral cleft palate, complete	Diagnosis	ICD-9-CM
749.04	Bilateral cleft palate, incomplete	Diagnosis	ICD-9-CM
749.1	Cleft lip	Diagnosis	ICD-9-CM
749.10	Unspecified cleft lip	Diagnosis	ICD-9-CM
749.11	Unilateral cleft lip, complete	Diagnosis	ICD-9-CM
749.12	Unilateral cleft lip, incomplete	Diagnosis	ICD-9-CM
749.13	Bilateral cleft lip, complete	Diagnosis	ICD-9-CM
749.14	Bilateral cleft lip, incomplete	Diagnosis	ICD-9-CM
749.2	Cleft palate with cleft lip	Diagnosis	ICD-9-CM
749.20	Unspecified cleft palate with cleft lip	Diagnosis	ICD-9-CM
749.21	Unilateral cleft palate with cleft lip, complete	Diagnosis	ICD-9-CM
749.22	Unilateral cleft palate with cleft lip, incomplete	Diagnosis	ICD-9-CM
749.23	Bilateral cleft palate with cleft lip, complete	Diagnosis	ICD-9-CM

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

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
749.24	Bilateral cleft palate with cleft lip, incomplete	Diagnosis	ICD-9-CM
749.25	Other combinations of cleft palate with cleft lip	Diagnosis	ICD-9-CM
Q30.0	Choanal atresia	Diagnosis	ICD-10-CM
Q35.1	Cleft hard palate	Diagnosis	ICD-10-CM
Q35.3	Cleft soft palate	Diagnosis	ICD-10-CM
Q35.5	Cleft hard palate with cleft soft palate	Diagnosis	ICD-10-CM
Q35.7	Cleft uvula	Diagnosis	ICD-10-CM
Q35.9	Cleft palate, unspecified	Diagnosis	ICD-10-CM
Q36.0	Cleft lip, bilateral	Diagnosis	ICD-10-CM
Q36.1	Cleft lip, median	Diagnosis	ICD-10-CM
Q36.9	Cleft lip, unilateral	Diagnosis	ICD-10-CM
Q37.0	Cleft hard palate with bilateral cleft lip	Diagnosis	ICD-10-CM
Q37.1	Cleft hard palate with unilateral cleft lip	Diagnosis	ICD-10-CM
Q37.2	Cleft soft palate with bilateral cleft lip	Diagnosis	ICD-10-CM
Q37.3	Cleft soft palate with unilateral cleft lip	Diagnosis	ICD-10-CM
Q37.4	Cleft hard and soft palate with bilateral cleft lip	Diagnosis	ICD-10-CM
Q37.5	Cleft hard and soft palate with unilateral cleft lip	Diagnosis	ICD-10-CM
Q37.8	Unspecified cleft palate with bilateral cleft lip	Diagnosis	ICD-10-CM
Q37.9	Unspecified cleft palate with unilateral cleft lip	Diagnosis	ICD-10-CM
<b>Central Nervous System Malformations</b>			
741.0	Spina bifida with hydrocephalus	Diagnosis	ICD-9-CM
741.00	Spina bifida with hydrocephalus, unspecified region	Diagnosis	ICD-9-CM
741.01	Spina bifida with hydrocephalus, cervical region	Diagnosis	ICD-9-CM
741.02	Spina bifida with hydrocephalus, dorsal (thoracic) region	Diagnosis	ICD-9-CM
741.03	Spina bifida with hydrocephalus, lumbar region	Diagnosis	ICD-9-CM
741.9	Spina bifida without mention of hydrocephalus	Diagnosis	ICD-9-CM
741.90	Spina bifida without mention of hydrocephalus, unspecified region	Diagnosis	ICD-9-CM
741.91	Spina bifida without mention of hydrocephalus, cervical region	Diagnosis	ICD-9-CM
741.92	Spina bifida without mention of hydrocephalus, dorsal (thoracic) region	Diagnosis	ICD-9-CM
741.93	Spina bifida without mention of hydrocephalus, lumbar region	Diagnosis	ICD-9-CM
742.0	Encephalocele	Diagnosis	ICD-9-CM
742.1	Microcephalus	Diagnosis	ICD-9-CM
742.2	Congenital reduction deformities of brain	Diagnosis	ICD-9-CM
Q01.0	Frontal encephalocele	Diagnosis	ICD-10-CM
Q01.1	Nasofrontal encephalocele	Diagnosis	ICD-10-CM
Q01.2	Occipital encephalocele	Diagnosis	ICD-10-CM
Q01.8	Encephalocele of other sites	Diagnosis	ICD-10-CM
Q01.9	Encephalocele, unspecified	Diagnosis	ICD-10-CM
Q02	Microcephaly	Diagnosis	ICD-10-CM
Q04.0	Congenital malformations of corpus callosum	Diagnosis	ICD-10-CM
Q04.1	Arhinencephaly	Diagnosis	ICD-10-CM
Q04.2	Holoprosencephaly	Diagnosis	ICD-10-CM
Q04.3	Other reduction deformities of brain	Diagnosis	ICD-10-CM
Q05.0	Cervical spina bifida with hydrocephalus	Diagnosis	ICD-10-CM



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

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
Q05.1	Thoracic spina bifida with hydrocephalus	Diagnosis	ICD-10-CM
Q05.2	Lumbar spina bifida with hydrocephalus	Diagnosis	ICD-10-CM
Q05.3	Sacral spina bifida with hydrocephalus	Diagnosis	ICD-10-CM
Q05.4	Unspecified spina bifida with hydrocephalus	Diagnosis	ICD-10-CM
Q05.5	Cervical spina bifida without hydrocephalus	Diagnosis	ICD-10-CM
Q05.6	Thoracic spina bifida without hydrocephalus	Diagnosis	ICD-10-CM
Q05.7	Lumbar spina bifida without hydrocephalus	Diagnosis	ICD-10-CM
Q05.8	Sacral spina bifida without hydrocephalus	Diagnosis	ICD-10-CM
Q05.9	Spina bifida, unspecified	Diagnosis	ICD-10-CM
Q07.00	Arnold-Chiari syndrome without spina bifida or hydrocephalus	Diagnosis	ICD-10-CM
Q07.01	Arnold-Chiari syndrome with spina bifida	Diagnosis	ICD-10-CM
Q07.02	Arnold-Chiari syndrome with hydrocephalus	Diagnosis	ICD-10-CM
Q07.03	Arnold-Chiari syndrome with spina bifida and hydrocephalus	Diagnosis	ICD-10-CM
<b>Eye Malformations</b>			
743.00	Unspecified clinical anophthalmos	Diagnosis	ICD-9-CM
743.10	Unspecified microphthalmos	Diagnosis	ICD-9-CM
743.11	Simple microphthalmos	Diagnosis	ICD-9-CM
743.12	Microphthalmos associated with other anomalies of eye and adnexa	Diagnosis	ICD-9-CM
743.2	Buphthalmos	Diagnosis	ICD-9-CM
743.20	Unspecified buphthalmos	Diagnosis	ICD-9-CM
743.21	Simple buphthalmos	Diagnosis	ICD-9-CM
743.22	Buphthalmos associated with other ocular anomaly	Diagnosis	ICD-9-CM
743.30	Unspecified congenital cataract	Diagnosis	ICD-9-CM
743.31	Congenital capsular and subcapsular cataract	Diagnosis	ICD-9-CM
743.32	Congenital cortical and zonular cataract	Diagnosis	ICD-9-CM
743.33	Congenital nuclear cataract	Diagnosis	ICD-9-CM
743.34	Congenital total and subtotal cataract	Diagnosis	ICD-9-CM
743.35	Congenital aphakia	Diagnosis	ICD-9-CM
743.36	Congenital anomalies of lens shape	Diagnosis	ICD-9-CM
744.01	Congenital absence of external ear causing impairment of hearing	Diagnosis	ICD-9-CM
744.23	Microtia	Diagnosis	ICD-9-CM
Q11.1	Other anophthalmos	Diagnosis	ICD-10-CM
Q11.2	Microphthalmos	Diagnosis	ICD-10-CM
Q12.0	Congenital cataract	Diagnosis	ICD-10-CM
Q12.2	Coloboma of lens	Diagnosis	ICD-10-CM
Q12.3	Congenital aphakia	Diagnosis	ICD-10-CM
Q12.4	Spherophakia	Diagnosis	ICD-10-CM
Q12.8	Other congenital lens malformations	Diagnosis	ICD-10-CM
Q15.0	Congenital glaucoma	Diagnosis	ICD-10-CM
Q16.0	Congenital absence of (ear) auricle	Diagnosis	ICD-10-CM
Q17.2	Microtia	Diagnosis	ICD-10-CM
<b>Cardiac Malformations</b>			
745	Bulbus cordis anomalies and anomalies of cardiac septal closure	Diagnosis	ICD-9-CM
745.0	Bulbus cordis anomalies and anomalies of cardiac septal closure, common truncus	Diagnosis	ICD-9-CM



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

Code	Description	Code	
		Category	Code Type
745.1	Transposition of great vessels	Diagnosis	ICD-9-CM
745.10	Complete transposition of great vessels	Diagnosis	ICD-9-CM
745.11	Transposition of great vessels, double outlet right ventricle	Diagnosis	ICD-9-CM
745.12	Corrected transposition of great vessels	Diagnosis	ICD-9-CM
745.19	Other transposition of great vessels	Diagnosis	ICD-9-CM
745.2	Tetralogy of Fallot	Diagnosis	ICD-9-CM
745.3	Bulbus cordis anomalies and anomalies of cardiac septal closure, common ventricle	Diagnosis	ICD-9-CM
745.4	Ventricular septal defect	Diagnosis	ICD-9-CM
745.5	Ostium secundum type atrial septal defect	Diagnosis	ICD-9-CM
745.6	Endocardial cushion defects	Diagnosis	ICD-9-CM
745.60	Unspecified type congenital endocardial cushion defect	Diagnosis	ICD-9-CM
745.61	Ostium primum defect	Diagnosis	ICD-9-CM
745.69	Other congenital endocardial cushion defect	Diagnosis	ICD-9-CM
745.7	Cor biloculare	Diagnosis	ICD-9-CM
745.8	Other bulbus cordis anomalies and anomalies of cardiac septal closure	Diagnosis	ICD-9-CM
745.9	Unspecified congenital defect of septal closure	Diagnosis	ICD-9-CM
746	Other congenital anomalies of heart	Diagnosis	ICD-9-CM
746.0	Congenital anomalies of pulmonary valve	Diagnosis	ICD-9-CM
746.00	Unspecified congenital pulmonary valve anomaly	Diagnosis	ICD-9-CM
746.01	Congenital atresia of pulmonary valve	Diagnosis	ICD-9-CM
746.02	Congenital stenosis of pulmonary valve	Diagnosis	ICD-9-CM
746.09	Other congenital anomalies of pulmonary valve	Diagnosis	ICD-9-CM
746.1	Congenital tricuspid atresia and stenosis	Diagnosis	ICD-9-CM
746.2	Ebstein's anomaly	Diagnosis	ICD-9-CM
746.3	Congenital stenosis of aortic valve	Diagnosis	ICD-9-CM
746.4	Congenital insufficiency of aortic valve	Diagnosis	ICD-9-CM
746.5	Congenital mitral stenosis	Diagnosis	ICD-9-CM
746.6	Congenital mitral insufficiency	Diagnosis	ICD-9-CM
746.7	Hypoplastic left heart syndrome	Diagnosis	ICD-9-CM
746.8	Other specified congenital anomaly of heart	Diagnosis	ICD-9-CM
746.81	Congenital subaortic stenosis	Diagnosis	ICD-9-CM
746.82	Cor triatriatum	Diagnosis	ICD-9-CM
746.83	Congenital infundibular pulmonic stenosis	Diagnosis	ICD-9-CM
746.84	Congenital obstructive anomalies of heart, not elsewhere classified	Diagnosis	ICD-9-CM
746.85	Congenital coronary artery anomaly	Diagnosis	ICD-9-CM
746.86	Congenital heart block	Diagnosis	ICD-9-CM
746.87	Congenital malposition of heart and cardiac apex	Diagnosis	ICD-9-CM
746.89	Other specified congenital anomaly of heart	Diagnosis	ICD-9-CM
746.9	Unspecified congenital anomaly of heart	Diagnosis	ICD-9-CM
747	Other congenital anomalies of circulatory system	Diagnosis	ICD-9-CM
747.0	Patent ductus arteriosus	Diagnosis	ICD-9-CM
747.1	Coarctation of aorta	Diagnosis	ICD-9-CM
747.10	Coarctation of aorta (preductal) (postductal)	Diagnosis	ICD-9-CM
747.11	Congenital interruption of aortic arch	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
747.2	Other congenital anomaly of aorta	Diagnosis	ICD-9-CM
747.20	Unspecified congenital anomaly of aorta	Diagnosis	ICD-9-CM
747.21	Congenital anomaly of aortic arch	Diagnosis	ICD-9-CM
747.22	Congenital atresia and stenosis of aorta	Diagnosis	ICD-9-CM
747.29	Other congenital anomaly of aorta	Diagnosis	ICD-9-CM
747.3	Anomalies of pulmonary artery	Diagnosis	ICD-9-CM
747.31	Pulmonary artery coarctation and atresia	Diagnosis	ICD-9-CM
747.32	Pulmonary arteriovenous malformation	Diagnosis	ICD-9-CM
747.39	Other anomalies of pulmonary artery and pulmonary circulation	Diagnosis	ICD-9-CM
747.4	Congenital anomalies of great veins	Diagnosis	ICD-9-CM
747.40	Congenital anomaly of great veins unspecified	Diagnosis	ICD-9-CM
747.41	Total congenital anomalous pulmonary venous connection	Diagnosis	ICD-9-CM
747.42	Partial congenital anomalous pulmonary venous connection	Diagnosis	ICD-9-CM
747.49	Other congenital anomalies of great veins	Diagnosis	ICD-9-CM
747.5	Congenital absence or hypoplasia of umbilical artery	Diagnosis	ICD-9-CM
747.6	Other congenital anomaly of peripheral vascular system	Diagnosis	ICD-9-CM
747.60	Congenital anomaly of the peripheral vascular system, unspecified site	Diagnosis	ICD-9-CM
747.61	Congenital gastrointestinal vessel anomaly	Diagnosis	ICD-9-CM
747.62	Congenital renal vessel anomaly	Diagnosis	ICD-9-CM
747.63	Congenital upper limb vessel anomaly	Diagnosis	ICD-9-CM
747.64	Congenital lower limb vessel anomaly	Diagnosis	ICD-9-CM
747.69	Congenital anomaly of other specified site of peripheral vascular system	Diagnosis	ICD-9-CM
747.8	Other specified congenital anomalies of circulatory system	Diagnosis	ICD-9-CM
747.81	Congenital anomaly of cerebrovascular system	Diagnosis	ICD-9-CM
747.82	Congenital spinal vessel anomaly	Diagnosis	ICD-9-CM
747.83	Persistent fetal circulation	Diagnosis	ICD-9-CM
747.89	Other specified congenital anomaly of circulatory system	Diagnosis	ICD-9-CM
747.9	Unspecified congenital anomaly of circulatory system	Diagnosis	ICD-9-CM
I27.83	Eisenmenger's syndrome	Diagnosis	ICD-10-CM
P29.30	Pulmonary hypertension of newborn	Diagnosis	ICD-10-CM
P29.38	Other persistent fetal circulation	Diagnosis	ICD-10-CM
Q20.0	Common arterial trunk	Diagnosis	ICD-10-CM
Q20.1	Double outlet right ventricle	Diagnosis	ICD-10-CM
Q20.2	Double outlet left ventricle	Diagnosis	ICD-10-CM
Q20.3	Discordant ventriculoarterial connection	Diagnosis	ICD-10-CM
Q20.4	Double inlet ventricle	Diagnosis	ICD-10-CM
Q20.5	Discordant atrioventricular connection	Diagnosis	ICD-10-CM
Q20.6	Isomerism of atrial appendages	Diagnosis	ICD-10-CM
Q20.8	Other congenital malformations of cardiac chambers and connections	Diagnosis	ICD-10-CM
Q20.9	Congenital malformation of cardiac chambers and connections, unspecified	Diagnosis	ICD-10-CM
Q21.0	Ventricular septal defect	Diagnosis	ICD-10-CM
Q21.1	Atrial septal defect	Diagnosis	ICD-10-CM
Q21.2	Atrioventricular septal defect	Diagnosis	ICD-10-CM
Q21.3	Tetralogy of Fallot	Diagnosis	ICD-10-CM

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

Code	Description	Code	
		Category	Code Type
Q21.4	Aortopulmonary septal defect	Diagnosis	ICD-10-CM
Q21.8	Other congenital malformations of cardiac septa	Diagnosis	ICD-10-CM
Q21.9	Congenital malformation of cardiac septum, unspecified	Diagnosis	ICD-10-CM
Q22.0	Pulmonary valve atresia	Diagnosis	ICD-10-CM
Q22.1	Congenital pulmonary valve stenosis	Diagnosis	ICD-10-CM
Q22.2	Congenital pulmonary valve insufficiency	Diagnosis	ICD-10-CM
Q22.3	Other congenital malformations of pulmonary valve	Diagnosis	ICD-10-CM
Q22.4	Congenital tricuspid stenosis	Diagnosis	ICD-10-CM
Q22.5	Ebstein's anomaly	Diagnosis	ICD-10-CM
Q22.6	Hypoplastic right heart syndrome	Diagnosis	ICD-10-CM
Q22.8	Other congenital malformations of tricuspid valve	Diagnosis	ICD-10-CM
Q22.9	Congenital malformation of tricuspid valve, unspecified	Diagnosis	ICD-10-CM
Q23.0	Congenital stenosis of aortic valve	Diagnosis	ICD-10-CM
Q23.1	Congenital insufficiency of aortic valve	Diagnosis	ICD-10-CM
Q23.2	Congenital mitral stenosis	Diagnosis	ICD-10-CM
Q23.3	Congenital mitral insufficiency	Diagnosis	ICD-10-CM
Q23.4	Hypoplastic left heart syndrome	Diagnosis	ICD-10-CM
Q23.8	Other congenital malformations of aortic and mitral valves	Diagnosis	ICD-10-CM
Q23.9	Congenital malformation of aortic and mitral valves, unspecified	Diagnosis	ICD-10-CM
Q24.0	Dextrocardia	Diagnosis	ICD-10-CM
Q24.1	Levocardia	Diagnosis	ICD-10-CM
Q24.2	Cor triatriatum	Diagnosis	ICD-10-CM
Q24.3	Pulmonary infundibular stenosis	Diagnosis	ICD-10-CM
Q24.4	Congenital subaortic stenosis	Diagnosis	ICD-10-CM
Q24.5	Malformation of coronary vessels	Diagnosis	ICD-10-CM
Q24.6	Congenital heart block	Diagnosis	ICD-10-CM
Q24.8	Other specified congenital malformations of heart	Diagnosis	ICD-10-CM
Q24.9	Congenital malformation of heart, unspecified	Diagnosis	ICD-10-CM
Q25.0	Patent ductus arteriosus	Diagnosis	ICD-10-CM
Q25.1	Coarctation of aorta	Diagnosis	ICD-10-CM
Q25.21	Interruption of aortic arch	Diagnosis	ICD-10-CM
Q25.29	Other atresia of aorta	Diagnosis	ICD-10-CM
Q25.3	Supravalvular aortic stenosis	Diagnosis	ICD-10-CM
Q25.40	Congenital malformation of aorta unspecified	Diagnosis	ICD-10-CM
Q25.41	Absence and aplasia of aorta	Diagnosis	ICD-10-CM
Q25.42	Hypoplasia of aorta	Diagnosis	ICD-10-CM
Q25.43	Congenital aneurysm of aorta	Diagnosis	ICD-10-CM
Q25.44	Congenital dilation of aorta	Diagnosis	ICD-10-CM
Q25.45	Double aortic arch	Diagnosis	ICD-10-CM
Q25.46	Tortuous aortic arch	Diagnosis	ICD-10-CM
Q25.47	Right aortic arch	Diagnosis	ICD-10-CM
Q25.48	Anomalous origin of subclavian artery	Diagnosis	ICD-10-CM
Q25.49	Other congenital malformations of aorta	Diagnosis	ICD-10-CM
Q25.5	Atresia of pulmonary artery	Diagnosis	ICD-10-CM

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

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
Q25.6	Stenosis of pulmonary artery	Diagnosis	ICD-10-CM
Q25.71	Coarctation of pulmonary artery	Diagnosis	ICD-10-CM
Q25.72	Congenital pulmonary arteriovenous malformation	Diagnosis	ICD-10-CM
Q25.79	Other congenital malformations of pulmonary artery	Diagnosis	ICD-10-CM
Q25.8	Other congenital malformations of other great arteries	Diagnosis	ICD-10-CM
Q25.9	Congenital malformation of great arteries, unspecified	Diagnosis	ICD-10-CM
Q26.0	Congenital stenosis of vena cava	Diagnosis	ICD-10-CM
Q26.1	Persistent left superior vena cava	Diagnosis	ICD-10-CM
Q26.2	Total anomalous pulmonary venous connection	Diagnosis	ICD-10-CM
Q26.3	Partial anomalous pulmonary venous connection	Diagnosis	ICD-10-CM
Q26.4	Anomalous pulmonary venous connection, unspecified	Diagnosis	ICD-10-CM
Q26.5	Anomalous portal venous connection	Diagnosis	ICD-10-CM
Q26.6	Portal vein-hepatic artery fistula	Diagnosis	ICD-10-CM
Q26.8	Other congenital malformations of great veins	Diagnosis	ICD-10-CM
Q26.9	Congenital malformation of great vein, unspecified	Diagnosis	ICD-10-CM
Q27.0	Congenital absence and hypoplasia of umbilical artery	Diagnosis	ICD-10-CM
Q27.1	Congenital renal artery stenosis	Diagnosis	ICD-10-CM
Q27.2	Other congenital malformations of renal artery	Diagnosis	ICD-10-CM
Q27.30	Arteriovenous malformation, site unspecified	Diagnosis	ICD-10-CM
Q27.31	Arteriovenous malformation of vessel of upper limb	Diagnosis	ICD-10-CM
Q27.32	Arteriovenous malformation of vessel of lower limb	Diagnosis	ICD-10-CM
Q27.33	Arteriovenous malformation of digestive system vessel	Diagnosis	ICD-10-CM
Q27.34	Arteriovenous malformation of renal vessel	Diagnosis	ICD-10-CM
Q27.39	Arteriovenous malformation, other site	Diagnosis	ICD-10-CM
Q27.4	Congenital phlebectasia	Diagnosis	ICD-10-CM
Q27.8	Other specified congenital malformations of peripheral vascular system	Diagnosis	ICD-10-CM
Q27.9	Congenital malformation of peripheral vascular system, unspecified	Diagnosis	ICD-10-CM
Q28.0	Arteriovenous malformation of precerebral vessels	Diagnosis	ICD-10-CM
Q28.1	Other malformations of precerebral vessels	Diagnosis	ICD-10-CM
Q28.2	Arteriovenous malformation of cerebral vessels	Diagnosis	ICD-10-CM
Q28.3	Other malformations of cerebral vessels	Diagnosis	ICD-10-CM
Q28.8	Other specified congenital malformations of circulatory system	Diagnosis	ICD-10-CM
Q28.9	Congenital malformation of circulatory system, unspecified	Diagnosis	ICD-10-CM
<b>Gastrointestinal Malformations</b>			
750.3	Congenital tracheoesophageal fistula, esophageal atresia and stenosis	Diagnosis	ICD-9-CM
750.5	Congenital hypertrophic pyloric stenosis	Diagnosis	ICD-9-CM
751.1	Congenital atresia and stenosis of small intestine	Diagnosis	ICD-9-CM
751.2	Congenital atresia and stenosis of large intestine, rectum, and anal canal	Diagnosis	ICD-9-CM
751.61	Congenital biliary atresia	Diagnosis	ICD-9-CM
753.5	Exstrophy of urinary bladder	Diagnosis	ICD-9-CM
Q39.0	Atresia of esophagus without fistula	Diagnosis	ICD-10-CM
Q39.1	Atresia of esophagus with tracheo-esophageal fistula	Diagnosis	ICD-10-CM
Q39.2	Congenital tracheo-esophageal fistula without atresia	Diagnosis	ICD-10-CM
Q39.3	Congenital stenosis and stricture of esophagus	Diagnosis	ICD-10-CM

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

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
Q39.4	Esophageal web	Diagnosis	ICD-10-CM
Q40.0	Congenital hypertrophic pyloric stenosis	Diagnosis	ICD-10-CM
Q41.0	Congenital absence, atresia and stenosis of duodenum	Diagnosis	ICD-10-CM
Q41.1	Congenital absence, atresia and stenosis of jejunum	Diagnosis	ICD-10-CM
Q41.2	Congenital absence, atresia and stenosis of ileum	Diagnosis	ICD-10-CM
Q41.8	Congenital absence, atresia and stenosis of other specified parts of small intestine	Diagnosis	ICD-10-CM
Q41.9	Congenital absence, atresia and stenosis of small intestine, part unspecified	Diagnosis	ICD-10-CM
Q42.0	Congenital absence, atresia and stenosis of rectum with fistula	Diagnosis	ICD-10-CM
Q42.1	Congenital absence, atresia and stenosis of rectum without fistula	Diagnosis	ICD-10-CM
Q42.2	Congenital absence, atresia and stenosis of anus with fistula	Diagnosis	ICD-10-CM
Q42.3	Congenital absence, atresia and stenosis of anus without fistula	Diagnosis	ICD-10-CM
Q42.8	Congenital absence, atresia and stenosis of other parts of large intestine	Diagnosis	ICD-10-CM
Q42.9	Congenital absence, atresia and stenosis of large intestine, part unspecified	Diagnosis	ICD-10-CM
Q44.2	Atresia of bile ducts	Diagnosis	ICD-10-CM
Q44.3	Congenital stenosis and stricture of bile ducts	Diagnosis	ICD-10-CM
Q64.10	Exstrophy of urinary bladder, unspecified	Diagnosis	ICD-10-CM
Q64.11	Supravesical fissure of urinary bladder	Diagnosis	ICD-10-CM
Q64.12	Cloacal exstrophy of urinary bladder	Diagnosis	ICD-10-CM
Q64.19	Other exstrophy of urinary bladder	Diagnosis	ICD-10-CM
<b>Genitourinary/Renal Malformations</b>			
752.61	Hypospadias	Diagnosis	ICD-9-CM
753.0	Congenital renal agenesis and dysgenesis	Diagnosis	ICD-9-CM
753.15	Congenital renal dysplasia	Diagnosis	ICD-9-CM
756.71	Prune belly syndrome	Diagnosis	ICD-9-CM
Q54.0	Hypospadias, balanic	Diagnosis	ICD-10-CM
Q54.1	Hypospadias, penile	Diagnosis	ICD-10-CM
Q54.2	Hypospadias, penoscrotal	Diagnosis	ICD-10-CM
Q54.3	Hypospadias, perineal	Diagnosis	ICD-10-CM
Q54.8	Other hypospadias	Diagnosis	ICD-10-CM
Q54.9	Hypospadias, unspecified	Diagnosis	ICD-10-CM
Q60.0	Renal agenesis, unilateral	Diagnosis	ICD-10-CM
Q60.1	Renal agenesis, bilateral	Diagnosis	ICD-10-CM
Q60.2	Renal agenesis, unspecified	Diagnosis	ICD-10-CM
Q60.3	Renal hypoplasia, unilateral	Diagnosis	ICD-10-CM
Q60.4	Renal hypoplasia, bilateral	Diagnosis	ICD-10-CM
Q60.5	Renal hypoplasia, unspecified	Diagnosis	ICD-10-CM
Q60.6	Potter's syndrome	Diagnosis	ICD-10-CM
Q61.4	Renal dysplasia	Diagnosis	ICD-10-CM
Q79.4	Prune belly syndrome	Diagnosis	ICD-10-CM
Q79.51	Congenital hernia of bladder	Diagnosis	ICD-10-CM
<b>Urinary Malformations</b>			
753	Congenital anomalies of urinary system	Diagnosis	ICD-9-CM
753.0	Congenital renal agenesis and dysgenesis	Diagnosis	ICD-9-CM
753.1	Congenital cystic kidney disease	Diagnosis	ICD-9-CM

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

Code	Description	Code Category	Code Type
753.10	Unspecified congenital cystic kidney disease	Diagnosis	ICD-9-CM
753.11	Congenital single renal cyst	Diagnosis	ICD-9-CM
753.12	Congenital polycystic kidney, unspecified type	Diagnosis	ICD-9-CM
753.13	Congenital polycystic kidney, autosomal dominant	Diagnosis	ICD-9-CM
753.14	Congenital polycystic kidney, autosomal recessive	Diagnosis	ICD-9-CM
753.15	Congenital renal dysplasia	Diagnosis	ICD-9-CM
753.16	Congenital medullary cystic kidney	Diagnosis	ICD-9-CM
753.17	Congenital medullary sponge kidney	Diagnosis	ICD-9-CM
753.19	Other specified congenital cystic kidney disease	Diagnosis	ICD-9-CM
753.2	Congenital obstructive defects of renal pelvis and ureter	Diagnosis	ICD-9-CM
753.20	Unspecified obstructive defect of renal pelvis and ureter	Diagnosis	ICD-9-CM
753.21	Congenital obstruction of ureteropelvic junction	Diagnosis	ICD-9-CM
753.22	Congenital obstruction of ureterovesical junction	Diagnosis	ICD-9-CM
753.23	Congenital ureterocele	Diagnosis	ICD-9-CM
753.29	Other obstructive defect of renal pelvis and ureter	Diagnosis	ICD-9-CM
753.3	Other specified congenital anomalies of kidney	Diagnosis	ICD-9-CM
753.4	Other specified congenital anomalies of ureter	Diagnosis	ICD-9-CM
753.5	Exstrophy of urinary bladder	Diagnosis	ICD-9-CM
753.6	Congenital atresia and stenosis of urethra and bladder neck	Diagnosis	ICD-9-CM
753.7	Congenital anomalies of urachus	Diagnosis	ICD-9-CM
753.8	Other specified congenital anomaly of bladder and urethra	Diagnosis	ICD-9-CM
753.9	Unspecified congenital anomaly of urinary system	Diagnosis	ICD-9-CM
Q60.0	Renal agenesis, unilateral	Diagnosis	ICD-10-CM
Q60.1	Renal agenesis, bilateral	Diagnosis	ICD-10-CM
Q60.2	Renal agenesis, unspecified	Diagnosis	ICD-10-CM
Q60.3	Renal hypoplasia, unilateral	Diagnosis	ICD-10-CM
Q60.4	Renal hypoplasia, bilateral	Diagnosis	ICD-10-CM
Q60.5	Renal hypoplasia, unspecified	Diagnosis	ICD-10-CM
Q60.6	Potter's syndrome	Diagnosis	ICD-10-CM
Q61.00	Congenital renal cyst, unspecified	Diagnosis	ICD-10-CM
Q61.01	Congenital single renal cyst	Diagnosis	ICD-10-CM
Q61.02	Congenital multiple renal cysts	Diagnosis	ICD-10-CM
Q61.11	Cystic dilatation of collecting ducts	Diagnosis	ICD-10-CM
Q61.19	Other polycystic kidney, infantile type	Diagnosis	ICD-10-CM
Q61.2	Polycystic kidney, adult type	Diagnosis	ICD-10-CM
Q61.3	Polycystic kidney, unspecified	Diagnosis	ICD-10-CM
Q61.4	Renal dysplasia	Diagnosis	ICD-10-CM
Q61.5	Medullary cystic kidney	Diagnosis	ICD-10-CM
Q61.8	Other cystic kidney diseases	Diagnosis	ICD-10-CM
Q61.9	Cystic kidney disease, unspecified	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



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<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
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
Q62.4	Agenesis of ureter	Diagnosis	ICD-10-CM
Q62.5	Duplication of ureter	Diagnosis	ICD-10-CM
Q62.60	Malposition of ureter, unspecified	Diagnosis	ICD-10-CM
Q62.61	Deviation of ureter	Diagnosis	ICD-10-CM
Q62.62	Displacement of ureter	Diagnosis	ICD-10-CM
Q62.63	Anomalous implantation of ureter	Diagnosis	ICD-10-CM
Q62.69	Other malposition of ureter	Diagnosis	ICD-10-CM
Q62.7	Congenital vesico-uretero-renal reflux	Diagnosis	ICD-10-CM
Q62.8	Other congenital malformations of ureter	Diagnosis	ICD-10-CM
Q63.0	Accessory kidney	Diagnosis	ICD-10-CM
Q63.1	Lobulated, fused and horseshoe kidney	Diagnosis	ICD-10-CM
Q63.2	Ectopic kidney	Diagnosis	ICD-10-CM
Q63.3	Hyperplastic and giant kidney	Diagnosis	ICD-10-CM
Q63.8	Other specified congenital malformations of kidney	Diagnosis	ICD-10-CM
Q63.9	Congenital malformation of kidney, unspecified	Diagnosis	ICD-10-CM
Q64.10	Exstrophy of urinary bladder, unspecified	Diagnosis	ICD-10-CM
Q64.11	Supravesical fissure of urinary bladder	Diagnosis	ICD-10-CM
Q64.12	Cloacal exstrophy of urinary bladder	Diagnosis	ICD-10-CM
Q64.19	Other exstrophy of urinary bladder	Diagnosis	ICD-10-CM
Q64.2	Congenital posterior urethral valves	Diagnosis	ICD-10-CM
Q64.31	Congenital bladder neck obstruction	Diagnosis	ICD-10-CM
Q64.32	Congenital stricture of urethra	Diagnosis	ICD-10-CM
Q64.33	Congenital stricture of urinary meatus	Diagnosis	ICD-10-CM
Q64.39	Other atresia and stenosis of urethra and bladder neck	Diagnosis	ICD-10-CM
Q64.4	Malformation of urachus	Diagnosis	ICD-10-CM
Q64.5	Congenital absence of bladder and urethra	Diagnosis	ICD-10-CM
Q64.6	Congenital diverticulum of bladder	Diagnosis	ICD-10-CM
Q64.70	Unspecified congenital malformation of bladder and urethra	Diagnosis	ICD-10-CM
Q64.71	Congenital prolapse of urethra	Diagnosis	ICD-10-CM
Q64.72	Congenital prolapse of urinary meatus	Diagnosis	ICD-10-CM
Q64.73	Congenital urethrorectal fistula	Diagnosis	ICD-10-CM
Q64.74	Double urethra	Diagnosis	ICD-10-CM
Q64.75	Double urinary meatus	Diagnosis	ICD-10-CM
Q64.79	Other congenital malformations of bladder and urethra	Diagnosis	ICD-10-CM
Q64.8	Other specified congenital malformations of urinary system	Diagnosis	ICD-10-CM
Q64.9	Congenital malformation of urinary system, unspecified	Diagnosis	ICD-10-CM
<b>Musculoskeletal Malformations</b>			
755.2	Congenital reduction deformities of upper limb	Diagnosis	ICD-9-CM
755.3	Congenital reduction deformities of lower limb	Diagnosis	ICD-9-CM
755.4	Congenital reduction deformities, unspecified limb	Diagnosis	ICD-9-CM



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

Code	Description	Code	Code Type
		Category	
755.5	Other congenital anomalies of upper limb, including shoulder girdle	Diagnosis	ICD-9-CM
755.6	Other congenital anomaly of lower limb, including pelvic girdle	Diagnosis	ICD-9-CM
755.8	Other specified congenital anomalies of unspecified limb	Diagnosis	ICD-9-CM
755.9	Unspecified congenital anomaly of unspecified limb	Diagnosis	ICD-9-CM
756.13	Congenital absence of vertebra	Diagnosis	ICD-9-CM
756.6	Congenital anomaly of diaphragm	Diagnosis	ICD-9-CM
756.72	Omphalocele	Diagnosis	ICD-9-CM
756.73	Gastroschisis	Diagnosis	ICD-9-CM
756.79	Other congenital anomalies of abdominal wall	Diagnosis	ICD-9-CM
Q73.0	Congenital absence of unspecified limb(s)	Diagnosis	ICD-10-CM
Q73.1	Phocomelia, unspecified limb(s)	Diagnosis	ICD-10-CM
Q73.8	Other reduction defects of unspecified limb(s)	Diagnosis	ICD-10-CM
Q74.8	Other specified congenital malformations of limb(s)	Diagnosis	ICD-10-CM
Q74.9	Unspecified congenital malformation of limb(s)	Diagnosis	ICD-10-CM
Q76.49	Other congenital malformations of spine, not associated with scoliosis	Diagnosis	ICD-10-CM
Q79.0	Congenital diaphragmatic hernia	Diagnosis	ICD-10-CM
Q79.1	Other congenital malformations of diaphragm	Diagnosis	ICD-10-CM
Q79.2	Exomphalos	Diagnosis	ICD-10-CM
Q79.3	Gastroschisis	Diagnosis	ICD-10-CM
Q79.59	Other congenital malformations of abdominal wall	Diagnosis	ICD-10-CM

## Appendix J. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).

**Query period (bound by the delivery date):** January 1, 2011 - DP Max minus 30 days  
**Coverage requirement:** Medical & Drug Coverage  
**Enrollment requirement prior to index date (date of delivery):** 301 for main cohorts, 431 for sensitivity (301+130 pre-pregnancy period)  
**Enrollment requirement post index date (date of delivery):** 0  
**Enrollment gap:** 45 days  
**Pre-pregnancy period (relative to pregnancy start date):** R01: 0; R02: 130  
**Age groups (calculated at delivery date):** 17, 18-34, 35-50 years  
**Sex:** Female only  
**Stratifications:** Eligible  
**Envelope macro:** Reclassify encounters during inpatient stay as inpatient  
**Freeze data:** No  
**Utilize MIL table?** No  
**Pregnancy Episode Creation**

Scenario	Run	Delivery Definition	Linkage Codes	Pregnancy Cohort Definition	Delivery Care Setting	Create Baseline Table?	Delivery Washout Period Relative to Delivery Date	Pregnancy Duration Definition (Pre/PostTerm Codes)	Pre/Post-Term Code Evaluation Window Relative to Delivery Date	Pregnancy Duration in Absence of Pre/Post-Term Codes (ITT Days)
1	01	MEPREP Algorithm (Pregnancy_Algorithm: Delivery Codes)	N/A	Cohort includes all valid pregnancy episodes during the query period	Inpatient (IP)*	Yes	273 days	Use Pregnancy Algorithm Codes	7 days	273 days
2	02	MEPREP Algorithm (Pregnancy_Algorithm: Delivery Codes)	N/A	Cohort includes all valid pregnancy episodes during the query period	IP*	Yes	273 days	Use Pregnancy Algorithm Codes	7 days	273 days

# Appendix J. Specifications Defining Parameters for this Request

Scenario	Run	Delivery Definition	Linkage Codes	Pregnancy Cohort Definition	Delivery Care Setting	Create Baseline Table?	Delivery Washout Period Relative to Delivery Date	Pregnancy Duration Definition (Pre/PostTerm Codes)	Pre/Post-Term Code Evaluation Window Relative to Delivery Date	Pregnancy Duration in Absence of Pre/Post-Term Codes (ITT Days)
3	01	MEPREP Algorithm (Pregnancy_Algorithm: Delivery Codes)	N/A	Cohort includes all valid pregnancy episodes during the query period	IP*	Yes	273 days	Use Pregnancy Algorithm Codes	7 days	273 days
4	02	MEPREP Algorithm (Pregnancy_Algorithm: Delivery Codes)	N/A	Cohort includes all valid pregnancy episodes during the query period	IP*	Yes	273 days	Use Pregnancy Algorithm Codes	7 days	273 days
5	01	MEPREP Algorithm (Pregnancy_Algorithm: Delivery Codes)	N/A	Cohort includes all valid pregnancy episodes during the query period	IP*	Yes	273 days	Use Pregnancy Algorithm Codes	7 days	273 days
6	02	MEPREP Algorithm (Pregnancy_Algorithm: Delivery Codes)	N/A	Cohort includes all valid pregnancy episodes during the query period	IP*	Yes	273 days	Use Pregnancy Algorithm Codes	7 days	273 days

# Appendix J. Specifications Defining Parameters for this Request

Scenario	Run	Delivery Definition	Linkage Codes	Pregnancy Cohort Definition	Delivery Care Setting	Create Baseline Table?	Delivery Washout Period Relative to Delivery Date	Pregnancy Duration Definition (Pre/PostTerm Codes)	Pre/Post-Term Code Evaluation Window Relative to Delivery Date	Pregnancy Duration in Absence of Pre/Post-Term Codes (ITT Days)
7	01	MEPREP Algorithm (Pregnancy_Algorithm: Delivery Codes)	N/A	Cohort includes all valid pregnancy episodes during the query period	IP*	Yes	273 days	Use Pregnancy Algorithm Codes	7 days	273 days
8	02	MEPREP Algorithm (Pregnancy_Algorithm: Delivery Codes)	N/A	Cohort includes all valid pregnancy episodes during the query period	IP*	Yes	273 days	Use Pregnancy Algorithm Codes	7 days	273 days

ICD-9, ICD-10, HCPCS, and CPT codes are provided by Optum360.

NDC codes are checked against First Data Bank's FDB MedKnowledge®.

# Appendix J. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).

Inclusion/Exclusion Criteria											
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	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	Forced Supply To Attach To Dispensings	
Fingolimod	Inclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of dispensing	1		N/A	
Beta Interferon beta 1a or 1b	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of days supply	1		N/A	
1 Dimethyl fumarate	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of days supply	1		N/A	
Malformations resulting from chromosomal abnormalities	Exclusion	Any	Any	Delivery Date	-301	+30	N/A	1		N/A	
Teratogens (Warfarin, antineoplastic agents, lithium, isotretinoin, misoprostol, thalidomide, leflunomide, teriflunomide, topiramate, cladribine)	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+90	Evaluation period should search for evidence of days supply	1		N/A	

## Appendix J. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).

Inclusion/Exclusion Criteria											
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	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	Forced Supply To Attach To Dispensings	
Fingolimod	Inclusion	N/A	N/A	Estimated pregnancy start date	-45	+ 90	Evaluation period should search for evidence of dispensing	1		N/A	
Beta Interferon beta 1a or 1b	Exclusion	N/A	N/A	Estimated pregnancy start date	-22	-1	Evaluation period should search for evidence of days supply	1		N/A	
<sup>2</sup> Dimethyl fumarate	Exclusion	N/A	N/A	Estimated pregnancy start date	-1	-1	Evaluation period should search for evidence of days supply	1		N/A	
Malformations resulting from chromosomal abnormalities	Exclusion	Any	Any	Delivery Date	-301	+30	N/A	1		N/A	
Teratogens (Warfarin, antineoplastic agents, lithium, isotretinoin, misoprostol, thalidomide, leflunomide, teriflunomide, topiramate, cladribine)	Exclusion	N/A	N/A	Estimated pregnancy start date	-130	+90	Evaluation period should search for evidence of days supply	1		N/A	

# Appendix J. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).

Inclusion/Exclusion Criteria										
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	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	Forced Supply To Attach To Dispensings
Beta Interferon beta 1a or 1b	Inclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of dispensing	1		N/A
Fingolimod	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of days supply	1		N/A
<sup>3</sup> Dimethyl fumarate	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of days supply	1		N/A
Malformations resulting from chromosomal abnormalities	Exclusion	Any	Any	Delivery Date	-301	+30	N/A	1		N/A
Teratogens (Warfarin, antineoplastic agents, lithium, isotretinoin, misoprostol, thalidomide, leflunomide, teriflunomide, topiramate, cladribine)	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+90	Evaluation period should search for evidence of days supply	1		N/A



**Appendix J. Specifications Defining Parameters for this Request**

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).											
Inclusion/Exclusion Criteria											
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Exclude Evidence Of Days Supply If Inclusion/Eclusion Evaluation Period Includes Dispensings	Number Of Instances The Criteria Should Be Found In Evaluation Period	Minimum Days Supplied	Forced Supply To Attach To Dispensings	
Beta Interferon beta 1a or 1b	Inclusion	N/A	N/A	Estimated pregnancy start date	-22	+ 90	Evaluation period should search for evidence of dispensing	1		N/A	
Fingolimod	Exclusion	N/A	N/A	Estimated pregnancy start date	-45	-1	Evaluation period should search for evidence of days supply	1		N/A	
Dimethyl fumarate	Exclusion	N/A	N/A	Estimated pregnancy start date	-1	-1	Evaluation period should search for evidence of days supply	1		N/A	
Malformations resulting from chromosomal abnormalities	Exclusion	Any	Any	Delivery Date	-301	+30	N/A	1		N/A	

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## Appendix J. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).

Inclusion/Exclusion Criteria										
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	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	Forced Supply To Attach To Dispensings
Teratogens (Warfarin, antineoplastic agents, lithium, isotretinoin, misoprostol, thalidomide, leflunomide, teriflunomide, topiramate, cladribine)	Exclusion	N/A	N/A	Estimated pregnancy start date	-130	+90	Evaluation period should search for evidence of days supply	1		N/A
Dimethyl fumarate	Inclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of dispensing	1		N/A
Fingolimod	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+90	Evaluation period should search for evidence of days supply	1		N/A
5 Beta Interferon beta 1a or 1b	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+90	Evaluation period should search for evidence of days supply	1		N/A
Malformations resulting from chromosomal abnormalities	Exclusion	Any	Any	Delivery Date	-301	+30	N/A	1		N/A

## Appendix J. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).

Inclusion/Exclusion Criteria										
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Exclude Evidence Of Days Supply If Inclusion/Eclusion Evaluation Period Includes Dispensings	Number Of Instances The Criteria Should Be Found In Evaluation Period	Minimum Days Supplied	Forced Supply To Attach To Dispensings
Teratogens (Warfarin, antineoplastic agents, lithium, isotretinoin, misoprostol, thalidomide, leflunomide, teriflunomide, topiramate, cladribine)	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+90	Evaluation period should search for evidence of days supply	1		N/A
Dimethyl fumarate	Inclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of dispensing	1		N/A
Fingolimod	Exclusion	N/A	N/A	Estimated pregnancy start date	-45	-1	Evaluation period should search for evidence of days supply	1		N/A
Beta Interferon beta 1a or 1b	Exclusion	N/A	N/A	Estimated pregnancy start date	-22	-1	Evaluation period should search for evidence of days supply	1		N/A
Malformations resulting from chromosomal abnormalities	Exclusion	Any	Any	Delivery Date	-301	+30	N/A	1		N/A

**Appendix J. Specifications Defining Parameters for this Request**

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).											
Inclusion/Exclusion Criteria											
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Exclude Evidence Of Days Supply If Inclusion/Eclusion Evaluation Period Includes Dispensings	Number Of Instances The Criteria Should Be Found In Evaluation Period	Minimum Days Supplied	Forced Supply To Attach To Dispensings	
Teratogens (Warfarin, antineoplastic agents, lithium, isotretinoin, misoprostol, thalidomide, leflunomide, teriflunomide, topiramate, cladribine)	Exclusion	N/A	N/A	Estimated pregnancy start date	-130	+90	Evaluation period should search for evidence of days supply	1		N/A	
Multiple Sclerosis	Inclusion	Any	Any	Delivery Date	Entire History	0	N/A	1		N/A	

## Appendix J. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).

Inclusion/Exclusion Criteria											
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Exclude Evidence Of Days Supply If Inclusion/Eclusion Evaluation Period Includes Dispensings	Number Of Instances The Criteria Should Be Found In Evaluation Period	Minimum Days Supplied	Forced Supply To Attach To Dispensings	
1. Beta Beta Interferon 1a or 1b 2. Glatiramer acetate 3. Mitoxantrone 4. Natalizumab 5. Fingolimod 6. Dimethyl fumarate 7. PEGylated Beta Interferon 8. Alemtuzumab 9. Ocrelizumab 10. Siponimod 11. Diroximel fumarate	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+ 90	Evaluation period should search for evidence of days supply	1		N/A	
Malformations resulting from chromosomal abnormalities	Exclusion	Any	Any	Delivery Date	-301	+30	N/A	1		N/A	
Teratogens (Warfarin, antineoplastic agents, lithium, isotretinoin, misoprostol, thalidomide, leflunomide, teriflunomide, topiramate, cladribine)	Exclusion	N/A	N/A	Estimated pregnancy start date	0	+90	Evaluation period should search for evidence of days supply	1		N/A	
Multiple Sclerosis	Inclusion	Any	Any	Delivery Date	Entire History	0	N/A	1		N/A	

## Appendix J. Specifications Defining Parameters for this Request

This request executed the Cohort Identification and Descriptive Analysis (CIDA) Pregnancy tool [11.4.0] with ad hoc programming to assess Fingolimod exposure during pregnancy and characterize occurrence of malformations during pregnancy and post-delivery in the Sentinel Distributed Database (SDD).

Inclusion/Exclusion Criteria										
Inclusion/ Exclusion Group	Criteria	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Exclude Evidence Of Days Supply If Inclusion/Eclusion Evaluation Period Includes Dispensings	Number Of Instances The Criteria Should Be Found In Evaluation Period	Minimum Days Supplied	Forced Supply To Attach To Dispensings
1. Beta Beta Interferon 1a or 1b 2. Glatiramer acetate 3. Mitoxantrone 4. Natalizumab 5. Fingolimod 6. Dimethyl fumarate 7. PEGylated Beta Interferon 8. Alemtuzumab 9. Ocrelizumab 10. Siponimod 11. Diroximel fumarate	Exclusion	N/A	N/A	Estimated pregnancy start date	1. -22 2. -1 3. -45 4. -75 5. -45 6. -1 7. -17 8. -70 9. -130 10. -7 11. -1	+ 90	Evaluation period should search for evidence of days supply	1		N/A
Malformations resulting from chromosomal abnormalities	Exclusion	Any	Any	Delivery Date	-301	+30	N/A	1		N/A
Teratogens (Warfarin, antineoplastic agents, lithium, isotretinoin, misoprostol, thalidomide, leflunomide, teriflunomide, topiramate, cladribine)	Exclusion	N/A	N/A	Estimated pregnancy start date	-130	+90	Evaluation period should search for evidence of days supply	1		N/A

ICD-9, ICD-10, HCPCS, and CPT codes are provided by Optum360.

NDC codes are checked against First Data Bank's FDB MedKnowledge®.

N/A: Not applicable

# Appendix K. Multiple Sclerosis Treatment Half-life Values Used in this Request

Therapies approved to treat MS	Termination Half-Lives	Upper Bound of Termination Half-Lives (Days)	5X Half-Lives (Days)	Source
beta interferon 1b [Betaseron (Betaferon)]	8 minutes to 4.3 hours	0.18	22 (used Rebif for reference)	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/103471s5197lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/103471s5197lbl.pdf</a>
beta interferon 1a (Avonex)	19 hours (range 8 to 54 hours)	2.25	22 (used Rebif for reference)	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/103628s5263lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/103628s5263lbl.pdf</a>
beta interferon 1a (Rebif)	69 ± 37 hours	4.42	22 (used Rebif for reference)	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/103780s5203s5207lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/103780s5203s5207lbl.pdf</a>
beta interferon 1b (Extavia)	8 minutes to 4.3 hours	0.18	22 (used Rebif for reference)	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/125290s070lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/125290s070lbl.pdf</a>
glatiramer acetate (Copaxone)	N/A	N/A	1 (used minimum half-life across all MS therapies)	N/A (rapid elimination)
mitoxantrone (Novantrone)	23 to 215 hours, median of 75 hours	8.96	45	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2010/019297s033s034lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2010/019297s033s034lbl.pdf</a>
natalizumab (Tysabri)	11 ± 4 days	15.00	75	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/125104s968s969lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/125104s968s969lbl.pdf</a>
fingolimod (Gilenya)	6 to 9 days	9.00	45	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2019/022527s031lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2019/022527s031lbl.pdf</a>
dimethyl fumarate (Tecfidera)	1 hour	0.04	1	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/204063s026lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/204063s026lbl.pdf</a>
PEGylated interferon beta (Plegridy)	78 hours	3.25	17	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/125499s021lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/125499s021lbl.pdf</a>
alemtuzumab (Lemtrada)	2 weeks	14.00	70	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/103948s5182lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/103948s5182lbl.pdf</a>
ocrelizumab (Ocrevus)	26 days	26.00	130	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/761053s022lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2020/761053s022lbl.pdf</a>
siponimod (Mayzent)	30 hours	1.25	7	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/209884s003lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/209884s003lbl.pdf</a>
diroximel fumarate (Vumerity)	1 hour	0.04	1	<a href="https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/211855s004lbl.pdf">https://www.accessdata.fda.gov/drugsatfda_docs/label/2021/211855s004lbl.pdf</a>



# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
1	Cardiac malformations in the first trimester	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	1
2	Cardiac malformations in the second trimester	Any	Any	Estimated pregnancy start date	+91	+180	Mother	N/A	1
3	Cardiac malformations in the third trimester	Any	Any	Estimated pregnancy start date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	1
4	Cardiac malformations in the second or third trimester	Any	Any	Estimated pregnancy start date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	1
5	Cardiac malformations post-delivery	Any	Any	Delivery date	0	+30	Mother	N/A	1
6	Cardiac malformations in the first trimester (2+ codes)	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	2
7	Cardiac malformations in the second trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+91	+180	Mother	N/A	2
8	Cardiac malformations in the third trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	2
9	Cardiac malformations in the second or third trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	2

# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
10	Cardiac malformations post-delivery (2+ codes)	Any	Any	Delivery date	0	+30	Mother	N/A	2
11	Urinary malformations in the first trimester	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	1
12	Urinary malformations in the second trimester	Any	Any	Estimated pregnancy start date	+91	+180	Mother	N/A	1
13	Urinary malformations in the third trimester	Any	Any	Estimated pregnancy start date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	1
14	Urinary malformations in the second or third trimester	Any	Any	Estimated pregnancy start date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	1
15	Urinary malformations post-delivery	Any	Any	Delivery date	0	+30	Mother	N/A	1
16	Urinary malformations in the first trimester (2+ codes)	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	2
17	Urinary malformations in the second trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+91	+180	Mother	N/A	2
18	Urinary malformations in the third trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	2

# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
19	Urinary malformations in the second or third trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	2
20	Urinary malformations post-delivery (2+ codes)	Any	Any	Delivery date	0	+30	Mother	N/A	2
21	Cardiac or Urinary malformations in the first trimester	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	1
22	Cardiac or Urinary malformations in the second trimester	Any	Any	Estimated pregnancy start date	+91	+180	Mother	N/A	1
23	Cardiac or Urinary malformations in the third trimester	Any	Any	Estimated pregnancy start date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	1
24	Cardiac or Urinary malformations in the second or third trimester	Any	Any	Estimated pregnancy start date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	1
25	Cardiac or Urinary malformations post-delivery	Any	Any	Delivery date	0	+30	Mother	N/A	1
26	Cardiac or Urinary malformations in the first trimester (2+ codes)	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	2
27	Cardiac or Urinary malformations in the second trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+91	+180	Mother	N/A	2

# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
28	Cardiac or Urinary malformations in the third trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	2
29	Cardiac or Urinary malformations in the second or third trimester (2+ codes)	Any	Any	Estimated pregnancy start date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	2
30	Cardiac or Urinary malformations post-delivery (2+ codes)	Any	Any	Delivery date	0	+30	Mother	N/A	2
31	Any non-cardiac/urinary malformations in the first trimester	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	1
32	Any non-cardiac/urinary malformations in the second trimester	Any	Any	Estimated pregnancy start date; Delivery date	+91	+180	Mother	N/A	1
33	Any non-cardiac/urinary malformations in the third trimester	Any	Any	Estimated pregnancy start date; Delivery date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	1
34	Any non-cardiac/urinary malformations in the second or third trimester	Any	Any	Estimated pregnancy start date; Delivery date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	1
35	Any non-cardiac/urinary malformations (central nervous system, eye, ear, oroifacial/respiratory, gastrointestinal, genitourinary/renal, musculoskeletal) post-delivery	Any	Any	Delivery date	0	+30	Mother	N/A	1

# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
36	Any non-cardiac/urinary malformations in the first trimester (2+ codes)	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	2
37	Any non-cardiac/urinary malformations in the second trimester (2+ codes)	Any	Any	Estimated pregnancy start date; Delivery date	+91	+180	Mother	N/A	2
38	Any non-cardiac/urinary malformations in the third trimester (2+ codes)	Any	Any	Estimated pregnancy start date; Delivery date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	2
39	Any non-cardiac/urinary malformations in the second or third trimester (2+ codes)	Any	Any	Estimated pregnancy start date; Delivery date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	2
40	Any non-cardiac/urinary malformations (central nervous system, eye, ear, oroifacial/respiratory, gastrointestinal, genitourinary/renal, musculoskeletal) post-delivery (2+ codes)	Any	Any	Delivery date	0	+30	Mother	N/A	2
41	Any malformations in the first trimester	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	1
42	Any malformations in the second trimester	Any	Any	Estimated pregnancy start date; Delivery date	+91	+180	Mother	N/A	1

# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
43	Any malformations in the third trimester	Any	Any	Estimated pregnancy start date; Delivery date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	1
44	Any malformations in the second or third trimester	Any	Any	Estimated pregnancy start date; Delivery date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	1
45	Any malformations post-delivery	Any	Any	Delivery date	0	+30	Mother	N/A	1
46	Any malformations in the first trimester (2+ codes)	Any	Any	Estimated pregnancy start date	0	+90	Mother	N/A	2
47	Any malformations in the second trimester (2+ codes)	Any	Any	Estimated pregnancy start date; Delivery date	+91	+180	Mother	N/A	2
48	Any malformations in the third trimester (2+ codes)	Any	Any	Estimated pregnancy start date; Delivery date	+181	Delivery (programmed, day of delivery not included)	Mother	N/A	2
49	Any malformations in the second or third trimester (2+ codes)	Any	Any	Estimated pregnancy start date; Delivery date	+91	Delivery (programmed, day of delivery not included)	Mother	N/A	2
50	Any malformations post-delivery (2+ codes)	Any	Any	Delivery date	0	30	Mother	N/A	2

# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
	Multiple Sclerosis Diagnosis	Any	Any	Delivery Date	Entire History	0	Mother	N/A	1
	Psychiatric and neurological conditions	Any	Any	Run 01: Delivery Date Run 02: Estimated Pregnancy Start	Run 01: - 301 Run 02: - 130	Run 01: 0 Run 02: +90	Mother	N/A	1
	Substance Use Disorder	Any	Any	Run 01: Delivery Date Run 02: Estimated Pregnancy Start	Run 01: - 301 Run 02: - 130	Run 01: 0 Run 02: +90	Mother	N/A	1
	Nicotine use	Any	Any	Run 01: Delivery Date Run 02: Estimated Pregnancy Start	Run 01: - 301 Run 02: - 130	Run 01: 0 Run 02: +90	Mother	N/A	1
	Diabetes	Any	Any	Run 01: Delivery Date Run 02: Estimated Pregnancy Start	Run 01: - 301 Run 02: - 130	Run 01: 0 Run 02: +90	Mother	N/A	1
	Hypertension	Any	Any	Run 01: Delivery Date Run 02: Estimated Pregnancy Start	Run 01: - 301 Run 02: - 130	Run 01: 0 Run 02: +90	Mother	N/A	1
	Obesity	Any	Any	Run 01: Delivery Date Run 02: Estimated Pregnancy Start	Run 01: - 301 Run 02: - 130	Run 01: 0 Run 02: +90	Mother	N/A	1



# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
	Urinary disease	Any	Any	Run 01: Delivery Date Run 02: Estimated Pregnancy Start	Run 01: - 301 Run 02: - 130	Run 01: 0 Run 02: +90	Mother	N/A	1
	Psychotropic medications (Anticonvulsants, antidepressants, anxiolytics, antipsychotics, barbiturates, benzodiazepines, other hypnotics)	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: - 130	+90	Mother	Evaluation period should search for evidence of days supply	1
	Antidiabetic medications	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: - 130	+90	Mother	Evaluation period should search for evidence of days supply	1
	Antihypertensive medications	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: - 130	+90	Mother	Evaluation period should search for evidence of days supply	1
	Buprenorphine	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: - 130	+90	Mother	Evaluation period should search for evidence of days supply	1

# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
	Insulin	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: -130	+90	Mother	Evaluation period should search for evidence of days supply	1
	Methadone	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: -130	+90	Mother	Evaluation period should search for evidence of days supply	1
	Naloxone	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: -130	+90	Mother	Evaluation period should search for evidence of days supply	1
	Naltrexone	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: -130	+90	Mother	Evaluation period should search for evidence of days supply	1
	Opioids	N/A	N/A	Estimated Pregnancy Start	Run 01: 0 Run 02: -130	+90	Mother	Evaluation period should search for evidence of days supply	1

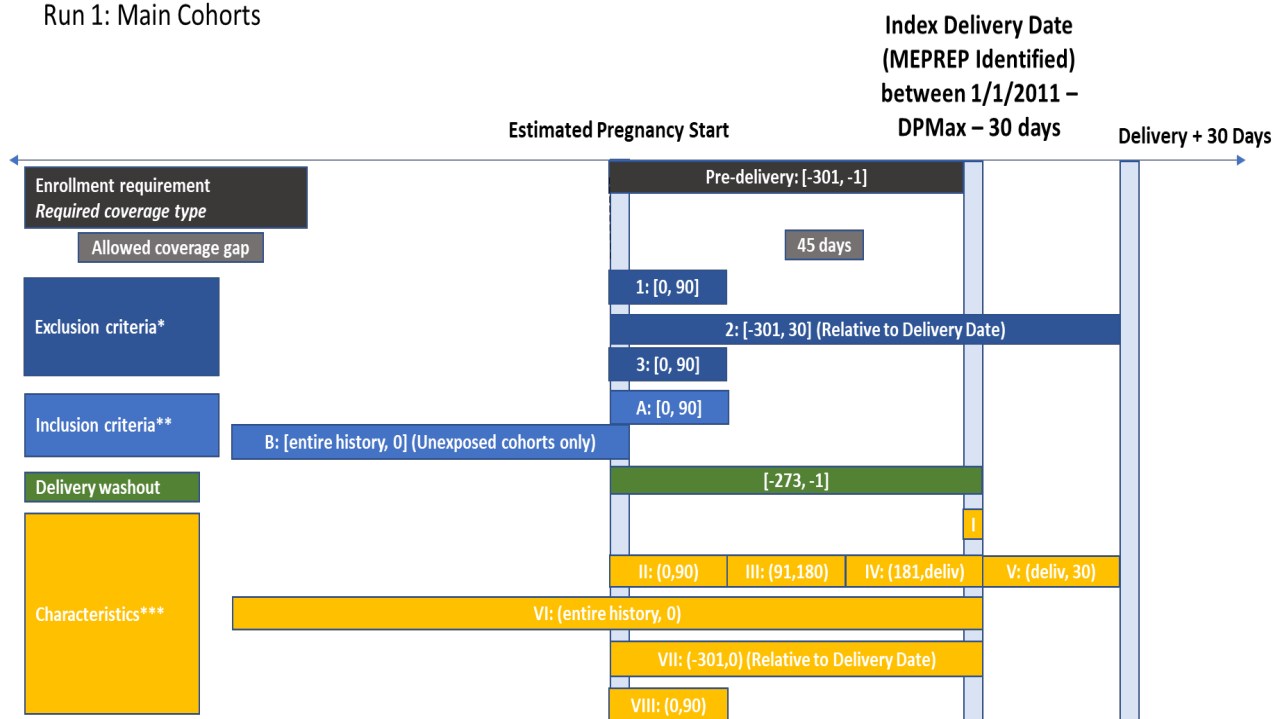
# Appendix L. Definitions of Baseline Characteristics and Outcomes of Interest Used in this Request

Baseline Characteristics									
Covariate Number	Covariate	Care Setting	Principal Diagnosis Position	Anchor Date	Evaluation Period Start	Evaluation Period End	Mother or Infant Record <sup>1</sup>	Exclude Evidence Of Days Supply If Covariate Includes Dispensings	Number Of Instances The Covariate Should Be Found In Evaluation Period
	Suspected teratogens (fluconazole, methimazole, danazol, propylthiouracil, progestins, angiotensin converting enzyme inhibitors, and corticosteroids)	N/A	N/A	Estimated pregnancy start date	0	+90	Mother	Evaluation period should search for evidence of days supply	1

N/A: Not applicable

## Appendix M. Design Diagram Used in this Request

### Run 1: Main Cohorts



#### \*Exclusion Criteria

Window 1: Non-Index Multiple Sclerosis (MS) Treatment  
Window 2: Chromosomal Abnormalities  
Window 3: Known Teratogens

#### \*\*Inclusion Criteria

Window A: Evidence of Index MS Treatment  
Window B: Evidence of MS Diagnosis

#### \*\*\*Characteristics:

Window I: Age, year  
Windows II, III, IV, V: Cardiac, Urinary, Other, and Any Malformations  
Window VI: MS Diagnosis  
Window VII: Baseline Health Characteristics  
Window VIII: Medical Product Use

## Appendix M. Design Diagram Used in this Request

### Run 2: Sensitivity Cohorts

