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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<table>
<tr><td align="center">Overview for Request: cder_mpl1r_wp188</td></tr>
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Request ID: cder_mpl1r_wp188_nsdp_v01

Request Description: This report examines the clinical characteristics in 3 cohorts including pregnant women with and without evidence of heart failure (HF) and non-pregnant women with HF, characterizes the use of oral HF-related therapies before, during, and after pregnancy in these cohorts, and examines maternal and fetal outcomes among pregnant women with and without HF in the Sentinel Distributed Database (SDD). This is Report #2; Report #1 estimated counts of live birth or stillbirth delivery among women with HF in a previous request, cder_mpl1r_wp187.

Sentinel Modular Program Tool Used: Cohort Identification and Descriptive Analysis (CIDA) tool, version 10.1.0

Data Source: We distributed this request to four Sentinel Data Partners on December 4, 2020, including data from January 1, 2010 to February 29, 2020. See Appendix A for a list of dates of available data for each Data Partner.

Study Design: We identified cohorts of pregnant women with and without evidence of HF who had a live birth delivery linked to an infant record as per the Sentinel Common Data Model (SCDM) Mother-Infant Linkage (MIL) Table.[1] We described baseline characteristics among the pregnant cohorts with and without HF and matched non-pregnant cohort without HF. We characterized utilization of oral HF-related therapies before, during and after pregnancy among these cohorts. We evaluated occurrence of various maternal and fetal outcomes in these linked mother-infant pairs. This is a Type 4 descriptive analysis with use of the Mother-Infant Cohort File in the Query Request Package (QRP) documentation.

Cohort Eligibility Criteria: We restricted eligible women to those with a live birth delivery linked to an infant per the Sentinel MIL Table.[1] We included women aged 15-54 years in the analysis and used the following age groups: 15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, and 50-54 years. We required eligible women to be continuously enrolled in health plans with medical and drug coverage for at least 484 days before and 90 days after live birth delivery for a total of 574 days, during which gaps in coverage of up to 45 days were allowed. We excluded women with a live birth delivery recorded in the 301 days prior to live birth delivery of interest. Women were able to contribute multiple pregnancies in the study period.

Pregnancy Episode Creation: We identified pregnancies ending in a live birth delivery using the MIL Table.[1] The MIL Table identifies live birth deliveries and matches mother patient IDs to infant patient IDs when possible. Live birth deliveries are eligible for the MIL Table when the following criteria are met: the encounter occurred at least one year later than the start date of Data Partner data availability (Appendix A), the woman was between 10 and 54 years of age, there was no evidence of delivery in the prior 180 days, and the woman had at least 180 days of continuous medical coverage, allowing for gaps up to 45 days, through the delivery date.

We used a validated algorithm from Sentinel's Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP)[2] to estimate the length of pregnancy episodes via gestational age codes, including pre-/postterm delivery codes that occurred within 7 days of a delivery date in the inpatient care setting. In the absence of pre-/postterm codes, pregnancy duration was set to 273 days. See Appendix B for a list 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, Procedure Coding System (ICD-10-PCS), and Current Procedural Terminology, Fourth Edition (CPT-4) diagnosis and procedure codes used to define live birth delivery. See Appendix C for a list of ICD-9-CM and ICD-10-CM diagnosis codes and algorithm information used to define gestational age.

Overview for Request: cder_mpl1r_wp188

<u>Heart Failure Inclusion/Exclusion Criteria:</u> For the cohort of pregnant women with HF, we required eligible women to have evidence of at least one qualifying HF diagnosis prior to live birth delivery. For the cohort of pregnant women without HF, we excluded eligible women with evidence of at least one qualifying HF diagnosis prior to live birth delivery, including any of the following:

---A) 1 HF diagnosis in any diagnostic position of the inpatient (IP/IS) care setting recorded in the pre-pregnancy period or in the first trimester (-183 days to +90 days relative to estimated pregnancy start date);

---B) 2 HF diagnoses in the outpatient (AV/OA) care setting both recorded in the pre-pregnancy period or in the first trimester (-183 days to +90 days relative to estimated pregnancy start date);

---C) 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy period or in the first trimester (-183 days to +90 days relative to estimated pregnancy start date) <u>and</u> 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the second or third trimester (-182 days to 0 days relative to live birth delivery date);

---D) 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the in the pre-pregnancy period or in the first trimester (-183 days to +90 days relative to estimated pregnancy start date) <u>and</u> an oral HF-related medication dispensed within (+/- 60 days) of HF diagnosis.

See Appendix D for a list of ICD-9-CM and ICD-10-CM diagnosis codes used to define HF.

<u>Reduced Ejection Fraction Heart Failure Inclusion/Exclusion Criteria:</u> We explored a sensitivity analysis to identify eligible women with and without reduced ejection fraction heart failure (HFrEF) using the same algorithm outlined above (algorithm parts A-D). We defined HFrEF as a qualifying diagnosis of left or systolic HF:

---Left HF: No evidence of a co-occurring diagnosis of systolic, diastolic, or combined systolic/diastolic HF on the date of left HF diagnosis; or

---Systolic HF: No evidence of a co-occurring diagnosis of left, diastolic, or combined systolic/diastolic HF on the date of systolic HF diagnosis.

See Appendix E for a list of ICD-9-CM and ICD-10-CM diagnosis codes used to define HFrEF.

<u>Non-Pregnant Comparator Cohort:</u> For each live birth pregnancy identified in the cohorts among women with HF and HFrEF, a comparator episode was selected in order to compare medical product use and baseline characteristics during a defined period for which a woman did not have a live birth delivery. Pregnancy episodes were matched within Data Partner to women with first enrollment episodes without live birth delivery that met all inclusion criteria, were the same age (integer), and where pregnancy duration overlapped the eligible enrollment spans. Women and comparator episodes were allowed to be used multiple times as controls, and women with a pregnancy episode were allowed to contribute a separate comparator episode.

Please note that the matched episodes may be referred to as "non-pregnant" episodes, but they were defined based on the absence of delivery codes. This means that pregnant women with outcomes other than live birth delivery may have been included in this matched comparator cohort, including those with pregnancy losses prior to delivery. Further, the pregnant cohorts from the MIL Table[1] required live birth deliveries among linked mother-infant pairs. Pregnancies with unlinked mother-infant pair deliveries in the MIL Table were eligible to be included in the "non-pregnant" cohort.

<u>Utilization of Heart-Failure Related Therapies:</u> We characterized utilization of oral HF-related therapies in the 183 days prior to estimated pregnancy start date, in each of the three trimesters, and in the 90 days post delivery date for each cohort. We evaluated medical product use by evidence of dispensing date only; medical product episodes were not created. Oral HF-related therapies included the following: angiotensin-converting enzyme (ACE) inhibitors, aldosterone antagonists, angiotensin II receptor blockers (ARBs), angiotensin receptor-neprilysin inhibitors (ARNI), beta blockers, digoxin, diuretics, hydralazine and nitrates, ivabradine, and ACE inhibitors, ARBs, or ARNI. See Appendix F for a list of oral HF-related generic and brand name medical products.

Baseline Characteristics: We described baseline characteristics that were recorded in the pre-pregnancy period or in the first trimester (-183 days to +90 days relative to estimated pregnancy start date), including the following: Charlson/Elixhauser combined comorbidity score[3], health care utilization, drug utilization, alcohol abuse, cardiac arrhythmia, cardiac valvular disease, cardiomyopathy, chronic kidney disease, congenital heart disease, diabetes (preexisting), drug abuse, hypertension (preexisting), ischemic heart disease, overweight or obesity, pulmonary hypertension, rheumatic heart disease, thyroid disease, and tobacco use. We also described baseline characteristics that were recorded in the second or third trimester (-182 days to 0 days relative to delivery date), including the following: gestational diabetes and gestational hypertension. We described the Charlson/Elixhauser combined comorbidity score[3], health care utilization, and drug utilization in the second or third trimester or the post-pregnancy period (-182 days to +90 days relative to delivery date). See Appendix G for a list of ICD-9-CM, ICD-10-CM, CPT-4, Current Procedural Terminology, Category II (CPT-2), and Healthcare Common Procedure Coding System (HCPCS) diagnosis and procedure codes used to define baseline characteristics.

Maternal Health Outcomes of Interest: We assessed occurrence of maternal health outcomes of interest (HOI) recorded in the mother's claims in various evaluation windows relative to delivery date, including the following:
---Preeclampsia (mild/unspecified or severe preeclampsia/eclampsia) in any diagnostic position of the inpatient (IP/IS) or outpatient (AV/OA) care setting recorded in the (-140 days to +30 days);
---Peripartum cardiomyopathy in any care setting recorded in the (-140 days to +90 days);
---Preterm delivery in any diagnostic position of the inpatient (IP/IS) or outpatient (AV/OA) care setting recorded in the (-30 days to +30 days);
---Multiple gestation in any care setting recorded on the delivery date;
---Cesarean section in any diagnostic position of the inpatient (IP/IS) care setting recorded on the delivery date;
---Acute HF, acute kidney failure, and acute respiratory distress syndrome in any care setting, each recorded in the second or third trimester (-182 days to -1 day);
---Acute HF, acute kidney failure, and acute respiratory distress syndrome in any care setting, each recorded on the delivery date;
---Acute HF, acute kidney failure, and acute respiratory distress syndrome in any care setting, each recorded in the post-pregnancy period (+1 day to +90 days).
See Appendix H for a list of ICD-9-CM, ICD-10-CM, and CPT-4 diagnosis and procedure codes used to define maternal HOIs.

Fetal Health Outcomes of Interest: We assessed occurrence of fetal HOIs, but for this analysis captured only those HOIs that appeared on the mother's claims; the HOI information that may be captured only in infants' claims was not used for this query. We identified infants small for gestational age in any care setting recorded on the delivery date to +30 days after delivery date. The remaining fetal HOIs were recorded on the delivery date to +90 days after delivery date (first 90 days of infant's life), including the following:

---two recordings of ventricular septal defect (VSD) in any diagnostic position of the inpatient (IP/IS) care setting and no recording of chromosomal abnormality in any diagnostic position of the inpatient (IP/IS) or outpatient (AV/OA) care setting;

---two recordings of right ventricular outflow tract obstruction (RVOTO) in any diagnostic position of the inpatient (IP/IS) care setting and no recording of chromosomal abnormality or preterm delivery in any diagnostic position of the inpatient (IP/IS) or outpatient (AV/OA) care setting or congenital anomalies of the pulmonary valve in any diagnostic position of the inpatient (IP/IS) care setting;

---one recording of other cardiac malformation in any diagnostic position of the inpatient (IP/IS) care setting and no recording of chromosomal abnormality in any diagnostic position of the inpatient (IP/IS) or outpatient (AV/OA) care setting;

---Congenital cardiac malformation: a qualifying event of VSD, RVOTO, or other cardiac malformation (defined above);

---two recordings of bone or skeletal malformation in any care setting;

---two recordings of other major congenital malformation in any care setting;

---Any major malformation: a qualifying event of congenital cardiac malformation, bone or skeletal malformation, or other major congenital malformation (defined above);

---Major malformation, excluding congenital cardiac malformation: a qualifying event of bone or skeletal malformation or other major congenital malformation (defined above).

See Appendix I for a list of ICD-9-CM or ICD-10-CM diagnosis codes used to define fetal HOIs.

For detailed specifications of parameters used in the analysis, please refer to Appendix J to define cohort entry, Appendix K to define baseline characteristics, Appendix L to define medical product utilization, Appendix M to define HOIs, and Appendix N for a design diagram.

Limitations: Algorithms used to define heart failure, live birth delivery, and gestational age are imperfect; thus, it is possible that there may be misclassification. We were limited to events recorded only in the mother's claims; thus, fetal HOIs were likely underestimated.

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

[1]Pregnancy Episodes Cohort Identification Strategy. Sentinel Initiative. Available from: https://dev.sentinelsystem.org/projects/SENTINEL/repos/sentinel-routine-querying-tool-documentation/browse/files/file150-

[2]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.

[3]The Charlson/Elixhauser Combined Comorbidity Score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. **2011**;64(7):749-759.

Table of Contents

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 1. Aggregated Baseline Table for Pregnant and Non-Pregnant Women with and without Evidence of Heart Failure in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Characteristic	Pregnant[1] women with heart failure[2]		Non-pregnant[3] women with heart failure[2]		Pregnant[1] women with no evidence of heart failure[4]	
	Number	Percent	Number	Percent	Number	Percent
Number of unique women	487	-	477	-	1,076,117	-
Number of pregnancies	489	-	489	-	1,245,931	-
Demographics[5]	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean Age (Years)	32.4	5.0	32.4	5.0	31.6	4.5
	Number	Percent	Number	Percent	Number	Percent
Age (Years)						
15-19	5	1.0%	5	1.0%	25,692	2.1%
20-24	36	7.4%	36	7.4%	91,625	7.4%
25-29	116	23.7%	116	23.7%	326,764	26.2%
30-34	177	36.2%	177	36.2%	497,006	39.9%
35-39	120	24.5%	120	24.5%	251,361	20.2%
40-44	31	6.3%	31	6.3%	50,085	4.0%
45-49	3	0.6%	3	0.6%	3,122	0.3%
50-54	1	0.2%	1	0.2%	276	0.0%
Sex						
Female	487	100.0%	477	100.0%	1,076,117	100.0%
Race						
American Indian or Alaska Native	1	0.2%	0	0.0%	642	0.1%
Asian	1	0.2%	2	0.4%	12,309	1.1%
Black or African American	41	8.4%	41	8.6%	27,311	2.5%
Native Hawaiian or Pacific Islander	1	0.2%	1	0.2%	614	0.1%
White	53	10.9%	36	7.5%	100,239	9.3%
Unknown	390	80.1%	397	83.2%	935,002	86.9%
Ethnicity						
Hispanic Origin	3	0.6%	11	2.3%	13,321	1.2%
Not Hispanic	62	12.7%	51	10.7%	55,722	5.2%
Unknown	422	86.7%	415	87.0%	1,007,074	93.6%
Year						
2010	70	14.3%	70	14.3%	136,885	11.0%
2011	70	14.3%	70	14.3%	128,250	10.3%
2012	56	11.5%	56	11.5%	120,324	9.7%
2013	43	8.8%	43	8.8%	116,401	9.3%
2014	45	9.2%	45	9.2%	121,400	9.7%
2015	55	11.2%	55	11.2%	132,602	10.6%
2016	49	10.0%	49	10.0%	138,373	11.1%
2017	33	6.7%	33	6.7%	123,368	9.9%
2018	37	7.6%	37	7.6%	124,679	10.0%
2019	31	6.3%	31	6.3%	103,604	8.3%
2020	0	0.0%	0	0.0%	45	0.0%

Table 1. Aggregated Baseline Table for Pregnant and Non-Pregnant Women with and without Evidence of Heart Failure in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Characteristic	Pregnant[1] women with heart failure[2]		Non-pregnant[3] women with heart failure[2]		Pregnant[1] women with no evidence of heart failure[4]	
	Number	Percent	Number	Percent	Number	Percent
Baseline characteristics[6,7] recorded in the pre-pregnancy period[8] or the first trimester:						
Alcohol abuse	4	0.8%	9	1.8%	2,784	0.3%
Cardiac arrhythmia	111	22.8%	144	29.4%	10,579	1.0%
Cardiac valvular disease	117	24.0%	134	27.4%	6,413	0.6%
Cardiomyopathy	106	21.8%	159	32.5%	490	0.0%
Chronic kidney disease	15	3.1%	57	11.7%	2,610	0.2%
Congenital heart disease	64	13.1%	50	10.2%	3,460	0.3%
Diabetes (diabetes)	60	12.3%	104	21.3%	16,111	1.5%
Drug abuse	13	2.7%	41	8.4%	8,714	0.8%
Hypertension (preexisting)	207	42.5%	282	57.7%	33,458	3.1%
Ischemic heart disease	45	9.2%	71	14.5%	1,233	0.1%
Overweight or obesity	119	24.4%	148	30.3%	53,570	5.0%
Pulmonary hypertension	20	4.1%	27	5.5%	209	0.0%
Rheumatic heart disease	36	7.4%	40	8.2%	1,377	0.1%
Thyroid disease	101	20.7%	96	19.6%	90,661	8.4%
Tobacco use	63	12.9%	84	17.2%	43,091	4.0%
Baseline characteristics[6] recorded in the second or third trimester:						
Gestational diabetes	99	20.3%	2	0.4%	170,064	15.8%
Gestational hypertension	82	16.8%	7	1.4%	103,865	9.7%
Health service utilization intensity[6,7] in the pre-pregnancy period[8] or the first trimester:						
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score[9]	2.7	1.4	3.4	2.1	0.2	0.5
Mean number of ambulatory encounters	16.4	14.8	20.4	30.2	8.4	8.2
Mean number of emergency room encounters	1.2	1.9	1.7	2.9	0.3	0.9
Mean number of inpatient hospital encounters	0.5	0.9	0.8	1.5	0.0	0.2
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.1	0.0	0.0
Mean number of other ambulatory encounters	3.5	4.6	3.4	8.2	2.0	2.6
Mean number of unique drug classes dispensed	6.5	4.3	8.2	5.5	3.1	3.0
Mean number of unique generics dispensed	7.2	5.1	9.1	6.5	3.3	3.3
Mean number of unique dispensings	15.1	14.5	25.7	23.6	6.0	7.4
Health service utilization intensity[6] in the second or third trimester or the post-pregnancy period[10]:						
Charlson/Elixhauser combined comorbidity score[9]	1.4	1.6	3.4	2.1	0.3	0.7

Table 1. Aggregated Baseline Table for Pregnant and Non-Pregnant Women with and without Evidence of Heart Failure in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

	Pregnant[1] women with heart failure[2]		Non-pregnant[3] women with heart failure[2]		Pregnant[1] women with no evidence of heart failure[4]	
	Mean	**Standard Deviation**	**Mean**	**Standard Deviation**	**Mean**	**Standard Deviation**
Mean number of ambulatory encounters	19.7	13.3	20.3	30.1	12.4	8.1
Mean number of emergency room encounters	0.9	1.7	1.7	2.9	0.4	0.9
Mean number of inpatient hospital encounters	1.3	0.7	0.8	1.5	1.1	0.5
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.1	0.0	0.0
Mean number of other ambulatory encounters	3.5	3.5	3.3	8.2	2.8	3.0
Mean number of unique drug classes dispensed	6.1	4.1	8.1	5.5	3.6	2.6
Mean number of unique generics dispensed	6.8	4.8	9.0	6.5	3.8	2.9
Mean number of unique dispensings	14.3	13.2	25.6	23.6	6.7	6.7

[1]Pregnancy that resulted in a live birth delivery and had a linked mother and live-born infant pair in the Sentinel Mother-Infant Linkage (MIL) table.

[2]Heart failure (HF) defined as any of the following: A) 1 HF diagnosis in any diagnostic position of the inpatient (IP/IS) care setting recorded in the pre-pregnancy period (183 days) or in the first trimester; B) 2 HF diagnoses in the outpatient (AV/OA) care setting both recorded in the pre-pregnancy period or in the first trimester; C) 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy period or in the first trimester and 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the second or third trimester; or D) 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy prior or in the first trimester and an oral HF-related medication dispensed within (+/- 60 days) of HF diagnosis.

[3]For each identified pregnancy (footnotes #1 and #2), a comparator episode was selected in order to compare medical product use and baseline characteristics during a defined period for which a woman did not have a live birth delivery. Pregnancy episodes were matched within Data Partner to women with first enrollment episodes without live birth delivery that met all inclusion criteria, were the same age (integer), and where pregnancy duration overlapped the eligible enrollment spans. Women and comparator episodes were allowed to be used multiple times as controls, and women with a pregnancy episode were allowed to contribute a separate comparator episode.

[4]Women with no evidence of HF as defined in footnote #2.

[5]Age and year were based on the total number of pregnancies per cohort; sex, race, and ethnicity were based on the total number of unique women per cohort.

[6]In the pregnant cohorts, baseline characteristics and health service utilization intensity were assessed using denominators of the total number of unique women in each cohort since only the first pregnancy episode per total unique women was selected. For the non-pregnant cohort, the total number of matched non-pregnant comparator episodes was used as the denominator.

[7]When assessing baseline characteristics and health service utilization intensity in the pre-pregnancy period or in the first trimester relative to estimated pregnancy start date, the denominator of unique pregnant women with no evidence of HF was 1,075,612 rather than 1,076,117. This is because 505 women did not suffice age eligibility requirements relative to the estimated pregnancy start index date. These women were at least 15 years old on their delivery date, but were less than 15 years old on the estimated pregnancy start date.

[8]Pre-pregnancy period defined as the 183 days prior to estimated pregnancy start date.

[9]The Charlson/Elixhauser combined comorbidity score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759)

[10]Post-pregnancy period defined as the 90 days after delivery date.

Table 2. Use of Oral Heart Failure-Related Medical Products among Pregnant and Non-Pregnant Women with and without Evidence of Heart Failure in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Medical products of interest, oral route	Any use in the pre-pregnancy period[1]		Any use in the first trimester		Any use in the second trimester		Any use in the third trimester		Any use in the post-pregnancy period[2]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pregnancies[3] among women with heart failure[4]										
N[7] = 489 pregnancies per 487 total unique women										
Angiotensin-converting enzyme (ACE) inhibitors	50	10.2%	26	5.3%	5	1.0%	2	0.4%	39	8.0%
Aldosterone antagonists	18	3.7%	8	1.6%	3	0.6%	2	0.4%	9	1.8%
Angiotensin II receptor blockers (ARBs)	18	3.7%	9	1.8%	2	0.4%	2	0.4%	14	2.9%
Angiotensin receptor-neprilysin inhibitors (ARNIs)	1	0.2%	2	0.4%	0	0.0%	0	0.0%	2	0.4%
Beta blockers	105	21.5%	107	21.9%	95	19.4%	98	20.0%	115	23.6%
Digoxin	6	1.2%	8	1.6%	8	1.6%	8	1.6%	10	2.1%
Diuretics	75	15.3%	47	9.6%	22	4.5%	29	5.9%	71	14.6%
Hydralazine and nitrates	11	2.2%	7	1.4%	8	1.6%	7	1.4%	13	2.7%
Ivabradine	2	0.4%	1	0.2%	0	0.0%	0	0.0%	0	0.0%
ACE inhibitors, ARBs, or ARNI	68	13.9%	37	7.6%	7	1.4%	4	0.8%	-	-
Non-pregnant episodes[5] among women with heart failure[4]										
N = 489 matched non-pregnant episodes per 477 total unique women										
ACE inhibitors	108	22.1%	107	21.9%	104	21.3%	92	18.8%	106	21.7%
Aldosterone antagonists	47	9.6%	57	11.7%	54	11.0%	53	10.8%	55	11.2%
ARBs	46	9.4%	41	8.4%	39	8.0%	43	8.8%	41	8.4%
ARNI	2	0.4%	3	0.6%	2	0.4%	2	0.4%	3	0.6%
Beta blockers	163	33.3%	185	37.8%	179	36.6%	172	35.2%	184	37.6%
Digoxin	22	4.5%	19	3.9%	15	3.1%	16	3.3%	19	3.9%
Diuretics	131	26.8%	135	27.6%	128	26.2%	126	25.8%	133	27.2%
Hydralazine and nitrates	18	3.7%	22	4.5%	25	5.1%	23	4.7%	22	4.5%
Ivabradine	2	0.4%	1	0.2%	2	0.4%	3	0.6%	1	0.2%
ACE inhibitors, ARBs, or ARNI	152	31.1%	150	30.7%	144	29.4%	136	27.8%	-	-

Table 2. Use of Oral Heart Failure-Related Medical Products among Pregnant and Non-Pregnant Women with and without Evidence of Heart Failure in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Medical products of interest, oral route	Any use in the pre-pregnancy period[1]		Any use in the first trimester		Any use in the second trimester		Any use in the third trimester		Any use in the post-pregnancy period[2]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pregnancies[3] among women with no evidence of heart failure[6] N[7] = 1,245,931 pregnancies per 1,076,117 total unique women										
ACE inhibitors	3,677	0.3%	2,399	0.2%	321	0.0%	151	0.0%	4,221	0.4%
Aldosterone antagonists	2,565	0.2%	1,008	0.1%	86	0.0%	51	0.0%	1,106	0.1%
ARBs	1,444	0.1%	938	0.1%	85	0.0%	48	0.0%	1,079	0.1%
ARNI	0	0.0%	0	0.0%	0	0.0%	0	0.0%	18	0.0%
Beta blockers	12,975	1.0%	14,933	1.2%	15,844	1.3%	21,677	1.7%	37,008	3.4%
Digoxin	42	0.0%	40	0.0%	62	0.0%	157	0.0%	129	0.0%
Diuretics	7,106	0.6%	4,772	0.4%	993	0.1%	905	0.1%	14,391	1.3%
Hydralazine and nitrates	122	0.0%	171	0.0%	127	0.0%	205	0.0%	993	0.1%
Ivabradine	1	0.0%	1	0.0%	0	0.0%	0	0.0%	2	0.0%
ACE inhibitors, ARBs, or ARNI	5,078	0.4%	3,318	0.3%	405	0.0%	198	0.0%	-	-

[1]Pre-pregnancy period defined as the 183 days prior to estimated pregnancy start date.

[2]Post-pregnancy period defined as the 90 days after delivery date.

[3]Pregnancy that resulted in a live birth delivery and had a linked mother and live-born infant pair in the Sentinel Mother-Infant Linkage (MIL) table.

[4]Heart failure (HF) defined as any of the following: A) 1 HF diagnosis in any diagnostic position of the inpatient (IP/IS) care setting recorded in the pre-pregnancy period (183 days) or in the first trimester; B) 2 HF diagnoses in the outpatient (AV/OA) care setting both recorded in pre-pregnancy period or in the first trimester; C) 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy period or in the first trimester and 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the second or third trimester; or D) 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy prior or in the first trimester and an oral HF-related medication dispensed within (+/- 60 days) of HF diagnosis.

[5]For each identified pregnancy (footnotes #1 and #2), a comparator episode was selected in order to compare medical product use and baseline characteristics during a defined period for which a woman did not have a live birth delivery. Pregnancy episodes were matched within Data Partner to women with first enrollment episodes without live birth delivery that met all inclusion criteria, were the same age (integer), and where pregnancy duration overlapped the eligible enrollment spans. Women and comparator episodes were allowed to be used multiple times as controls, and women with a pregnancy episode were allowed to contribute a separate comparator episode.

[6]Women with no evidence of HF as defined in footnote #4.

[7]Administration of oral medical products in the post-pregnancy period for pregnant women with and without evidence of HF was evaluated only for the first pregnant episode per total unique women. Therefore, the denominator for only the post-pregnancy evaluation was the total number of unique women rather than pregnancies (N = 487 and 1,076,117 for pregnant women with and without HF, respectively).

Table 3. Maternal and Fetal Health Outcomes of Interest (HOI) among Pregnant Women with and without Evidence of Heart Failure and Linked Infants in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Health Outcomes of Interest (HOI)[5]	Total number of pregnancies (mother-infant linked pairs) among women[1] with heart failure[2]: N[4] = 487 pregnancies		Total number of pregnancies (mother-infant linked pairs) among women[1] with no evidence of heart failure[3]: N[4] = 1,076,117 pregnancies	
	Number	**Percent**	**Number**	**Percent**
	Maternal outcomes among pregnant[1] women with heart failure[2]		**Maternal outcomes among pregnant[1] women with no evidence of heart failure[3]**	
Preeclampsia[6]	73	15.0%	66,966	6.2%
Mild or unspecified preeclampsia[6]	68	14.0%	55,604	5.2%
Severe preeclampsia / eclampsia[6]	22	4.5%	25,049	2.3%
Peripartum cardiomyopathy[7]	43	8.8%	1,041	0.1%
Postpartum hemorrhage[8]	22	4.5%	33,236	3.1%
Preterm delivery[8]	62	12.7%	56,504	5.3%
Multiple gestation[9]	1	0.2%	934	0.1%
Cesarean section[9]	175	35.9%	272,625	25.3%
Acute heart failure recorded during the second or third trimester[10]	12	2.5%	103	0.0%
Acute heart failure recorded on delivery date[9]	3	0.6%	57	0.0%
Acute heart failure recorded after delivery date[11]	11	2.3%	427	0.0%
Acute kidney injury recorded during the second or third trimester[10]	2	0.4%	512	0.0%
Acute kidney injury recorded on delivery date[9]	2	0.4%	295	0.0%
Acute kidney injury recorded after delivery date[11]	3	0.6%	584	0.1%
Acute respiratory distress syndrome recorded during the second or third trimester[10]	6	1.2%	764	0.1%
Acute respiratory distress syndrome recorded on delivery date[9]	4	0.8%	539	0.1%
Acute respiratory distress syndrome recorded after delivery date[11]	7	1.4%	869	0.1%
	Fetal outcomes[5] among infants delivered by pregnant[1] women with heart failure[2]		**Fetal outcomes[5] among infants delivered by pregnant[1] women with no evidence of heart failure[3]**	
Small for gestational age[12]	8	1.6%	18,998	1.8%
Congenital cardiac malformation[13]	7	1.4%	726	0.1%
Ventricular septal defect (VSD)[13]	0	0.0%	7	0.0%

Table 3. Maternal and Fetal Health Outcomes of Interest (HOI) among Pregnant Women with and without Evidence of Heart Failure and Linked Infants in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Health Outcomes of Interest (HOI)[5]	Total number of pregnancies (mother-infant linked pairs) among women[1] with heart failure[2]: N[4] = 487 pregnancies		Total number of pregnancies (mother-infant linked pairs) among women[1] with no evidence of heart failure[3]: N[4] = 1,076,117 pregnancies	
	Number	Percent	Number	Percent
Right ventricular outflow tract obstruction (RVOTO)[13]	0	0.0%	1	0.0%
Other cardiac malformation[13]	7	1.4%	721	0.1%
Bone or skeletal malformation[13]	0	0.0%	863	0.1%
Other major congenital malformation[13]	1	0.2%	1,367	0.1%
Any major malformation: Congenital cardiac malformation, bone or skeletal malformation, or other major congenital malformation[13]	8	1.6%	2,878	0.3%
Major malformation, excluding congenital cardiac malformation: Bone or skeletal malformation or other major congenital malformation[13]	1	0.2%	2,204	0.2%

[1]Pregnancy that resulted in a live birth delivery and had a linked mother and live-born infant pair in the Sentinel Mother-Infant Linkage (MIL) table.

[2]Heart failure (HF) defined as any of the following: A) 1 HF diagnosis in any diagnostic position of the inpatient (IP/IS) care setting recorded in the pre-pregnancy period (183 days) or the first trimester; B) 2 HF diagnoses in the outpatient (AV/OA) care setting both recorded in pre-pregnancy period or in the first trimester; C) 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy period or in the first trimester and 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the second or third trimester; or D) 1 HF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy prior or in the first trimester and an oral HF-related medication dispensed within (+/- 60 days) of HF diagnosis.

[3]Women with no evidence of HF as defined in footnote #2.

[4]Health outcomes of interest (HOI) were assessed only in the first pregnancy episode per total unique women. If an eligible woman had multiple mother-infant linked pregnancies during the query period, only the first valid linked pregnancy episode was selected to evaluate HOIs.

[5]HOIs evaluated in only the mother's claims.

[6]Evaluated in the 140 days prior to and 30 days after live birth delivery date.

[7]Evaluated in the 140 days prior to and 90 days after live birth delivery date.

[8]Evaluated in the 30 days prior to and 30 days after live birth delivery date.

[9]Evaluated on the date of live birth delivery date.

[10]Evaluated in the 182 days to 1 day prior to live birth delivery date.

[11]Evaluated on the day after to 90 days after live birth delivery date.

[12]Evaluated on the date of to 30 days after live birth delivery date.

[13]Evaluated on the date of to 90 days after live birth delivery date.

Table 4. Aggregated Baseline Table for Pregnant and Non-Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Characteristic	Pregnant[1] women with HFrEF[2]		Non-pregnant[3] women with HFrEF[2]		Pregnant[1] women with no evidence of HFrEF[4]	
	Number	Percent	Number	Percent	Number	Percent
Number of unique women	91	-	86	-	1,076,561	-
Number of pregnancies	91	-	87	-	1,246,489	-
Demographics[5]	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean Age (Years)	31.9	4.9	32.2	5.0	31.6	4.5
	Number	Percent	Number	Percent	Number	Percent
Age (Years)						
15-19	0	0.0%	0	0.0%	25,701	2.1%
20-24	10	11.0%	9	10.3%	91,667	7.4%
25-29	27	29.7%	24	27.6%	326,888	26.2%
30-34	29	31.9%	29	33.3%	497,212	39.9%
35-39	20	22.0%	20	23.0%	251,504	20.2%
40-44	4	4.4%	4	4.6%	50,116	4.0%
45-49	1	1.1%	1	1.1%	3,124	0.3%
50-54	0	0.0%	0	0.0%	277	0.0%
Sex						
Female	91	100.0%	86	100.0%	1,076,561	100.0%
Race						
American Indian or Alaska Native	0	0.0%	0	0.0%	644	0.1%
Asian	1	1.1%	1	1.2%	12,309	1.1%
Black or African American	11	12.1%	9	10.5%	27,342	2.5%
Native Hawaiian or Pacific Islander	1	1.1%	0	0.0%	614	0.1%
White	6	6.6%	5	5.8%	100,299	9.3%
Unknown	72	79.1%	71	82.6%	935,353	86.9%
Ethnicity						
Hispanic Origin	2	2.2%	1	1.2%	13,322	1.2%
Not Hispanic	14	15.4%	11	12.8%	55,780	5.2%
Unknown	75	82.4%	74	86.0%	1,007,459	93.6%
Year						
2010	12	13.2%	11	12.6%	136,967	11.0%
2011	11	12.1%	9	10.3%	128,320	10.3%
2012	10	11.0%	10	11.5%	120,385	9.7%
2013	8	8.8%	8	9.2%	116,455	9.3%
2014	7	7.7%	6	6.9%	121,455	9.7%
2015	4	4.4%	4	4.6%	132,678	10.6%
2016	7	7.7%	7	8.0%	138,427	11.1%
2017	9	9.9%	9	10.3%	123,405	9.9%
2018	12	13.2%	12	13.8%	124,715	10.0%
2019	11	12.1%	11	12.6%	103,637	8.3%
2020	0	0.0%	0	0.0%	45	0.0%

Table 4. Aggregated Baseline Table for Pregnant and Non-Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

	Pregnant[1] women with HFrEF[2]		Non-pregnant[3] women with HFrEF[2]		Pregnant[1] women with no evidence of HFrEF[4]	
Characteristic	Number	Percent	Number	Percent	Number	Percent
Baseline characteristics[6,7] recorded in the pre-pregnancy period[8] or the first trimester:						
Alcohol abuse	1	1.1%	0	0.0%	2,789	0.3%
Cardiac arrhythmia	27	29.7%	35	40.2%	10,662	1.0%
Cardiac valvular disease	38	41.8%	29	33.3%	6,500	0.6%
Cardiomyopathy	39	42.9%	60	69.0%	569	0.1%
Chronic kidney disease	2	2.2%	14	16.1%	2,630	0.2%
Congenital heart disease	13	14.3%	4	4.6%	3,509	0.3%
Diabetes (diabetes)	8	8.8%	16	18.4%	16,173	1.5%
Drug abuse	1	1.1%	4	4.6%	8,730	0.8%
Hypertension (preexisting)	38	41.8%	54	62.1%	33,646	3.1%
Ischemic heart disease	11	12.1%	17	19.5%	1,271	0.1%
Overweight or obesity	25	27.5%	35	40.2%	53,666	5.0%
Pulmonary hypertension	2	2.2%	8	9.2%	224	0.0%
Rheumatic heart disease	11	12.1%	8	9.2%	1,406	0.1%
Thyroid disease	18	19.8%	14	16.1%	90,747	8.4%
Tobacco use	17	18.7%	18	20.7%	43,153	4.0%
Baseline characteristics[6] recorded in the second or third trimester:						
Gestational diabetes	12	13.2%	0	0.0%	170,170	15.8%
Gestational hypertension	19	20.9%	3	3.4%	103,942	9.7%
Health service utilization intensity[6,7] in the pre-pregnancy period[8] or the first trimester:						
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Charlson/Elixhauser combined comorbidity score[9]	2.7	1.3	3.5	2.4	0.2	0.5
Mean number of ambulatory encounters	14.2	9.8	19.5	29.1	8.4	8.2
Mean number of emergency room encounters	1.3	2.2	1.9	2.5	0.3	0.9
Mean number of inpatient hospital encounters	0.5	1.1	0.9	2.0	0.0	0.2
Mean number of non-acute institutional encounters	0.0	0.0	0.0	0.0	0.0	0.0
Mean number of other ambulatory encounters	3.1	5.4	2.6	3.7	2.0	2.6
Mean number of unique drug classes dispensed	6.0	4.1	8.6	5.5	3.1	3.0
Mean number of unique generics dispensed	6.5	4.8	9.4	6.4	3.3	3.3
Mean number of unique dispensings	13.7	12.6	27.0	21.9	6.0	7.4
Health service utilization intensity[6] in the second or third trimester or the post-pregnancy period[10]:						
Charlson/Elixhauser combined comorbidity score[10]	1.9	1.5	3.5	2.4	0.3	0.7
Mean number of ambulatory encounters	20.1	10.4	19.5	29.0	12.4	8.1

Table 4. Aggregated Baseline Table for Pregnant and Non-Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

	Pregnant[1] women with HFrEF[2]		Non-pregnant[3] women with HFrEF[2]		Pregnant[1] women with no evidence of HFrEF[4]	
	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Mean number of emergency room encounters	0.9	1.7	1.9	2.4	0.4	0.9
Mean number of inpatient hospital encounters	1.3	0.6	0.9	2.0	1.1	0.5
Mean number of non-acute institutional encounters	0.0	0.1	0.0	0.0	0.0	0.0
Mean number of other ambulatory encounters	3.6	3.5	2.6	3.7	2.8	3.0
Mean number of unique drug classes dispensed	6.3	4.0	8.6	5.5	3.6	2.6
Mean number of unique generics dispensed	6.9	4.5	9.4	6.4	3.8	2.9
Mean number of unique dispensings	14.3	12.1	26.8	21.7	6.7	6.7

[1]Pregnancy that resulted in a live birth delivery and had a linked mother and live-born infant pair in the Sentinel Mother-Infant Linkage (MIL) table.

[2]Reduced ejection fraction heart failure (HFrEF) defined as any of the following: A) 1 HFrEF diagnosis in any diagnostic position of the inpatient (IP/IS) care setting recorded in the pre-pregnancy period (183 days) or in the first trimester; B) 2 HFrEF diagnoses in the outpatient (AV/OA) care setting both recorded in the pre-pregnancy period or in the first trimester; C) 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy period or in the first trimester and 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the second or third trimester; or D) 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy prior or in the first trimester and an oral heart failure-related medication dispensed within (+/- 60 days) of HF diagnosis.

[3]For each identified pregnancy (footnotes #1 and #2), a comparator episode was selected in order to compare medical product use and baseline characteristics during a defined period for which a woman did not have a live birth delivery. Pregnancy episodes were matched within Data Partner to women with first enrollment episodes without live birth delivery that met all inclusion criteria, were the same age (integer), and where pregnancy duration overlapped the eligible enrollment spans. Women and comparator episodes were allowed to be used multiple times as controls, and women with a pregnancy episode were allowed to contribute a separate comparator episode.

[4]Women with no evidence of HFrEF as defined in footnote #2.

[5]Age and year were based on the total number of pregnancies per cohort; sex, race, and ethnicity were based on the total number of unique wome

[6]In the pregnant cohorts, baseline characteristics and health service utilization intensity were assessed using denominators of the total number of unique women in each cohort since only the first pregnancy episode per total unique women was selected. For the non-pregnant cohort, the total number of matched non-pregnant comparator episodes was used as the denominator.

[7]When assessing baseline characteristics and health service utilization intensity in the pre-pregnancy period or in the first trimester relative to estimated pregnancy start date, the denominator of unique pregnant women with no evidence of HFrEF was 1,076,056 rather than 1,076,561. This is because 505 women did not suffice age eligibility requirements relative to the estimated pregnancy start index date. These women were at least 15 years old on their delivery date, but were less than 15 years old on the estimated pregnancy start date.

[8]Pre-pregnancy period defined as the 183 days prior to estimated pregnancy start date.

[9]The Charlson/Elixhauser combined comorbidity score is calculated based on comorbidities observed during a requester-defined window around the exposure episode start date. (Gagne JJ, Glynn RJ, Avorn J, Levin R, Schneeweiss S. A combined comorbidity score predicted mortality in elderly patients better than existing scores. J Clin Epidemiol. 2011;64(7):749-759)

[10]Post-pregnancy period defined as the 90 days after delivery date.

Table 5. Use of Oral Heart Failure-Related Medical Products among Pregnant and Non-Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Medical products of interest, oral route	Any use in the pre-pregnancy period[1]		Any use in the first trimester		Any use in the second trimester		Any use in the third trimester		Any use in the post-pregnancy period[2]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pregnancies[3] among women with HFrEF[4]										
N[7] = 91 pregnancies per 91 total unique women										
Angiotensin-converting enzyme (ACE) inhibitors	19	20.9%	10	11.0%	3	3.3%	2	2.2%	12	13.2%
Aldosterone antagonists	10	11.0%	6	6.6%	0	0.0%	0	0.0%	2	2.2%
Angiotensin II receptor blockers (ARBs)	5	5.5%	4	4.4%	0	0.0%	0	0.0%	3	3.3%
Angiotensin receptor-neprilysin inhibitors (ARNIs)	1	1.1%	2	2.2%	0	0.0%	0	0.0%	2	2.2%
Beta blockers	30	33.0%	31	34.1%	27	29.7%	29	31.9%	29	31.9%
Digoxin	1	1.1%	3	3.3%	2	2.2%	2	2.2%	4	4.4%
Diuretics	18	19.8%	12	13.2%	4	4.4%	7	7.7%	17	18.7%
Hydralazine and nitrates	1	1.1%	2	2.2%	1	1.1%	1	1.1%	1	1.1%
Ivabradine	2	2.2%	1	1.1%	0	0.0%	0	0.0%	0	0.0%
ACE inhibitors, ARBs, or ARNI	25	27.5%	16	17.6%	3	3.3%	2	2.2%	-	-
Non-pregnant episodes[5] among women with HFrEF[4]										
N = 87 matched non-pregnant episodes per 86 total unique women										
ACE inhibitors	31	35.6%	29	33.3%	30	34.5%	25	28.7%	29	33.3%
Aldosterone antagonists	19	21.8%	14	16.1%	17	19.5%	13	14.9%	14	16.1%
ARBs	7	8.0%	9	10.3%	10	11.5%	12	13.8%	9	10.3%
ARNI	1	1.1%	1	1.1%	2	2.3%	2	2.3%	1	1.1%
Beta blockers	46	52.9%	41	47.1%	45	51.7%	40	46.0%	41	47.1%
Digoxin	9	10.3%	8	9.2%	8	9.2%	6	6.9%	8	9.2%
Diuretics	25	28.7%	26	29.9%	31	35.6%	31	35.6%	26	29.9%
Hydralazine and nitrates	7	8.0%	6	6.9%	6	6.9%	5	5.7%	6	6.9%
Ivabradine	2	2.3%	2	2.3%	2	2.3%	2	2.3%	2	2.3%
ACE inhibitors, ARBs, or ARNI	39	44.8%	37	42.5%	42	48.3%	37	42.5%	-	-

Table 5. Use of Oral Heart Failure-Related Medical Products among Pregnant and Non-Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Medical products of interest, oral route	Any use in the pre-pregnancy period[1]		Any use in the first trimester		Any use in the second trimester		Any use in the third trimester		Any use in the post-pregnancy period[2]	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Pregnancies[3] among women with no evidence of HFrEF[6]										
N[7] = 1,246,489 pregnancies per 1,076,561 total unique women										
ACE inhibitors	3,714	0.3%	2,419	0.2%	324	0.0%	151	0.0%	4,247	0.4%
Aldosterone antagonists	2,576	0.2%	1,013	0.1%	90	0.0%	53	0.0%	1,113	0.1%
ARBs	1,458	0.1%	944	0.1%	88	0.0%	50	0.0%	1,089	0.1%
ARNI	0	0.0%	0	0.0%	0	0.0%	0	0.0%	18	0.0%
Beta blockers	13,061	1.0%	15,018	1.2%	15,924	1.3%	21,764	1.7%	37,104	3.4%
Digoxin	47	0.0%	45	0.0%	68	0.0%	163	0.0%	134	0.0%
Diuretics	7,174	0.6%	4,817	0.4%	1,016	0.1%	932	0.1%	14,447	1.3%
Hydralazine and nitrates	132	0.0%	176	0.0%	134	0.0%	211	0.0%	1,006	0.1%
Ivabradine	1	0.0%	1	0.0%	0	0.0%	0	0.0%	2	0.0%
ACE inhibitors, ARBs, or ARNI	5,128	0.4%	3,344	0.3%	410	0.0%	200	0.0%	-	-

[1]Pre-pregnancy period defined as the 183 days prior to estimated pregnancy start date.

[2]Post-pregnancy period defined as the 90 days after delivery date.

[3]Pregnancy that resulted in a live birth delivery and had a linked mother and live-born infant pair in the Sentinel Mother-Infant Linkage (MIL) table.

[4]Reduced ejection fraction heart failure (HFrEF) defined as any of the following: A) 1 HFrEF diagnosis in any diagnostic position of the inpatient (IP/IS) care setting recorded in the pre-pregnancy period (183 days) or in the first trimester; B) 2 HFrEF diagnoses in the outpatient (AV/OA) care setting both recorded in pre-pregnancy period or in the first trimester; C) 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy period or in the first trimester and 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the second or third trimester; or D) 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy prior or in the first trimester and an oral heart failure-related medication dispensed within (+/- 60 days) of HF diagnosis.

[5]For each identified pregnancy (footnotes #1 and #2), a comparator episode was selected in order to compare medical product use and baseline characteristics during a defined period for which a woman did not have a live birth delivery. Pregnancy episodes were matched within Data Partner to women with first enrollment episodes without live birth delivery that met all inclusion criteria, were the same age (integer), and where pregnancy duration overlapped the eligible enrollment spans. Women and comparator episodes were allowed to be used multiple times as controls, and women with a pregnancy episode were allowed to contribute a separate comparator episode.

[6]Women with no evidence of HFrEF as defined in footnote #4.

[7]Administration of oral medical products in the post-pregnancy period for pregnant women with and without evidence of HFrEF was evaluated only for the first pregnant episode per total unique women. Therefore, the denominator for only the post-pregnancy evaluation was the total number of unique women rather than pregnancies (n = 91 and 1,076,561 for pregnant women with and without HFrEF, respectively).

Table 6. Maternal and Fetal Health Outcomes of Interest (HOI) among Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) and Linked Infants in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Health Outcomes of Interest (HOI)[5]	Total number of pregnancies (mother-infant linked pairs) among women[1] with HFrEF[2]: N[4] = 91 pregnancies		Total number of pregnancies (mother-infant linked pairs) among women[1] with no evidence of HFrEF[3]: N[4] = 1,076,561 pregnancies	
	Number	Percent	Number	Percent
	Maternal outcomes among pregnant[1] women with HFrEF[2]		Maternal outcomes among pregnant[1] women with no evidence of HFrEF[3]	
Preeclampsia[6]	11	12.1%	67,039	6.2%
Mild or unspecified preeclampsia[6]	11	12.1%	55,673	5.2%
Severe preeclampsia / eclampsia[6]	1	1.1%	25,070	2.3%
Peripartum cardiomyopathy[7]	15	16.5%	1,076	0.1%
Postpartum hemorrhage[8]	1	1.1%	33,257	3.1%
Preterm delivery[8]	9	9.9%	56,561	5.3%
Multiple gestation[9]	0	0.0%	934	0.1%
Cesarean section[9]	35	38.5%	272,784	25.3%
Acute heart failure recorded during the second or third trimester[10]	6	6.6%	112	0.0%
Acute heart failure recorded on delivery date[9]	2	2.2%	58	0.0%
Acute heart failure recorded after delivery date[11]	6	6.6%	434	0.0%
Acute kidney injury recorded during the second or third trimester[10]	0	0.0%	517	0.0%
Acute kidney injury recorded on delivery date[9]	0	0.0%	297	0.0%
Acute kidney injury recorded after delivery date[11]	1	1.1%	588	0.1%
Acute respiratory distress syndrome recorded during the second or thi	2	2.2%	766	0.1%
Acute respiratory distress syndrome recorded on delivery date[9]	1	1.1%	542	0.1%
Acute respiratory distress syndrome recorded after delivery date[11]	1	1.1%	874	0.1%
	Fetal outcomes[5] among infants delivered by pregnant[1] women with HFrEF[2]		Fetal outcomes[5] among infants delivered by pregnant[1] women with no evidence of HFrEF[3]	
Small for gestational age[12]	0	0.0%	19,009	1.8%
Congenital cardiac malformation[13]	1	1.1%	731	0.1%
Ventricular septal defect (VSD)[13]	0	0.0%	7	0.0%
Right ventricular outflow tract obstruction (RVOTO)[13]	0	0.0%	1	0.0%

Table 6. Maternal and Fetal Health Outcomes of Interest (HOI) among Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) and Linked Infants in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020

Health Outcomes of Interest (HOI)[5]	Total number of pregnancies (mother-infant linked pairs) among women[1] with HFrEF[2]: N[4] = 91 pregnancies		Total number of pregnancies (mother-infant linked pairs) among women[1] with no evidence of HFrEF[3]: N[4] = 1,076,561 pregnancies	
	Number	Percent	Number	Percent
Other cardiac malformation[13]	1	1.1%	726	0.1%
Bone or skeletal malformation[13]	0	0.0%	863	0.1%
Other major congenital malformation[13]	1	1.1%	1,367	0.1%
Any major malformation: Congenital cardiac malformation, bone or skeletal malformation, or other major congenital malformation[13]	2	2.2%	2,883	0.3%
Major malformation, excluding congenital cardiac malformation: Bone or skeletal malformation or other major congenital malformation[13]	1	1.1%	2,204	0.2%

[1]Pregnancy that resulted in a live birth delivery and had a linked mother and live-born infant pair in the Sentinel Mother-Infant Linkage (MIL) table.

[2]Reduced ejection fraction heart failure (HFrEF) defined as any of the following: A) 1 HFrEF diagnosis in any diagnostic position of the inpatient (IP/IS) care setting recorded in the pre-pregnancy period (183 days) or the first trimester; B) 2 HFrEF diagnoses in the outpatient (AV/OA) care setting both recorded in pre-pregnancy period or in the first trimester; C) 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy period or in the first trimester and 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the second or third trimester; or D) 1 HFrEF diagnosis in the outpatient (AV/OA) care setting recorded in the pre-pregnancy prior or in the first trimester and an oral heart failure-related medication dispensed within (+/- 60 days) of HF diagnosis.

[3]Women with no evidence of HFrEF as defined in footnote #2.

[4]Health outcomes of interest (HOI) were assessed only in the first pregnancy episode per total unique women. If an eligible woman had multiple mother-infant linked pregnancies during the query period, only the first valid linked pregnancy episode was selected to evaluate HOIs.

[5]HOIs evaluated in only the mother's claims.

[6]Evaluated in the 140 days prior to and 30 days after live birth delivery date.

[7]Evaluated in the 140 days prior to and 90 days after live birth delivery date.

[8]Evaluated in the 30 days prior to and 30 days after live birth delivery date.

[9]Evaluated on the date of live birth delivery date.

[10]Evaluated in the 182 days to 1 day prior to live birth delivery date.

[11]Evaluated on the day after to 90 days after live birth delivery date.

[12]Evaluated on the date of to 30 days after live birth delivery date.

[13]Evaluated on the date of to 90 days after live birth delivery date.

Figure 1. Proportion of Pregnant Women with and without Evidence of Heart Failure (HF) and Non-Pregnant Women with HF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 1a. Use of Oral Angiotensin-Converting Enzyme (ACE) Inhibitors throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
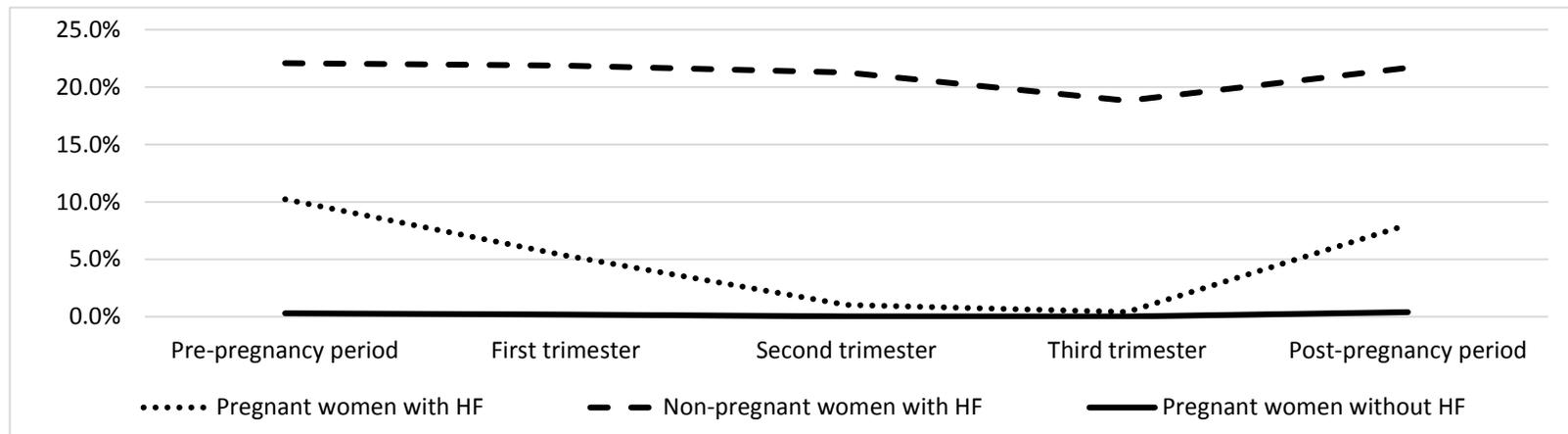
Figure 1b. Use of Oral Aldosterone Antagonists throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
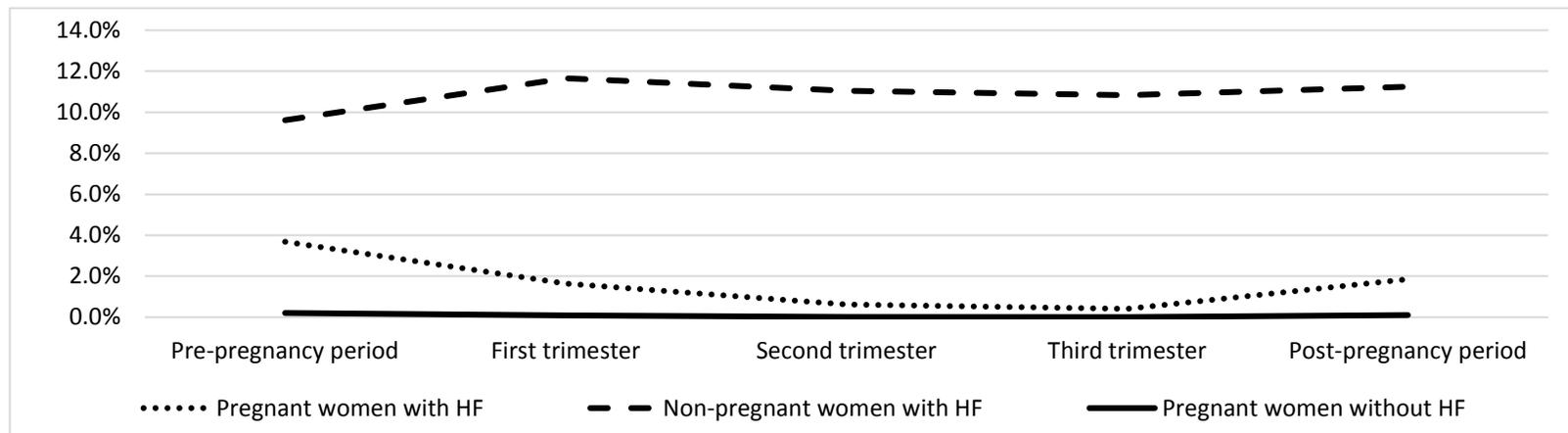
Figure 1. Proportion of Pregnant Women with and without Evidence of Heart Failure (HF) and Non-Pregnant Women with HF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 1c. Use of Oral Angiotensin II Receptor Blockers (ARBs) throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
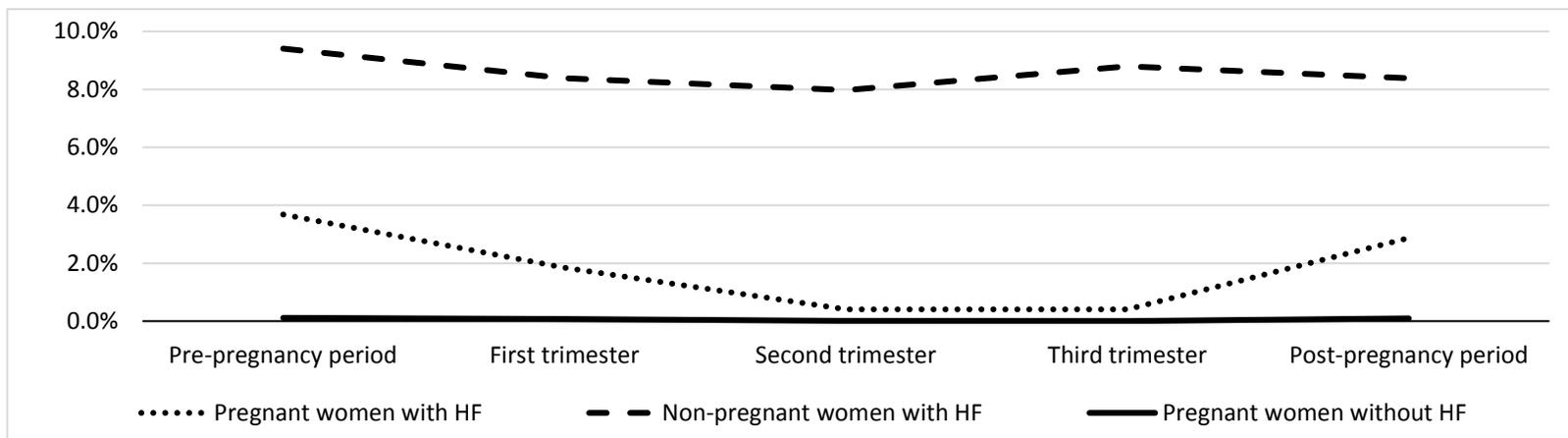
Figure 1d. Use of Oral Angiotensin Receptor-Neprilysin Inhibitors (ARNIs) throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
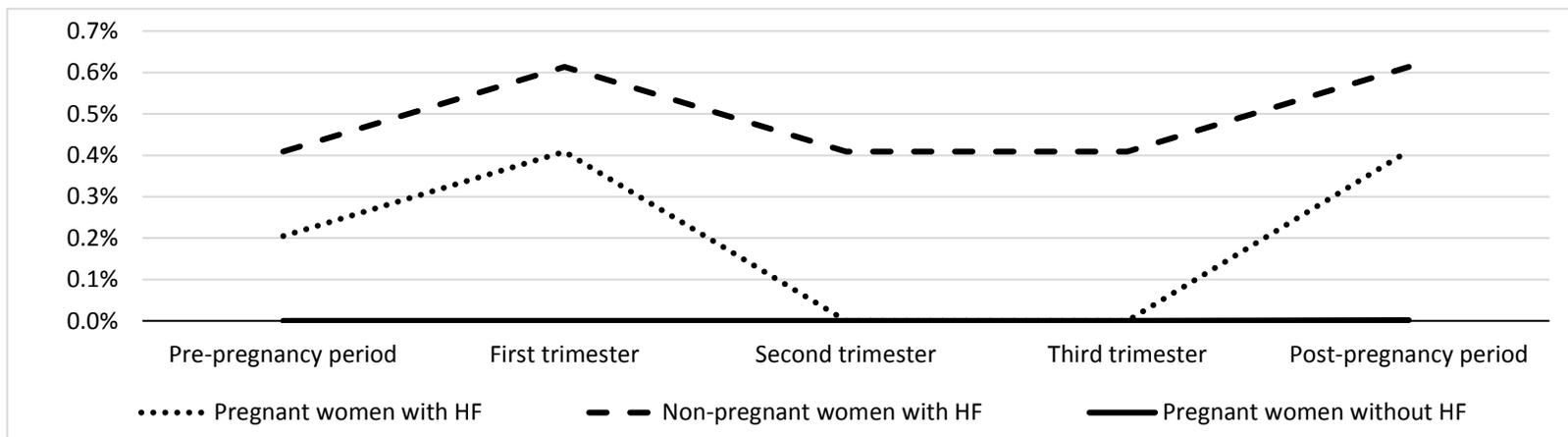
Figure 1. Proportion of Pregnant Women with and without Evidence of Heart Failure (HF) and Non-Pregnant Women with HF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 1e. Use of Oral Beta Blockers throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
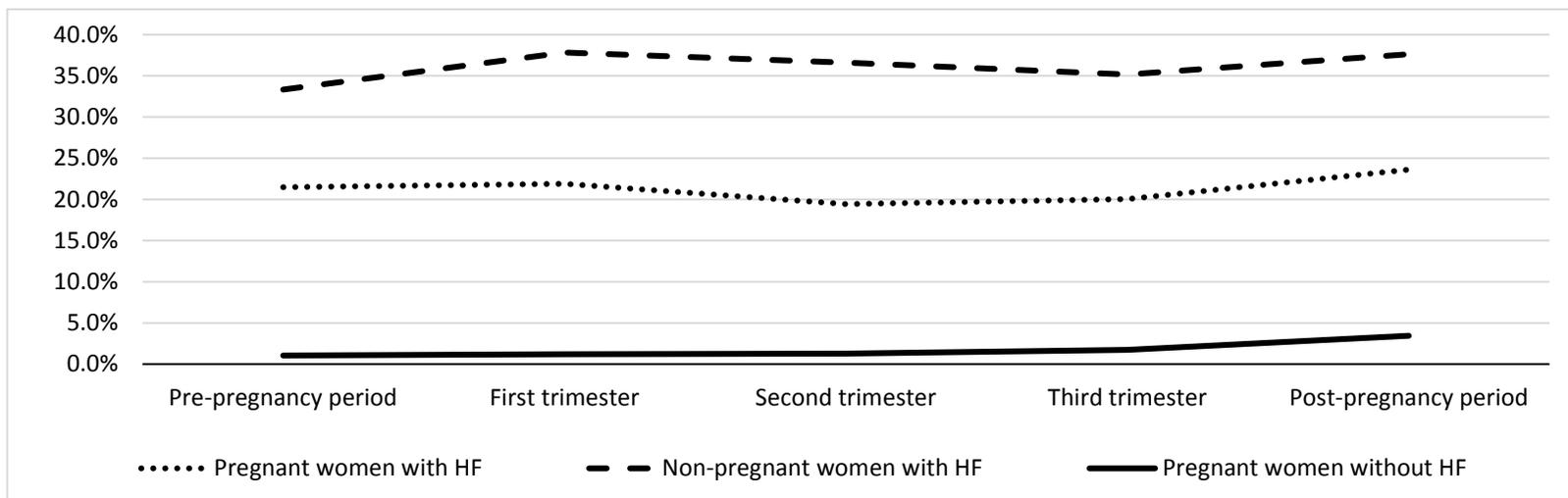
Figure 1f. Use of Oral Digoxin throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
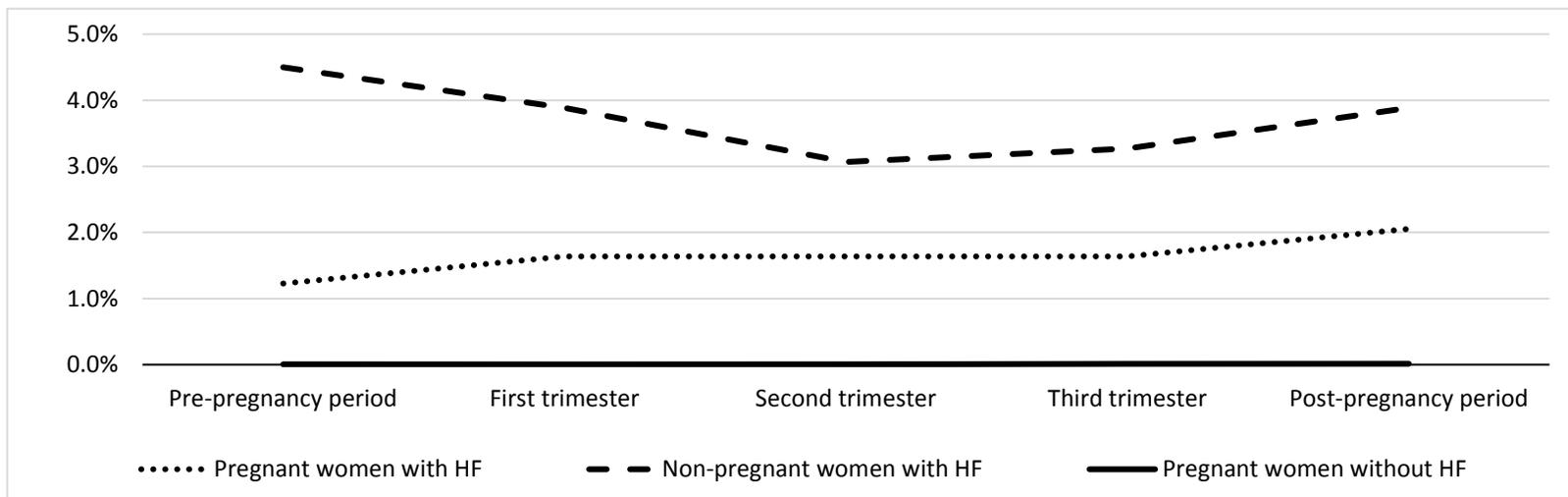
Figure 1. Proportion of Pregnant Women with and without Evidence of Heart Failure (HF) and Non-Pregnant Women with HF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 1g. Use of Oral Diuretics throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
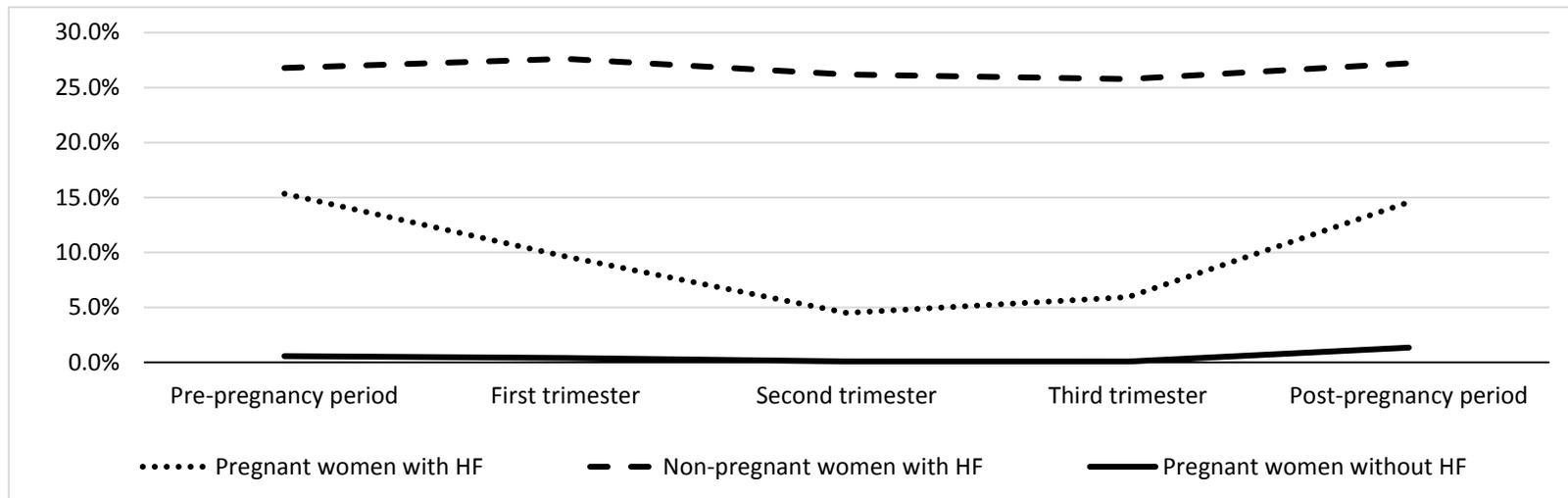
Figure 1h. Use of Oral Hydralazine and Nitrates throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
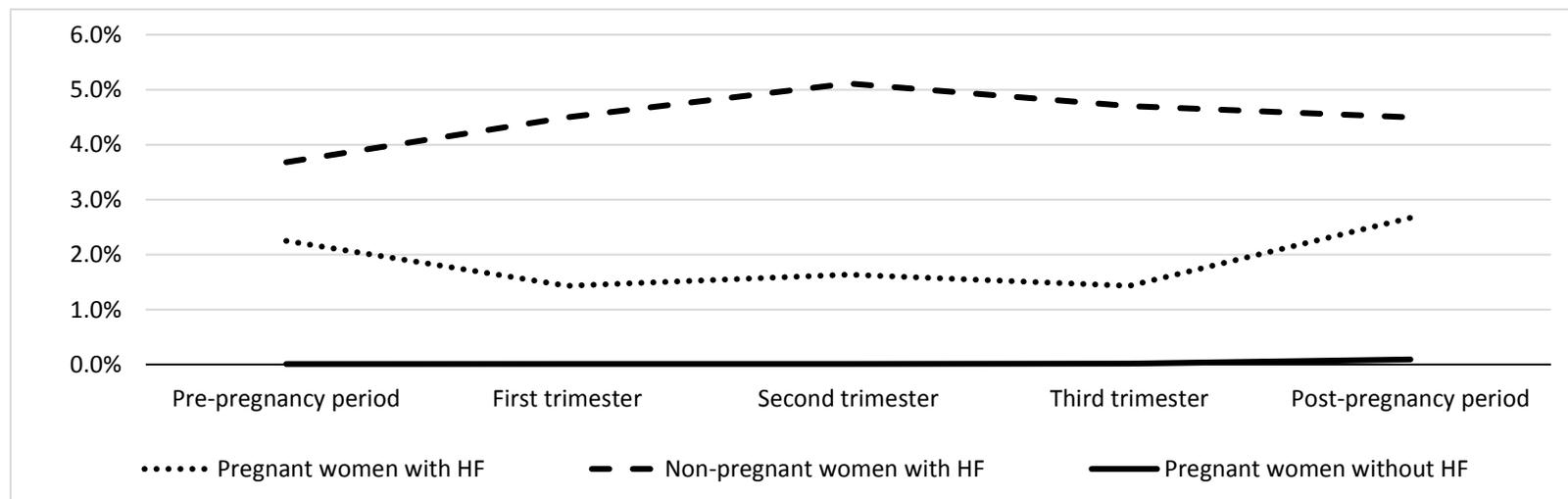
Figure 1. Proportion of Pregnant Women with and without Evidence of Heart Failure (HF) and Non-Pregnant Women with HF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 1i. Use of Oral Ivabradine throughout Pregnancy Period Among Pregnant Women with and without HF and Non-Pregnant Women with HF
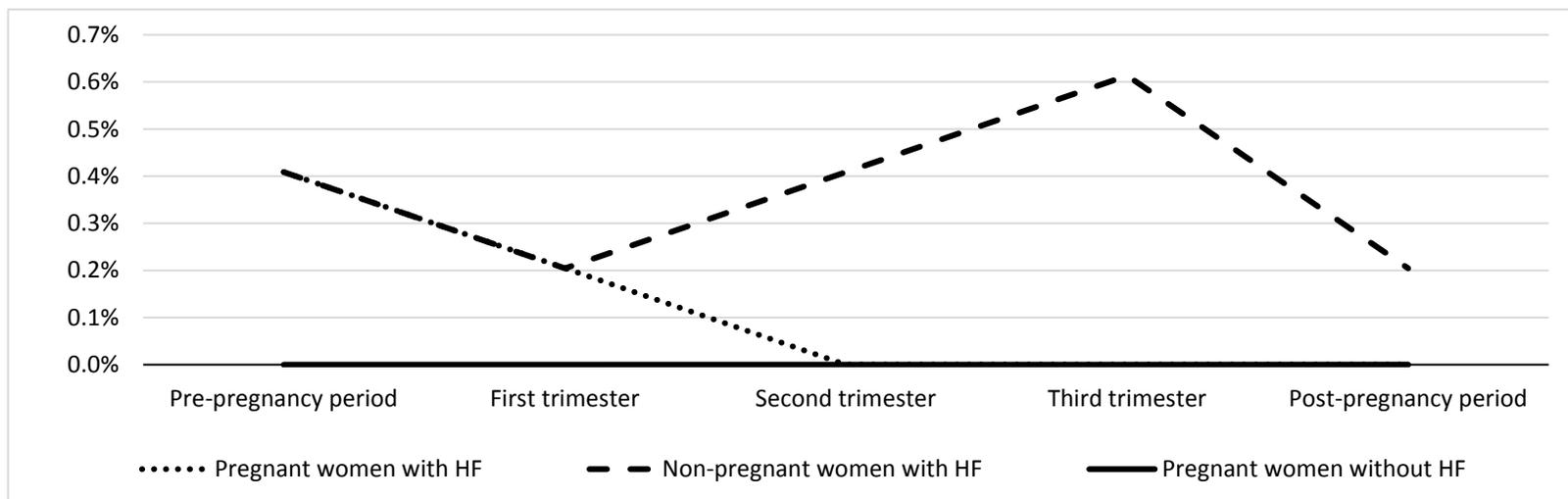
Proportions of medical product use among pregnant women with and without HF and non-pregnant women with HF were estimated using data presented by trimesters and pre- and post-pregnancy periods in Table 2. Few products, including ARNI and Ivabradine had very low utilization, n<5, across the cohorts during the time periods assessed.

Figure 2. Proportion of Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) and Non-Pregnant Women with HFrEF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 2a. Use of Oral Angiotensin-Converting Enzyme (ACE) Inhibitors throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
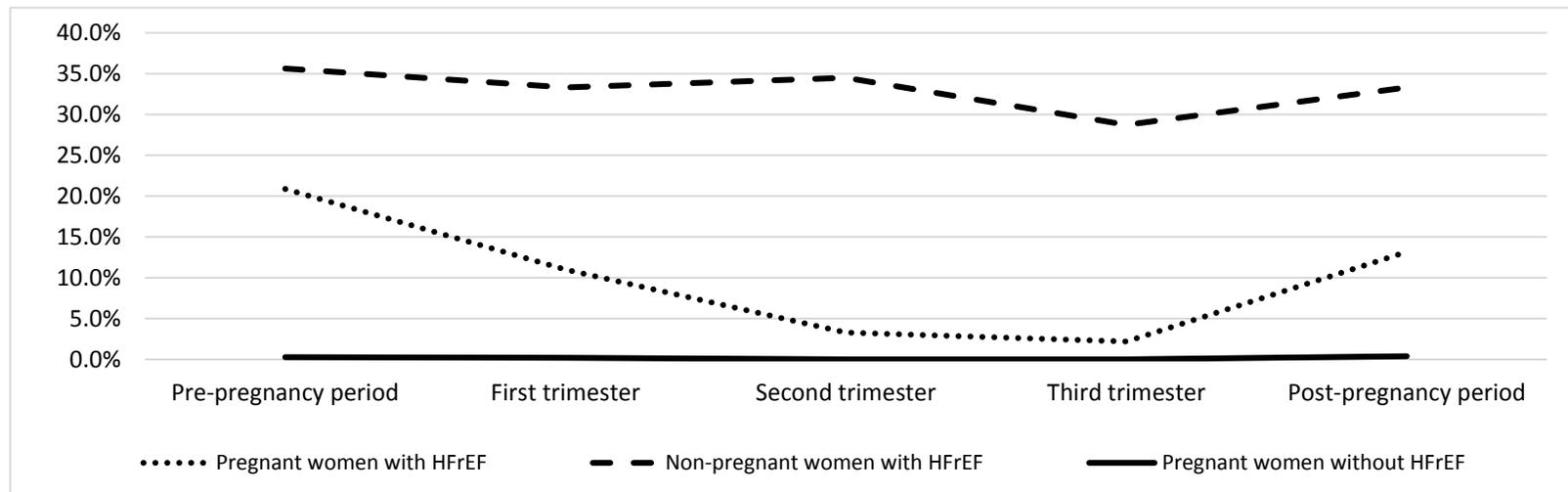
Figure 2b. Use of Oral Aldosterone Antagonists throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
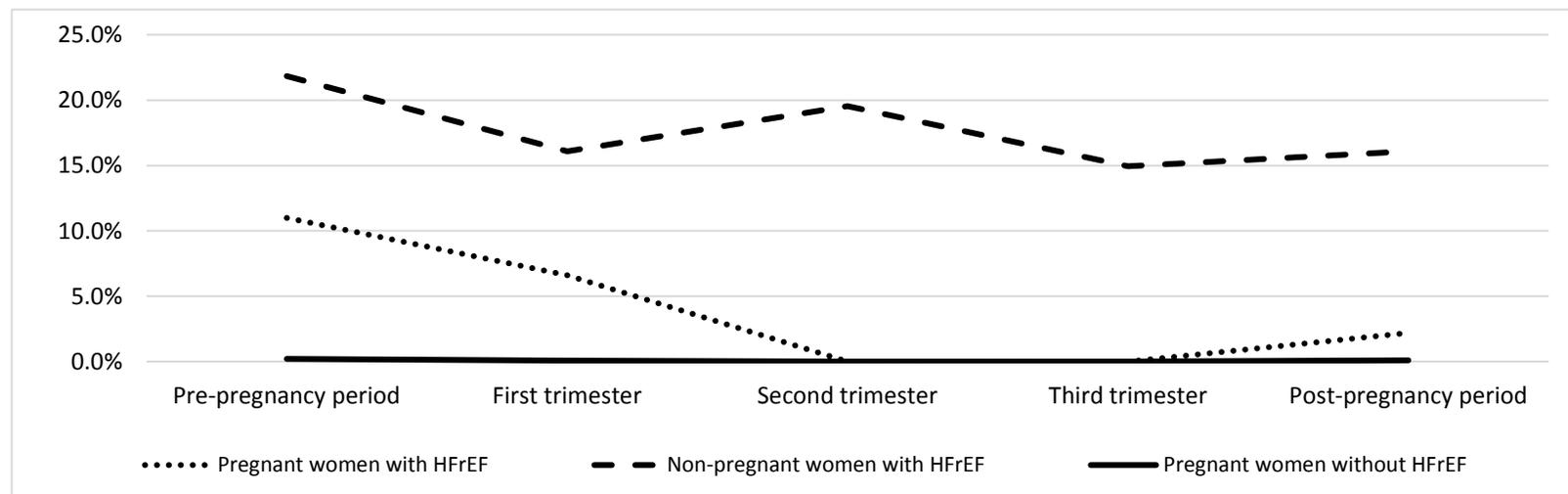
Figure 2. Proportion of Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) and Non-Pregnant Women with HFrEF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 2c. Use of Oral Angiotensin II Receptor Blockers (ARBs) throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
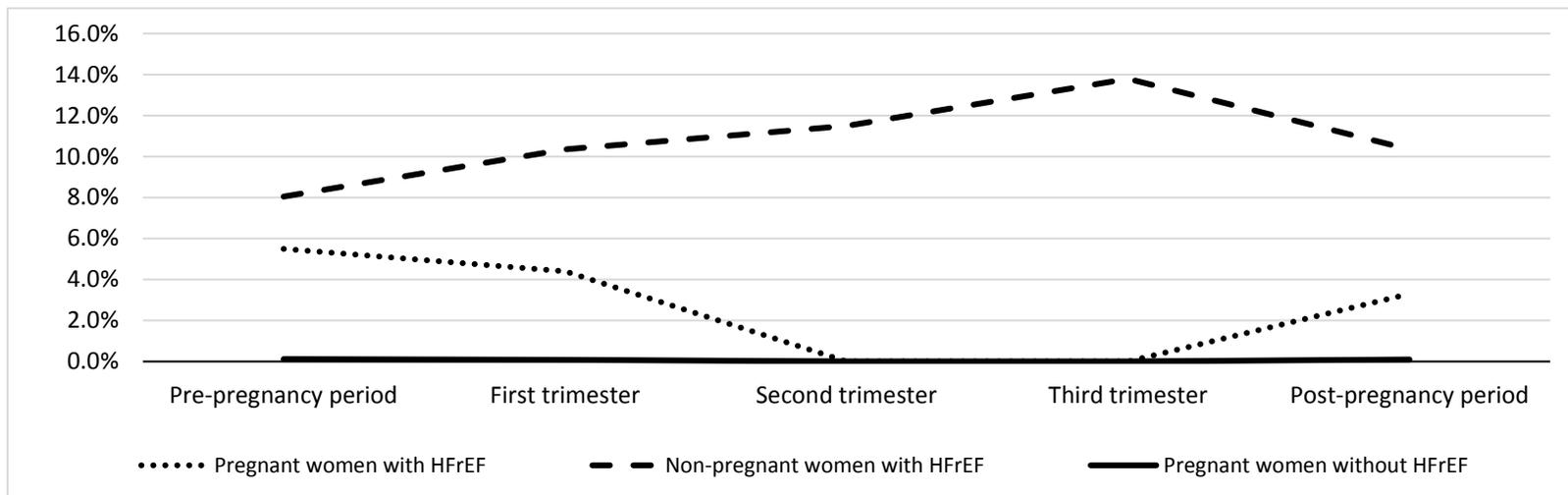
Figure 2d. Use of Oral Angiotensin Receptor-Neprilysin Inhibitors (ARNIs) throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
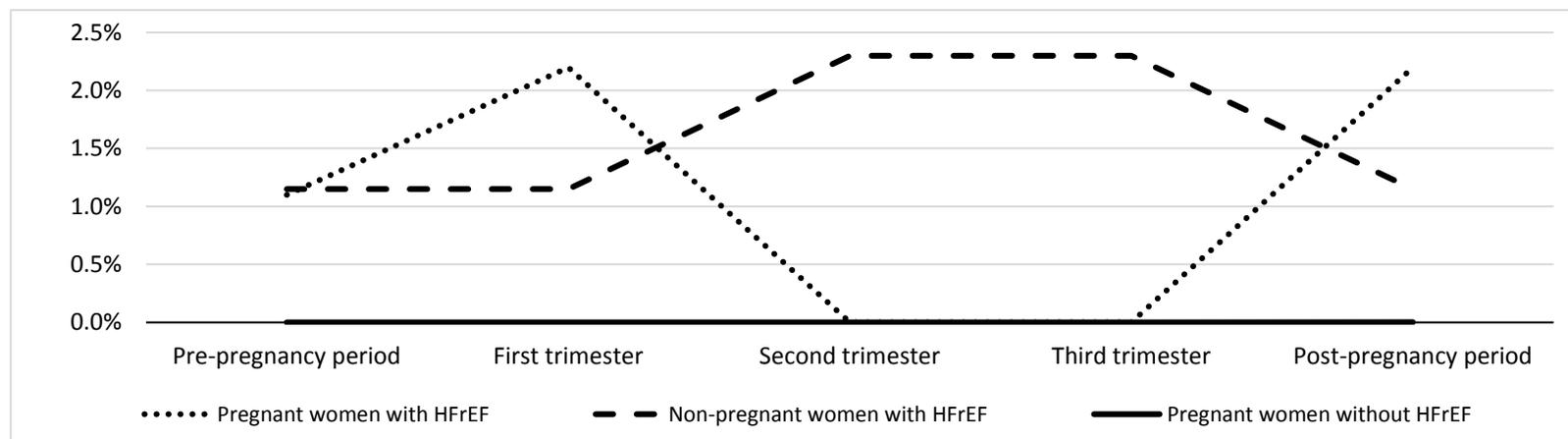
Figure 2. Proportion of Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) and Non-Pregnant Women with HFrEF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 2e. Use of Oral Beta Blockers throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
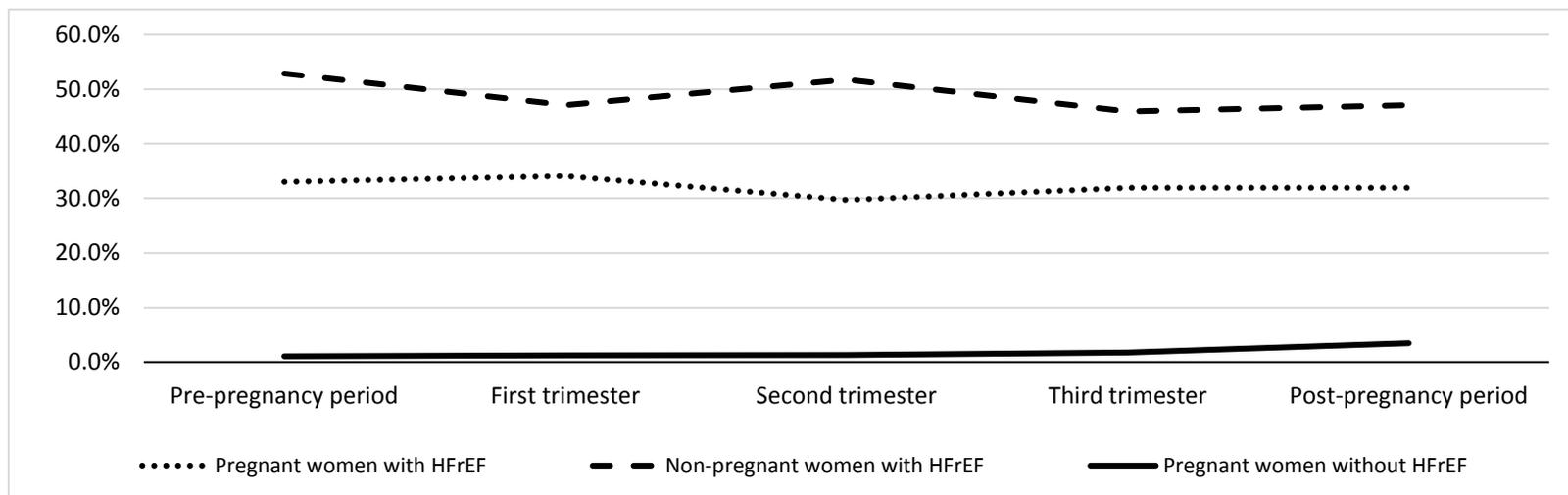
Figure 2f. Use of Oral Digoxin throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
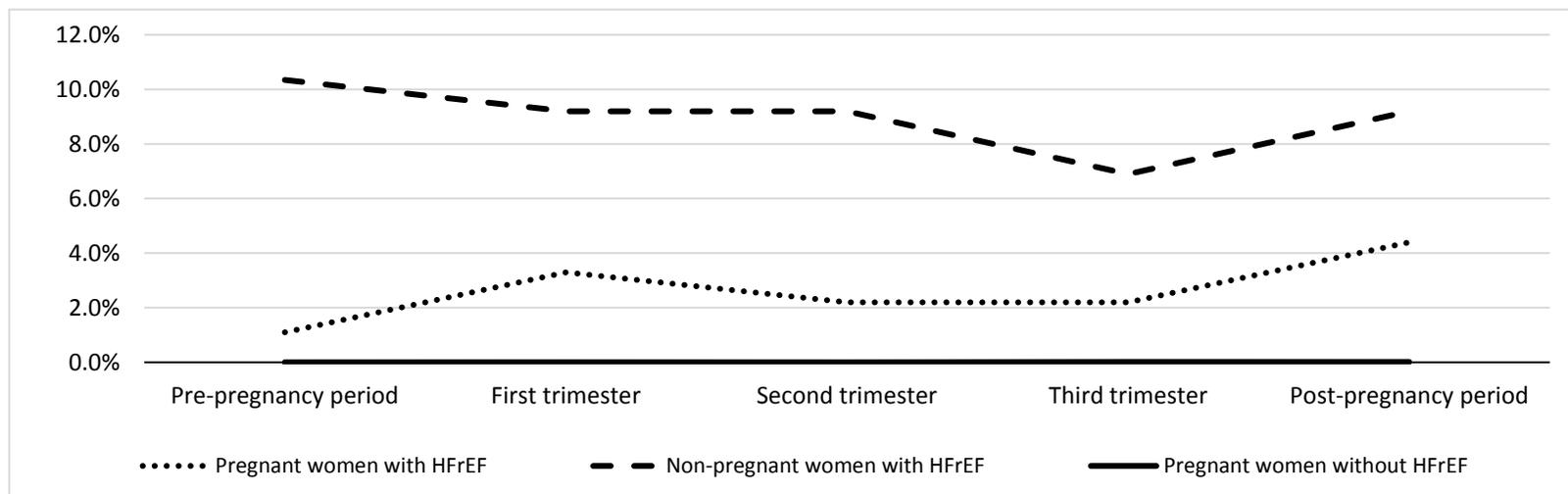
Figure 2. Proportion of Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) and Non-Pregnant Women with HFrEF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 2g. Use of Oral Diuretics throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
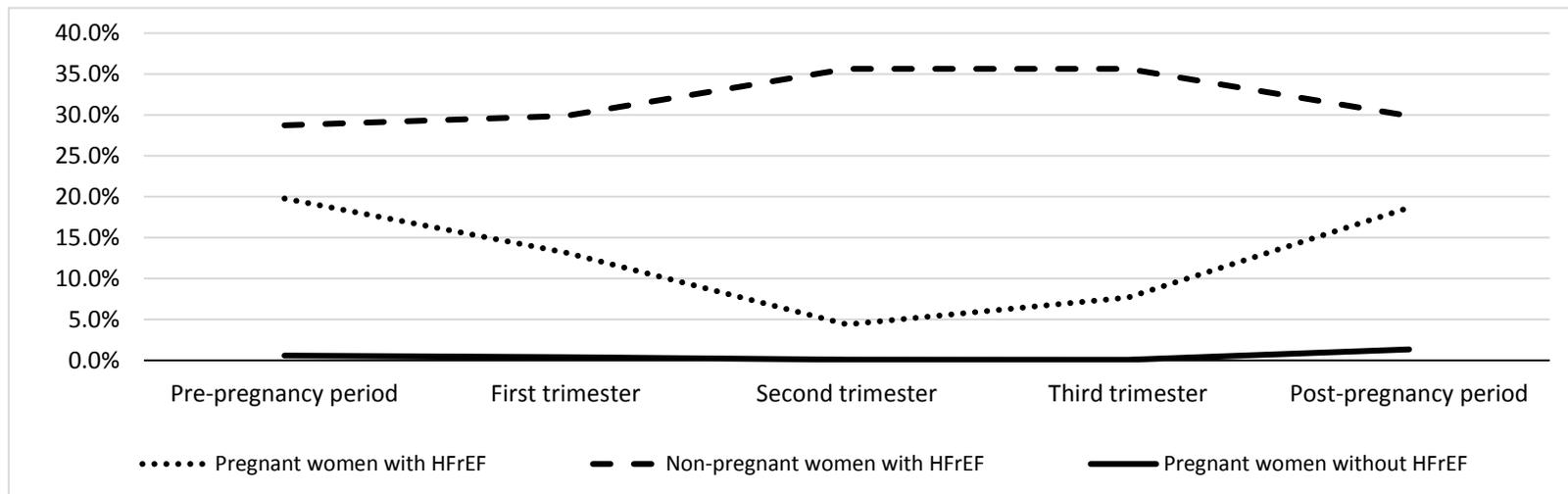
Figure 2h. Use of Oral Hydralazine and Nitrates throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
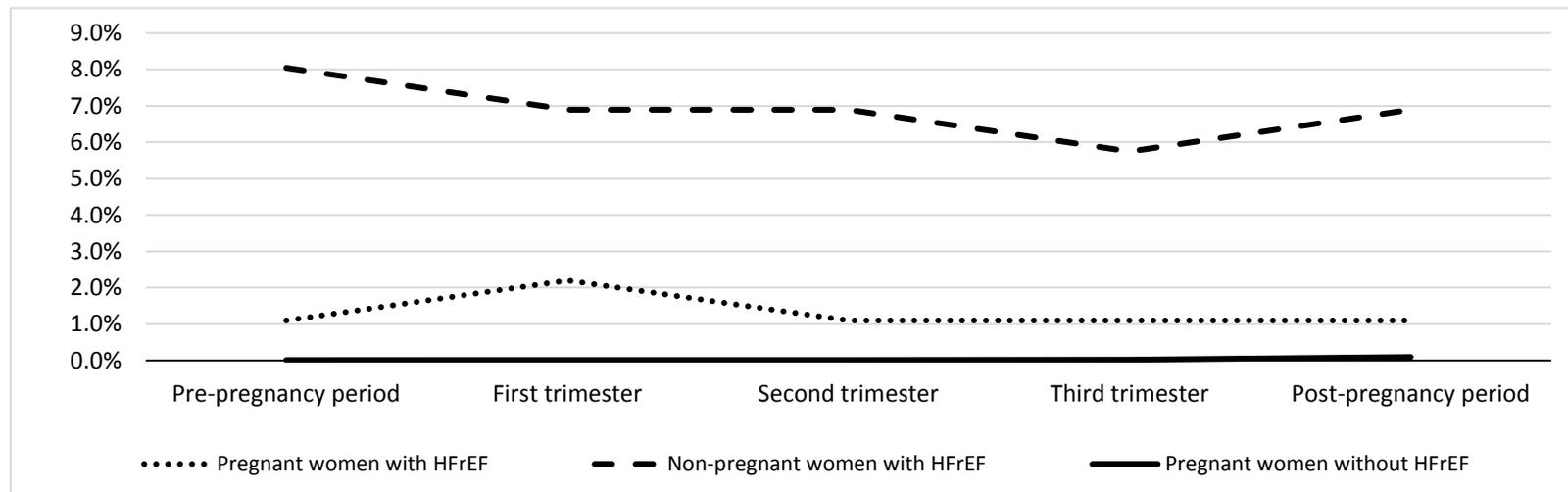
Figure 2. Proportion of Pregnant Women with and without Evidence of Reduced Ejection Fraction Heart Failure (HFrEF) and Non-Pregnant Women with HFrEF who Used Oral Heart Failure-Related Medical Products in the Sentinel Distributed Database (SDD) between January 1, 2010 and February 29, 2020, by Drug Class

Figure 2i. Use of Oral Ivabradine throughout Pregnancy Period Among Pregnant Women with and without HFrEF and Non-Pregnant Women with HFrEF
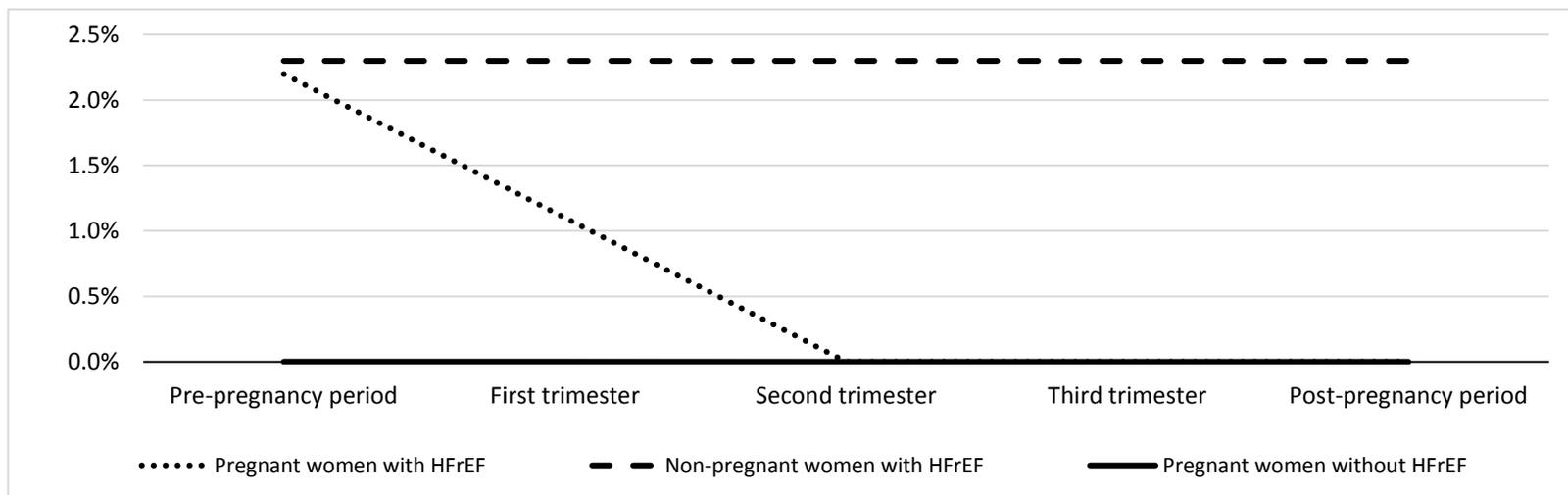
Proportions of medical product use among pregnant women with and without HFrEF and non-pregnant women with HFrEF were estimated using data presented by trimesters and pre- and post-pregnancy periods in Table 5. Some products, ARNI and ivabradine had very low utilization, n<5, across the cohorts during the time periods assessed. Additionally, ARBs, digoxin, and hydralazine and nitrates has n<10 in the pregnant and non-pregnant women with HF across the time periods

Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (December 4, 2020)

DP ID	Data Partner Start Date*	Data Partner End Date*
DP01	01/01/2006	01/31/2020
DP02	01/01/2008	12/31/2019
DP03	01/01/2008	02/29/2020
DP04	01/01/2000	12/31/2017

*The start and end dates are based on the minimum and maximum dates within each DP. The month with the maximum date must have at least 80% of the number of records in the previous month.

Code	Description	Code Category	Code Type
Live Birth Delivery			
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
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
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

Appendix B. List 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, Procedure Coding System (ICD-10-PCS), and Current Procedural Terminology, Fourth Edition (CPT-4) Codes Used to Define Live Birth Delivery

Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

Code	Description	Code Category	Code Type
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
O7582	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
O7589	Other specified complications of labor and delivery	Diagnosis	ICD-10-CM
O759	Complication of labor and delivery, unspecified	Diagnosis	ICD-10-CM
O76	Abnormality in fetal heart rate and rhythm complicating labor and delivery	Diagnosis	ICD-10-CM
O770	Labor and delivery complicated by meconium in amniotic fluid	Diagnosis	ICD-10-CM
O778	Labor and delivery complicated by other evidence of fetal stress	Diagnosis	ICD-10-CM
O779	Labor and delivery complicated by fetal stress, unspecified	Diagnosis	ICD-10-CM
O80	Encounter for full-term uncomplicated delivery	Diagnosis	ICD-10-CM
O82	Encounter for cesarean delivery without indication	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O8802	Air embolism in childbirth	Diagnosis	ICD-10-CM
O8812	Amniotic fluid embolism in childbirth	Diagnosis	ICD-10-CM
O8822	Thromboembolism in childbirth	Diagnosis	ICD-10-CM
O8832	Pyemic and septic embolism in childbirth	Diagnosis	ICD-10-CM
O8882	Other embolism in childbirth	Diagnosis	ICD-10-CM
O9802	Tuberculosis complicating childbirth	Diagnosis	ICD-10-CM
O9812	Syphilis complicating childbirth	Diagnosis	ICD-10-CM
O9822	Gonorrhea complicating childbirth	Diagnosis	ICD-10-CM
O9832	Other infections with a predominantly sexual mode of transmission complicating childbirth	Diagnosis	ICD-10-CM
O9842	Viral hepatitis complicating childbirth	Diagnosis	ICD-10-CM
O9852	Other viral diseases complicating childbirth	Diagnosis	ICD-10-CM
O9862	Protozoal diseases complicating childbirth	Diagnosis	ICD-10-CM
O9872	Human immunodeficiency virus [HIV] disease complicating childbirth	Diagnosis	ICD-10-CM
O9882	Other maternal infectious and parasitic diseases complicating childbirth	Diagnosis	ICD-10-CM
O9892	Unspecified maternal infectious and parasitic disease complicating childbirth	Diagnosis	ICD-10-CM
O9902	Anemia complicating childbirth	Diagnosis	ICD-10-CM
O9912	Other diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism complicating childbirth	Diagnosis	ICD-10-CM
O99214	Obesity complicating childbirth	Diagnosis	ICD-10-CM
O99284	Endocrine, nutritional and metabolic diseases complicating childbirth	Diagnosis	ICD-10-CM
O99314	Alcohol use complicating childbirth	Diagnosis	ICD-10-CM
O99324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
O99334	Smoking (tobacco) complicating childbirth	Diagnosis	ICD-10-CM
O99344	Other mental disorders complicating childbirth	Diagnosis	ICD-10-CM
O99354	Diseases of the nervous system complicating childbirth	Diagnosis	ICD-10-CM
O9942	Diseases of the circulatory system complicating childbirth	Diagnosis	ICD-10-CM
O9952	Diseases of the respiratory system complicating childbirth	Diagnosis	ICD-10-CM
O9962	Diseases of the digestive system complicating childbirth	Diagnosis	ICD-10-CM
O9972	Diseases of the skin and subcutaneous tissue complicating childbirth	Diagnosis	ICD-10-CM
O99814	Abnormal glucose complicating childbirth	Diagnosis	ICD-10-CM
O99824	Streptococcus B carrier state complicating childbirth	Diagnosis	ICD-10-CM
O99834	Other infection carrier state complicating childbirth	Diagnosis	ICD-10-CM
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

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
59620	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery;	Procedure	CPT-4
59622	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery; including postpartum care	Procedure	CPT-4
650	Normal delivery	Diagnosis	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
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

Code	Description	Code Category	Code Type
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
64523	Prolonged pregnancy, antepartum condition or complication	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
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

Code	Description	Code Category	Code Type
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
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

Appendix B. List 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, Procedure Coding System (ICD-10-PCS), and Current Procedural Terminology, Fourth Edition (CPT-4) Codes Used to Define Live Birth Delivery

Code	Description	Code Category	Code Type
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
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
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

Code	Description	Code Category	Code Type
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
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

Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

Code	Description	Code Category	Code Type
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
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

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Code	Description	Code Category	Code Type
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
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

Code	Description	Code Category	Code Type
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
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
72	Forceps, vacuum, and breech delivery	Procedure	ICD-9-CM
73	Other procedures inducing or assisting 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
723	High forceps operation	Procedure	ICD-9-CM
724	Forceps rotation of fetal head	Procedure	ICD-9-CM
725	Breech extraction	Procedure	ICD-9-CM
726	Forceps application to aftercoming head	Procedure	ICD-9-CM
727	Vacuum extraction	Procedure	ICD-9-CM
728	Other specified instrumental delivery	Procedure	ICD-9-CM
729	Unspecified instrumental delivery	Procedure	ICD-9-CM
730	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
733	Failed forceps	Procedure	ICD-9-CM
734	Medical induction of labor	Procedure	ICD-9-CM
735	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
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
7221	Mid forceps operation with episiotomy	Procedure	ICD-9-CM
7229	Other mid forceps operation	Procedure	ICD-9-CM
7231	High forceps operation with episiotomy	Procedure	ICD-9-CM

Code	Description	Code Category	Code Type
7239	Other high forceps operation	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
7271	Vacuum extraction with episiotomy	Procedure	ICD-9-CM
7279	Other vacuum extraction	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
7321	Internal and combined version without extraction	Procedure	ICD-9-CM
7322	Internal and combined version with extraction	Procedure	ICD-9-CM
7351	Manual rotation of fetal head	Procedure	ICD-9-CM
7359	Other manually assisted 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
7499	Other cesarean section of unspecified type	Procedure	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
V27	Outcome of delivery	Diagnosis	ICD-9-CM
V270	Outcome of delivery, single liveborn	Diagnosis	ICD-9-CM
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

Appendix B. List 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, Procedure Coding System (ICD-10-PCS), and Current Procedural Terminology, Fourth Edition (CPT-4) Codes Used to Define Live Birth Delivery

Code	Description	Code Category	Code Type
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
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

Code	Description	Code Category	Code Type
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 C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Gestational Age

Code	Description	Code Category	Code Type	Duration	Priority Group 1	Priority Group 2	Priority[1]
		Gestational Age Lookup Table					
O481	Prolonged pregnancy	Diagnosis	ICD-10-CM	294	0	1	1
P0822	Prolonged gestation of newborn	Diagnosis	ICD-10-CM	294	0	1	1
Z3A49	Greater than 42 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	301	1	0	1
O480	Post-term pregnancy	Diagnosis	ICD-10-CM	287	0	1	2
P0821	Post-term newborn	Diagnosis	ICD-10-CM	287	0	1	2
Z3A42	42 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	298	1	0	2
Z3A41	41 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	291	1	0	3
Z3A40	40 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	284	1	0	4
Z3A39	39 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	277	1	0	5
Z3A38	38 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	270	1	0	6
Z3A37	37 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	263	1	0	7
P0739	Preterm newborn, gestational age 36 completed weeks	Diagnosis	ICD-10-CM	256	1	0	8
Z3A36	36 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	256	1	0	8
P0738	Preterm newborn, gestational age 35 completed weeks	Diagnosis	ICD-10-CM	249	1	0	9
Z3A35	35 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	249	1	0	9
P0737	Preterm newborn, gestational age 34 completed weeks	Diagnosis	ICD-10-CM	242	1	0	10
Z3A34	34 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	242	1	0	10
P0736	Preterm newborn, gestational age 33 completed weeks	Diagnosis	ICD-10-CM	235	1	0	11
Z3A33	33 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	235	1	0	11
P0735	Preterm newborn, gestational age 32 completed weeks	Diagnosis	ICD-10-CM	228	1	0	12
Z3A32	32 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	228	1	0	12
P0734	Preterm newborn, gestational age 31 completed weeks	Diagnosis	ICD-10-CM	221	1	0	13
Z3A31	31 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	221	1	0	13
P0733	Preterm newborn, gestational age 30 completed weeks	Diagnosis	ICD-10-CM	214	1	0	14
Z3A30	30 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	214	1	0	14
P0732	Preterm newborn, gestational age 29 completed weeks	Diagnosis	ICD-10-CM	207	1	0	15
Z3A29	29 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	207	1	0	15
P0731	Preterm newborn, gestational age 28 completed weeks	Diagnosis	ICD-10-CM	200	1	0	16
Z3A28	28 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	200	1	0	16

Code	Description	Code Category	Code Type	Duration	Priority Group 1	Priority Group 2	Priority[1]
P0726	Extreme immaturity of newborn, gestational age 27 completed weeks	Diagnosis	ICD-10-CM	193	1	0	17
Z3A27	27 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	193	1	0	17
P0725	Extreme immaturity of newborn, gestational age 26 completed weeks	Diagnosis	ICD-10-CM	186	1	0	18
Z3A26	26 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	186	1	0	18
P0724	Extreme immaturity of newborn, gestational age 25 completed weeks	Diagnosis	ICD-10-CM	179	1	0	19
Z3A25	25 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	179	1	0	19
P0723	Extreme immaturity of newborn, gestational age 24 completed weeks	Diagnosis	ICD-10-CM	172	1	0	20
Z3A24	24 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	172	1	0	20
P0722	Extreme immaturity of newborn, gestational age 23 completed weeks	Diagnosis	ICD-10-CM	165	1	0	21
Z3A23	23 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	165	1	0	21
P0721	Extreme immaturity of newborn, gestational age less than 23 completed weeks	Diagnosis	ICD-10-CM	158	1	0	22
Z3A22	22 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	158	1	0	22
Z3A21	21 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	151	1	0	23
Z3A20	20 weeks gestation of pregnancy	Diagnosis	ICD-10-CM	144	1	0	24
P0720	Extreme immaturity of newborn, unspecified weeks of gestation	Diagnosis	ICD-10-CM	196	1	0	25
O6013X0	Preterm labor second trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6013X1	Preterm labor second trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6013X2	Preterm labor second trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6013X3	Preterm labor second trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6013X4	Preterm labor second trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6013X5	Preterm labor second trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6013X9	Preterm labor second trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6014X0	Preterm labor third trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6014X1	Preterm labor third trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6014X2	Preterm labor third trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6014X3	Preterm labor third trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6014X4	Preterm labor third trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6014X5	Preterm labor third trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
O6014X9	Preterm labor third trimester with preterm delivery third trimester	Diagnosis	ICD-10-CM	245	1	0	26
P0730	Preterm newborn, unspecified weeks of gestation	Diagnosis	ICD-10-CM	245	1	0	26

Code	Description	Code Category	Code Type	Duration	Priority Group 1	Priority Group 2	Priority[1]
O6012X0	Preterm labor second trimester with preterm delivery second trimester	Diagnosis	ICD-10-CM	168	1	0	27
O6012X1	Preterm labor second trimester with preterm delivery second trimester	Diagnosis	ICD-10-CM	168	1	0	27
O6012X2	Preterm labor second trimester with preterm delivery second trimester	Diagnosis	ICD-10-CM	168	1	0	27
O6012X3	Preterm labor second trimester with preterm delivery second trimester	Diagnosis	ICD-10-CM	168	1	0	27
O6012X4	Preterm labor second trimester with preterm delivery second trimester	Diagnosis	ICD-10-CM	168	1	0	27
O6012X5	Preterm labor second trimester with preterm delivery second trimester	Diagnosis	ICD-10-CM	168	1	0	27
O6012X9	Preterm labor second trimester with preterm delivery second trimester	Diagnosis	ICD-10-CM	168	1	0	27
64520	Prolonged pregnancy	Diagnosis	ICD-9-CM	294	0	1	28
64521	Prolonged pregnancy	Diagnosis	ICD-9-CM	294	0	1	28
64523	Prolonged pregnancy	Diagnosis	ICD-9-CM	294	0	1	28
76528	35-36 completed weeks of gestation	Diagnosis	ICD-9-CM	252	1	0	28
76622	Prolonged gestation of infant	Diagnosis	ICD-9-CM	294	0	1	28
64510	Post term pregnancy	Diagnosis	ICD-9-CM	287	0	1	29
64511	Post term pregnancy	Diagnosis	ICD-9-CM	287	0	1	29
64513	Post term pregnancy	Diagnosis	ICD-9-CM	287	0	1	29
76527	33-34 completed weeks of gestation	Diagnosis	ICD-9-CM	238	1	0	29
76621	Post-term infant	Diagnosis	ICD-9-CM	287	0	1	29
76526	31-32 completed weeks of gestation	Diagnosis	ICD-9-CM	224	1	0	30
76525	29-30 completed weeks of gestation	Diagnosis	ICD-9-CM	210	1	0	31
76524	27-28 completed weeks of gestation	Diagnosis	ICD-9-CM	196	1	0	32
76523	25-26 completed weeks of gestation	Diagnosis	ICD-9-CM	182	1	0	33
76521	Less than 24 completed weeks of gestation	Diagnosis	ICD-9-CM	168	1	0	34
76522	24 completed weeks of gestation	Diagnosis	ICD-9-CM	168	1	0	34
76500	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
76501	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
76502	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
76503	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
76504	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
76505	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
76506	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35

Appendix C. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) Codes Used to Define Gestational Age

Code	Description	Code Category	Code Type	Duration	Priority Group 1	Priority Group 2	Priority[1]
76507	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
76508	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
76509	Extreme immaturity, by weight	Diagnosis	ICD-9-CM	196	1	0	35
64421	Early onset of delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM	245	1	0	36
76510	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76511	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76512	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76513	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76514	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76515	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76516	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76517	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76518	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76519	Other preterm infants, by weight	Diagnosis	ICD-9-CM	245	1	0	36
76520	Unspecified weeks of gestation	Diagnosis	ICD-9-CM	245	1	0	36

[1]If multiple codes for specific weeks of gestation (Z codes), preterm delivery, and/or postterm delivery are available, the ICD-10 algorithm for gestational age prioritizes the following codes:

(1)   Codes that specify weeks of gestation, including all Z codes ranging from 20 weeks through >=42 weeks of gestation in one week increments, and codes that indicate preterm delivery with weeks of gestation specified in one week increments (other than Z codes). If multiple codes are observed, codes indicating longer gestational age are prioritized over those indicating shorter gestational age. We assumed the approximate mid-point of the specified gestational age [e.g., assumption of 263 days (37 weeks and 4 days) for 37 weeks gestation].

(2)   Codes that indicate preterm delivery without specifying weeks of gestation. If multiple codes are observed, codes with more specificity (e.g., preterm delivery, 2nd trimester of pregnancy or 'extreme immaturity') are prioritized over those with less specificity (e.g., preterm newborn, unspecified weeks of gestation). Further, codes indicating longer gestational age are prioritized over those indicating shorter gestational age.

(3)   Codes that indicate postterm delivery without specifying weeks of gestation. If multiple codes are observed, codes indicating longer gestational age are prioritized over those indicating shorter gestational age.

If no codes for preterm or postterm delivery are observed, then the default assumption for gestational age is 273 days. However, this assumption is user specified and can be modified.

![Sentinel]

Appendix D. List of 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 Heart Failure

Code	Description	Code Category	Code Type
	Heart Failure		
39891	Rheumatic heart failure (congestive)	Diagnosis	ICD-9-CM
40201	Malignant hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
40211	Benign hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
40291	Hypertensive heart disease, unspecified, with heart failure	Diagnosis	ICD-9-CM
40401	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
40403	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
40411	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
40413	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
40491	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
40493	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
4280	Congestive heart failure, unspecified	Diagnosis	ICD-9-CM
4281	Left heart failure	Diagnosis	ICD-9-CM
4282	Systolic heart failure	Diagnosis	ICD-9-CM
42820	Unspecified systolic heart failure	Diagnosis	ICD-9-CM
42821	Acute systolic heart failure	Diagnosis	ICD-9-CM
42822	Chronic systolic heart failure	Diagnosis	ICD-9-CM
42823	Acute on chronic systolic heart failure	Diagnosis	ICD-9-CM
4283	Diastolic heart failure	Diagnosis	ICD-9-CM
42830	Unspecified diastolic heart failure	Diagnosis	ICD-9-CM
42831	Acute diastolic heart failure	Diagnosis	ICD-9-CM
42832	Chronic diastolic heart failure	Diagnosis	ICD-9-CM
42833	Acute on chronic diastolic heart failure	Diagnosis	ICD-9-CM
4284	Combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
42840	Unspecified combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
42841	Acute combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
42842	Chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
42843	Acute on chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
4289	Unspecified heart failure	Diagnosis	ICD-9-CM
I0981	Rheumatic heart failure	Diagnosis	ICD-10-CM
I110	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM
I130	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
I132	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
I501	Left ventricular failure, unspecified	Diagnosis	ICD-10-CM
I5020	Unspecified systolic (congestive) heart failure	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
I5021	Acute systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5022	Chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5023	Acute on chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5030	Unspecified diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5031	Acute diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5032	Chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5033	Acute on chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5040	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5041	Acute combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5042	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I5043	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
I50810	Right heart failure, unspecified	Diagnosis	ICD-10-CM
I50811	Acute right heart failure	Diagnosis	ICD-10-CM
I50812	Chronic right heart failure	Diagnosis	ICD-10-CM
I50813	Acute on chronic right heart failure	Diagnosis	ICD-10-CM
I50814	Right heart failure due to left heart failure	Diagnosis	ICD-10-CM
I5082	Biventricular heart failure	Diagnosis	ICD-10-CM
I5083	High output heart failure	Diagnosis	ICD-10-CM
I5084	End stage heart failure	Diagnosis	ICD-10-CM
I5089	Other heart failure	Diagnosis	ICD-10-CM
I509	Heart failure, unspecified	Diagnosis	ICD-10-CM

Cohort Definition	Code Definition	Code	Description	Code Category	Code Type
			Reduced Ejection Fraction Heart Failure (HFrEF)		
Left heart failure	Index-defining	4281	Left heart failure	Diagnosis	ICD-9-CM
Left heart failure	Index-defining	I501	Left ventricular failure, unspecified	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	4282	Systolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42820	Unspecified systolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42821	Acute systolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42822	Chronic systolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42823	Acute on chronic systolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	I5020	Unspecified systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5021	Acute systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5022	Chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5023	Acute on chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	4283	Diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42830	Unspecified diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42831	Acute diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42832	Chronic diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42833	Acute on chronic diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	I5030	Unspecified diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5031	Acute diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5032	Chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5033	Acute on chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	4284	Combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42840	Unspecified combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42841	Acute combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42842	Chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	42843	Acute on chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Left heart failure	Exclusion on index date	I5040	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5041	Acute combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5042	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Left heart failure	Exclusion on index date	I5043	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Index-defining	4282	Systolic heart failure	Diagnosis	ICD-9-CM

Cohort Definition	Code Definition	Code	Description	Code Category	Code Type
Systolic heart failure	Index-defining	42820	Unspecified systolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Index-defining	42821	Acute systolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Index-defining	42822	Chronic systolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Index-defining	42823	Acute on chronic systolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Index-defining	I5020	Unspecified systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Index-defining	I5021	Acute systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Index-defining	I5022	Chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Index-defining	I5023	Acute on chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	4281	Left heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	I501	Left ventricular failure, unspecified	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	4283	Diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	42830	Unspecified diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	42831	Acute diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	42832	Chronic diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	42833	Acute on chronic diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	I5030	Unspecified diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	I5031	Acute diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	I5032	Chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	I5033	Acute on chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	4284	Combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	42840	Unspecified combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	42841	Acute combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	42842	Chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	42843	Acute on chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Systolic heart failure	Exclusion on index date	I5040	Unspecified combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	I5041	Acute combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	I5042	Chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Systolic heart failure	Exclusion on index date	I5043	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM

Generic Name	Brand Name
Angiotensin-Converting Enzyme (ACE) Inhibitors	
amlodipine besylate/benazepril HCl	amlodipine-benazepril
amlodipine besylate/benazepril HCl	Lotrel
benazepril HCl	benazepril
benazepril HCl	Lotensin
benazepril HCl/hydrochlorothiazide	benazepril-hydrochlorothiazide
benazepril HCl/hydrochlorothiazide	Lotensin HCT
captopril	Capoten
captopril	captopril
captopril/hydrochlorothiazide	captopril-hydrochlorothiazide
enalapril maleate	enalapril maleate
enalapril maleate	Epaned
enalapril maleate	Vasotec
enalapril maleate/hydrochlorothiazide	enalapril-hydrochlorothiazide
enalapril maleate/hydrochlorothiazide	Vaseretic
fosinopril sodium	fosinopril
fosinopril sodium	Monopril
fosinopril sodium/hydrochlorothiazide	fosinopril-hydrochlorothiazide
lisinopril	lisinopril
lisinopril	Prinivil
lisinopril	Qbrelis
lisinopril	Zestril
lisinopril/dietary supplement,comb.10	Lytensopril
lisinopril/dietary supplement,comb.10	Lytensopril-90
lisinopril/hydrochlorothiazide	lisinopril-hydrochlorothiazide
lisinopril/hydrochlorothiazide	Prinzide
lisinopril/hydrochlorothiazide	Zestoretic
moexipril HCl	moexipril
moexipril HCl	Univasc
moexipril HCl/hydrochlorothiazide	moexipril-hydrochlorothiazide
moexipril HCl/hydrochlorothiazide	Uniretic
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
quinapril HCl/hydrochlorothiazide	Quinaretic
ramipril	Altace
ramipril	ramipril
trandolapril	Mavik
trandolapril	trandolapril
trandolapril/verapamil HCl	Tarka
trandolapril/verapamil HCl	trandolapril-verapamil

Generic Name	Brand Name
Aldosterone Antagonists	
eplerenone	eplerenone
eplerenone	Inspra
spironolactone	Aldactone
spironolactone	CaroSpir
spironolactone	spironolactone
spironolactone/hydrochlorothiazide	Aldactazide
spironolactone/hydrochlorothiazide	spironolacton-hydrochlorothiaz
Angiotensin II Receptor Blockers (ARBs)	
aliskiren/valsartan	Valturna
amlodipine besylate/olmesartan medoxomil	amlodipine-olmesartan
amlodipine besylate/olmesartan medoxomil	Azor
amlodipine besylate/valsartan	amlodipine-valsartan
amlodipine besylate/valsartan	Exforge
amlodipine besylate/valsartan/hydrochlorothiazide	amlodipine-valsartan-hcthiazid
amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
azilsartan medoxomil	Edarbi
azilsartan medoxomil/chlorthalidone	Edarbyclor
candesartan cilexetil	Atacand
candesartan cilexetil	candesartan
candesartan cilexetil/hydrochlorothiazide	Atacand HCT
candesartan cilexetil/hydrochlorothiazide	candesartan-hydrochlorothiazid
eprosartan mesylate	eprosartan
eprosartan mesylate	Teveten
eprosartan mesylate/hydrochlorothiazide	Teveten HCT
irbesartan	Avapro
irbesartan	irbesartan
irbesartan/hydrochlorothiazide	Avalide
irbesartan/hydrochlorothiazide	irbesartan-hydrochlorothiazide
losartan potassium	Cozaar
losartan potassium	losartan
losartan potassium/hydrochlorothiazide	Hyzaar
losartan potassium/hydrochlorothiazide	losartan-hydrochlorothiazide
nebivolol HCl/valsartan	Byvalson
olmesartan medoxomil	Benicar
olmesartan medoxomil	olmesartan
olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	olmesartan-amlodipin-hcthiazid
olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	Tribenzor
olmesartan medoxomil/hydrochlorothiazide	Benicar HCT
olmesartan medoxomil/hydrochlorothiazide	olmesartan-hydrochlorothiazide
telmisartan	Micardis
telmisartan	telmisartan
telmisartan/amlodipine besylate	telmisartan-amlodipine

Generic Name	Brand Name
telmisartan/amlodipine besylate	Twynsta
telmisartan/hydrochlorothiazide	Micardis HCT
telmisartan/hydrochlorothiazide	telmisartan-hydrochlorothiazid
valsartan	Diovan
valsartan	valsartan
valsartan/hydrochlorothiazide	Diovan HCT
valsartan/hydrochlorothiazide	valsartan-hydrochlorothiazide
Angiotensin Receptor-Neprilysin Inhibitors (ARNI)	
sacubitril/valsartan	Entresto
Beta Blockers	
acebutolol HCl	acebutolol
acebutolol HCl	Sectral
atenolol	atenolol
atenolol	Tenormin
atenolol/chlorthalidone	atenolol-chlorthalidone
atenolol/chlorthalidone	Tenoretic 100
atenolol/chlorthalidone	Tenoretic 50
betaxolol HCl	betaxolol
betaxolol HCl	Kerlone
bisoprolol fumarate	bisoprolol fumarate
bisoprolol fumarate	Zebeta
bisoprolol fumarate/hydrochlorothiazide	bisoprolol-hydrochlorothiazide
bisoprolol fumarate/hydrochlorothiazide	Ziac
carvedilol	carvedilol
carvedilol	Coreg
carvedilol phosphate	carvedilol phosphate
carvedilol phosphate	Coreg CR
labetalol HCl	labetalol
labetalol HCl	Trandate
metoprolol succinate	Kapspargo Sprinkle
metoprolol succinate	metoprolol succinate
metoprolol succinate	Toprol XL
metoprolol succinate/hydrochlorothiazide	Dutoprol
metoprolol succinate/hydrochlorothiazide	metoprolol su-hydrochlorothiaz
metoprolol tartrate	Lopressor
metoprolol tartrate	metoprolol tartrate
metoprolol tartrate/dietary supplement,comb.10	Hypertensolol
metoprolol tartrate/hydrochlorothiazide	Lopressor HCT
metoprolol tartrate/hydrochlorothiazide	metoprolol ta-hydrochlorothiaz
nadolol	Corgard
nadolol	nadolol
nadolol/bendroflumethiazide	Corzide
nadolol/bendroflumethiazide	nadolol-bendroflumethiazide
nebivolol HCl	Bystolic
nebivolol HCl/valsartan	Byvalson

Generic Name	Brand Name
pindolol	pindolol
propranolol HCl	Hemangeol
propranolol HCl	Inderal LA
propranolol HCl	Inderal XL
propranolol HCl	InnoPran XL
propranolol HCl	propranolol
propranolol HCl/hydrochlorothiazide	propranolol-hydrochlorothiazid
sotalol HCl	Betapace
sotalol HCl	Betapace AF
sotalol HCl	Sorine
sotalol HCl	sotalol
sotalol HCl	Sotalol AF
sotalol HCl	Sotylize
timolol maleate	timolol maleate
Digoxin	
digoxin	Digitek
digoxin	Digox
digoxin	digoxin
digoxin	Lanoxin
Diuretics	
aliskiren hemifumarate/amlodipine/hydrochlorothiazide	Amturnide
aliskiren hemifumarate/hydrochlorothiazide	Tekturna HCT
amiloride HCl/hydrochlorothiazide	amiloride-hydrochlorothiazide
amlodipine besylate/valsartan/hydrochlorothiazide	amlodipine-valsartan-hcthiazid
amlodipine besylate/valsartan/hydrochlorothiazide	Exforge HCT
atenolol/chlorthalidone	atenolol-chlorthalidone
atenolol/chlorthalidone	Tenoretic 100
atenolol/chlorthalidone	Tenoretic 50
azilsartan medoxomil/chlorthalidone	Edarbyclor
benazepril HCl/hydrochlorothiazide	benazepril-hydrochlorothiazide
benazepril HCl/hydrochlorothiazide	Lotensin HCT
bisoprolol fumarate/hydrochlorothiazide	bisoprolol-hydrochlorothiazide
bisoprolol fumarate/hydrochlorothiazide	Ziac
bumetanide	bumetanide
candesartan cilexetil/hydrochlorothiazide	Atacand HCT
candesartan cilexetil/hydrochlorothiazide	candesartan-hydrochlorothiazid
captopril/hydrochlorothiazide	captopril-hydrochlorothiazide
chlorothiazide	chlorothiazide
chlorothiazide	Diuril
chlorthalidone	chlorthalidone
chlorthalidone	Thalitone
clonidine HCl/chlorthalidone	Clorpres
enalapril maleate/hydrochlorothiazide	enalapril-hydrochlorothiazide
enalapril maleate/hydrochlorothiazide	Vaseretic
eprosartan mesylate/hydrochlorothiazide	Teveten HCT

Appendix F. List of Generic and Brand Names of Medical Products Used to Define Oral Heart Failure-Related Medications

Generic Name	Brand Name
ethacrynic acid	Edecrin
ethacrynic acid	ethacrynic acid
fosinopril sodium/hydrochlorothiazide	fosinopril-hydrochlorothiazide
furosemide	furosemide
furosemide	Lasix
hydralazine HCl/hydrochlorothiazide	Hydra-Zide
hydrochlorothiazide	hydrochlorothiazide
hydrochlorothiazide	Microzide
indapamide	indapamide
irbesartan/hydrochlorothiazide	Avalide
irbesartan/hydrochlorothiazide	irbesartan-hydrochlorothiazide
lisinopril/hydrochlorothiazide	lisinopril-hydrochlorothiazide
lisinopril/hydrochlorothiazide	Prinzide
lisinopril/hydrochlorothiazide	Zestoretic
losartan potassium/hydrochlorothiazide	Hyzaar
losartan potassium/hydrochlorothiazide	losartan-hydrochlorothiazide
methyclothiazide	Enduron
methyclothiazide	methyclothiazide
methyldopa/hydrochlorothiazide	methyldopa-hydrochlorothiazide
metolazone	metolazone
metolazone	Zaroxolyn
metoprolol succinate/hydrochlorothiazide	Dutoprol
metoprolol succinate/hydrochlorothiazide	metoprolol su-hydrochlorothiaz
metoprolol tartrate/hydrochlorothiazide	Lopressor HCT
metoprolol tartrate/hydrochlorothiazide	metoprolol ta-hydrochlorothiaz
moexipril HCl/hydrochlorothiazide	moexipril-hydrochlorothiazide
moexipril HCl/hydrochlorothiazide	Uniretic
nadolol/bendroflumethiazide	Corzide
nadolol/bendroflumethiazide	nadolol-bendroflumethiazide
olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	olmesartan-amlodipin-hcthiazid
olmesartan medoxomil/amlodipine besylate/hydrochlorothiazide	Tribenzor
olmesartan medoxomil/hydrochlorothiazide	Benicar HCT
olmesartan medoxomil/hydrochlorothiazide	olmesartan-hydrochlorothiazide
propranolol HCl/hydrochlorothiazide	propranolol-hydrochlorothiazid
quinapril HCl/hydrochlorothiazide	Accuretic
quinapril HCl/hydrochlorothiazide	quinapril-hydrochlorothiazide
quinapril HCl/hydrochlorothiazide	Quinaretic
spironolactone/hydrochlorothiazide	Aldactazide
spironolactone/hydrochlorothiazide	spironolacton-hydrochlorothiaz
telmisartan/hydrochlorothiazide	Micardis HCT
telmisartan/hydrochlorothiazide	telmisartan-hydrochlorothiazid
torsemide	Demadex
torsemide	torsemide

Appendix F. List of Generic and Brand Names of Medical Products Used to Define Oral Heart Failure-Related Medications

Generic Name	Brand Name
triamterene/hydrochlorothiazide	Dyazide
triamterene/hydrochlorothiazide	Maxzide
triamterene/hydrochlorothiazide	Maxzide-25mg
triamterene/hydrochlorothiazide	triamterene-hydrochlorothiazid
valsartan/hydrochlorothiazide	Diovan HCT
valsartan/hydrochlorothiazide	valsartan-hydrochlorothiazide
Hydralazine and Nitrates	
hydralazine HCl	hydralazine
hydralazine HCl/hydrochlorothiazide	Hydra-Zide
isosorbide dinitrate	Dilatrate-SR
isosorbide dinitrate	ISOCHRON
isosorbide dinitrate	IsoDitrate
isosorbide dinitrate	Isordil
isosorbide dinitrate	Isordil Titradose
isosorbide dinitrate	isosorbide dinitrate
isosorbide dinitrate/hydralazine HCl	BiDil
isosorbide mononitrate	Imdur
isosorbide mononitrate	Ismo
isosorbide mononitrate	isosorbide mononitrate
isosorbide mononitrate	Monoket
Ivabradine	
ivabradine HCl	Corlanor

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
	Alcohol Abuse		
2910	Alcohol withdrawal delirium	Diagnosis	ICD-9-CM
2911	Alcohol-induced persisting amnestic disorder	Diagnosis	ICD-9-CM
2912	Alcohol-induced persisting dementia	Diagnosis	ICD-9-CM
2913	Alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-9-CM
2914	Idiosyncratic alcohol intoxication	Diagnosis	ICD-9-CM
2915	Alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-9-CM
2918	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
29181	Alcohol withdrawal	Diagnosis	ICD-9-CM
29182	Alcohol induced sleep disorders	Diagnosis	ICD-9-CM
29189	Other specified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
2919	Unspecified alcohol-induced mental disorders	Diagnosis	ICD-9-CM
3030	Acute alcoholic intoxication	Diagnosis	ICD-9-CM
30300	Acute alcoholic intoxication, unspecified	Diagnosis	ICD-9-CM
30301	Acute alcoholic intoxication, continuous	Diagnosis	ICD-9-CM
30302	Acute alcoholic intoxication, episodic	Diagnosis	ICD-9-CM
30303	Acute alcoholic intoxication, in remission	Diagnosis	ICD-9-CM
3039	Other and unspecified alcohol dependence	Diagnosis	ICD-9-CM
30390	Other and unspecified alcohol dependence, unspecified	Diagnosis	ICD-9-CM
30391	Other and unspecified alcohol dependence, continuous	Diagnosis	ICD-9-CM
30392	Other and unspecified alcohol dependence, episodic	Diagnosis	ICD-9-CM
30393	Other and unspecified alcohol dependence, in remission	Diagnosis	ICD-9-CM
3050	Nondependent alcohol abuse	Diagnosis	ICD-9-CM
30500	Nondependent alcohol abuse, unspecified	Diagnosis	ICD-9-CM
30501	Nondependent alcohol abuse, continuous	Diagnosis	ICD-9-CM
30502	Nondependent alcohol abuse, episodic	Diagnosis	ICD-9-CM
30503	Nondependent alcohol abuse, in remission	Diagnosis	ICD-9-CM
F1010	Alcohol abuse, uncomplicated	Diagnosis	ICD-10-CM
F1011	Alcohol abuse, in remission	Diagnosis	ICD-10-CM
F10120	Alcohol abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10121	Alcohol abuse with intoxication delirium	Diagnosis	ICD-10-CM
F10129	Alcohol abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F1014	Alcohol abuse with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10150	Alcohol abuse with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10151	Alcohol abuse with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10159	Alcohol abuse with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F10180	Alcohol abuse with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10181	Alcohol abuse with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10182	Alcohol abuse with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10188	Alcohol abuse with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F1019	Alcohol abuse with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
F1020	Alcohol dependence, uncomplicated	Diagnosis	ICD-10-CM
F1021	Alcohol dependence, in remission	Diagnosis	ICD-10-CM
F10220	Alcohol dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10221	Alcohol dependence with intoxication delirium	Diagnosis	ICD-10-CM
F10229	Alcohol dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F10230	Alcohol dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F10231	Alcohol dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F10232	Alcohol dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F10239	Alcohol dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F1024	Alcohol dependence with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10250	Alcohol dependence with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10251	Alcohol dependence with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10259	Alcohol dependence with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F1026	Alcohol dependence with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F1027	Alcohol dependence with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10280	Alcohol dependence with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10281	Alcohol dependence with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10282	Alcohol dependence with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10288	Alcohol dependence with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F1029	Alcohol dependence with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
F10920	Alcohol use, unspecified with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F10921	Alcohol use, unspecified with intoxication delirium	Diagnosis	ICD-10-CM
F10929	Alcohol use, unspecified with intoxication, unspecified	Diagnosis	ICD-10-CM
F1094	Alcohol use, unspecified with alcohol-induced mood disorder	Diagnosis	ICD-10-CM
F10950	Alcohol use, unspecified with alcohol-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F10951	Alcohol use, unspecified with alcohol-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F10959	Alcohol use, unspecified with alcohol-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F1096	Alcohol use, unspecified with alcohol-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F1097	Alcohol use, unspecified with alcohol-induced persisting dementia	Diagnosis	ICD-10-CM
F10980	Alcohol use, unspecified with alcohol-induced anxiety disorder	Diagnosis	ICD-10-CM
F10981	Alcohol use, unspecified with alcohol-induced sexual dysfunction	Diagnosis	ICD-10-CM
F10982	Alcohol use, unspecified with alcohol-induced sleep disorder	Diagnosis	ICD-10-CM
F10988	Alcohol use, unspecified with other alcohol-induced disorder	Diagnosis	ICD-10-CM
F1099	Alcohol use, unspecified with unspecified alcohol-induced disorder	Diagnosis	ICD-10-CM
Cardiac Arrhythmia			
4260	Atrioventricular block, complete	Diagnosis	ICD-9-CM
4261	Atrioventricular block, other and unspecified	Diagnosis	ICD-9-CM
42610	Unspecified atrioventricular block	Diagnosis	ICD-9-CM
42611	First degree atrioventricular block	Diagnosis	ICD-9-CM
42612	Mobitz (type) II atrioventricular block	Diagnosis	ICD-9-CM
42613	Other second degree atrioventricular block	Diagnosis	ICD-9-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
4262	Left bundle branch hemiblock	Diagnosis	ICD-9-CM
4263	Other left bundle branch block	Diagnosis	ICD-9-CM
4264	Right bundle branch block	Diagnosis	ICD-9-CM
4265	Bundle branch block, other and unspecified	Diagnosis	ICD-9-CM
42650	Unspecified bundle branch block	Diagnosis	ICD-9-CM
42651	Right bundle branch block and left posterior fascicular block	Diagnosis	ICD-9-CM
42652	Right bundle branch block and left anterior fascicular block	Diagnosis	ICD-9-CM
42653	Other bilateral bundle branch block	Diagnosis	ICD-9-CM
42654	Trifascicular block	Diagnosis	ICD-9-CM
4266	Other heart block	Diagnosis	ICD-9-CM
4267	Anomalous atrioventricular excitation	Diagnosis	ICD-9-CM
4268	Other specified conduction disorders	Diagnosis	ICD-9-CM
42681	Lown-Ganong-Levine syndrome	Diagnosis	ICD-9-CM
42682	Long QT syndrome	Diagnosis	ICD-9-CM
42689	Other specified conduction disorder	Diagnosis	ICD-9-CM
4269	Unspecified conduction disorder	Diagnosis	ICD-9-CM
4270	Paroxysmal supraventricular tachycardia	Diagnosis	ICD-9-CM
4271	Paroxysmal ventricular tachycardia	Diagnosis	ICD-9-CM
4272	Unspecified paroxysmal tachycardia	Diagnosis	ICD-9-CM
4273	Atrial fibrillation and flutter	Diagnosis	ICD-9-CM
42731	Atrial fibrillation	Diagnosis	ICD-9-CM
42732	Atrial flutter	Diagnosis	ICD-9-CM
4274	Ventricular fibrillation and flutter	Diagnosis	ICD-9-CM
42741	Ventricular fibrillation	Diagnosis	ICD-9-CM
42742	Ventricular flutter	Diagnosis	ICD-9-CM
4275	Cardiac arrest	Diagnosis	ICD-9-CM
4276	Premature beats	Diagnosis	ICD-9-CM
42760	Unspecified premature beats	Diagnosis	ICD-9-CM
42761	Supraventricular premature beats	Diagnosis	ICD-9-CM
42769	Other premature beats	Diagnosis	ICD-9-CM
4278	Other specified cardiac dysrhythmias	Diagnosis	ICD-9-CM
42781	Sinoatrial node dysfunction	Diagnosis	ICD-9-CM
42789	Other specified cardiac dysrhythmias	Diagnosis	ICD-9-CM
4279	Unspecified cardiac dysrhythmia	Diagnosis	ICD-9-CM
I440	Atrioventricular block, first degree	Diagnosis	ICD-10-CM
I441	Atrioventricular block, second degree	Diagnosis	ICD-10-CM
I442	Atrioventricular block, complete	Diagnosis	ICD-10-CM
I4430	Unspecified atrioventricular block	Diagnosis	ICD-10-CM
I4439	Other atrioventricular block	Diagnosis	ICD-10-CM
I444	Left anterior fascicular block	Diagnosis	ICD-10-CM
I445	Left posterior fascicular block	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
I4460	Unspecified fascicular block	Diagnosis	ICD-10-CM
I4469	Other fascicular block	Diagnosis	ICD-10-CM
I447	Left bundle-branch block, unspecified	Diagnosis	ICD-10-CM
I450	Right fascicular block	Diagnosis	ICD-10-CM
I4510	Unspecified right bundle-branch block	Diagnosis	ICD-10-CM
I4519	Other right bundle-branch block	Diagnosis	ICD-10-CM
I452	Bifascicular block	Diagnosis	ICD-10-CM
I453	Trifascicular block	Diagnosis	ICD-10-CM
I454	Nonspecific intraventricular block	Diagnosis	ICD-10-CM
I455	Other specified heart block	Diagnosis	ICD-10-CM
I456	Pre-excitation syndrome	Diagnosis	ICD-10-CM
I4581	Long QT syndrome	Diagnosis	ICD-10-CM
I4589	Other specified conduction disorders	Diagnosis	ICD-10-CM
I459	Conduction disorder, unspecified	Diagnosis	ICD-10-CM
I462	Cardiac arrest due to underlying cardiac condition	Diagnosis	ICD-10-CM
I468	Cardiac arrest due to other underlying condition	Diagnosis	ICD-10-CM
I469	Cardiac arrest, cause unspecified	Diagnosis	ICD-10-CM
I470	Re-entry ventricular arrhythmia	Diagnosis	ICD-10-CM
I471	Supraventricular tachycardia	Diagnosis	ICD-10-CM
I472	Ventricular tachycardia	Diagnosis	ICD-10-CM
I479	Paroxysmal tachycardia, unspecified	Diagnosis	ICD-10-CM
I480	Paroxysmal atrial fibrillation	Diagnosis	ICD-10-CM
I481	Persistent atrial fibrillation	Diagnosis	ICD-10-CM
I482	Chronic atrial fibrillation	Diagnosis	ICD-10-CM
I483	Typical atrial flutter	Diagnosis	ICD-10-CM
I484	Atypical atrial flutter	Diagnosis	ICD-10-CM
I4891	Unspecified atrial fibrillation	Diagnosis	ICD-10-CM
I4892	Unspecified atrial flutter	Diagnosis	ICD-10-CM
I4901	Ventricular fibrillation	Diagnosis	ICD-10-CM
I4902	Ventricular flutter	Diagnosis	ICD-10-CM
I491	Atrial premature depolarization	Diagnosis	ICD-10-CM
I492	Junctional premature depolarization	Diagnosis	ICD-10-CM
I493	Ventricular premature depolarization	Diagnosis	ICD-10-CM
I4940	Unspecified premature depolarization	Diagnosis	ICD-10-CM
I4949	Other premature depolarization	Diagnosis	ICD-10-CM
I495	Sick sinus syndrome	Diagnosis	ICD-10-CM
I498	Other specified cardiac arrhythmias	Diagnosis	ICD-10-CM
I499	Cardiac arrhythmia, unspecified	Diagnosis	ICD-10-CM
R001	Bradycardia, unspecified	Diagnosis	ICD-10-CM
Cardiac Valvular Disease			
3940	Mitral stenosis	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
3941	Rheumatic mitral insufficiency	Diagnosis	ICD-9-CM
3942	Mitral stenosis with insufficiency	Diagnosis	ICD-9-CM
3949	Other and unspecified mitral valve diseases	Diagnosis	ICD-9-CM
3950	Rheumatic aortic stenosis	Diagnosis	ICD-9-CM
3951	Rheumatic aortic insufficiency	Diagnosis	ICD-9-CM
3952	Rheumatic aortic stenosis with insufficiency	Diagnosis	ICD-9-CM
3959	Other and unspecified rheumatic aortic diseases	Diagnosis	ICD-9-CM
3960	Mitral valve stenosis and aortic valve stenosis	Diagnosis	ICD-9-CM
3961	Mitral valve stenosis and aortic valve insufficiency	Diagnosis	ICD-9-CM
3962	Mitral valve insufficiency and aortic valve stenosis	Diagnosis	ICD-9-CM
3963	Mitral valve insufficiency and aortic valve insufficiency	Diagnosis	ICD-9-CM
3968	Multiple involvement of mitral and aortic valves	Diagnosis	ICD-9-CM
3969	Unspecified mitral and aortic valve diseases	Diagnosis	ICD-9-CM
3970	Diseases of tricuspid valve	Diagnosis	ICD-9-CM
3971	Rheumatic diseases of pulmonary valve	Diagnosis	ICD-9-CM
3979	Rheumatic diseases of endocardium, valve unspecified	Diagnosis	ICD-9-CM
4240	Mitral valve disorders	Diagnosis	ICD-9-CM
4241	Aortic valve disorders	Diagnosis	ICD-9-CM
4242	Tricuspid valve disorders, specified as nonrheumatic	Diagnosis	ICD-9-CM
4243	Pulmonary valve disorders	Diagnosis	ICD-9-CM
4249	Endocarditis, valve unspecified	Diagnosis	ICD-9-CM
42490	Endocarditis, valve unspecified, unspecified cause	Diagnosis	ICD-9-CM
42491	Endocarditis in diseases classified elsewhere	Diagnosis	ICD-9-CM
42499	Other endocarditis, valve unspecified	Diagnosis	ICD-9-CM
A1884	Tuberculosis of heart	Diagnosis	ICD-10-CM
I050	Rheumatic mitral stenosis	Diagnosis	ICD-10-CM
I051	Rheumatic mitral insufficiency	Diagnosis	ICD-10-CM
I052	Rheumatic mitral stenosis with insufficiency	Diagnosis	ICD-10-CM
I058	Other rheumatic mitral valve diseases	Diagnosis	ICD-10-CM
I059	Rheumatic mitral valve disease, unspecified	Diagnosis	ICD-10-CM
I060	Rheumatic aortic stenosis	Diagnosis	ICD-10-CM
I061	Rheumatic aortic insufficiency	Diagnosis	ICD-10-CM
I062	Rheumatic aortic stenosis with insufficiency	Diagnosis	ICD-10-CM
I068	Other rheumatic aortic valve diseases	Diagnosis	ICD-10-CM
I069	Rheumatic aortic valve disease, unspecified	Diagnosis	ICD-10-CM
I070	Rheumatic tricuspid stenosis	Diagnosis	ICD-10-CM
I071	Rheumatic tricuspid insufficiency	Diagnosis	ICD-10-CM
I072	Rheumatic tricuspid stenosis and insufficiency	Diagnosis	ICD-10-CM
I078	Other rheumatic tricuspid valve diseases	Diagnosis	ICD-10-CM
I079	Rheumatic tricuspid valve disease, unspecified	Diagnosis	ICD-10-CM
I080	Rheumatic disorders of both mitral and aortic valves	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
I081	Rheumatic disorders of both mitral and tricuspid valves	Diagnosis	ICD-10-CM
I082	Rheumatic disorders of both aortic and tricuspid valves	Diagnosis	ICD-10-CM
I083	Combined rheumatic disorders of mitral, aortic and tricuspid valves	Diagnosis	ICD-10-CM
I088	Other rheumatic multiple valve diseases	Diagnosis	ICD-10-CM
I089	Rheumatic multiple valve disease, unspecified	Diagnosis	ICD-10-CM
I091	Rheumatic diseases of endocardium, valve unspecified	Diagnosis	ICD-10-CM
I0989	Other specified rheumatic heart diseases	Diagnosis	ICD-10-CM
I340	Nonrheumatic mitral (valve) insufficiency	Diagnosis	ICD-10-CM
I341	Nonrheumatic mitral (valve) prolapse	Diagnosis	ICD-10-CM
I342	Nonrheumatic mitral (valve) stenosis	Diagnosis	ICD-10-CM
I348	Other nonrheumatic mitral valve disorders	Diagnosis	ICD-10-CM
I349	Nonrheumatic mitral valve disorder, unspecified	Diagnosis	ICD-10-CM
I350	Nonrheumatic aortic (valve) stenosis	Diagnosis	ICD-10-CM
I351	Nonrheumatic aortic (valve) insufficiency	Diagnosis	ICD-10-CM
I352	Nonrheumatic aortic (valve) stenosis with insufficiency	Diagnosis	ICD-10-CM
I358	Other nonrheumatic aortic valve disorders	Diagnosis	ICD-10-CM
I359	Nonrheumatic aortic valve disorder, unspecified	Diagnosis	ICD-10-CM
I360	Nonrheumatic tricuspid (valve) stenosis	Diagnosis	ICD-10-CM
I361	Nonrheumatic tricuspid (valve) insufficiency	Diagnosis	ICD-10-CM
I362	Nonrheumatic tricuspid (valve) stenosis with insufficiency	Diagnosis	ICD-10-CM
I368	Other nonrheumatic tricuspid valve disorders	Diagnosis	ICD-10-CM
I369	Nonrheumatic tricuspid valve disorder, unspecified	Diagnosis	ICD-10-CM
I370	Nonrheumatic pulmonary valve stenosis	Diagnosis	ICD-10-CM
I371	Nonrheumatic pulmonary valve insufficiency	Diagnosis	ICD-10-CM
I372	Nonrheumatic pulmonary valve stenosis with insufficiency	Diagnosis	ICD-10-CM
I378	Other nonrheumatic pulmonary valve disorders	Diagnosis	ICD-10-CM
I379	Nonrheumatic pulmonary valve disorder, unspecified	Diagnosis	ICD-10-CM
I38	Endocarditis, valve unspecified	Diagnosis	ICD-10-CM
I39	Endocarditis and heart valve disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
M3211	Endocarditis in systemic lupus erythematosus	Diagnosis	ICD-10-CM
Cardiomyopathy			
4250	Endomyocardial fibrosis	Diagnosis	ICD-9-CM
4251	Hypertrophic cardiomyopathy	Diagnosis	ICD-9-CM
42511	Hypertrophic obstructive cardiomyopathy	Diagnosis	ICD-9-CM
42518	Other hypertrophic cardiomyopathy	Diagnosis	ICD-9-CM
4252	Obscure cardiomyopathy of Africa	Diagnosis	ICD-9-CM
4253	Endocardial fibroelastosis	Diagnosis	ICD-9-CM
4254	Other primary cardiomyopathies	Diagnosis	ICD-9-CM
4255	Alcoholic cardiomyopathy	Diagnosis	ICD-9-CM
4257	Nutritional and metabolic cardiomyopathy	Diagnosis	ICD-9-CM
4258	Cardiomyopathy in other diseases classified elsewhere	Diagnosis	ICD-9-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
4259	Unspecified secondary cardiomyopathy	Diagnosis	ICD-9-CM
A1884	Tuberculosis of heart	Diagnosis	ICD-10-CM
I420	Dilated cardiomyopathy	Diagnosis	ICD-10-CM
I421	Obstructive hypertrophic cardiomyopathy	Diagnosis	ICD-10-CM
I422	Other hypertrophic cardiomyopathy	Diagnosis	ICD-10-CM
I423	Endomyocardial (eosinophilic) disease	Diagnosis	ICD-10-CM
I424	Endocardial fibroelastosis	Diagnosis	ICD-10-CM
I425	Other restrictive cardiomyopathy	Diagnosis	ICD-10-CM
I426	Alcoholic cardiomyopathy	Diagnosis	ICD-10-CM
I427	Cardiomyopathy due to drug and external agent	Diagnosis	ICD-10-CM
I428	Other cardiomyopathies	Diagnosis	ICD-10-CM
I429	Cardiomyopathy, unspecified	Diagnosis	ICD-10-CM
I43	Cardiomyopathy in diseases classified elsewhere	Diagnosis	ICD-10-CM
Chronic Kidney Disease			
5810	Nephrotic syndrome with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
5811	Nephrotic syndrome with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
5812	Nephrotic syndrome with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM
5813	Nephrotic syndrome with lesion of minimal change glomerulonephritis	Diagnosis	ICD-9-CM
5818	Nephrotic syndrome with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
58181	Nephrotic syndrome with other specified pathological lesion in kidney in diseases classified elsewhere	Diagnosis	ICD-9-CM
58189	Other nephrotic syndrome with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
5819	Nephrotic syndrome with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
5820	Chronic glomerulonephritis with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
5821	Chronic glomerulonephritis with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
5822	Chronic glomerulonephritis with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM
5824	Chronic glomerulonephritis with lesion of rapidly progressive glomerulonephritis	Diagnosis	ICD-9-CM
5828	Chronic glomerulonephritis with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
58281	Chronic glomerulonephritis with other specified pathological lesion in kidney in diseases classified elsewhere	Diagnosis	ICD-9-CM
58289	Other chronic glomerulonephritis with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
5829	Chronic glomerulonephritis with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
5830	Nephritis and nephropathy, not specified as acute or chronic, with lesion of proliferative glomerulonephritis	Diagnosis	ICD-9-CM
5831	Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranous glomerulonephritis	Diagnosis	ICD-9-CM
5832	Nephritis and nephropathy, not specified as acute or chronic, with lesion of membranoproliferative glomerulonephritis	Diagnosis	ICD-9-CM
5834	Nephritis and nephropathy, not specified as acute or chronic, with lesion of rapidly progressive glomerulonephritis	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
5836	Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal cortical necrosis	Diagnosis	ICD-9-CM
5837	Nephritis and nephropathy, not specified as acute or chronic, with lesion of renal medullary necrosis	Diagnosis	ICD-9-CM
5838	Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
58381	Nephritis and nephropathy, not specified as acute or chronic, with other specified pathological lesion in kidney, in diseases classified elsewhere	Diagnosis	ICD-9-CM
58389	Other nephritis and nephropathy, not specified as acute or chronic, with specified pathological lesion in kidney	Diagnosis	ICD-9-CM
5839	Nephritis and nephropathy, not specified as acute or chronic, with unspecified pathological lesion in kidney	Diagnosis	ICD-9-CM
5851	Chronic kidney disease, Stage I	Diagnosis	ICD-9-CM
5852	Chronic kidney disease, Stage II (mild)	Diagnosis	ICD-9-CM
5853	Chronic kidney disease, Stage III (moderate)	Diagnosis	ICD-9-CM
5854	Chronic kidney disease, Stage IV (severe)	Diagnosis	ICD-9-CM
5855	Chronic kidney disease, Stage V	Diagnosis	ICD-9-CM
5856	End stage renal disease	Diagnosis	ICD-9-CM
5859	Chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
587	Unspecified renal sclerosis	Diagnosis	ICD-9-CM
5880	Renal osteodystrophy	Diagnosis	ICD-9-CM
5881	Nephrogenic diabetes insipidus	Diagnosis	ICD-9-CM
5888	Other specified disorder resulting from impaired renal function	Diagnosis	ICD-9-CM
58881	Secondary hyperparathyroidism (of renal origin)	Diagnosis	ICD-9-CM
58889	Other specified disorders resulting from impaired renal function	Diagnosis	ICD-9-CM
5889	Unspecified disorder resulting from impaired renal function	Diagnosis	ICD-9-CM
6462	Unspecified renal disease in pregnancy, without mention of hypertension	Diagnosis	ICD-9-CM
64620	Unspecified renal disease in pregnancy, unspecified as to episode of care	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
64623	Unspecified antepartum renal disease	Diagnosis	ICD-9-CM
64624	Unspecified renal disease in pregnancy, without mention of hypertension, postpartum condition or complication	Diagnosis	ICD-9-CM
B520	Plasmodium malariae malaria with nephropathy	Diagnosis	ICD-10-CM
E0821	Diabetes mellitus due to underlying condition with diabetic nephropathy	Diagnosis	ICD-10-CM
E0822	Diabetes mellitus due to underlying condition with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E0829	Diabetes mellitus due to underlying condition with other diabetic kidney complication	Diagnosis	ICD-10-CM
E0921	Drug or chemical induced diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E0922	Drug or chemical induced diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E0929	Drug or chemical induced diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
M3214	Glomerular disease in systemic lupus erythematosus	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
M3215	Tubulo-interstitial nephropathy in systemic lupus erythematosus	Diagnosis	ICD-10-CM
M3504	Sicca syndrome with tubulo-interstitial nephropathy	Diagnosis	ICD-10-CM
N020	Recurrent and persistent hematuria with minor glomerular abnormality	Diagnosis	ICD-10-CM
N021	Recurrent and persistent hematuria with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N022	Recurrent and persistent hematuria with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N023	Recurrent and persistent hematuria with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N024	Recurrent and persistent hematuria with diffuse endocapillary proliferative glomerulonephriti	Diagnosis	ICD-10-CM
N025	Recurrent and persistent hematuria with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N026	Recurrent and persistent hematuria with dense deposit disease	Diagnosis	ICD-10-CM
N027	Recurrent and persistent hematuria with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N028	Recurrent and persistent hematuria with other morphologic changes	Diagnosis	ICD-10-CM
N029	Recurrent and persistent hematuria with unspecified morphologic changes	Diagnosis	ICD-10-CM
N030	Chronic nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N031	Chronic nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N032	Chronic nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N033	Chronic nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N034	Chronic nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N035	Chronic nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N036	Chronic nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N037	Chronic nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N038	Chronic nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N039	Chronic nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N040	Nephrotic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N041	Nephrotic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N042	Nephrotic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N043	Nephrotic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N044	Nephrotic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N045	Nephrotic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N046	Nephrotic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N047	Nephrotic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N048	Nephrotic syndrome with other morphologic changes	Diagnosis	ICD-10-CM
N049	Nephrotic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N050	Unspecified nephritic syndrome with minor glomerular abnormality	Diagnosis	ICD-10-CM
N051	Unspecified nephritic syndrome with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N052	Unspecified nephritic syndrome with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N053	Unspecified nephritic syndrome with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N054	Unspecified nephritic syndrome with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N055	Unspecified nephritic syndrome with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N056	Unspecified nephritic syndrome with dense deposit disease	Diagnosis	ICD-10-CM
N057	Unspecified nephritic syndrome with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N058	Unspecified nephritic syndrome with other morphologic changes	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
N059	Unspecified nephritic syndrome with unspecified morphologic changes	Diagnosis	ICD-10-CM
N060	Isolated proteinuria with minor glomerular abnormality	Diagnosis	ICD-10-CM
N061	Isolated proteinuria with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N062	Isolated proteinuria with diffuse membranous glomerulonephritis	Diagnosis	ICD-10-CM
N063	Isolated proteinuria with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N064	Isolated proteinuria with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N065	Isolated proteinuria with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N066	Isolated proteinuria with dense deposit disease	Diagnosis	ICD-10-CM
N067	Isolated proteinuria with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N068	Isolated proteinuria with other morphologic lesion	Diagnosis	ICD-10-CM
N069	Isolated proteinuria with unspecified morphologic lesion	Diagnosis	ICD-10-CM
N070	Hereditary nephropathy, not elsewhere classified with minor glomerular abnormality	Diagnosis	ICD-10-CM
N071	Hereditary nephropathy, not elsewhere classified with focal and segmental glomerular lesions	Diagnosis	ICD-10-CM
N072	Hereditary nephropathy, not elsewhere classified with diffuse membranous glomerulonephrit	Diagnosis	ICD-10-CM
N073	Hereditary nephropathy, not elsewhere classified with diffuse mesangial proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N074	Hereditary nephropathy, not elsewhere classified with diffuse endocapillary proliferative glomerulonephritis	Diagnosis	ICD-10-CM
N075	Hereditary nephropathy, not elsewhere classified with diffuse mesangiocapillary glomerulonephritis	Diagnosis	ICD-10-CM
N076	Hereditary nephropathy, not elsewhere classified with dense deposit disease	Diagnosis	ICD-10-CM
N077	Hereditary nephropathy, not elsewhere classified with diffuse crescentic glomerulonephritis	Diagnosis	ICD-10-CM
N078	Hereditary nephropathy, not elsewhere classified with other morphologic lesions	Diagnosis	ICD-10-CM
N079	Hereditary nephropathy, not elsewhere classified with unspecified morphologic lesions	Diagnosis	ICD-10-CM
N08	Glomerular disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N140	Analgesic nephropathy	Diagnosis	ICD-10-CM
N141	Nephropathy induced by other drugs, medicaments and biological substances	Diagnosis	ICD-10-CM
N142	Nephropathy induced by unspecified drug, medicament or biological substance	Diagnosis	ICD-10-CM
N143	Nephropathy induced by heavy metals	Diagnosis	ICD-10-CM
N144	Toxic nephropathy, not elsewhere classified	Diagnosis	ICD-10-CM
N150	Balkan nephropathy	Diagnosis	ICD-10-CM
N158	Other specified renal tubulo-interstitial diseases	Diagnosis	ICD-10-CM
N159	Renal tubulo-interstitial disease, unspecified	Diagnosis	ICD-10-CM
N16	Renal tubulo-interstitial disorders in diseases classified elsewhere	Diagnosis	ICD-10-CM
N171	Acute kidney failure with acute cortical necrosis	Diagnosis	ICD-10-CM
N172	Acute kidney failure with medullary necrosis	Diagnosis	ICD-10-CM
N181	Chronic kidney disease, stage 1	Diagnosis	ICD-10-CM
N182	Chronic kidney disease, stage 2 (mild)	Diagnosis	ICD-10-CM
N183	Chronic kidney disease, stage 3 (moderate)	Diagnosis	ICD-10-CM
N184	Chronic kidney disease, stage 4 (severe)	Diagnosis	ICD-10-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
N185	Chronic kidney disease, stage 5	Diagnosis	ICD-10-CM
N186	End stage renal disease	Diagnosis	ICD-10-CM
N189	Chronic kidney disease, unspecified	Diagnosis	ICD-10-CM
N250	Renal osteodystrophy	Diagnosis	ICD-10-CM
N251	Nephrogenic diabetes insipidus	Diagnosis	ICD-10-CM
N2581	Secondary hyperparathyroidism of renal origin	Diagnosis	ICD-10-CM
N2589	Other disorders resulting from impaired renal tubular function	Diagnosis	ICD-10-CM
N259	Disorder resulting from impaired renal tubular function, unspecified	Diagnosis	ICD-10-CM
N261	Atrophy of kidney (terminal)	Diagnosis	ICD-10-CM
N269	Renal sclerosis, unspecified	Diagnosis	ICD-10-CM
O1210	Gestational proteinuria, unspecified trimester	Diagnosis	ICD-10-CM
O1211	Gestational proteinuria, first trimester	Diagnosis	ICD-10-CM
O1212	Gestational proteinuria, second trimester	Diagnosis	ICD-10-CM
O1213	Gestational proteinuria, third trimester	Diagnosis	ICD-10-CM
O1214	Gestational proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O1215	Gestational proteinuria, complicating the puerperium	Diagnosis	ICD-10-CM
O1220	Gestational edema with proteinuria, unspecified trimester	Diagnosis	ICD-10-CM
O1221	Gestational edema with proteinuria, first trimester	Diagnosis	ICD-10-CM
O1222	Gestational edema with proteinuria, second trimester	Diagnosis	ICD-10-CM
O1223	Gestational edema with proteinuria, third trimester	Diagnosis	ICD-10-CM
O1224	Gestational edema with proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O1225	Gestational edema with proteinuria, complicating the puerperium	Diagnosis	ICD-10-CM
O26831	Pregnancy related renal disease, first trimester	Diagnosis	ICD-10-CM
O26832	Pregnancy related renal disease, second trimester	Diagnosis	ICD-10-CM
O26833	Pregnancy related renal disease, third trimester	Diagnosis	ICD-10-CM
O26839	Pregnancy related renal disease, unspecified trimester	Diagnosis	ICD-10-CM
O9089	Other complications of the puerperium, not elsewhere classified	Diagnosis	ICD-10-CM
Congenital Heart Disease			
6485	Maternal congenital cardiovascular disorders complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
64850	Maternal congenital cardiovascular disorders, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	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
64853	Maternal congenital cardiovascular disorders, antepartum	Diagnosis	ICD-9-CM
64854	Maternal congenital cardiovascular disorders complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
7450	Bulbus cordis anomalies and anomalies of cardiac septal closure, common truncus	Diagnosis	ICD-9-CM
7451	Transposition of great vessels	Diagnosis	ICD-9-CM
74510	Complete transposition of great vessels	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
74511	Transposition of great vessels, double outlet right ventricle	Diagnosis	ICD-9-CM
74512	Corrected transposition of great vessels	Diagnosis	ICD-9-CM
74519	Other transposition of great vessels	Diagnosis	ICD-9-CM
7452	Tetralogy of Fallot	Diagnosis	ICD-9-CM
7453	Bulbus cordis anomalies and anomalies of cardiac septal closure, common ventricle	Diagnosis	ICD-9-CM
7454	Ventricular septal defect	Diagnosis	ICD-9-CM
7455	Ostium secundum type atrial septal defect	Diagnosis	ICD-9-CM
7456	Endocardial cushion defects	Diagnosis	ICD-9-CM
74560	Unspecified type congenital endocardial cushion defect	Diagnosis	ICD-9-CM
74561	Ostium primum defect	Diagnosis	ICD-9-CM
74569	Other congenital endocardial cushion defect	Diagnosis	ICD-9-CM
7457	Cor biloculare	Diagnosis	ICD-9-CM
7458	Other bulbus cordis anomalies and anomalies of cardiac septal closure	Diagnosis	ICD-9-CM
7459	Unspecified congenital defect of septal closure	Diagnosis	ICD-9-CM
7460	Congenital anomalies of pulmonary valve	Diagnosis	ICD-9-CM
74600	Unspecified congenital pulmonary valve anomaly	Diagnosis	ICD-9-CM
74601	Congenital atresia of pulmonary valve	Diagnosis	ICD-9-CM
74602	Congenital stenosis of pulmonary valve	Diagnosis	ICD-9-CM
74609	Other congenital anomalies of pulmonary valve	Diagnosis	ICD-9-CM
7461	Congenital tricuspid atresia and stenosis	Diagnosis	ICD-9-CM
7462	Ebstein's anomaly	Diagnosis	ICD-9-CM
7463	Congenital stenosis of aortic valve	Diagnosis	ICD-9-CM
7464	Congenital insufficiency of aortic valve	Diagnosis	ICD-9-CM
7465	Congenital mitral stenosis	Diagnosis	ICD-9-CM
7466	Congenital mitral insufficiency	Diagnosis	ICD-9-CM
7467	Hypoplastic left heart syndrome	Diagnosis	ICD-9-CM
7468	Other specified congenital anomaly of heart	Diagnosis	ICD-9-CM
74681	Congenital subaortic stenosis	Diagnosis	ICD-9-CM
74682	Cor triatriatum	Diagnosis	ICD-9-CM
74683	Congenital infundibular pulmonic stenosis	Diagnosis	ICD-9-CM
74684	Congenital obstructive anomalies of heart, not elsewhere classified	Diagnosis	ICD-9-CM
74685	Congenital coronary artery anomaly	Diagnosis	ICD-9-CM
74686	Congenital heart block	Diagnosis	ICD-9-CM
74687	Congenital malposition of heart and cardiac apex	Diagnosis	ICD-9-CM
74689	Other specified congenital anomaly of heart	Diagnosis	ICD-9-CM
7469	Unspecified congenital anomaly of heart	Diagnosis	ICD-9-CM
7470	Patent ductus arteriosus	Diagnosis	ICD-9-CM
7471	Coarctation of aorta	Diagnosis	ICD-9-CM
74710	Coarctation of aorta (preductal) (postductal)	Diagnosis	ICD-9-CM
74711	Congenital interruption of aortic arch	Diagnosis	ICD-9-CM
7472	Other congenital anomaly of aorta	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
74720	Unspecified congenital anomaly of aorta	Diagnosis	ICD-9-CM
74721	Congenital anomaly of aortic arch	Diagnosis	ICD-9-CM
74722	Congenital atresia and stenosis of aorta	Diagnosis	ICD-9-CM
74729	Other congenital anomaly of aorta	Diagnosis	ICD-9-CM
7473	Anomalies of pulmonary artery	Diagnosis	ICD-9-CM
74731	Pulmonary artery coarctation and atresia	Diagnosis	ICD-9-CM
74732	Pulmonary arteriovenous malformation	Diagnosis	ICD-9-CM
74739	Other anomalies of pulmonary artery and pulmonary circulation	Diagnosis	ICD-9-CM
7474	Congenital anomalies of great veins	Diagnosis	ICD-9-CM
74740	Congenital anomaly of great veins unspecified	Diagnosis	ICD-9-CM
74741	Total congenital anomalous pulmonary venous connection	Diagnosis	ICD-9-CM
74742	Partial congenital anomalous pulmonary venous connection	Diagnosis	ICD-9-CM
74749	Other congenital anomalies of great veins	Diagnosis	ICD-9-CM
I2783	Eisenmenger's syndrome	Diagnosis	ICD-10-CM
O99411	Diseases of the circulatory system complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99412	Diseases of the circulatory system complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99413	Diseases of the circulatory system complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99419	Diseases of the circulatory system complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O9942	Diseases of the circulatory system complicating childbirth	Diagnosis	ICD-10-CM
O9943	Diseases of the circulatory system complicating the puerperium	Diagnosis	ICD-10-CM
Q200	Common arterial trunk	Diagnosis	ICD-10-CM
Q201	Double outlet right ventricle	Diagnosis	ICD-10-CM
Q202	Double outlet left ventricle	Diagnosis	ICD-10-CM
Q203	Discordant ventriculoarterial connection	Diagnosis	ICD-10-CM
Q204	Double inlet ventricle	Diagnosis	ICD-10-CM
Q205	Discordant atrioventricular connection	Diagnosis	ICD-10-CM
Q206	Isomerism of atrial appendages	Diagnosis	ICD-10-CM
Q208	Other congenital malformations of cardiac chambers and connections	Diagnosis	ICD-10-CM
Q209	Congenital malformation of cardiac chambers and connections, unspecified	Diagnosis	ICD-10-CM
Q210	Ventricular septal defect	Diagnosis	ICD-10-CM
Q211	Atrial septal defect	Diagnosis	ICD-10-CM
Q212	Atrioventricular septal defect	Diagnosis	ICD-10-CM
Q213	Tetralogy of Fallot	Diagnosis	ICD-10-CM
Q214	Aortopulmonary septal defect	Diagnosis	ICD-10-CM
Q218	Other congenital malformations of cardiac septa	Diagnosis	ICD-10-CM
Q219	Congenital malformation of cardiac septum, unspecified	Diagnosis	ICD-10-CM
Q220	Pulmonary valve atresia	Diagnosis	ICD-10-CM
Q221	Congenital pulmonary valve stenosis	Diagnosis	ICD-10-CM
Q222	Congenital pulmonary valve insufficiency	Diagnosis	ICD-10-CM
Q223	Other congenital malformations of pulmonary valve	Diagnosis	ICD-10-CM
Q224	Congenital tricuspid stenosis	Diagnosis	ICD-10-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
Q225	Ebstein's anomaly	Diagnosis	ICD-10-CM
Q226	Hypoplastic right heart syndrome	Diagnosis	ICD-10-CM
Q228	Other congenital malformations of tricuspid valve	Diagnosis	ICD-10-CM
Q229	Congenital malformation of tricuspid valve, unspecified	Diagnosis	ICD-10-CM
Q230	Congenital stenosis of aortic valve	Diagnosis	ICD-10-CM
Q231	Congenital insufficiency of aortic valve	Diagnosis	ICD-10-CM
Q232	Congenital mitral stenosis	Diagnosis	ICD-10-CM
Q233	Congenital mitral insufficiency	Diagnosis	ICD-10-CM
Q234	Hypoplastic left heart syndrome	Diagnosis	ICD-10-CM
Q238	Other congenital malformations of aortic and mitral valves	Diagnosis	ICD-10-CM
Q239	Congenital malformation of aortic and mitral valves, unspecified	Diagnosis	ICD-10-CM
Q240	Dextrocardia	Diagnosis	ICD-10-CM
Q241	Levocardia	Diagnosis	ICD-10-CM
Q242	Cor triatriatum	Diagnosis	ICD-10-CM
Q243	Pulmonary infundibular stenosis	Diagnosis	ICD-10-CM
Q244	Congenital subaortic stenosis	Diagnosis	ICD-10-CM
Q245	Malformation of coronary vessels	Diagnosis	ICD-10-CM
Q246	Congenital heart block	Diagnosis	ICD-10-CM
Q248	Other specified congenital malformations of heart	Diagnosis	ICD-10-CM
Q249	Congenital malformation of heart, unspecified	Diagnosis	ICD-10-CM
Q250	Patent ductus arteriosus	Diagnosis	ICD-10-CM
Q251	Coarctation of aorta	Diagnosis	ICD-10-CM
Q2521	Interruption of aortic arch	Diagnosis	ICD-10-CM
Q2529	Other atresia of aorta	Diagnosis	ICD-10-CM
Q253	Supravalvular aortic stenosis	Diagnosis	ICD-10-CM
Q2540	Congenital malformation of aorta unspecified	Diagnosis	ICD-10-CM
Q2541	Absence and aplasia of aorta	Diagnosis	ICD-10-CM
Q2542	Hypoplasia of aorta	Diagnosis	ICD-10-CM
Q2543	Congenital aneurysm of aorta	Diagnosis	ICD-10-CM
Q2544	Congenital dilation of aorta	Diagnosis	ICD-10-CM
Q2545	Double aortic arch	Diagnosis	ICD-10-CM
Q2546	Tortuous aortic arch	Diagnosis	ICD-10-CM
Q2547	Right aortic arch	Diagnosis	ICD-10-CM
Q2548	Anomalous origin of subclavian artery	Diagnosis	ICD-10-CM
Q2549	Other congenital malformations of aorta	Diagnosis	ICD-10-CM
Q255	Atresia of pulmonary artery	Diagnosis	ICD-10-CM
Q256	Stenosis of pulmonary artery	Diagnosis	ICD-10-CM
Q2571	Coarctation of pulmonary artery	Diagnosis	ICD-10-CM
Q2572	Congenital pulmonary arteriovenous malformation	Diagnosis	ICD-10-CM
Q2579	Other congenital malformations of pulmonary artery	Diagnosis	ICD-10-CM
Q258	Other congenital malformations of other great arteries	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
Q259	Congenital malformation of great arteries, unspecified	Diagnosis	ICD-10-CM
Q260	Congenital stenosis of vena cava	Diagnosis	ICD-10-CM
Q261	Persistent left superior vena cava	Diagnosis	ICD-10-CM
Q262	Total anomalous pulmonary venous connection	Diagnosis	ICD-10-CM
Q263	Partial anomalous pulmonary venous connection	Diagnosis	ICD-10-CM
Q264	Anomalous pulmonary venous connection, unspecified	Diagnosis	ICD-10-CM
Q268	Other congenital malformations of great veins	Diagnosis	ICD-10-CM
Q269	Congenital malformation of great vein, unspecified	Diagnosis	ICD-10-CM
Diabetes (Preexisting)			
2500	Diabetes mellitus without mention of complication	Diagnosis	ICD-9-CM
25000	Diabetes mellitus without mention of complication, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25001	Diabetes mellitus without mention of complication, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25002	Diabetes mellitus without mention of complication, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25003	Diabetes mellitus without mention of complication, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2501	Diabetes with ketoacidosis	Diagnosis	ICD-9-CM
25010	Diabetes with ketoacidosis, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25011	Diabetes with ketoacidosis, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25012	Diabetes with ketoacidosis, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25013	Diabetes with ketoacidosis, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2502	Diabetes with hyperosmolarity	Diagnosis	ICD-9-CM
25020	Diabetes with hyperosmolarity, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25021	Diabetes with hyperosmolarity, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25022	Diabetes with hyperosmolarity, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25023	Diabetes with hyperosmolarity, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2503	Diabetes with other coma	Diagnosis	ICD-9-CM
25030	Diabetes with other coma, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25031	Diabetes with other coma, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25032	Diabetes with other coma, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25033	Diabetes with other coma, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2504	Diabetes with renal manifestations	Diagnosis	ICD-9-CM
25040	Diabetes with renal manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25041	Diabetes with renal manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25042	Diabetes with renal manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25043	Diabetes with renal manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2505	Diabetes with ophthalmic manifestations	Diagnosis	ICD-9-CM
25050	Diabetes with ophthalmic manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25051	Diabetes with ophthalmic manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25052	Diabetes with ophthalmic manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
25053	Diabetes with ophthalmic manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2506	Diabetes with neurological manifestations	Diagnosis	ICD-9-CM
25060	Diabetes with neurological manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25061	Diabetes with neurological manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25062	Diabetes with neurological manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25063	Diabetes with neurological manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2507	Diabetes with peripheral circulatory disorders	Diagnosis	ICD-9-CM
25070	Diabetes with peripheral circulatory disorders, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25071	Diabetes with peripheral circulatory disorders, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25072	Diabetes with peripheral circulatory disorders, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25073	Diabetes with peripheral circulatory disorders, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2508	Diabetes with other specified manifestations	Diagnosis	ICD-9-CM
25080	Diabetes with other specified manifestations, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25081	Diabetes with other specified manifestations, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25082	Diabetes with other specified manifestations, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25083	Diabetes with other specified manifestations, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
2509	Diabetes with unspecified complication	Diagnosis	ICD-9-CM
25090	Diabetes with unspecified complication, type II or unspecified type, not stated as uncontrolled	Diagnosis	ICD-9-CM
25091	Diabetes with unspecified complication, type I [juvenile type], not stated as uncontrolled	Diagnosis	ICD-9-CM
25092	Diabetes with unspecified complication, type II or unspecified type, uncontrolled	Diagnosis	ICD-9-CM
25093	Diabetes with unspecified complication, type I [juvenile type], uncontrolled	Diagnosis	ICD-9-CM
6480	Maternal diabetes mellitus complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
64800	Maternal diabetes mellitus, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	Diagnosis	ICD-9-CM
64801	Maternal diabetes mellitus with delivery	Diagnosis	ICD-9-CM
64802	Maternal diabetes mellitus with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
64803	Maternal diabetes mellitus, antepartum	Diagnosis	ICD-9-CM
64804	Maternal diabetes mellitus, complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
E1010	Type 1 diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E1011	Type 1 diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E1021	Type 1 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E1022	Type 1 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E1029	Type 1 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E10311	Type 1 diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E10319	Type 1 diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E103211	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E103212	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E103213	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E103219	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E103291	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E103292	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E103293	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E103299	Type 1 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E103311	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E103312	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E103313	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E103319	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E103391	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E103392	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E103393	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E103399	Type 1 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E103411	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E103412	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E103413	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E103419	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E103491	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E103492	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E103493	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E103499	Type 1 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E103511	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E103512	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E103513	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E103519	Type 1 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E103521	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E103522	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E103523	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E103529	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E103531	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E103532	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E103533	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E103539	Type 1 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E103541	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E103542	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E103543	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E103549	Type 1 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E103551	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E103552	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E103553	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E103559	Type 1 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E103591	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E103592	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E103593	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E103599	Type 1 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E1036	Type 1 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E1037X1	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E1037X2	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E1037X3	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E1037X9	Type 1 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E1039	Type 1 diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E1040	Type 1 diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E1041	Type 1 diabetes mellitus with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E1042	Type 1 diabetes mellitus with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E1043	Type 1 diabetes mellitus with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E1044	Type 1 diabetes mellitus with diabetic amyotrophy	Diagnosis	ICD-10-CM
E1049	Type 1 diabetes mellitus with other diabetic neurological complication	Diagnosis	ICD-10-CM
E1051	Type 1 diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E1052	Type 1 diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E1059	Type 1 diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E10610	Type 1 diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E10618	Type 1 diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E10620	Type 1 diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E10621	Type 1 diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E10622	Type 1 diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E10628	Type 1 diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E10630	Type 1 diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E10638	Type 1 diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E10641	Type 1 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E10649	Type 1 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E1065	Type 1 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E1069	Type 1 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E108	Type 1 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
E109	Type 1 diabetes mellitus without complications	Diagnosis	ICD-10-CM
E1100	Type 2 diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E1101	Type 2 diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E1110	Type 2 diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E1111	Type 2 diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E1121	Type 2 diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E1122	Type 2 diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E1129	Type 2 diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E11311	Type 2 diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E11319	Type 2 diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E113211	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E113212	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E113213	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E113219	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E113291	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E113292	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E113293	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E113299	Type 2 diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E113311	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E113312	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E113313	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E113319	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E113391	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E113392	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E113393	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E113399	Type 2 diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E113411	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E113412	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E113413	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E113419	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E113491	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E113492	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E113493	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E113499	Type 2 diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E113511	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E113512	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E113513	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E113519	Type 2 diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E113521	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM
E113522	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E113523	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E113529	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E113531	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E113532	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E113533	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E113539	Type 2 diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E113541	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E113542	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E113543	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E113549	Type 2 diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E113551	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E113552	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E113553	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E113559	Type 2 diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E113591	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E113592	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E113593	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E113599	Type 2 diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E1136	Type 2 diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E1137X1	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E1137X2	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM
E1137X3	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E1137X9	Type 2 diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E1139	Type 2 diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E1140	Type 2 diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E1141	Type 2 diabetes mellitus with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E1142	Type 2 diabetes mellitus with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E1143	Type 2 diabetes mellitus with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E1144	Type 2 diabetes mellitus with diabetic amyotrophy	Diagnosis	ICD-10-CM
E1149	Type 2 diabetes mellitus with other diabetic neurological complication	Diagnosis	ICD-10-CM
E1151	Type 2 diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E1152	Type 2 diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E1159	Type 2 diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E11610	Type 2 diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E11618	Type 2 diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E11620	Type 2 diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E11621	Type 2 diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E11622	Type 2 diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E11628	Type 2 diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E11630	Type 2 diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E11638	Type 2 diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E11641	Type 2 diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E11649	Type 2 diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E1165	Type 2 diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E1169	Type 2 diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E118	Type 2 diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E119	Type 2 diabetes mellitus without complications	Diagnosis	ICD-10-CM
E1300	Other specified diabetes mellitus with hyperosmolarity without nonketotic hyperglycemic-hyperosmolar coma (NKHHC)	Diagnosis	ICD-10-CM
E1301	Other specified diabetes mellitus with hyperosmolarity with coma	Diagnosis	ICD-10-CM
E1310	Other specified diabetes mellitus with ketoacidosis without coma	Diagnosis	ICD-10-CM
E1311	Other specified diabetes mellitus with ketoacidosis with coma	Diagnosis	ICD-10-CM
E1321	Other specified diabetes mellitus with diabetic nephropathy	Diagnosis	ICD-10-CM
E1322	Other specified diabetes mellitus with diabetic chronic kidney disease	Diagnosis	ICD-10-CM
E1329	Other specified diabetes mellitus with other diabetic kidney complication	Diagnosis	ICD-10-CM
E13311	Other specified diabetes mellitus with unspecified diabetic retinopathy with macular edema	Diagnosis	ICD-10-CM
E13319	Other specified diabetes mellitus with unspecified diabetic retinopathy without macular edema	Diagnosis	ICD-10-CM
E133211	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E133212	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E133213	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E133219	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E133291	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E133292	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E133293	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E133299	Other specified diabetes mellitus with mild nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E133311	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E133312	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E133313	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E133319	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E133391	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E133392	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E133393	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E133399	Other specified diabetes mellitus with moderate nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E133411	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E133412	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E133413	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E133419	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E133491	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E133492	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E133493	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E133499	Other specified diabetes mellitus with severe nonproliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E133511	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, right eye	Diagnosis	ICD-10-CM
E133512	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, left eye	Diagnosis	ICD-10-CM
E133513	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, bilateral	Diagnosis	ICD-10-CM
E133519	Other specified diabetes mellitus with proliferative diabetic retinopathy with macular edema, unspecified eye	Diagnosis	ICD-10-CM
E133521	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, right eye	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E133522	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, left eye	Diagnosis	ICD-10-CM
E133523	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, bilateral	Diagnosis	ICD-10-CM
E133529	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E133531	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, right eye	Diagnosis	ICD-10-CM
E133532	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, left eye	Diagnosis	ICD-10-CM
E133533	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, bilateral	Diagnosis	ICD-10-CM
E133539	Other specified diabetes mellitus with proliferative diabetic retinopathy with traction retinal detachment not involving the macula, unspecified eye	Diagnosis	ICD-10-CM
E133541	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, right eye	Diagnosis	ICD-10-CM
E133542	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, left eye	Diagnosis	ICD-10-CM
E133543	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, bilateral	Diagnosis	ICD-10-CM
E133549	Other specified diabetes mellitus with proliferative diabetic retinopathy with combined traction retinal detachment and rhegmatogenous retinal detachment, unspecified eye	Diagnosis	ICD-10-CM
E133551	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, right eye	Diagnosis	ICD-10-CM
E133552	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, left eye	Diagnosis	ICD-10-CM
E133553	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, bilateral	Diagnosis	ICD-10-CM
E133559	Other specified diabetes mellitus with stable proliferative diabetic retinopathy, unspecified eye	Diagnosis	ICD-10-CM
E133591	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, right eye	Diagnosis	ICD-10-CM
E133592	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, left eye	Diagnosis	ICD-10-CM
E133593	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, bilateral	Diagnosis	ICD-10-CM
E133599	Other specified diabetes mellitus with proliferative diabetic retinopathy without macular edema, unspecified eye	Diagnosis	ICD-10-CM
E1336	Other specified diabetes mellitus with diabetic cataract	Diagnosis	ICD-10-CM
E1337X1	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, right eye	Diagnosis	ICD-10-CM
E1337X2	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, left eye	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E1337X3	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, bilateral	Diagnosis	ICD-10-CM
E1337X9	Other specified diabetes mellitus with diabetic macular edema, resolved following treatment, unspecified eye	Diagnosis	ICD-10-CM
E1339	Other specified diabetes mellitus with other diabetic ophthalmic complication	Diagnosis	ICD-10-CM
E1340	Other specified diabetes mellitus with diabetic neuropathy, unspecified	Diagnosis	ICD-10-CM
E1341	Other specified diabetes mellitus with diabetic mononeuropathy	Diagnosis	ICD-10-CM
E1342	Other specified diabetes mellitus with diabetic polyneuropathy	Diagnosis	ICD-10-CM
E1343	Other specified diabetes mellitus with diabetic autonomic (poly)neuropathy	Diagnosis	ICD-10-CM
E1344	Other specified diabetes mellitus with diabetic amyotrophy	Diagnosis	ICD-10-CM
E1349	Other specified diabetes mellitus with other diabetic neurological complication	Diagnosis	ICD-10-CM
E1351	Other specified diabetes mellitus with diabetic peripheral angiopathy without gangrene	Diagnosis	ICD-10-CM
E1352	Other specified diabetes mellitus with diabetic peripheral angiopathy with gangrene	Diagnosis	ICD-10-CM
E1359	Other specified diabetes mellitus with other circulatory complications	Diagnosis	ICD-10-CM
E13610	Other specified diabetes mellitus with diabetic neuropathic arthropathy	Diagnosis	ICD-10-CM
E13618	Other specified diabetes mellitus with other diabetic arthropathy	Diagnosis	ICD-10-CM
E13620	Other specified diabetes mellitus with diabetic dermatitis	Diagnosis	ICD-10-CM
E13621	Other specified diabetes mellitus with foot ulcer	Diagnosis	ICD-10-CM
E13622	Other specified diabetes mellitus with other skin ulcer	Diagnosis	ICD-10-CM
E13628	Other specified diabetes mellitus with other skin complications	Diagnosis	ICD-10-CM
E13630	Other specified diabetes mellitus with periodontal disease	Diagnosis	ICD-10-CM
E13638	Other specified diabetes mellitus with other oral complications	Diagnosis	ICD-10-CM
E13641	Other specified diabetes mellitus with hypoglycemia with coma	Diagnosis	ICD-10-CM
E13649	Other specified diabetes mellitus with hypoglycemia without coma	Diagnosis	ICD-10-CM
E1365	Other specified diabetes mellitus with hyperglycemia	Diagnosis	ICD-10-CM
E1369	Other specified diabetes mellitus with other specified complication	Diagnosis	ICD-10-CM
E138	Other specified diabetes mellitus with unspecified complications	Diagnosis	ICD-10-CM
E139	Other specified diabetes mellitus without complications	Diagnosis	ICD-10-CM
O24011	Pre-existing type 1 diabetes mellitus, in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24012	Pre-existing type 1 diabetes mellitus, in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24013	Pre-existing type 1 diabetes mellitus, in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24019	Pre-existing type 1 diabetes mellitus, in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O2402	Pre-existing type 1 diabetes mellitus, in childbirth	Diagnosis	ICD-10-CM
O2403	Pre-existing type 1 diabetes mellitus, in the puerperium	Diagnosis	ICD-10-CM
O24111	Pre-existing type 2 diabetes mellitus, in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24112	Pre-existing type 2 diabetes mellitus, in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24113	Pre-existing type 2 diabetes mellitus, in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24119	Pre-existing type 2 diabetes mellitus, in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O2412	Pre-existing type 2 diabetes mellitus, in childbirth	Diagnosis	ICD-10-CM
O2413	Pre-existing type 2 diabetes mellitus, in the puerperium	Diagnosis	ICD-10-CM
O24311	Unspecified pre-existing diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
O24312	Unspecified pre-existing diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24313	Unspecified pre-existing diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24319	Unspecified pre-existing diabetes mellitus in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O2432	Unspecified pre-existing diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O2433	Unspecified pre-existing diabetes mellitus in the puerperium	Diagnosis	ICD-10-CM
O24811	Other pre-existing diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24812	Other pre-existing diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24813	Other pre-existing diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24819	Other pre-existing diabetes mellitus in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O2482	Other pre-existing diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O2483	Other pre-existing diabetes mellitus in the puerperium	Diagnosis	ICD-10-CM
O24911	Unspecified diabetes mellitus in pregnancy, first trimester	Diagnosis	ICD-10-CM
O24912	Unspecified diabetes mellitus in pregnancy, second trimester	Diagnosis	ICD-10-CM
O24913	Unspecified diabetes mellitus in pregnancy, third trimester	Diagnosis	ICD-10-CM
O24919	Unspecified diabetes mellitus in pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O2492	Unspecified diabetes mellitus in childbirth	Diagnosis	ICD-10-CM
O2493	Unspecified diabetes mellitus in the puerperium	Diagnosis	ICD-10-CM
Drug Abuse			
3040	Opioid type dependence	Diagnosis	ICD-9-CM
30400	Opioid type dependence, unspecified	Diagnosis	ICD-9-CM
30401	Opioid type dependence, continuous	Diagnosis	ICD-9-CM
30402	Opioid type dependence, episodic	Diagnosis	ICD-9-CM
30403	Opioid type dependence, in remission	Diagnosis	ICD-9-CM
3041	Sedative, hypnotic or anxiolytic dependence	Diagnosis	ICD-9-CM
30410	Sedative, hypnotic or anxiolytic dependence, unspecified	Diagnosis	ICD-9-CM
30411	Sedative, hypnotic or anxiolytic dependence, continuous	Diagnosis	ICD-9-CM
30412	Sedative, hypnotic or anxiolytic dependence, episodic	Diagnosis	ICD-9-CM
30413	Sedative, hypnotic or anxiolytic dependence, in remission	Diagnosis	ICD-9-CM
3042	Cocaine dependence	Diagnosis	ICD-9-CM
30420	Cocaine dependence, unspecified	Diagnosis	ICD-9-CM
30421	Cocaine dependence, continuous	Diagnosis	ICD-9-CM
30422	Cocaine dependence, episodic	Diagnosis	ICD-9-CM
30423	Cocaine dependence, in remission	Diagnosis	ICD-9-CM
3043	Cannabis dependence	Diagnosis	ICD-9-CM
30430	Cannabis dependence, unspecified	Diagnosis	ICD-9-CM
30431	Cannabis dependence, continuous	Diagnosis	ICD-9-CM
30432	Cannabis dependence, episodic	Diagnosis	ICD-9-CM
30433	Cannabis dependence, in remission	Diagnosis	ICD-9-CM
3044	Amphetamine and other psychostimulant dependence	Diagnosis	ICD-9-CM
30440	Amphetamine and other psychostimulant dependence, unspecified	Diagnosis	ICD-9-CM
30441	Amphetamine and other psychostimulant dependence, continuous	Diagnosis	ICD-9-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
30442	Amphetamine and other psychostimulant dependence, episodic	Diagnosis	ICD-9-CM
30443	Amphetamine and other psychostimulant dependence, in remission	Diagnosis	ICD-9-CM
3045	Hallucinogen dependence	Diagnosis	ICD-9-CM
30450	Hallucinogen dependence, unspecified	Diagnosis	ICD-9-CM
30451	Hallucinogen dependence, continuous	Diagnosis	ICD-9-CM
30452	Hallucinogen dependence, episodic	Diagnosis	ICD-9-CM
30453	Hallucinogen dependence, in remission	Diagnosis	ICD-9-CM
3046	Other specified drug dependence	Diagnosis	ICD-9-CM
30460	Other specified drug dependence, unspecified	Diagnosis	ICD-9-CM
30461	Other specified drug dependence, continuous	Diagnosis	ICD-9-CM
30462	Other specified drug dependence, episodic	Diagnosis	ICD-9-CM
30463	Other specified drug dependence, in remission	Diagnosis	ICD-9-CM
3047	Combinations of opioid type drug with any other drug dependence	Diagnosis	ICD-9-CM
30470	Combinations of opioid type drug with any other drug dependence, unspecified	Diagnosis	ICD-9-CM
30471	Combinations of opioid type drug with any other drug dependence, continuous	Diagnosis	ICD-9-CM
30472	Combinations of opioid type drug with any other drug dependence, episodic	Diagnosis	ICD-9-CM
30473	Combinations of opioid type drug with any other drug dependence, in remission	Diagnosis	ICD-9-CM
3048	Combinations of drug dependence excluding opioid type drug	Diagnosis	ICD-9-CM
30480	Combinations of drug dependence excluding opioid type drug, unspecified	Diagnosis	ICD-9-CM
30481	Combinations of drug dependence excluding opioid type drug, continuous	Diagnosis	ICD-9-CM
30482	Combinations of drug dependence excluding opioid type drug, episodic	Diagnosis	ICD-9-CM
30483	Combinations of drug dependence excluding opioid type drug, in remission	Diagnosis	ICD-9-CM
3049	Unspecified drug dependence	Diagnosis	ICD-9-CM
30490	Unspecified drug dependence, unspecified	Diagnosis	ICD-9-CM
30491	Unspecified drug dependence, continuous	Diagnosis	ICD-9-CM
30492	Unspecified drug dependence, episodic	Diagnosis	ICD-9-CM
30493	Unspecified drug dependence, in remission	Diagnosis	ICD-9-CM
3052	Nondependent cannabis abuse	Diagnosis	ICD-9-CM
30520	Nondependent cannabis abuse, unspecified	Diagnosis	ICD-9-CM
30521	Nondependent cannabis abuse, continuous	Diagnosis	ICD-9-CM
30522	Nondependent cannabis abuse, episodic	Diagnosis	ICD-9-CM
30523	Nondependent cannabis abuse, in remission	Diagnosis	ICD-9-CM
3053	Nondependent hallucinogen abuse	Diagnosis	ICD-9-CM
30530	Nondependent hallucinogen abuse, unspecified	Diagnosis	ICD-9-CM
30531	Nondependent hallucinogen abuse, continuous	Diagnosis	ICD-9-CM
30532	Nondependent hallucinogen abuse, episodic	Diagnosis	ICD-9-CM
30533	Nondependent hallucinogen abuse, in remission	Diagnosis	ICD-9-CM
3054	Nondependent sedative, hypnotic or anxiolytic abuse	Diagnosis	ICD-9-CM
30540	Nondependent sedative, hypnotic or anxiolytic abuse, unspecified	Diagnosis	ICD-9-CM
30541	Nondependent sedative hypnotic or anxiolytic abuse, continuous	Diagnosis	ICD-9-CM
30542	Nondependent sedative, hypnotic or anxiolytic abuse, episodic	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
30543	Nondependent sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-9-CM
3055	Nondependent opioid abuse	Diagnosis	ICD-9-CM
30550	Nondependent opioid abuse, unspecified	Diagnosis	ICD-9-CM
30551	Nondependent opioid abuse, continuous	Diagnosis	ICD-9-CM
30552	Nondependent opioid abuse, episodic	Diagnosis	ICD-9-CM
30553	Nondependent opioid abuse, in remission	Diagnosis	ICD-9-CM
3056	Nondependent cocaine abuse	Diagnosis	ICD-9-CM
30560	Nondependent cocaine abuse, unspecified	Diagnosis	ICD-9-CM
30561	Nondependent cocaine abuse, continuous	Diagnosis	ICD-9-CM
30562	Nondependent cocaine abuse, episodic	Diagnosis	ICD-9-CM
30563	Nondependent cocaine abuse, in remission	Diagnosis	ICD-9-CM
3057	Nondependent amphetamine or related acting sympathomimetic abuse	Diagnosis	ICD-9-CM
30570	Nondependent amphetamine or related acting sympathomimetic abuse, unspecified	Diagnosis	ICD-9-CM
30571	Nondependent amphetamine or related acting sympathomimetic abuse, continuous	Diagnosis	ICD-9-CM
30572	Nondependent amphetamine or related acting sympathomimetic abuse, episodic	Diagnosis	ICD-9-CM
30573	Nondependent amphetamine or related acting sympathomimetic abuse, in remission	Diagnosis	ICD-9-CM
3058	Nondependent antidepressant type abuse	Diagnosis	ICD-9-CM
30580	Nondependent antidepressant type abuse, unspecified	Diagnosis	ICD-9-CM
30581	Nondependent antidepressant type abuse, continuous	Diagnosis	ICD-9-CM
30582	Nondependent antidepressant type abuse, episodic	Diagnosis	ICD-9-CM
30583	Nondependent antidepressant type abuse, in remission	Diagnosis	ICD-9-CM
3059	Other, mixed, or unspecified nondependent drug abuse	Diagnosis	ICD-9-CM
30590	Other, mixed, or unspecified nondependent drug abuse, unspecified	Diagnosis	ICD-9-CM
30591	Other, mixed, or unspecified nondependent drug abuse, continuous	Diagnosis	ICD-9-CM
30592	Other, mixed, or unspecified nondependent drug abuse, episodic	Diagnosis	ICD-9-CM
30593	Other, mixed, or unspecified nondependent drug abuse, in remission	Diagnosis	ICD-9-CM
6483	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
64830	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	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
64833	Maternal drug dependence, antepartum	Diagnosis	ICD-9-CM
64834	Maternal drug dependence complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
F1110	Opioid abuse, uncomplicated	Diagnosis	ICD-10-CM
F1111	Opioid abuse, in remission	Diagnosis	ICD-10-CM
F11120	Opioid abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F11129	Opioid abuse with intoxication, unspecified	Diagnosis	ICD-10-CM
F1120	Opioid dependence, uncomplicated	Diagnosis	ICD-10-CM
F1121	Opioid dependence, in remission	Diagnosis	ICD-10-CM
F11220	Opioid dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
F11221	Opioid dependence with intoxication delirium	Diagnosis	ICD-10-CM
F11222	Opioid dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F11229	Opioid dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F1123	Opioid dependence with withdrawal	Diagnosis	ICD-10-CM
F1124	Opioid dependence with opioid-induced mood disorder	Diagnosis	ICD-10-CM
F11250	Opioid dependence with opioid-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F11251	Opioid dependence with opioid-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F11259	Opioid dependence with opioid-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F11281	Opioid dependence with opioid-induced sexual dysfunction	Diagnosis	ICD-10-CM
F11282	Opioid dependence with opioid-induced sleep disorder	Diagnosis	ICD-10-CM
F11288	Opioid dependence with other opioid-induced disorder	Diagnosis	ICD-10-CM
F1129	Opioid dependence with unspecified opioid-induced disorder	Diagnosis	ICD-10-CM
F1190	Opioid use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F1210	Cannabis abuse, uncomplicated	Diagnosis	ICD-10-CM
F1211	Cannabis abuse, in remission	Diagnosis	ICD-10-CM
F1220	Cannabis dependence, uncomplicated	Diagnosis	ICD-10-CM
F1221	Cannabis dependence, in remission	Diagnosis	ICD-10-CM
F12220	Cannabis dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F12221	Cannabis dependence with intoxication delirium	Diagnosis	ICD-10-CM
F12222	Cannabis dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F12229	Cannabis dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F12250	Cannabis dependence with psychotic disorder with delusions	Diagnosis	ICD-10-CM
F12251	Cannabis dependence with psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F12259	Cannabis dependence with psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F12280	Cannabis dependence with cannabis-induced anxiety disorder	Diagnosis	ICD-10-CM
F12288	Cannabis dependence with other cannabis-induced disorder	Diagnosis	ICD-10-CM
F1229	Cannabis dependence with unspecified cannabis-induced disorder	Diagnosis	ICD-10-CM
F1290	Cannabis use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F1310	Sedative, hypnotic or anxiolytic abuse, uncomplicated	Diagnosis	ICD-10-CM
F1311	Sedative, hypnotic or anxiolytic abuse, in remission	Diagnosis	ICD-10-CM
F13120	Sedative, hypnotic or anxiolytic abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F1320	Sedative, hypnotic or anxiolytic dependence, uncomplicated	Diagnosis	ICD-10-CM
F1321	Sedative, hypnotic or anxiolytic dependence, in remission	Diagnosis	ICD-10-CM
F13220	Sedative, hypnotic or anxiolytic dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F13221	Sedative, hypnotic or anxiolytic dependence with intoxication delirium	Diagnosis	ICD-10-CM
F13229	Sedative, hypnotic or anxiolytic dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F13230	Sedative, hypnotic or anxiolytic dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F13231	Sedative, hypnotic or anxiolytic dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F13232	Sedative, hypnotic or anxiolytic dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F13239	Sedative, hypnotic or anxiolytic dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
F1324	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced mood disorder	Diagnosis	ICD-10-CM
F13250	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F13251	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F13259	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F1326	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F1327	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced persisting dementia	Diagnosis	ICD-10-CM
F13280	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced anxiety disorder	Diagnosis	ICD-10-CM
F13281	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sexual dysfunction	Diagnosis	ICD-10-CM
F13282	Sedative, hypnotic or anxiolytic dependence with sedative, hypnotic or anxiolytic-induced sleep disorder	Diagnosis	ICD-10-CM
F13288	Sedative, hypnotic or anxiolytic dependence with other sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F1329	Sedative, hypnotic or anxiolytic dependence with unspecified sedative, hypnotic or anxiolytic-induced disorder	Diagnosis	ICD-10-CM
F1390	Sedative, hypnotic, or anxiolytic use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F1410	Cocaine abuse, uncomplicated	Diagnosis	ICD-10-CM
F1411	Cocaine abuse, in remission	Diagnosis	ICD-10-CM
F14120	Cocaine abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F1420	Cocaine dependence, uncomplicated	Diagnosis	ICD-10-CM
F1421	Cocaine dependence, in remission	Diagnosis	ICD-10-CM
F14220	Cocaine dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F14221	Cocaine dependence with intoxication delirium	Diagnosis	ICD-10-CM
F14222	Cocaine dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F14229	Cocaine dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F1423	Cocaine dependence with withdrawal	Diagnosis	ICD-10-CM
F1424	Cocaine dependence with cocaine-induced mood disorder	Diagnosis	ICD-10-CM
F14250	Cocaine dependence with cocaine-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F14251	Cocaine dependence with cocaine-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F14259	Cocaine dependence with cocaine-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F14280	Cocaine dependence with cocaine-induced anxiety disorder	Diagnosis	ICD-10-CM
F14281	Cocaine dependence with cocaine-induced sexual dysfunction	Diagnosis	ICD-10-CM
F14282	Cocaine dependence with cocaine-induced sleep disorder	Diagnosis	ICD-10-CM
F14288	Cocaine dependence with other cocaine-induced disorder	Diagnosis	ICD-10-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
F1429	Cocaine dependence with unspecified cocaine-induced disorder	Diagnosis	ICD-10-CM
F1490	Cocaine use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F1510	Other stimulant abuse, uncomplicated	Diagnosis	ICD-10-CM
F1511	Other stimulant abuse, in remission	Diagnosis	ICD-10-CM
F15120	Other stimulant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F1520	Other stimulant dependence, uncomplicated	Diagnosis	ICD-10-CM
F1521	Other stimulant dependence, in remission	Diagnosis	ICD-10-CM
F15220	Other stimulant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F15221	Other stimulant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F15222	Other stimulant dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F15229	Other stimulant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F1523	Other stimulant dependence with withdrawal	Diagnosis	ICD-10-CM
F1524	Other stimulant dependence with stimulant-induced mood disorder	Diagnosis	ICD-10-CM
F15250	Other stimulant dependence with stimulant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F15251	Other stimulant dependence with stimulant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F15259	Other stimulant dependence with stimulant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F15280	Other stimulant dependence with stimulant-induced anxiety disorder	Diagnosis	ICD-10-CM
F15281	Other stimulant dependence with stimulant-induced sexual dysfunction	Diagnosis	ICD-10-CM
F15282	Other stimulant dependence with stimulant-induced sleep disorder	Diagnosis	ICD-10-CM
F15288	Other stimulant dependence with other stimulant-induced disorder	Diagnosis	ICD-10-CM
F1529	Other stimulant dependence with unspecified stimulant-induced disorder	Diagnosis	ICD-10-CM
F1590	Other stimulant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F1610	Hallucinogen abuse, uncomplicated	Diagnosis	ICD-10-CM
F1611	Hallucinogen abuse, in remission	Diagnosis	ICD-10-CM
F16120	Hallucinogen abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F1620	Hallucinogen dependence, uncomplicated	Diagnosis	ICD-10-CM
F1621	Hallucinogen dependence, in remission	Diagnosis	ICD-10-CM
F16220	Hallucinogen dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F16221	Hallucinogen dependence with intoxication with delirium	Diagnosis	ICD-10-CM
F16229	Hallucinogen dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F1624	Hallucinogen dependence with hallucinogen-induced mood disorder	Diagnosis	ICD-10-CM
F16250	Hallucinogen dependence with hallucinogen-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F16251	Hallucinogen dependence with hallucinogen-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F16259	Hallucinogen dependence with hallucinogen-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F16280	Hallucinogen dependence with hallucinogen-induced anxiety disorder	Diagnosis	ICD-10-CM
F16283	Hallucinogen dependence with hallucinogen persisting perception disorder (flashbacks)	Diagnosis	ICD-10-CM
F16288	Hallucinogen dependence with other hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F1629	Hallucinogen dependence with unspecified hallucinogen-induced disorder	Diagnosis	ICD-10-CM
F1690	Hallucinogen use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F1810	Inhalant abuse, uncomplicated	Diagnosis	ICD-10-CM
F1811	Inhalant abuse, in remission	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
F18120	Inhalant abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F1820	Inhalant dependence, uncomplicated	Diagnosis	ICD-10-CM
F1821	Inhalant dependence, in remission	Diagnosis	ICD-10-CM
F18220	Inhalant dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F18221	Inhalant dependence with intoxication delirium	Diagnosis	ICD-10-CM
F18229	Inhalant dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F1824	Inhalant dependence with inhalant-induced mood disorder	Diagnosis	ICD-10-CM
F18250	Inhalant dependence with inhalant-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F18251	Inhalant dependence with inhalant-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F18259	Inhalant dependence with inhalant-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F1827	Inhalant dependence with inhalant-induced dementia	Diagnosis	ICD-10-CM
F18280	Inhalant dependence with inhalant-induced anxiety disorder	Diagnosis	ICD-10-CM
F18288	Inhalant dependence with other inhalant-induced disorder	Diagnosis	ICD-10-CM
F1829	Inhalant dependence with unspecified inhalant-induced disorder	Diagnosis	ICD-10-CM
F1890	Inhalant use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F1910	Other psychoactive substance abuse, uncomplicated	Diagnosis	ICD-10-CM
F1911	Other psychoactive substance abuse, in remission	Diagnosis	ICD-10-CM
F19120	Other psychoactive substance abuse with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F1920	Other psychoactive substance dependence, uncomplicated	Diagnosis	ICD-10-CM
F1921	Other psychoactive substance dependence, in remission	Diagnosis	ICD-10-CM
F19220	Other psychoactive substance dependence with intoxication, uncomplicated	Diagnosis	ICD-10-CM
F19221	Other psychoactive substance dependence with intoxication delirium	Diagnosis	ICD-10-CM
F19222	Other psychoactive substance dependence with intoxication with perceptual disturbance	Diagnosis	ICD-10-CM
F19229	Other psychoactive substance dependence with intoxication, unspecified	Diagnosis	ICD-10-CM
F19230	Other psychoactive substance dependence with withdrawal, uncomplicated	Diagnosis	ICD-10-CM
F19231	Other psychoactive substance dependence with withdrawal delirium	Diagnosis	ICD-10-CM
F19232	Other psychoactive substance dependence with withdrawal with perceptual disturbance	Diagnosis	ICD-10-CM
F19239	Other psychoactive substance dependence with withdrawal, unspecified	Diagnosis	ICD-10-CM
F1924	Other psychoactive substance dependence with psychoactive substance-induced mood disorder	Diagnosis	ICD-10-CM
F19250	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with delusions	Diagnosis	ICD-10-CM
F19251	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder with hallucinations	Diagnosis	ICD-10-CM
F19259	Other psychoactive substance dependence with psychoactive substance-induced psychotic disorder, unspecified	Diagnosis	ICD-10-CM
F1926	Other psychoactive substance dependence with psychoactive substance-induced persisting amnestic disorder	Diagnosis	ICD-10-CM
F1927	Other psychoactive substance dependence with psychoactive substance-induced persisting dementia	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
F19280	Other psychoactive substance dependence with psychoactive substance-induced anxiety disorder	Diagnosis	ICD-10-CM
F19281	Other psychoactive substance dependence with psychoactive substance-induced sexual dysfunction	Diagnosis	ICD-10-CM
F19282	Other psychoactive substance dependence with psychoactive substance-induced sleep disorder	Diagnosis	ICD-10-CM
F19288	Other psychoactive substance dependence with other psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F1929	Other psychoactive substance dependence with unspecified psychoactive substance-induced disorder	Diagnosis	ICD-10-CM
F1990	Other psychoactive substance use, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F550	Abuse of antacids	Diagnosis	ICD-10-CM
F551	Abuse of herbal or folk remedies	Diagnosis	ICD-10-CM
F552	Abuse of laxatives	Diagnosis	ICD-10-CM
F553	Abuse of steroids or hormones	Diagnosis	ICD-10-CM
F554	Abuse of vitamins	Diagnosis	ICD-10-CM
F558	Abuse of other non-psychoactive substances	Diagnosis	ICD-10-CM
O99320	Drug use complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99321	Drug use complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99322	Drug use complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99323	Drug use complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99324	Drug use complicating childbirth	Diagnosis	ICD-10-CM
O99325	Drug use complicating the puerperium	Diagnosis	ICD-10-CM
Hypertension (Preexisting)			
4010	Essential hypertension, malignant	Diagnosis	ICD-9-CM
4011	Essential hypertension, benign	Diagnosis	ICD-9-CM
4019	Unspecified essential hypertension	Diagnosis	ICD-9-CM
4020	Malignant hypertensive heart disease	Diagnosis	ICD-9-CM
40200	Malignant hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM
40201	Malignant hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
4021	Benign hypertensive heart disease	Diagnosis	ICD-9-CM
40210	Benign hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM
40211	Benign hypertensive heart disease with heart failure	Diagnosis	ICD-9-CM
4029	Unspecified hypertensive heart disease	Diagnosis	ICD-9-CM
40290	Unspecified hypertensive heart disease without heart failure	Diagnosis	ICD-9-CM
40291	Hypertensive heart disease, unspecified, with heart failure	Diagnosis	ICD-9-CM
4030	Hypertensive chronic kidney disease, malignant	Diagnosis	ICD-9-CM
40300	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
40301	Hypertensive chronic kidney disease, malignant, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
4031	Hypertensive chronic kidney disease, benign	Diagnosis	ICD-9-CM
40310	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
40311	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
4039	Hypertensive chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
40390	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage I through stage IV, or unspecified	Diagnosis	ICD-9-CM
40391	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease	Diagnosis	ICD-9-CM
4040	Hypertensive heart and chronic kidney disease, malignant	Diagnosis	ICD-9-CM
40400	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
40401	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
40402	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
40403	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
4041	Hypertensive heart and chronic kidney disease, benign	Diagnosis	ICD-9-CM
40410	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
40411	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
40412	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
40413	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
4049	Hypertensive heart and chronic kidney disease, unspecified	Diagnosis	ICD-9-CM
40490	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
40491	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
40492	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
40493	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
4050	Secondary hypertension, malignant	Diagnosis	ICD-9-CM
40501	Secondary renovascular hypertension, malignant	Diagnosis	ICD-9-CM
40509	Other secondary hypertension, malignant	Diagnosis	ICD-9-CM
4051	Secondary hypertension, benign	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
40511	Secondary renovascular hypertension, benign	Diagnosis	ICD-9-CM
40519	Other secondary hypertension, benign	Diagnosis	ICD-9-CM
4059	Unspecified secondary hypertension, unspecified	Diagnosis	ICD-9-CM
40591	Secondary renovascular hypertension, unspecified	Diagnosis	ICD-9-CM
40599	Other secondary hypertension, unspecified	Diagnosis	ICD-9-CM
6420	Benign essential hypertension complicating pregnancy, childbirth, and the puerperium	Diagnosis	ICD-9-CM
64200	Benign essential hypertension complicating pregnancy, childbirth, and the puerperium, unspecified as to episode of care	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
64203	Benign essential hypertension antepartum	Diagnosis	ICD-9-CM
64204	Benign essential hypertension, complicating pregnancy, childbirth, and the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
6421	Hypertension secondary to renal disease, complicating pregnancy, childbirth, and the puerperium	Diagnosis	ICD-9-CM
64210	Hypertension secondary to renal disease, complicating pregnancy, childbirth, and the puerperium, unspecified as to episode of care	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
64213	Hypertension secondary to renal disease, antepartum	Diagnosis	ICD-9-CM
64214	Hypertension secondary to renal disease, complicating pregnancy, childbirth, and the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
6422	Other pre-existing hypertension complicating pregnancy, childbirth, and the puerperium	Diagnosis	ICD-9-CM
64220	Other pre-existing hypertension complicating pregnancy, childbirth, and the puerperium, unspecified as to episode of care	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
64223	Other pre-existing hypertension, antepartum	Diagnosis	ICD-9-CM
64224	Other pre-existing hypertension complicating pregnancy, childbirth, and the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
6427	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension	Diagnosis	ICD-9-CM
64270	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	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
64273	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, antepartum	Diagnosis	ICD-9-CM
64274	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, postpartum condition or complication	Diagnosis	ICD-9-CM
I10	Essential (primary) hypertension	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
I110	Hypertensive heart disease with heart failure	Diagnosis	ICD-10-CM
I119	Hypertensive heart disease without heart failure	Diagnosis	ICD-10-CM
I120	Hypertensive chronic kidney disease with stage 5 chronic kidney disease or end stage renal disease	Diagnosis	ICD-10-CM
I129	Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease	Diagnosis	ICD-10-CM
I130	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
I1310	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
I1311	Hypertensive heart and chronic kidney disease without heart failure, with stage 5 chronic kidney disease, or end stage renal disease	Diagnosis	ICD-10-CM
I132	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
I150	Renovascular hypertension	Diagnosis	ICD-10-CM
I151	Hypertension secondary to other renal disorders	Diagnosis	ICD-10-CM
I152	Hypertension secondary to endocrine disorders	Diagnosis	ICD-10-CM
I158	Other secondary hypertension	Diagnosis	ICD-10-CM
I159	Secondary hypertension, unspecified	Diagnosis	ICD-10-CM
I160	Hypertensive urgency	Diagnosis	ICD-10-CM
I161	Hypertensive emergency	Diagnosis	ICD-10-CM
I169	Hypertensive crisis, unspecified	Diagnosis	ICD-10-CM
N262	Page kidney	Diagnosis	ICD-10-CM
O10011	Pre-existing essential hypertension complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10012	Pre-existing essential hypertension complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10013	Pre-existing essential hypertension complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O10019	Pre-existing essential hypertension complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O1002	Pre-existing essential hypertension complicating childbirth	Diagnosis	ICD-10-CM
O1003	Pre-existing essential hypertension complicating the puerperium	Diagnosis	ICD-10-CM
O10111	Pre-existing hypertensive heart disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10112	Pre-existing hypertensive heart disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10113	Pre-existing hypertensive heart disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O10119	Pre-existing hypertensive heart disease complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O1012	Pre-existing hypertensive heart disease complicating childbirth	Diagnosis	ICD-10-CM
O1013	Pre-existing hypertensive heart disease complicating the puerperium	Diagnosis	ICD-10-CM
O10211	Pre-existing hypertensive chronic kidney disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10212	Pre-existing hypertensive chronic kidney disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10213	Pre-existing hypertensive chronic kidney disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O10219	Pre-existing hypertensive chronic kidney disease complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O1022	Pre-existing hypertensive chronic kidney disease complicating childbirth	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
O1023	Pre-existing hypertensive chronic kidney disease complicating the puerperium	Diagnosis	ICD-10-CM
O10311	Pre-existing hypertensive heart and chronic kidney disease complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10312	Pre-existing hypertensive heart and chronic kidney disease complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10313	Pre-existing hypertensive heart and chronic kidney disease complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O10319	Pre-existing hypertensive heart and chronic kidney disease complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O1032	Pre-existing hypertensive heart and chronic kidney disease complicating childbirth	Diagnosis	ICD-10-CM
O1033	Pre-existing hypertensive heart and chronic kidney disease complicating the puerperium	Diagnosis	ICD-10-CM
O10411	Pre-existing secondary hypertension complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10412	Pre-existing secondary hypertension complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10413	Pre-existing secondary hypertension complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O10419	Pre-existing secondary hypertension complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O1042	Pre-existing secondary hypertension complicating childbirth	Diagnosis	ICD-10-CM
O1043	Pre-existing secondary hypertension complicating the puerperium	Diagnosis	ICD-10-CM
O10911	Unspecified pre-existing hypertension complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O10912	Unspecified pre-existing hypertension complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O10913	Unspecified pre-existing hypertension complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O10919	Unspecified pre-existing hypertension complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O1092	Unspecified pre-existing hypertension complicating childbirth	Diagnosis	ICD-10-CM
O1093	Unspecified pre-existing hypertension complicating the puerperium	Diagnosis	ICD-10-CM
O111	Pre-existing hypertension with pre-eclampsia, first trimester	Diagnosis	ICD-10-CM
O112	Pre-existing hypertension with pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
O113	Pre-existing hypertension with pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
O114	Pre-existing hypertension with pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
O115	Pre-existing hypertension with pre-eclampsia, complicating the puerperium	Diagnosis	ICD-10-CM
O119	Pre-existing hypertension with pre-eclampsia, unspecified trimester	Diagnosis	ICD-10-CM
Ischemic Heart Disease			
4130	Angina decubitus	Diagnosis	ICD-9-CM
4131	Prinzmetal angina	Diagnosis	ICD-9-CM
4139	Other and unspecified angina pectoris	Diagnosis	ICD-9-CM
4140	Coronary atherosclerosis	Diagnosis	ICD-9-CM
41400	Coronary atherosclerosis of unspecified type of vessel, native or graft	Diagnosis	ICD-9-CM
41401	Coronary atherosclerosis of native coronary artery	Diagnosis	ICD-9-CM
41402	Coronary atherosclerosis of autologous vein bypass graft	Diagnosis	ICD-9-CM
41403	Coronary atherosclerosis of nonautologous biological bypass graft	Diagnosis	ICD-9-CM
41404	Coronary atherosclerosis of artery bypass graft	Diagnosis	ICD-9-CM
41405	Coronary atherosclerosis of unspecified type of bypass graft	Diagnosis	ICD-9-CM
41406	Coronary atherosclerosis, of native coronary artery of transplanted heart	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
41407	Coronary atherosclerosis, of bypass graft (artery) (vein) of transplanted heart	Diagnosis	ICD-9-CM
4141	Aneurysm and dissection of heart	Diagnosis	ICD-9-CM
41410	Aneurysm of heart	Diagnosis	ICD-9-CM
41411	Aneurysm of coronary vessels	Diagnosis	ICD-9-CM
41412	Dissection of coronary artery	Diagnosis	ICD-9-CM
41419	Other aneurysm of heart	Diagnosis	ICD-9-CM
4142	Chronic total occlusion of coronary artery	Diagnosis	ICD-9-CM
4143	Coronary atherosclerosis due to lipid rich plaque	Diagnosis	ICD-9-CM
4144	Coronary atherosclerosis due to calcified coronary lesion	Diagnosis	ICD-9-CM
4148	Other specified forms of chronic ischemic heart disease	Diagnosis	ICD-9-CM
4149	Unspecified chronic ischemic heart disease	Diagnosis	ICD-9-CM
I201	Angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I208	Other forms of angina pectoris	Diagnosis	ICD-10-CM
I209	Angina pectoris, unspecified	Diagnosis	ICD-10-CM
I2510	Atherosclerotic heart disease of native coronary artery without angina pectoris	Diagnosis	ICD-10-CM
I25110	Atherosclerotic heart disease of native coronary artery with unstable angina pectoris	Diagnosis	ICD-10-CM
I25111	Atherosclerotic heart disease of native coronary artery with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25118	Atherosclerotic heart disease of native coronary artery with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25119	Atherosclerotic heart disease of native coronary artery with unspecified angina pectoris	Diagnosis	ICD-10-CM
I253	Aneurysm of heart	Diagnosis	ICD-10-CM
I2541	Coronary artery aneurysm	Diagnosis	ICD-10-CM
I2542	Coronary artery dissection	Diagnosis	ICD-10-CM
I255	Ischemic cardiomyopathy	Diagnosis	ICD-10-CM
I256	Silent myocardial ischemia	Diagnosis	ICD-10-CM
I25700	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unstable angina pectoris	Diagnosis	ICD-10-CM
I25701	Atherosclerosis of coronary artery bypass graft(s), unspecified, with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25708	Atherosclerosis of coronary artery bypass graft(s), unspecified, with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25709	Atherosclerosis of coronary artery bypass graft(s), unspecified, with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25710	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25711	Atherosclerosis of autologous vein coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25718	Atherosclerosis of autologous vein coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25719	Atherosclerosis of autologous vein coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
I25720	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25721	Atherosclerosis of autologous artery coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25728	Atherosclerosis of autologous artery coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25729	Atherosclerosis of autologous artery coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25730	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25731	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25738	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25739	Atherosclerosis of nonautologous biological coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25750	Atherosclerosis of native coronary artery of transplanted heart with unstable angina	Diagnosis	ICD-10-CM
I25751	Atherosclerosis of native coronary artery of transplanted heart with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25758	Atherosclerosis of native coronary artery of transplanted heart with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25759	Atherosclerosis of native coronary artery of transplanted heart with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25760	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unstable angina	Diagnosis	ICD-10-CM
I25761	Atherosclerosis of bypass graft of coronary artery of transplanted heart with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25768	Atherosclerosis of bypass graft of coronary artery of transplanted heart with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25769	Atherosclerosis of bypass graft of coronary artery of transplanted heart with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25790	Atherosclerosis of other coronary artery bypass graft(s) with unstable angina pectoris	Diagnosis	ICD-10-CM
I25791	Atherosclerosis of other coronary artery bypass graft(s) with angina pectoris with documented spasm	Diagnosis	ICD-10-CM
I25798	Atherosclerosis of other coronary artery bypass graft(s) with other forms of angina pectoris	Diagnosis	ICD-10-CM
I25799	Atherosclerosis of other coronary artery bypass graft(s) with unspecified angina pectoris	Diagnosis	ICD-10-CM
I25810	Atherosclerosis of coronary artery bypass graft(s) without angina pectoris	Diagnosis	ICD-10-CM
I25811	Atherosclerosis of native coronary artery of transplanted heart without angina pectoris	Diagnosis	ICD-10-CM
I25812	Atherosclerosis of bypass graft of coronary artery of transplanted heart without angina pectoris	Diagnosis	ICD-10-CM
I2582	Chronic total occlusion of coronary artery	Diagnosis	ICD-10-CM
I2583	Coronary atherosclerosis due to lipid rich plaque	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
I2584	Coronary atherosclerosis due to calcified coronary lesion	Diagnosis	ICD-10-CM
I2589	Other forms of chronic ischemic heart disease	Diagnosis	ICD-10-CM
I259	Chronic ischemic heart disease, unspecified	Diagnosis	ICD-10-CM
Overweight or Obesity			
2780	Overweight and obesity	Diagnosis	ICD-9-CM
27800	Obesity, unspecified	Diagnosis	ICD-9-CM
27801	Morbid obesity	Diagnosis	ICD-9-CM
27802	Overweight	Diagnosis	ICD-9-CM
27803	Obesity hypoventilation syndrome	Diagnosis	ICD-9-CM
6491	Obesity complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
64910	Obesity complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	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
64913	Obesity complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
64914	Obesity complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
V853	Body Mass Index between 30-39, adult	Diagnosis	ICD-9-CM
V854	Body Mass Index 40 and over, adult	Diagnosis	ICD-9-CM
E6601	Morbid (severe) obesity due to excess calories	Diagnosis	ICD-10-CM
E6609	Other obesity due to excess calories	Diagnosis	ICD-10-CM
E661	Drug-induced obesity	Diagnosis	ICD-10-CM
E662	Morbid (severe) obesity with alveolar hypoventilation	Diagnosis	ICD-10-CM
E663	Overweight	Diagnosis	ICD-10-CM
E668	Other obesity	Diagnosis	ICD-10-CM
E669	Obesity, unspecified	Diagnosis	ICD-10-CM
O99210	Obesity complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99211	Obesity complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99212	Obesity complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99213	Obesity complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99214	Obesity complicating childbirth	Diagnosis	ICD-10-CM
O99215	Obesity complicating the puerperium	Diagnosis	ICD-10-CM
Pulmonary Hypertension			
4160	Primary pulmonary hypertension	Diagnosis	ICD-9-CM
4168	Other chronic pulmonary heart diseases	Diagnosis	ICD-9-CM
4169	Unspecified chronic pulmonary heart disease	Diagnosis	ICD-9-CM
I270	Primary pulmonary hypertension	Diagnosis	ICD-10-CM
I2720	Pulmonary hypertension, unspecified	Diagnosis	ICD-10-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
I2721	Secondary pulmonary arterial hypertension	Diagnosis	ICD-10-CM
I2722	Pulmonary hypertension due to left heart disease	Diagnosis	ICD-10-CM
I2723	Pulmonary hypertension due to lung diseases and hypoxia	Diagnosis	ICD-10-CM
I2724	Chronic thromboembolic pulmonary hypertension	Diagnosis	ICD-10-CM
I2729	Other secondary pulmonary hypertension	Diagnosis	ICD-10-CM
I2781	Cor pulmonale (chronic)	Diagnosis	ICD-10-CM
I2789	Other specified pulmonary heart diseases	Diagnosis	ICD-10-CM
I279	Pulmonary heart disease, unspecified	Diagnosis	ICD-10-CM
Rheumatic Heart Disease			
3910	Acute rheumatic pericarditis	Diagnosis	ICD-9-CM
3911	Acute rheumatic endocarditis	Diagnosis	ICD-9-CM
3912	Acute rheumatic myocarditis	Diagnosis	ICD-9-CM
3918	Other acute rheumatic heart disease	Diagnosis	ICD-9-CM
3919	Unspecified acute rheumatic heart disease	Diagnosis	ICD-9-CM
3920	Rheumatic chorea with heart involvement	Diagnosis	ICD-9-CM
3940	Mitral stenosis	Diagnosis	ICD-9-CM
3941	Rheumatic mitral insufficiency	Diagnosis	ICD-9-CM
3942	Mitral stenosis with insufficiency	Diagnosis	ICD-9-CM
3949	Other and unspecified mitral valve diseases	Diagnosis	ICD-9-CM
3950	Rheumatic aortic stenosis	Diagnosis	ICD-9-CM
3951	Rheumatic aortic insufficiency	Diagnosis	ICD-9-CM
3952	Rheumatic aortic stenosis with insufficiency	Diagnosis	ICD-9-CM
3959	Other and unspecified rheumatic aortic diseases	Diagnosis	ICD-9-CM
3960	Mitral valve stenosis and aortic valve stenosis	Diagnosis	ICD-9-CM
3961	Mitral valve stenosis and aortic valve insufficiency	Diagnosis	ICD-9-CM
3962	Mitral valve insufficiency and aortic valve stenosis	Diagnosis	ICD-9-CM
3963	Mitral valve insufficiency and aortic valve insufficiency	Diagnosis	ICD-9-CM
3968	Multiple involvement of mitral and aortic valves	Diagnosis	ICD-9-CM
3969	Unspecified mitral and aortic valve diseases	Diagnosis	ICD-9-CM
3970	Diseases of tricuspid valve	Diagnosis	ICD-9-CM
3971	Rheumatic diseases of pulmonary valve	Diagnosis	ICD-9-CM
3979	Rheumatic diseases of endocardium, valve unspecified	Diagnosis	ICD-9-CM
3980	Rheumatic myocarditis	Diagnosis	ICD-9-CM
3989	Other and unspecified rheumatic heart diseases	Diagnosis	ICD-9-CM
39890	Unspecified rheumatic heart disease	Diagnosis	ICD-9-CM
39891	Rheumatic heart failure (congestive)	Diagnosis	ICD-9-CM
39899	Other and unspecified rheumatic heart diseases	Diagnosis	ICD-9-CM
I010	Acute rheumatic pericarditis	Diagnosis	ICD-10-CM
I011	Acute rheumatic endocarditis	Diagnosis	ICD-10-CM
I012	Acute rheumatic myocarditis	Diagnosis	ICD-10-CM
I018	Other acute rheumatic heart disease	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
I019	Acute rheumatic heart disease, unspecified	Diagnosis	ICD-10-CM
I020	Rheumatic chorea with heart involvement	Diagnosis	ICD-10-CM
I050	Rheumatic mitral stenosis	Diagnosis	ICD-10-CM
I051	Rheumatic mitral insufficiency	Diagnosis	ICD-10-CM
I052	Rheumatic mitral stenosis with insufficiency	Diagnosis	ICD-10-CM
I058	Other rheumatic mitral valve diseases	Diagnosis	ICD-10-CM
I059	Rheumatic mitral valve disease, unspecified	Diagnosis	ICD-10-CM
I060	Rheumatic aortic stenosis	Diagnosis	ICD-10-CM
I061	Rheumatic aortic insufficiency	Diagnosis	ICD-10-CM
I062	Rheumatic aortic stenosis with insufficiency	Diagnosis	ICD-10-CM
I068	Other rheumatic aortic valve diseases	Diagnosis	ICD-10-CM
I069	Rheumatic aortic valve disease, unspecified	Diagnosis	ICD-10-CM
I070	Rheumatic tricuspid stenosis	Diagnosis	ICD-10-CM
I071	Rheumatic tricuspid insufficiency	Diagnosis	ICD-10-CM
I072	Rheumatic tricuspid stenosis and insufficiency	Diagnosis	ICD-10-CM
I078	Other rheumatic tricuspid valve diseases	Diagnosis	ICD-10-CM
I079	Rheumatic tricuspid valve disease, unspecified	Diagnosis	ICD-10-CM
I080	Rheumatic disorders of both mitral and aortic valves	Diagnosis	ICD-10-CM
I081	Rheumatic disorders of both mitral and tricuspid valves	Diagnosis	ICD-10-CM
I082	Rheumatic disorders of both aortic and tricuspid valves	Diagnosis	ICD-10-CM
I083	Combined rheumatic disorders of mitral, aortic and tricuspid valves	Diagnosis	ICD-10-CM
I088	Other rheumatic multiple valve diseases	Diagnosis	ICD-10-CM
I089	Rheumatic multiple valve disease, unspecified	Diagnosis	ICD-10-CM
I090	Rheumatic myocarditis	Diagnosis	ICD-10-CM
I091	Rheumatic diseases of endocardium, valve unspecified	Diagnosis	ICD-10-CM
I0981	Rheumatic heart failure	Diagnosis	ICD-10-CM
I0989	Other specified rheumatic heart diseases	Diagnosis	ICD-10-CM
I099	Rheumatic heart disease, unspecified	Diagnosis	ICD-10-CM
Thyroid Disease			
240	Simple and unspecified goiter	Diagnosis	ICD-9-CM
2400	Goiter, specified as simple	Diagnosis	ICD-9-CM
2409	Goiter, unspecified	Diagnosis	ICD-9-CM
241	Nontoxic nodular goiter	Diagnosis	ICD-9-CM
2410	Nontoxic uninodular goiter	Diagnosis	ICD-9-CM
2411	Nontoxic multinodular goiter	Diagnosis	ICD-9-CM
2419	Unspecified nontoxic nodular goiter	Diagnosis	ICD-9-CM
242	Thyrotoxicosis with or without goiter	Diagnosis	ICD-9-CM
2420	Toxic diffuse goiter	Diagnosis	ICD-9-CM
24200	Toxic diffuse goiter without mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
24201	Toxic diffuse goiter with mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
2421	Toxic uninodular goiter	Diagnosis	ICD-9-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
24210	Toxic uninodular goiter without mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
24211	Toxic uninodular goiter with mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
2422	Toxic multinodular goiter	Diagnosis	ICD-9-CM
24220	Toxic multinodular goiter without mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
24221	Toxic multinodular goiter with mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
2423	Toxic nodular goiter, unspecified type	Diagnosis	ICD-9-CM
24230	Toxic nodular goiter, unspecified type, without mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
24231	Toxic nodular goiter, unspecified type, with mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
2424	Thyrotoxicosis from ectopic thyroid nodule	Diagnosis	ICD-9-CM
24240	Thyrotoxicosis from ectopic thyroid nodule without mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
24241	Thyrotoxicosis from ectopic thyroid nodule with mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
2428	Thyrotoxicosis of other specified origin	Diagnosis	ICD-9-CM
24280	Thyrotoxicosis of other specified origin without mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
24281	Thyrotoxicosis of other specified origin with mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
2429	Thyrotoxicosis without mention of goiter or other cause	Diagnosis	ICD-9-CM
24290	Thyrotoxicosis without mention of goiter or other cause, without mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
24291	Thyrotoxicosis without mention of goiter or other cause, with mention of thyrotoxic crisis or storm	Diagnosis	ICD-9-CM
243	Congenital hypothyroidism	Diagnosis	ICD-9-CM
244	Acquired hypothyroidism	Diagnosis	ICD-9-CM
2440	Postsurgical hypothyroidism	Diagnosis	ICD-9-CM
2441	Other postablative hypothyroidism	Diagnosis	ICD-9-CM
2442	Iodine hypothyroidism	Diagnosis	ICD-9-CM
2443	Other iatrogenic hypothyroidism	Diagnosis	ICD-9-CM
2448	Other specified acquired hypothyroidism	Diagnosis	ICD-9-CM
2449	Unspecified hypothyroidism	Diagnosis	ICD-9-CM
245	Thyroiditis	Diagnosis	ICD-9-CM
2450	Acute thyroiditis	Diagnosis	ICD-9-CM
2451	Subacute thyroiditis	Diagnosis	ICD-9-CM
2452	Chronic lymphocytic thyroiditis	Diagnosis	ICD-9-CM
2453	Chronic fibrous thyroiditis	Diagnosis	ICD-9-CM
2454	Iatrogenic thyroiditis	Diagnosis	ICD-9-CM
2458	Other and unspecified chronic thyroiditis	Diagnosis	ICD-9-CM
2459	Unspecified thyroiditis	Diagnosis	ICD-9-CM
246	Other disorders of thyroid	Diagnosis	ICD-9-CM
2460	Disorders of thyrocalcitonin secretion	Diagnosis	ICD-9-CM
2461	Dyshormonogenic goiter	Diagnosis	ICD-9-CM
2462	Cyst of thyroid	Diagnosis	ICD-9-CM
2463	Hemorrhage and infarction of thyroid	Diagnosis	ICD-9-CM
2468	Other specified disorders of thyroid	Diagnosis	ICD-9-CM

Code	Description	Code Category	Code Type
2469	Unspecified disorder of thyroid	Diagnosis	ICD-9-CM
2558	Other specified disorders of adrenal glands	Diagnosis	ICD-9-CM
2598	Other specified endocrine disorders	Diagnosis	ICD-9-CM
E000	Congenital iodine-deficiency syndrome, neurological type	Diagnosis	ICD-10-CM
E001	Congenital iodine-deficiency syndrome, myxedematous type	Diagnosis	ICD-10-CM
E002	Congenital iodine-deficiency syndrome, mixed type	Diagnosis	ICD-10-CM
E009	Congenital iodine-deficiency syndrome, unspecified	Diagnosis	ICD-10-CM
E010	Iodine-deficiency related diffuse (endemic) goiter	Diagnosis	ICD-10-CM
E011	Iodine-deficiency related multinodular (endemic) goiter	Diagnosis	ICD-10-CM
E012	Iodine-deficiency related (endemic) goiter, unspecified	Diagnosis	ICD-10-CM
E018	Other iodine-deficiency related thyroid disorders and allied conditions	Diagnosis	ICD-10-CM
E02	Subclinical iodine-deficiency hypothyroidism	Diagnosis	ICD-10-CM
E030	Congenital hypothyroidism with diffuse goiter	Diagnosis	ICD-10-CM
E031	Congenital hypothyroidism without goiter	Diagnosis	ICD-10-CM
E032	Hypothyroidism due to medicaments and other exogenous substances	Diagnosis	ICD-10-CM
E033	Postinfectious hypothyroidism	Diagnosis	ICD-10-CM
E034	Atrophy of thyroid (acquired)	Diagnosis	ICD-10-CM
E038	Other specified hypothyroidism	Diagnosis	ICD-10-CM
E039	Hypothyroidism, unspecified	Diagnosis	ICD-10-CM
E040	Nontoxic diffuse goiter	Diagnosis	ICD-10-CM
E041	Nontoxic single thyroid nodule	Diagnosis	ICD-10-CM
E042	Nontoxic multinodular goiter	Diagnosis	ICD-10-CM
E048	Other specified nontoxic goiter	Diagnosis	ICD-10-CM
E049	Nontoxic goiter, unspecified	Diagnosis	ICD-10-CM
E0500	Thyrotoxicosis with diffuse goiter without thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0501	Thyrotoxicosis with diffuse goiter with thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0510	Thyrotoxicosis with toxic single thyroid nodule without thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0511	Thyrotoxicosis with toxic single thyroid nodule with thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0520	Thyrotoxicosis with toxic multinodular goiter without thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0521	Thyrotoxicosis with toxic multinodular goiter with thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0530	Thyrotoxicosis from ectopic thyroid tissue without thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0531	Thyrotoxicosis from ectopic thyroid tissue with thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0540	Thyrotoxicosis factitia without thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0541	Thyrotoxicosis factitia with thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0580	Other thyrotoxicosis without thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0581	Other thyrotoxicosis with thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0590	Thyrotoxicosis, unspecified without thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E0591	Thyrotoxicosis, unspecified with thyrotoxic crisis or storm	Diagnosis	ICD-10-CM
E060	Acute thyroiditis	Diagnosis	ICD-10-CM
E061	Subacute thyroiditis	Diagnosis	ICD-10-CM
E062	Chronic thyroiditis with transient thyrotoxicosis	Diagnosis	ICD-10-CM

Code	Description	Code Category	Code Type
E063	Autoimmune thyroiditis	Diagnosis	ICD-10-CM
E064	Drug-induced thyroiditis	Diagnosis	ICD-10-CM
E065	Other chronic thyroiditis	Diagnosis	ICD-10-CM
E069	Thyroiditis, unspecified	Diagnosis	ICD-10-CM
E070	Hypersecretion of calcitonin	Diagnosis	ICD-10-CM
E071	Dyshormogenetic goiter	Diagnosis	ICD-10-CM
E0789	Other specified disorders of thyroid	Diagnosis	ICD-10-CM
E079	Disorder of thyroid, unspecified	Diagnosis	ICD-10-CM
E35	Disorders of endocrine glands in diseases classified elsewhere	Diagnosis	ICD-10-CM
E890	Postprocedural hypothyroidism	Diagnosis	ICD-10-CM
Tobacco Use			
3051	Nondependent tobacco use disorder	Diagnosis	ICD-9-CM
6490	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
64900	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care or not applicable	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
64903	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, antepartum condition or complication	Diagnosis	ICD-9-CM
64904	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
98984	Toxic effect of tobacco	Diagnosis	ICD-9-CM
V1582	Personal history of tobacco use, presenting hazards to health	Diagnosis	ICD-9-CM
F17200	Nicotine dependence, unspecified, uncomplicated	Diagnosis	ICD-10-CM
F17201	Nicotine dependence, unspecified, in remission	Diagnosis	ICD-10-CM
F17210	Nicotine dependence, cigarettes, uncomplicated	Diagnosis	ICD-10-CM
F17211	Nicotine dependence, cigarettes, in remission	Diagnosis	ICD-10-CM
F17220	Nicotine dependence, chewing tobacco, uncomplicated	Diagnosis	ICD-10-CM
F17221	Nicotine dependence, chewing tobacco, in remission	Diagnosis	ICD-10-CM
F17290	Nicotine dependence, other tobacco product, uncomplicated	Diagnosis	ICD-10-CM
F17291	Nicotine dependence, other tobacco product, in remission	Diagnosis	ICD-10-CM
O99330	Smoking (tobacco) complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
O99331	Smoking (tobacco) complicating pregnancy, first trimester	Diagnosis	ICD-10-CM
O99332	Smoking (tobacco) complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
O99333	Smoking (tobacco) complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
O99334	Smoking (tobacco) complicating childbirth	Diagnosis	ICD-10-CM
O99335	Smoking (tobacco) complicating the puerperium	Diagnosis	ICD-10-CM
T65211A	Toxic effect of chewing tobacco, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65212A	Toxic effect of chewing tobacco, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
T65213A	Toxic effect of chewing tobacco, assault, initial encounter	Diagnosis	ICD-10-CM
T65214A	Toxic effect of chewing tobacco, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65221A	Toxic effect of tobacco cigarettes, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65222A	Toxic effect of tobacco cigarettes, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65223A	Toxic effect of tobacco cigarettes, assault, initial encounter	Diagnosis	ICD-10-CM
T65224A	Toxic effect of tobacco cigarettes, undetermined, initial encounter	Diagnosis	ICD-10-CM
T65291A	Toxic effect of other tobacco and nicotine, accidental (unintentional), initial encounter	Diagnosis	ICD-10-CM
T65292A	Toxic effect of other tobacco and nicotine, intentional self-harm, initial encounter	Diagnosis	ICD-10-CM
T65293A	Toxic effect of other tobacco and nicotine, assault, initial encounter	Diagnosis	ICD-10-CM
T65294A	Toxic effect of other tobacco and nicotine, undetermined, initial encounter	Diagnosis	ICD-10-CM
Z87891	Personal history of nicotine dependence	Diagnosis	ICD-10-CM
83887	Nicotine	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
1035F	Current smokeless tobacco user (eg, chew, snuff) (PV)	Procedure	HCPCS
G8456	Current smokeless tobacco user	Procedure	HCPCS
G8692	Current 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
1034F	Current tobacco smoker (CAD, CAP, COPD, PV) (DM)	Procedure	CPT-2
G8455	Current tobacco smoker	Procedure	HCPCS
G8688	Currently a smokeless tobacco user (e.g., chew, snuff) and no exposure to secondhand smoke	Procedure	HCPCS
G9276	Documentation that patient is a current tobacco user	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
S4990	Nicotine patches, legend	Procedure	HCPCS
S4991	Nicotine patches, nonlegend	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
4004F	Patient screened for tobacco use and received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (PV, CAD)	Procedure	CPT-2
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

Appendix G. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), Current Procedural Terminology, Category II (CPT-2), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) Codes Used to Define Baseline Characteristics

Code	Description	Code Category	Code Type
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
S9453	Smoking cessation classes, nonphysician provider, per session	Procedure	HCPCS
S4995	Smoking cessation gum	Procedure	HCPCS
S9075	Smoking cessation treatment	Procedure	HCPCS
G8403	Tobacco (smoke) use cessation intervention not counseled	Procedure	HCPCS
D1320	tobacco counseling for the control and prevention of oral disease	Procedure	HCPCS
99407	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes	Procedure	CPT-4
99406	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes	Procedure	CPT-4
G8454	Tobacco use cessation intervention not counseled, reason not specified	Procedure	HCPCS
G8453	Tobacco use cessation intervention, counseling	Procedure	HCPCS
G8402	Tobacco (smoke) use cessation intervention, counseling	Procedure	HCPCS
4000F	Tobacco use cessation intervention, counseling (COPD, CAP, CAD, Asthma) (DM) (PV)	Procedure	CPT-2
4001F	Tobacco use cessation intervention, pharmacologic therapy (COPD, CAD, CAP, PV, Asthma) (DM) (PV)	Procedure	CPT-2
Gestational Diabetes			
6488	Abnormal maternal glucose tolerance, complicating pregnancy, childbirth, or the puerperium	Diagnosis	ICD-9-CM
64880	Abnormal maternal glucose tolerance, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	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
64883	Abnormal maternal glucose tolerance, antepartum	Diagnosis	ICD-9-CM
64884	Abnormal maternal glucose tolerance complicating pregnancy, childbirth, or the puerperium, postpartum condition or complication	Diagnosis	ICD-9-CM
O24410	Gestational diabetes mellitus in pregnancy, diet controlled	Diagnosis	ICD-10-CM
O24414	Gestational diabetes mellitus in pregnancy, insulin controlled	Diagnosis	ICD-10-CM
O24415	Gestational diabetes mellitus in pregnancy, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24419	Gestational diabetes mellitus in pregnancy, unspecified control	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
O24430	Gestational diabetes mellitus in the puerperium, diet controlled	Diagnosis	ICD-10-CM
O24434	Gestational diabetes mellitus in the puerperium, insulin controlled	Diagnosis	ICD-10-CM
O24435	Gestational diabetes mellitus in puerperium, controlled by oral hypoglycemic drugs	Diagnosis	ICD-10-CM
O24439	Gestational diabetes mellitus in the puerperium, unspecified control	Diagnosis	ICD-10-CM
O99810	Abnormal glucose complicating pregnancy	Diagnosis	ICD-10-CM
O99814	Abnormal glucose complicating childbirth	Diagnosis	ICD-10-CM

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Code	Description	Code Category	Code Type
O99815	Abnormal glucose complicating the puerperium	Diagnosis	ICD-10-CM
Gestational Hypertension			
6423	Transient hypertension of pregnancy	Diagnosis	ICD-9-CM
64230	Transient hypertension of pregnancy, unspecified as to episode of care	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
64233	Transient hypertension of pregnancy, antepartum	Diagnosis	ICD-9-CM
64234	Transient hypertension of pregnancy, postpartum condition or complication	Diagnosis	ICD-9-CM
O131	Gestational [pregnancy-induced] hypertension without significant proteinuria, first trimester	Diagnosis	ICD-10-CM
O132	Gestational [pregnancy-induced] hypertension without significant proteinuria, second trimester	Diagnosis	ICD-10-CM
O133	Gestational [pregnancy-induced] hypertension without significant proteinuria, third trimester	Diagnosis	ICD-10-CM
O134	Gestational [pregnancy-induced] hypertension without significant proteinuria, complicating childbirth	Diagnosis	ICD-10-CM
O135	Gestational [pregnancy-induced] hypertension without significant proteinuria, complicating the puerperium	Diagnosis	ICD-10-CM
O139	Gestational [pregnancy-induced] hypertension without significant proteinuria, unspecified trimester	Diagnosis	ICD-10-CM
O161	Unspecified maternal hypertension, first trimester	Diagnosis	ICD-10-CM
O162	Unspecified maternal hypertension, second trimester	Diagnosis	ICD-10-CM
O163	Unspecified maternal hypertension, third trimester	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
Mild or Unspecified Preeclampsia				
IP* IS* AV* OA*	6424	Mild or unspecified pre-eclampsia	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64240	Mild or unspecified pre-eclampsia, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64241	Mild or unspecified pre-eclampsia, with delivery	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64242	Mild or unspecified pre-eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64243	Mild or unspecified pre-eclampsia, antepartum	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64244	Mild or unspecified pre-eclampsia, postpartum condition or complication	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	6427	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64270	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, complicating pregnancy, childbirth, or the puerperium, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64271	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64272	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64273	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, antepartum	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64274	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, postpartum condition or complication	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	O111	Pre-existing hypertension with pre-eclampsia, first trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O112	Pre-existing hypertension with pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O113	Pre-existing hypertension with pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O114	Pre-existing hypertension with pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O115	Pre-existing hypertension with pre-eclampsia, complicating the puerperium	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O119	Pre-existing hypertension with pre-eclampsia, unspecified trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1400	Mild to moderate pre-eclampsia, unspecified trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1402	Mild to moderate pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1403	Mild to moderate pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1404	Mild to moderate pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1405	Mild to moderate pre-eclampsia, complicating the puerperium	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1490	Unspecified pre-eclampsia, unspecified trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1492	Unspecified pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1493	Unspecified pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1494	Unspecified pre-eclampsia, complicating childbirth	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1495	Unspecified pre-eclampsia, complicating the puerperium	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
IP* IS* AV* OA*	O152	Eclampsia complicating the puerperium	Diagnosis	ICD-10-CM
		Severe Preeclampsia/Eclampsia		
IP* IS* AV* OA*	6425	Severe pre-eclampsia	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64250	Severe pre-eclampsia, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64251	Severe pre-eclampsia, with delivery	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64252	Severe pre-eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64253	Severe pre-eclampsia, antepartum	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64254	Severe pre-eclampsia, postpartum condition or complication	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	6426	Eclampsia complicating pregnancy, childbirth or the puerperium	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64260	Eclampsia complicating pregnancy, childbirth or the puerperium, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64261	Eclampsia, with delivery	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64262	Eclampsia, with delivery, with current postpartum complication	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64263	Eclampsia, antepartum	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64264	Eclampsia, postpartum condition or complication	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	O1410	Severe pre-eclampsia, unspecified trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1412	Severe pre-eclampsia, second trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1413	Severe pre-eclampsia, third trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1414	Severe pre-eclampsia complicating childbirth	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1415	Severe pre-eclampsia, complicating the puerperium	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1420	HELLP syndrome (HELLP), unspecified trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1422	HELLP syndrome (HELLP), second trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1423	HELLP syndrome (HELLP), third trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1424	HELLP syndrome, complicating childbirth	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1425	HELLP syndrome, complicating the puerperium	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1500	Eclampsia complicating pregnancy, unspecified trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1502	Eclampsia complicating pregnancy, second trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O1503	Eclampsia complicating pregnancy, third trimester	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O151	Eclampsia complicating labor	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O152	Eclampsia complicating the puerperium	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O159	Eclampsia, unspecified as to time period	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
		Peripartum Cardiomyopathy		
Any	6745	Peripartum cardiomyopathy	Diagnosis	ICD-9-CM
Any	67450	Peripartum cardiomyopathy, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
Any	67451	Peripartum cardiomyopathy, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
Any	67452	Peripartum cardiomyopathy, delivered, with mention of postpartum condition	Diagnosis	ICD-9-CM
Any	67453	Peripartum cardiomyopathy, antepartum condition or complication	Diagnosis	ICD-9-CM
Any	67454	Peripartum cardiomyopathy, postpartum condition or complication	Diagnosis	ICD-9-CM
Any	O903	Peripartum cardiomyopathy	Diagnosis	ICD-10-CM
		Postpartum Hemorrhage		
IP* IS*	6660	Third-stage postpartum hemorrhage	Diagnosis	ICD-9-CM
IP* IS*	66600	Third-stage postpartum hemorrhage, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS*	66602	Third-stage postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
IP* IS*	66604	Third-stage postpartum hemorrhage, postpartum condition or complication	Diagnosis	ICD-9-CM
IP* IS*	6661	Other immediate postpartum hemorrhage	Diagnosis	ICD-9-CM
IP* IS*	66610	Other immediate postpartum hemorrhage, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS*	66612	Other immediate postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
IP* IS*	66614	Other immediate postpartum hemorrhage, postpartum condition or complication	Diagnosis	ICD-9-CM
IP* IS*	6662	Delayed and secondary postpartum hemorrhage	Diagnosis	ICD-9-CM
IP* IS*	66620	Delayed and secondary postpartum hemorrhage, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS*	66622	Delayed and secondary postpartum hemorrhage, with delivery	Diagnosis	ICD-9-CM
IP* IS*	66624	Delayed and secondary postpartum hemorrhage, postpartum condition or complication	Diagnosis	ICD-9-CM
IP* IS*	6663	Postpartum coagulation defects	Diagnosis	ICD-9-CM
IP* IS*	66630	Postpartum coagulation defects, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS*	66632	Postpartum coagulation defects, with delivery	Diagnosis	ICD-9-CM
IP* IS*	66634	Postpartum coagulation defects, postpartum condition or complication	Diagnosis	ICD-9-CM
IP* IS*	O43211	Placenta accreta, first trimester	Diagnosis	ICD-10-CM
IP* IS*	O43212	Placenta accreta, second trimester	Diagnosis	ICD-10-CM
IP* IS*	O43213	Placenta accreta, third trimester	Diagnosis	ICD-10-CM
IP* IS*	O43221	Placenta increta, first trimester	Diagnosis	ICD-10-CM
IP* IS*	O43222	Placenta increta, second trimester	Diagnosis	ICD-10-CM
IP* IS*	O43223	Placenta increta, third trimester	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
IP* IS*	O43231	Placenta percreta, first trimester	Diagnosis	ICD-10-CM
IP* IS*	O43232	Placenta percreta, second trimester	Diagnosis	ICD-10-CM
IP* IS*	O43233	Placenta percreta, third trimester	Diagnosis	ICD-10-CM
IP* IS*	O720	Third-stage hemorrhage	Diagnosis	ICD-10-CM
IP* IS*	O721	Other immediate postpartum hemorrhage	Diagnosis	ICD-10-CM
IP* IS*	O722	Delayed and secondary postpartum hemorrhage	Diagnosis	ICD-10-CM
IP* IS*	O723	Postpartum coagulation defects	Diagnosis	ICD-10-CM
Preterm Delivery				
IP* IS* AV* OA*	36220	Retinopathy of prematurity, unspecified	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	36222	Retinopathy of prematurity, stage 0	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	36223	Retinopathy of prematurity, stage 1	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	36224	Retinopathy of prematurity, stage 2	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	36225	Retinopathy of prematurity, stage 3	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	36226	Retinopathy of prematurity, stage 4	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	36227	Retinopathy of prematurity, stage 5	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	6442	Early onset of delivery	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64420	Early onset of delivery, unspecified as to episode of care	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	64421	Early onset of delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	7650	Extreme fetal immaturity	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76500	Extreme fetal immaturity, unspecified (weight)	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76501	Extreme fetal immaturity, less than 500 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76502	Extreme fetal immaturity, 500-749 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76503	Extreme fetal immaturity, 750-999 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76504	Extreme fetal immaturity, 1,000-1,249 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76505	Extreme fetal immaturity, 1,250-1,499 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76506	Extreme fetal immaturity, 1,500-1,749 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76507	Extreme fetal immaturity, 1,750-1,999 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76508	Extreme fetal immaturity, 2,000-2,499 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	7651	Other preterm infants	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76510	Other preterm infants, unspecified (weight)	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76511	Other preterm infants, less than 500 grams	Diagnosis	ICD-9-CM

Care Setting[1]	Code	Description	Code Category	Code Type
IP* IS* AV* OA*	76512	Other preterm infants, 500-749 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76513	Other preterm infants, 750-999 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76514	Other preterm infants, 1,000-1,249 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76515	Other preterm infants, 1,250-1,499 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76516	Other preterm infants, 1,500-1,749 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76517	Other preterm infants, 1,750-1,999 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76518	Other preterm infants, 2,000-2,499 grams	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	7652	Weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76521	Less than 24 completed weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76522	24 completed weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76523	25-26 completed weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76524	27-28 completed weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76525	29-30 completed weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76526	31-32 completed weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76527	33-34 completed weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	76528	35-36 completed weeks of gestation	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	7766	Anemia of neonatal prematurity	Diagnosis	ICD-9-CM
IP* IS* AV* OA*	H35101	Retinopathy of prematurity, unspecified, right eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35102	Retinopathy of prematurity, unspecified, left eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35103	Retinopathy of prematurity, unspecified, bilateral	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35109	Retinopathy of prematurity, unspecified, unspecified eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35111	Retinopathy of prematurity, stage 0, right eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35112	Retinopathy of prematurity, stage 0, left eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35113	Retinopathy of prematurity, stage 0, bilateral	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35119	Retinopathy of prematurity, stage 0, unspecified eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35121	Retinopathy of prematurity, stage 1, right eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35122	Retinopathy of prematurity, stage 1, left eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35123	Retinopathy of prematurity, stage 1, bilateral	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35129	Retinopathy of prematurity, stage 1, unspecified eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35131	Retinopathy of prematurity, stage 2, right eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35132	Retinopathy of prematurity, stage 2, left eye	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
IP* IS* AV* OA*	H35133	Retinopathy of prematurity, stage 2, bilateral	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35139	Retinopathy of prematurity, stage 2, unspecified eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35141	Retinopathy of prematurity, stage 3, right eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35142	Retinopathy of prematurity, stage 3, left eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35143	Retinopathy of prematurity, stage 3, bilateral	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35149	Retinopathy of prematurity, stage 3, unspecified eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35151	Retinopathy of prematurity, stage 4, right eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35152	Retinopathy of prematurity, stage 4, left eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35153	Retinopathy of prematurity, stage 4, bilateral	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35159	Retinopathy of prematurity, stage 4, unspecified eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35161	Retinopathy of prematurity, stage 5, right eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35162	Retinopathy of prematurity, stage 5, left eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35163	Retinopathy of prematurity, stage 5, bilateral	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	H35169	Retinopathy of prematurity, stage 5, unspecified eye	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6010X0	Preterm labor with preterm delivery, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6010X1	Preterm labor with preterm delivery, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6010X2	Preterm labor with preterm delivery, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6010X3	Preterm labor with preterm delivery, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6010X4	Preterm labor with preterm delivery, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6010X5	Preterm labor with preterm delivery, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6010X9	Preterm labor with preterm delivery, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6012X0	Preterm labor second trimester with preterm delivery second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6012X1	Preterm labor second trimester with preterm delivery second trimester, fetus 1	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6012X2	Preterm labor second trimester with preterm delivery second trimester, fetus 2	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6012X3	Preterm labor second trimester with preterm delivery second trimester, fetus 3	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6012X4	Preterm labor second trimester with preterm delivery second trimester, fetus 4	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6012X5	Preterm labor second trimester with preterm delivery second trimester, fetus 5	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6012X9	Preterm labor second trimester with preterm delivery second trimester, other fetus	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6013X0	Preterm labor second trimester with preterm delivery third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6013X1	Preterm labor second trimester with preterm delivery third trimester, fetus 1	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6013X2	Preterm labor second trimester with preterm delivery third trimester, fetus 2	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
IP* IS* AV* OA*	O6013X3	Preterm labor second trimester with preterm delivery third trimester, fetus 3	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6013X4	Preterm labor second trimester with preterm delivery third trimester, fetus 4	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6013X5	Preterm labor second trimester with preterm delivery third trimester, fetus 5	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6013X9	Preterm labor second trimester with preterm delivery third trimester, other fetus	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6014X0	Preterm labor third trimester with preterm delivery third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6014X1	Preterm labor third trimester with preterm delivery third trimester, fetus 1	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6014X2	Preterm labor third trimester with preterm delivery third trimester, fetus 2	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6014X3	Preterm labor third trimester with preterm delivery third trimester, fetus 3	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6014X4	Preterm labor third trimester with preterm delivery third trimester, fetus 4	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6014X5	Preterm labor third trimester with preterm delivery third trimester, fetus 5	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6014X9	Preterm labor third trimester with preterm delivery third trimester, other fetus	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6020X0	Term delivery with preterm labor, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6020X1	Term delivery with preterm labor, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6020X2	Term delivery with preterm labor, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6020X3	Term delivery with preterm labor, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6020X4	Term delivery with preterm labor, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6020X5	Term delivery with preterm labor, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6020X9	Term delivery with preterm labor, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6022X0	Term delivery with preterm labor, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6022X1	Term delivery with preterm labor, second trimester, fetus 1	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6022X2	Term delivery with preterm labor, second trimester, fetus 2	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6022X3	Term delivery with preterm labor, second trimester, fetus 3	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6022X4	Term delivery with preterm labor, second trimester, fetus 4	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6022X5	Term delivery with preterm labor, second trimester, fetus 5	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6022X9	Term delivery with preterm labor, second trimester, other fetus	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6023X0	Term delivery with preterm labor, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6023X1	Term delivery with preterm labor, third trimester, fetus 1	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6023X2	Term delivery with preterm labor, third trimester, fetus 2	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6023X3	Term delivery with preterm labor, third trimester, fetus 3	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6023X4	Term delivery with preterm labor, third trimester, fetus 4	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	O6023X5	Term delivery with preterm labor, third trimester, fetus 5	Diagnosis	ICD-10-CM

Appendix H. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and Current Procedural Terminology, Fourth Edition (CPT-4) Codes Used to Define Maternal Health Outcomes of Interest (HOI)

Care Setting[1]	Code	Description	Code Category	Code Type
IP* IS* AV* OA*	O6023X9	Term delivery with preterm labor, third trimester, other fetus	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0700	Extremely low birth weight newborn, unspecified weight	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0701	Extremely low birth weight newborn, less than 500 grams	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0702	Extremely low birth weight newborn, 500-749 grams	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0703	Extremely low birth weight newborn, 750-999 grams	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0710	Other low birth weight newborn, unspecified weight	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0714	Other low birth weight newborn, 1000-1249 grams	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0715	Other low birth weight newborn, 1250-1499 grams	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0716	Other low birth weight newborn, 1500-1749 grams	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0717	Other low birth weight newborn, 1750-1999 grams	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0718	Other low birth weight newborn, 2000-2499 grams	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0721	Extreme immaturity of newborn, gestational age less than 23 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0722	Extreme immaturity of newborn, gestational age 23 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0723	Extreme immaturity of newborn, gestational age 24 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0724	Extreme immaturity of newborn, gestational age 25 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0725	Extreme immaturity of newborn, gestational age 26 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0726	Extreme immaturity of newborn, gestational age 27 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0731	Preterm newborn, gestational age 28 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0732	Preterm newborn, gestational age 29 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0733	Preterm newborn, gestational age 30 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0734	Preterm newborn, gestational age 31 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0735	Preterm newborn, gestational age 32 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0736	Preterm newborn, gestational age 33 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0737	Preterm newborn, gestational age 34 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0738	Preterm newborn, gestational age 35 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P0739	Preterm newborn, gestational age 36 completed weeks	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	P612	Anemia of prematurity	Diagnosis	ICD-10-CM
IP* IS* AV* OA*	49492	Repair, initial inguinal hernia, preterm infant (younger than 37 weeks gestation at birth), performed from birth up to 50 weeks postconception age, with or without hydrocelectomy; incarcerated or strangulated	Procedure	CPT-4

Care Setting[1]	Code	Description	Code Category	Code Type
IP* IS* AV* OA*	49491	Repair, initial inguinal hernia, preterm infant (younger than 37 weeks gestation at birth), performed from birth up to 50 weeks postconception age, with or without hydrocelectomy; reducible	Procedure	CPT-4
IP* IS* AV* OA*	67229	Treatment of extensive or progressive retinopathy, 1 or more sessions, preterm infant (less than 37 weeks gestation at birth), performed from birth up to 1 year of age (eg, retinopathy of prematurity), photocoagulation or cryotherapy	Procedure	CPT-4
IP* IS* AV* OA*	00836	Anesthesia for hernia repairs in the lower abdomen not otherwise specified, infants younger than 37 weeks gestational age at birth and younger than 50 weeks gestational age at time of surgery	Procedure	CPT-4
Multiple Gestation				
Any	6510	Twin pregnancy	Diagnosis	ICD-9-CM
Any	65100	Twin pregnancy, unspecified as to episode of care	Diagnosis	ICD-9-CM
Any	65101	Twin pregnancy, delivered	Diagnosis	ICD-9-CM
Any	65103	Twin pregnancy, antepartum	Diagnosis	ICD-9-CM
Any	6511	Triplet pregnancy	Diagnosis	ICD-9-CM
Any	65110	Triplet pregnancy, unspecified as to episode of care	Diagnosis	ICD-9-CM
Any	65111	Triplet pregnancy, delivered	Diagnosis	ICD-9-CM
Any	65113	Triplet pregnancy, antepartum	Diagnosis	ICD-9-CM
Any	6512	Quadruplet pregnancy	Diagnosis	ICD-9-CM
Any	65120	Quadruplet pregnancy, unspecified as to episode of care	Diagnosis	ICD-9-CM
Any	65121	Quadruplet pregnancy, delivered	Diagnosis	ICD-9-CM
Any	65123	Quadruplet pregnancy, antepartum	Diagnosis	ICD-9-CM
Any	6513	Twin pregnancy with fetal loss and retention of one fetus	Diagnosis	ICD-9-CM
Any	65130	Twin pregnancy with fetal loss and retention of one fetus, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
Any	65131	Twin pregnancy with fetal loss and retention of one fetus, delivered	Diagnosis	ICD-9-CM
Any	65133	Twin pregnancy with fetal loss and retention of one fetus, antepartum	Diagnosis	ICD-9-CM
Any	6514	Triplet pregnancy with fetal loss and retention of one or more	Diagnosis	ICD-9-CM
Any	65140	Triplet pregnancy with fetal loss and retention of one or more, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
Any	65141	Triplet pregnancy with fetal loss and retention of one or more, delivered	Diagnosis	ICD-9-CM
Any	65143	Triplet pregnancy with fetal loss and retention of one or more, antepartum	Diagnosis	ICD-9-CM
Any	6515	Quadruplet pregnancy with fetal loss and retention of one or more	Diagnosis	ICD-9-CM

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Care Setting[1]	Code	Description	Code Category	Code Type
Any	65150	Quadruplet pregnancy with fetal loss and retention of one or more, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
Any	65151	Quadruplet pregnancy with fetal loss and retention of one or more, delivered	Diagnosis	ICD-9-CM
Any	65153	Quadruplet pregnancy with fetal loss and retention of one or more, antepartum	Diagnosis	ICD-9-CM
Any	6516	Other multiple pregnancy with fetal loss and retention of one or more fetus(es)	Diagnosis	ICD-9-CM
Any	65160	Other multiple pregnancy with fetal loss and retention of one or more fetus(es), unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
Any	65161	Other multiple pregnancy with fetal loss and retention of one or more fetus(es), delivered	Diagnosis	ICD-9-CM
Any	65163	Other multiple pregnancy with fetal loss and retention of one or more fetus(es), antepartum	Diagnosis	ICD-9-CM
Any	6517	Multiple gestation following (elective) fetal reduction	Diagnosis	ICD-9-CM
Any	65170	Multiple gestation following (elective) fetal reduction, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
Any	65171	Multiple gestation following (elective) fetal reduction, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
Any	65173	Multiple gestation following (elective) fetal reduction, antepartum condition or complication	Diagnosis	ICD-9-CM
Any	6518	Other specified multiple gestation	Diagnosis	ICD-9-CM
Any	65180	Other specified multiple gestation, unspecified as to episode of care	Diagnosis	ICD-9-CM
Any	65181	Other specified multiple gestation, delivered	Diagnosis	ICD-9-CM
Any	65183	Other specified multiple gestation, antepartum	Diagnosis	ICD-9-CM
Any	6519	Unspecified multiple gestation	Diagnosis	ICD-9-CM
Any	65190	Unspecified multiple gestation, unspecified as to episode of care	Diagnosis	ICD-9-CM
Any	65191	Unspecified multiple gestation, delivered	Diagnosis	ICD-9-CM
Any	65193	Unspecified multiple gestation, antepartum	Diagnosis	ICD-9-CM
Any	V272	Outcome of delivery, twins, both liveborn	Diagnosis	ICD-9-CM
Any	V273	Outcome of delivery, twins, one liveborn and one stillborn	Diagnosis	ICD-9-CM
Any	V274	Outcome of delivery, twins, both stillborn	Diagnosis	ICD-9-CM
Any	V275	Outcome of delivery, other multiple birth, all liveborn	Diagnosis	ICD-9-CM
Any	V276	Outcome of delivery, other multiple birth, some liveborn	Diagnosis	ICD-9-CM
Any	V277	Outcome of delivery, other multiple birth, all stillborn	Diagnosis	ICD-9-CM
Any	O30001	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
Any	O30002	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
Any	O30003	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
Any	O30009	Twin pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30011	Twin pregnancy, monochorionic/monoamniotic, first trimester	Diagnosis	ICD-10-CM
Any	O30012	Twin pregnancy, monochorionic/monoamniotic, second trimester	Diagnosis	ICD-10-CM
Any	O30013	Twin pregnancy, monochorionic/monoamniotic, third trimester	Diagnosis	ICD-10-CM
Any	O30019	Twin pregnancy, monochorionic/monoamniotic, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30031	Twin pregnancy, monochorionic/diamniotic, first trimester	Diagnosis	ICD-10-CM
Any	O30032	Twin pregnancy, monochorionic/diamniotic, second trimester	Diagnosis	ICD-10-CM
Any	O30033	Twin pregnancy, monochorionic/diamniotic, third trimester	Diagnosis	ICD-10-CM
Any	O30039	Twin pregnancy, monochorionic/diamniotic, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30041	Twin pregnancy, dichorionic/diamniotic, first trimester	Diagnosis	ICD-10-CM
Any	O30042	Twin pregnancy, dichorionic/diamniotic, second trimester	Diagnosis	ICD-10-CM
Any	O30043	Twin pregnancy, dichorionic/diamniotic, third trimester	Diagnosis	ICD-10-CM
Any	O30049	Twin pregnancy, dichorionic/diamniotic, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30091	Twin pregnancy, unable to determine number of placenta and number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
Any	O30092	Twin pregnancy, unable to determine number of placenta and number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
Any	O30093	Twin pregnancy, unable to determine number of placenta and number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
Any	O30099	Twin pregnancy, unable to determine number of placenta and number of amniotic sacs, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30101	Triplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
Any	O30102	Triplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
Any	O30103	Triplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
Any	O30109	Triplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30111	Triplet pregnancy with two or more monochorionic fetuses, first trimester	Diagnosis	ICD-10-CM
Any	O30112	Triplet pregnancy with two or more monochorionic fetuses, second trimester	Diagnosis	ICD-10-CM
Any	O30113	Triplet pregnancy with two or more monochorionic fetuses, third trimester	Diagnosis	ICD-10-CM
Any	O30119	Triplet pregnancy with two or more monochorionic fetuses, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30121	Triplet pregnancy with two or more monoamniotic fetuses, first trimester	Diagnosis	ICD-10-CM
Any	O30122	Triplet pregnancy with two or more monoamniotic fetuses, second trimester	Diagnosis	ICD-10-CM

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Care Setting[1]	Code	Description	Code Category	Code Type
Any	O30123	Triplet pregnancy with two or more monoamniotic fetuses, third trimester	Diagnosis	ICD-10-CM
Any	O30129	Triplet pregnancy with two or more monoamniotic fetuses, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30191	Triplet pregnancy, unable to determine number of placenta and number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
Any	O30192	Triplet pregnancy, unable to determine number of placenta and number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
Any	O30193	Triplet pregnancy, unable to determine number of placenta and number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
Any	O30199	Triplet pregnancy, unable to determine number of placenta and number of amniotic sacs, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30201	Quadruplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
Any	O30202	Quadruplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
Any	O30203	Quadruplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
Any	O30209	Quadruplet pregnancy, unspecified number of placenta and unspecified number of amniotic sacs, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30211	Quadruplet pregnancy with two or more monochorionic fetuses, first trimester	Diagnosis	ICD-10-CM
Any	O30212	Quadruplet pregnancy with two or more monochorionic fetuses, second trimester	Diagnosis	ICD-10-CM
Any	O30213	Quadruplet pregnancy with two or more monochorionic fetuses, third trimester	Diagnosis	ICD-10-CM
Any	O30219	Quadruplet pregnancy with two or more monochorionic fetuses, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30221	Quadruplet pregnancy with two or more monoamniotic fetuses, first trimester	Diagnosis	ICD-10-CM
Any	O30222	Quadruplet pregnancy with two or more monoamniotic fetuses, second trimester	Diagnosis	ICD-10-CM
Any	O30223	Quadruplet pregnancy with two or more monoamniotic fetuses, third trimester	Diagnosis	ICD-10-CM
Any	O30229	Quadruplet pregnancy with two or more monoamniotic fetuses, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30291	Quadruplet pregnancy, unable to determine number of placenta and number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
Any	O30292	Quadruplet pregnancy, unable to determine number of placenta and number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
Any	O30293	Quadruplet pregnancy, unable to determine number of placenta and number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
Any	O30299	Quadruplet pregnancy, unable to determine number of placenta and number of amniotic sacs, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30801	Other specified multiple gestation, unspecified number of placenta and unspecified number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
Any	O30802	Other specified multiple gestation, unspecified number of placenta and unspecified number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
Any	O30803	Other specified multiple gestation, unspecified number of placenta and unspecified number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
Any	O30809	Other specified multiple gestation, unspecified number of placenta and unspecified number of amniotic sacs, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30811	Other specified multiple gestation with two or more monochorionic fetuses, first trimester	Diagnosis	ICD-10-CM
Any	O30812	Other specified multiple gestation with two or more monochorionic fetuses, second trimester	Diagnosis	ICD-10-CM
Any	O30813	Other specified multiple gestation with two or more monochorionic fetuses, third trimester	Diagnosis	ICD-10-CM
Any	O30819	Other specified multiple gestation with two or more monochorionic fetuses, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30821	Other specified multiple gestation with two or more monoamniotic fetuses, first trimester	Diagnosis	ICD-10-CM
Any	O30822	Other specified multiple gestation with two or more monoamniotic fetuses, second trimester	Diagnosis	ICD-10-CM
Any	O30823	Other specified multiple gestation with two or more monoamniotic fetuses, third trimester	Diagnosis	ICD-10-CM
Any	O30829	Other specified multiple gestation with two or more monoamniotic fetuses, unspecified trimester	Diagnosis	ICD-10-CM
Any	O30891	Other specified multiple gestation, unable to determine number of placenta and number of amniotic sacs, first trimester	Diagnosis	ICD-10-CM
Any	O30892	Other specified multiple gestation, unable to determine number of placenta and number of amniotic sacs, second trimester	Diagnosis	ICD-10-CM
Any	O30893	Other specified multiple gestation, unable to determine number of placenta and number of amniotic sacs, third trimester	Diagnosis	ICD-10-CM
Any	O30899	Other specified multiple gestation, unable to determine number of placenta and number of amniotic sacs, unspecified trimester	Diagnosis	ICD-10-CM
Any	O3090	Multiple gestation, unspecified, unspecified trimester	Diagnosis	ICD-10-CM
Any	O3091	Multiple gestation, unspecified, first trimester	Diagnosis	ICD-10-CM
Any	O3092	Multiple gestation, unspecified, second trimester	Diagnosis	ICD-10-CM
Any	O3093	Multiple gestation, unspecified, third trimester	Diagnosis	ICD-10-CM
Any	O3110X0	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3110X1	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3110X2	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3110X3	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3110X4	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3110X5	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
Any	O3110X9	Continuing pregnancy after spontaneous abortion of one fetus or more, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3111X0	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3111X1	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3111X2	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3111X3	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3111X4	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3111X5	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3111X9	Continuing pregnancy after spontaneous abortion of one fetus or more, first trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3112X0	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3112X1	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3112X2	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3112X3	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3112X4	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3112X5	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3112X9	Continuing pregnancy after spontaneous abortion of one fetus or more, second trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3113X0	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3113X1	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3113X2	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3113X3	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3113X4	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3113X5	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3113X9	Continuing pregnancy after spontaneous abortion of one fetus or more, third trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3120X0	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3120X1	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3120X2	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3120X3	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
Any	O3120X4	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3120X5	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3120X9	Continuing pregnancy after intrauterine death of one fetus or more, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3121X0	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3121X1	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3121X2	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3121X3	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3121X4	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3121X5	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3121X9	Continuing pregnancy after intrauterine death of one fetus or more, first trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3122X0	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3122X1	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3122X2	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3122X3	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3122X4	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3122X5	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3122X9	Continuing pregnancy after intrauterine death of one fetus or more, second trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3123X0	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3123X1	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3123X2	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3123X3	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3123X4	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3123X5	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3123X9	Continuing pregnancy after intrauterine death of one fetus or more, third trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3130X0	Continuing pregnancy after elective fetal reduction of one fetus or more, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3130X1	Continuing pregnancy after elective fetal reduction of one fetus or more, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3130X2	Continuing pregnancy after elective fetal reduction of one fetus or more, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3130X3	Continuing pregnancy after elective fetal reduction of one fetus or more, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
Any	O3130X4	Continuing pregnancy after elective fetal reduction of one fetus or more, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3130X5	Continuing pregnancy after elective fetal reduction of one fetus or more, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3130X9	Continuing pregnancy after elective fetal reduction of one fetus or more, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3131X0	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3131X1	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3131X2	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3131X3	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3131X4	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3131X5	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3131X9	Continuing pregnancy after elective fetal reduction of one fetus or more, first trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3132X0	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3132X1	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3132X2	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3132X3	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3132X4	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3132X5	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3132X9	Continuing pregnancy after elective fetal reduction of one fetus or more, second trimester, other fetus	Diagnosis	ICD-10-CM
Any	O3133X0	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O3133X1	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O3133X2	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O3133X3	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O3133X4	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O3133X5	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O3133X9	Continuing pregnancy after elective fetal reduction of one fetus or more, third trimester, other fetus	Diagnosis	ICD-10-CM
Any	O318X10	Other complications specific to multiple gestation, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O318X11	Other complications specific to multiple gestation, first trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O318X12	Other complications specific to multiple gestation, first trimester, fetus 2	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
Any	O318X13	Other complications specific to multiple gestation, first trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O318X14	Other complications specific to multiple gestation, first trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O318X15	Other complications specific to multiple gestation, first trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O318X19	Other complications specific to multiple gestation, first trimester, other fetus	Diagnosis	ICD-10-CM
Any	O318X20	Other complications specific to multiple gestation, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O318X21	Other complications specific to multiple gestation, second trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O318X22	Other complications specific to multiple gestation, second trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O318X23	Other complications specific to multiple gestation, second trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O318X24	Other complications specific to multiple gestation, second trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O318X25	Other complications specific to multiple gestation, second trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O318X29	Other complications specific to multiple gestation, second trimester, other fetus	Diagnosis	ICD-10-CM
Any	O318X30	Other complications specific to multiple gestation, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O318X31	Other complications specific to multiple gestation, third trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O318X32	Other complications specific to multiple gestation, third trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O318X33	Other complications specific to multiple gestation, third trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O318X34	Other complications specific to multiple gestation, third trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O318X35	Other complications specific to multiple gestation, third trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O318X39	Other complications specific to multiple gestation, third trimester, other fetus	Diagnosis	ICD-10-CM
Any	O318X90	Other complications specific to multiple gestation, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Any	O318X91	Other complications specific to multiple gestation, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
Any	O318X92	Other complications specific to multiple gestation, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
Any	O318X93	Other complications specific to multiple gestation, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
Any	O318X94	Other complications specific to multiple gestation, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
Any	O318X95	Other complications specific to multiple gestation, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
Any	O318X99	Other complications specific to multiple gestation, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
Any	Z372	Twins, both liveborn	Diagnosis	ICD-10-CM
Any	Z373	Twins, one liveborn and one stillborn	Diagnosis	ICD-10-CM
Any	Z374	Twins, both stillborn	Diagnosis	ICD-10-CM
Any	Z3750	Multiple births, unspecified, all liveborn	Diagnosis	ICD-10-CM
Any	Z3751	Triplets, all liveborn	Diagnosis	ICD-10-CM
Any	Z3752	Quadruplets, all liveborn	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
Any	Z3753	Quintuplets, all liveborn	Diagnosis	ICD-10-CM
Any	Z3754	Sextuplets, all liveborn	Diagnosis	ICD-10-CM
Any	Z3759	Other multiple births, all liveborn	Diagnosis	ICD-10-CM
Any	Z3760	Multiple births, unspecified, some liveborn	Diagnosis	ICD-10-CM
Any	Z3761	Triplets, some liveborn	Diagnosis	ICD-10-CM
Any	Z3762	Quadruplets, some liveborn	Diagnosis	ICD-10-CM
Any	Z3763	Quintuplets, some liveborn	Diagnosis	ICD-10-CM
Any	Z3764	Sextuplets, some liveborn	Diagnosis	ICD-10-CM
Any	Z3769	Other multiple births, some liveborn	Diagnosis	ICD-10-CM
Any	Z377	Other multiple births, all stillborn	Diagnosis	ICD-10-CM
Cesarean Section				
IP* IS*	740	Classical cesarean section	Procedure	ICD-9-CM
IP* IS*	741	Low cervical cesarean section	Procedure	ICD-9-CM
IP* IS*	742	Extraperitoneal cesarean section	Procedure	ICD-9-CM
IP* IS*	743	Removal of extratubal ectopic pregnancy	Procedure	ICD-9-CM
IP* IS*	744	Cesarean section of other specified type	Procedure	ICD-9-CM
IP* IS*	749	Cesarean section of unspecified type	Procedure	ICD-9-CM
IP* IS*	7499	Other cesarean section of unspecified type	Procedure	ICD-9-CM
IP* IS*	10D00Z0	Extraction of Products of Conception, High, Open Approach	Procedure	ICD-10-CM
IP* IS*	10D00Z1	Extraction of Products of Conception, Low, Open Approach	Procedure	ICD-10-CM
IP* IS*	10D00Z2	Extraction of Products of Conception, Extraperitoneal, Open Approach	Procedure	ICD-10-CM
IP* IS*	10T20ZZ	Resection of Products of Conception, Ectopic, Open Approach	Procedure	ICD-10-CM
IP* IS*	10T23ZZ	Resection of Products of Conception, Ectopic, Percutaneous Approach	Procedure	ICD-10-CM
IP* IS*	10T24ZZ	Resection of Products of Conception, Ectopic, Percutaneous Endoscopic Approach	Procedure	ICD-10-CM
IP* IS*	59620	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery;	Procedure	CPT-4
IP* IS*	59618	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care, following attempted vaginal delivery after previous cesarean delivery	Procedure	CPT-4
IP* IS*	59515	Cesarean delivery only; including postpartum care	Procedure	CPT-4
IP* IS*	59514	Cesarean delivery only;	Procedure	CPT-4
IP* IS*	59622	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery; including postpartum care	Procedure	CPT-4

Appendix H. List of International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM), International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM), and Current Procedural Terminology, Fourth Edition (CPT-4) Codes Used to Define Maternal Health Outcomes of Interest (HOI)

Care Setting[1]	Code	Description	Code Category	Code Type
IP* IS*	59510	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care	Procedure	CPT-4
Acute Heart Failure				
Any	42821	Acute systolic heart failure	Diagnosis	ICD-9-CM
Any	42823	Acute on chronic systolic heart failure	Diagnosis	ICD-9-CM
Any	42831	Acute diastolic heart failure	Diagnosis	ICD-9-CM
Any	42833	Acute on chronic diastolic heart failure	Diagnosis	ICD-9-CM
Any	42841	Acute combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Any	42843	Acute on chronic combined systolic and diastolic heart failure	Diagnosis	ICD-9-CM
Any	I5021	Acute systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Any	I5023	Acute on chronic systolic (congestive) heart failure	Diagnosis	ICD-10-CM
Any	I5031	Acute diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Any	I5033	Acute on chronic diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Any	I5041	Acute combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Any	I5043	Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure	Diagnosis	ICD-10-CM
Acute Kidney Injury				
Any	5845	Acute kidney failure with lesion of tubular necrosis	Diagnosis	ICD-9-CM
Any	5846	Acute kidney failure with lesion of renal cortical necrosis	Diagnosis	ICD-9-CM
Any	5847	Acute kidney failure with lesion of medullary [papillary] necrosis	Diagnosis	ICD-9-CM
Any	5848	Acute kidney failure with other specified pathological lesion in kidney	Diagnosis	ICD-9-CM
Any	5849	Acute kidney failure, unspecified	Diagnosis	ICD-9-CM
Any	6693	Acute kidney failure following labor and delivery	Diagnosis	ICD-9-CM
Any	66930	Acute kidney failure following labor and delivery, unspecified as to episode of care or not applicable	Diagnosis	ICD-9-CM
Any	66932	Acute kidney failure following labor and delivery, delivered, with mention of postpartum complication	Diagnosis	ICD-9-CM
Any	66934	Acute kidney failure following labor and delivery, postpartum condition or complication	Diagnosis	ICD-9-CM
Any	N170	Acute kidney failure with tubular necrosis	Diagnosis	ICD-10-CM
Any	N171	Acute kidney failure with acute cortical necrosis	Diagnosis	ICD-10-CM
Any	N172	Acute kidney failure with medullary necrosis	Diagnosis	ICD-10-CM
Any	N178	Other acute kidney failure	Diagnosis	ICD-10-CM
Any	N179	Acute kidney failure, unspecified	Diagnosis	ICD-10-CM
Any	O904	Postpartum acute kidney failure	Diagnosis	ICD-10-CM

Care Setting[1]	Code	Description	Code Category	Code Type
		Acute Respiratory Distress Syndrome		
Any	5185	Pulmonary insufficiency following trauma and surgery	Diagnosis	ICD-9-CM
Any	51851	Acute respiratory failure following trauma and surgery	Diagnosis	ICD-9-CM
Any	51852	Other pulmonary insufficiency, not elsewhere classified, following trauma and surgery	Diagnosis	ICD-9-CM
Any	51853	Acute and chronic respiratory failure following trauma and surgery	Diagnosis	ICD-9-CM
Any	51881	Acute respiratory failure	Diagnosis	ICD-9-CM
Any	51882	Other pulmonary insufficiency, not elsewhere classified	Diagnosis	ICD-9-CM
Any	51884	Acute and chronic respiratory failure	Diagnosis	ICD-9-CM
Any	7991	Respiratory arrest	Diagnosis	ICD-9-CM
Any	J80	Acute respiratory distress syndrome	Diagnosis	ICD-10-CM
Any	J951	Acute pulmonary insufficiency following thoracic surgery	Diagnosis	ICD-10-CM
Any	J952	Acute pulmonary insufficiency following nonthoracic surgery	Diagnosis	ICD-10-CM
Any	J953	Chronic pulmonary insufficiency following surgery	Diagnosis	ICD-10-CM
Any	J95821	Acute postprocedural respiratory failure	Diagnosis	ICD-10-CM
Any	J95822	Acute and chronic postprocedural respiratory failure	Diagnosis	ICD-10-CM
Any	J9600	Acute respiratory failure, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
Any	J9601	Acute respiratory failure with hypoxia	Diagnosis	ICD-10-CM
Any	J9602	Acute respiratory failure with hypercapnia	Diagnosis	ICD-10-CM
Any	J9620	Acute and chronic respiratory failure, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
Any	J9621	Acute and chronic respiratory failure with hypoxia	Diagnosis	ICD-10-CM
Any	J9622	Acute and chronic respiratory failure with hypercapnia	Diagnosis	ICD-10-CM
Any	J9690	Respiratory failure, unspecified, unspecified whether with hypoxia or hypercapnia	Diagnosis	ICD-10-CM
Any	J9691	Respiratory failure, unspecified with hypoxia	Diagnosis	ICD-10-CM
Any	J9692	Respiratory failure, unspecified with hypercapnia	Diagnosis	ICD-10-CM
Any	R0603	Acute respiratory distress	Diagnosis	ICD-10-CM
Any	R092	Respiratory arrest	Diagnosis	ICD-10-CM

[1]IP* = inpatient, any diagnostic position; IS* = institutional stay, any diagnostic position; AV* = ambulatory visit; OA* = other ambulatory visit

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
				Small for Gestational Age		
Index-defining	Any	1	6565	Poor fetal growth affecting management of mother	Diagnosis	ICD-9-CM
Index-defining	Any	1	65650	Poor fetal growth, affecting management of mother, unspecified as to episode of care	Diagnosis	ICD-9-CM
Index-defining	Any	1	65651	Poor fetal growth, affecting management of mother, delivered	Diagnosis	ICD-9-CM
Index-defining	Any	1	65653	Poor fetal growth, affecting management of mother, antepartum condition or complication	Diagnosis	ICD-9-CM
Index-defining	Any	1	7640	Light-for-dates without mention of fetal malnutrition	Diagnosis	ICD-9-CM
Index-defining	Any	1	76400	Light-for-dates without mention of fetal malnutrition, unspecified (weight)	Diagnosis	ICD-9-CM
Index-defining	Any	1	76401	Light-for-dates without mention of fetal malnutrition, less than 500 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76402	Light-for-dates without mention of fetal malnutrition, 500-749 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76403	Light-for-dates without mention of fetal malnutrition, 750-999 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76404	Light-for-dates without mention of fetal malnutrition, 1,000-1,249 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76405	Light-for-dates without mention of fetal malnutrition, 1,250-1,499 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76406	Light-for-dates without mention of fetal malnutrition, 1,500-1,749 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76407	Light-for-dates without mention of fetal malnutrition, 1,750-1,999 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76408	Light-for-dates without mention of fetal malnutrition, 2,000-2,499 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76409	Light-for-dates without mention of fetal malnutrition, 2,500 or more grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	7641	Light-for-dates with signs of fetal malnutrition	Diagnosis	ICD-9-CM
Index-defining	Any	1	76410	Light-for-dates with signs of fetal malnutrition, unspecified (weight)	Diagnosis	ICD-9-CM
Index-defining	Any	1	76411	Light-for-dates with signs of fetal malnutrition, less than 500 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76412	Light-for-dates with signs of fetal malnutrition, 500-749 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76413	Light-for-dates with signs of fetal malnutrition, 750-999 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76414	Light-for-dates with signs of fetal malnutrition, 1,000-1,249 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76415	Light-for-dates with signs of fetal malnutrition, 1,250-1,499 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76416	Light-for-dates with signs of fetal malnutrition, 1,500-1,749 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76417	Light-for-dates with signs of fetal malnutrition, 1,750-1,999 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76418	Light-for-dates with signs of fetal malnutrition, 2,000-2,499 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76419	Light-for-dates with signs of fetal malnutrition, 2,500 or more grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	7649	Unspecified fetal growth retardation	Diagnosis	ICD-9-CM
Index-defining	Any	1	76490	Unspecified fetal growth retardation, unspecified (weight)	Diagnosis	ICD-9-CM

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

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	1	76491	Unspecified fetal growth retardation, less than 500 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76492	Unspecified fetal growth retardation, 500-749 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76493	Unspecified fetal growth retardation, 750-999 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76494	Unspecified fetal growth retardation, 1,000-1,249 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76495	Unspecified fetal growth retardation, 1,250-1,499 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76496	Unspecified fetal growth retardation, 1,500-1,749 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76497	Unspecified fetal growth retardation, 1,750-1,999 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76498	Unspecified fetal growth retardation, 2,000-2,499 grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	76499	Unspecified fetal growth retardation, 2,500 or more grams	Diagnosis	ICD-9-CM
Index-defining	Any	1	O365110	Maternal care for known or suspected placental insufficiency, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365111	Maternal care for known or suspected placental insufficiency, first trimester, fetus 1	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365112	Maternal care for known or suspected placental insufficiency, first trimester, fetus 2	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365113	Maternal care for known or suspected placental insufficiency, first trimester, fetus 3	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365114	Maternal care for known or suspected placental insufficiency, first trimester, fetus 4	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365115	Maternal care for known or suspected placental insufficiency, first trimester, fetus 5	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365119	Maternal care for known or suspected placental insufficiency, first trimester, other fetus	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365120	Maternal care for known or suspected placental insufficiency, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365121	Maternal care for known or suspected placental insufficiency, second trimester, fetus 1	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365122	Maternal care for known or suspected placental insufficiency, second trimester, fetus 2	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365123	Maternal care for known or suspected placental insufficiency, second trimester, fetus 3	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365124	Maternal care for known or suspected placental insufficiency, second trimester, fetus 4	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365125	Maternal care for known or suspected placental insufficiency, second trimester, fetus 5	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365129	Maternal care for known or suspected placental insufficiency, second trimester, other fetus	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365130	Maternal care for known or suspected placental insufficiency, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365131	Maternal care for known or suspected placental insufficiency, third trimester, fetus 1	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365132	Maternal care for known or suspected placental insufficiency, third trimester, fetus 2	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	1	O365133	Maternal care for known or suspected placental insufficiency, third trimester, fetus 3	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365134	Maternal care for known or suspected placental insufficiency, third trimester, fetus 4	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365135	Maternal care for known or suspected placental insufficiency, third trimester, fetus 5	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365139	Maternal care for known or suspected placental insufficiency, third trimester, other fetus	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365190	Maternal care for known or suspected placental insufficiency, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365191	Maternal care for known or suspected placental insufficiency, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365192	Maternal care for known or suspected placental insufficiency, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365193	Maternal care for known or suspected placental insufficiency, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365194	Maternal care for known or suspected placental insufficiency, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365195	Maternal care for known or suspected placental insufficiency, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365199	Maternal care for known or suspected placental insufficiency, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365910	Maternal care for other known or suspected poor fetal growth, first trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365911	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 1	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365912	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 2	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365913	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 3	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365914	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 4	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365915	Maternal care for other known or suspected poor fetal growth, first trimester, fetus 5	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365919	Maternal care for other known or suspected poor fetal growth, first trimester, other fetus	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365920	Maternal care for other known or suspected poor fetal growth, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365921	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 1	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	1	O365922	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 2	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365923	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 3	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365924	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 4	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365925	Maternal care for other known or suspected poor fetal growth, second trimester, fetus 5	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365929	Maternal care for other known or suspected poor fetal growth, second trimester, other fetus	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365930	Maternal care for other known or suspected poor fetal growth, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365931	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 1	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365932	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 2	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365933	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 3	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365934	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 4	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365935	Maternal care for other known or suspected poor fetal growth, third trimester, fetus 5	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365939	Maternal care for other known or suspected poor fetal growth, third trimester, other fetus	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365990	Maternal care for other known or suspected poor fetal growth, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365991	Maternal care for other known or suspected poor fetal growth, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365992	Maternal care for other known or suspected poor fetal growth, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365993	Maternal care for other known or suspected poor fetal growth, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365994	Maternal care for other known or suspected poor fetal growth, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365995	Maternal care for other known or suspected poor fetal growth, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
Index-defining	Any	1	O365999	Maternal care for other known or suspected poor fetal growth, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0500	Newborn light for gestational age, unspecified weight	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	1	P0501	Newborn light for gestational age, less than 500 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0502	Newborn light for gestational age, 500-749 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0503	Newborn light for gestational age, 750-999 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0504	Newborn light for gestational age, 1000-1249 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0505	Newborn light for gestational age, 1250-1499 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0506	Newborn light for gestational age, 1500-1749 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0507	Newborn light for gestational age, 1750-1999 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0508	Newborn light for gestational age, 2000-2499 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0509	Newborn light for gestational age, 2500 grams and over	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0510	Newborn small for gestational age, unspecified weight	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0511	Newborn small for gestational age, less than 500 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0512	Newborn small for gestational age, 500-749 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0513	Newborn small for gestational age, 750-999 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0514	Newborn small for gestational age, 1000-1249 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0515	Newborn small for gestational age, 1250-1499 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0516	Newborn small for gestational age, 1500-1749 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0517	Newborn small for gestational age, 1750-1999 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0518	Newborn small for gestational age, 2000-2499 grams	Diagnosis	ICD-10-CM
Index-defining	Any	1	P0519	Newborn small for gestational age, other	Diagnosis	ICD-10-CM
Index-defining	Any	1	P059	Newborn affected by slow intrauterine growth, unspecified	Diagnosis	ICD-10-CM
Ventricular Septal Defect (VSD)						
Index-defining	IP* IS*	2	7454	Ventricular septal defect	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	2	I2783	Eisenmenger's syndrome	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	2	Q210	Ventricular septal defect	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	7580	Down's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7581	Patau's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7582	Edwards' syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7583	Autosomal deletion syndromes	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75831	Cri-du-chat syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75832	Velo-cardio-facial syndrome	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	75833	Autosomal deletion syndromes, other microdeletions	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75839	Autosomal deletion syndromes, other autosomal deletions	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7584	Balanced autosomal translocation in normal individual	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7585	Other conditions due to autosomal anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7586	Gonadal dysgenesis	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7587	Klinefelter's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7588	Other conditions due to chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75881	Other conditions due to sex chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75889	Other conditions due to chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7589	Conditions due to anomaly of unspecified chromosome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75981	Prader-Willi syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75982	Marfan's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75983	Fragile X syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	Q871	Congenital malformation syndromes predominantly associated with short stature	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8740	Marfan's syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q87410	Marfan's syndrome with aortic dilation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q87418	Marfan's syndrome with other cardiovascular manifestations	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8742	Marfan's syndrome with ocular manifestations	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8743	Marfan's syndrome with skeletal manifestation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q900	Trisomy 21, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q901	Trisomy 21, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q902	Trisomy 21, translocation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q909	Down syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q910	Trisomy 18, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q911	Trisomy 18, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q912	Trisomy 18, translocation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q913	Trisomy 18, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q914	Trisomy 13, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q915	Trisomy 13, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q916	Trisomy 13, translocation	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	Q917	Trisomy 13, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q920	Whole chromosome trisomy, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q921	Whole chromosome trisomy, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q922	Partial trisomy	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q925	Duplications with other complex rearrangements	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9261	Marker chromosomes in normal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9262	Marker chromosomes in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q927	Triploidy and polyploidy	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q928	Other specified trisomies and partial trisomies of autosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q929	Trisomy and partial trisomy of autosomes, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q930	Whole chromosome monosomy, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q931	Whole chromosome monosomy, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q932	Chromosome replaced with ring, dicentric or isochromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q933	Deletion of short arm of chromosome 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q934	Deletion of short arm of chromosome 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q935	Other deletions of part of a chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q937	Deletions with other complex rearrangements	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9381	Velo-cardio-facial syndrome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9388	Other microdeletions	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9389	Other deletions from the autosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q939	Deletion from autosomes, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q950	Balanced translocation and insertion in normal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q951	Chromosome inversion in normal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q952	Balanced autosomal rearrangement in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q953	Balanced sex/autosomal rearrangement in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q955	Individual with autosomal fragile site	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q958	Other balanced rearrangements and structural markers	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q959	Balanced rearrangement and structural marker, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q960	Karyotype 45, X	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q961	Karyotype 46, X iso (Xq)	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	Q962	Karyotype 46, X with abnormal sex chromosome, except iso (Xq)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q963	Mosaicism, 45, X/46, XX or XY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q964	Mosaicism, 45, X/other cell line(s) with abnormal sex chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q968	Other variants of Turner's syndrome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q969	Turner's syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q970	Karyotype 47, XXX	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q971	Female with more than three X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q972	Mosaicism, lines with various numbers of X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q973	Female with 46, XY karyotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q978	Other specified sex chromosome abnormalities, female phenotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q979	Sex chromosome abnormality, female phenotype, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q980	Klinefelter syndrome karyotype 47, XXY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q981	Klinefelter syndrome, male with more than two X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q983	Other male with 46, XX karyotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q984	Klinefelter syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q985	Karyotype 47, XYY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q986	Male with structurally abnormal sex chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q987	Male with sex chromosome mosaicism	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q988	Other specified sex chromosome abnormalities, male phenotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q989	Sex chromosome abnormality, male phenotype, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q990	Chimera 46, XX/46, XY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q991	46, XX true hermaphrodite	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q992	Fragile X chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q998	Other specified chromosome abnormalities	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q999	Chromosomal abnormality, unspecified	Diagnosis	ICD-10-CM
Right Ventricular Outflow Tract Obstruction (RVOTO)						
Index-defining	IP* IS*	2	74602	Congenital stenosis of pulmonary valve	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	2	7473	Anomalies of pulmonary artery	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	2	74731	Pulmonary artery coarctation and atresia	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	2	74732	Pulmonary arteriovenous malformation	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	IP* IS*	2	74739	Other anomalies of pulmonary artery and pulmonary circulation	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	2	Q221	Congenital pulmonary valve stenosis	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	2	Q255	Atresia of pulmonary artery	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	2	Q256	Stenosis of pulmonary artery	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	2	Q2571	Coarctation of pulmonary artery	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	2	Q2572	Congenital pulmonary arteriovenous malformation	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	2	Q2579	Other congenital malformations of pulmonary artery	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	3622	Retinopathy of prematurity, unspecified	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	36222	Retinopathy of prematurity, stage 0	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	36223	Retinopathy of prematurity, stage 1	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	36224	Retinopathy of prematurity, stage 2	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	36225	Retinopathy of prematurity, stage 3	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	36226	Retinopathy of prematurity, stage 4	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	36227	Retinopathy of prematurity, stage 5	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	6442	Early onset of delivery	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	64420	Early onset of delivery, unspecified as to episode of care	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	64421	Early onset of delivery, delivered, with or without mention of antepartum condition	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7650	Extreme fetal immaturity	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76500	Extreme fetal immaturity, unspecified (weight)	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76501	Extreme fetal immaturity, less than 500 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76502	Extreme fetal immaturity, 500-749 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76503	Extreme fetal immaturity, 750-999 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76504	Extreme fetal immaturity, 1,000-1,249 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76505	Extreme fetal immaturity, 1,250-1,499 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76506	Extreme fetal immaturity, 1,500-1,749 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76507	Extreme fetal immaturity, 1,750-1,999 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76508	Extreme fetal immaturity, 2,000-2,499 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7651	Other preterm infants	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76510	Other preterm infants, unspecified (weight)	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76511	Other preterm infants, less than 500 grams	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	76512	Other preterm infants, 500-749 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76513	Other preterm infants, 750-999 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76514	Other preterm infants, 1,000-1,249 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76515	Other preterm infants, 1,250-1,499 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76516	Other preterm infants, 1,500-1,749 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76517	Other preterm infants, 1,750-1,999 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76518	Other preterm infants, 2,000-2,499 grams	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7652	Weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76521	Less than 24 completed weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76522	24 completed weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76523	25-26 completed weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76524	27-28 completed weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76525	29-30 completed weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76526	31-32 completed weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76527	33-34 completed weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	76528	35-36 completed weeks of gestation	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7766	Anemia of neonatal prematurity	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	H35101	Retinopathy of prematurity, unspecified, right eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35102	Retinopathy of prematurity, unspecified, left eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35103	Retinopathy of prematurity, unspecified, bilateral	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35109	Retinopathy of prematurity, unspecified, unspecified eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35111	Retinopathy of prematurity, stage 0, right eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35112	Retinopathy of prematurity, stage 0, left eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35113	Retinopathy of prematurity, stage 0, bilateral	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35119	Retinopathy of prematurity, stage 0, unspecified eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35121	Retinopathy of prematurity, stage 1, right eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35122	Retinopathy of prematurity, stage 1, left eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35123	Retinopathy of prematurity, stage 1, bilateral	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35129	Retinopathy of prematurity, stage 1, unspecified eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35131	Retinopathy of prematurity, stage 2, right eye	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	H35132	Retinopathy of prematurity, stage 2, left eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35133	Retinopathy of prematurity, stage 2, bilateral	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35139	Retinopathy of prematurity, stage 2, unspecified eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35141	Retinopathy of prematurity, stage 3, right eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35142	Retinopathy of prematurity, stage 3, left eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35143	Retinopathy of prematurity, stage 3, bilateral	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35149	Retinopathy of prematurity, stage 3, unspecified eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35151	Retinopathy of prematurity, stage 4, right eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35152	Retinopathy of prematurity, stage 4, left eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35153	Retinopathy of prematurity, stage 4, bilateral	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35159	Retinopathy of prematurity, stage 4, unspecified eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35161	Retinopathy of prematurity, stage 5, right eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35162	Retinopathy of prematurity, stage 5, left eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35163	Retinopathy of prematurity, stage 5, bilateral	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	H35169	Retinopathy of prematurity, stage 5, unspecified eye	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6010X0	Preterm labor with preterm delivery, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6010X1	Preterm labor with preterm delivery, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6010X2	Preterm labor with preterm delivery, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6010X3	Preterm labor with preterm delivery, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6010X4	Preterm labor with preterm delivery, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6010X5	Preterm labor with preterm delivery, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6010X9	Preterm labor with preterm delivery, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6012X0	Preterm labor second trimester with preterm delivery second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6012X1	Preterm labor second trimester with preterm delivery second trimester, fetus 1	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6012X2	Preterm labor second trimester with preterm delivery second trimester, fetus 2	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6012X3	Preterm labor second trimester with preterm delivery second trimester, fetus 3	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6012X4	Preterm labor second trimester with preterm delivery second trimester, fetus 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6012X5	Preterm labor second trimester with preterm delivery second trimester, fetus 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6012X9	Preterm labor second trimester with preterm delivery second trimester, other fetus	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	O6013X0	Preterm labor second trimester with preterm delivery third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6013X1	Preterm labor second trimester with preterm delivery third trimester, fetus 1	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6013X2	Preterm labor second trimester with preterm delivery third trimester, fetus 2	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6013X3	Preterm labor second trimester with preterm delivery third trimester, fetus 3	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6013X4	Preterm labor second trimester with preterm delivery third trimester, fetus 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6013X5	Preterm labor second trimester with preterm delivery third trimester, fetus 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6013X9	Preterm labor second trimester with preterm delivery third trimester, other fetus	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6014X0	Preterm labor third trimester with preterm delivery third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6014X1	Preterm labor third trimester with preterm delivery third trimester, fetus 1	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6014X2	Preterm labor third trimester with preterm delivery third trimester, fetus 2	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6014X3	Preterm labor third trimester with preterm delivery third trimester, fetus 3	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6014X4	Preterm labor third trimester with preterm delivery third trimester, fetus 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6014X5	Preterm labor third trimester with preterm delivery third trimester, fetus 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6014X9	Preterm labor third trimester with preterm delivery third trimester, other fetus	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6020X0	Term delivery with preterm labor, unspecified trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6020X1	Term delivery with preterm labor, unspecified trimester, fetus 1	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6020X2	Term delivery with preterm labor, unspecified trimester, fetus 2	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6020X3	Term delivery with preterm labor, unspecified trimester, fetus 3	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6020X4	Term delivery with preterm labor, unspecified trimester, fetus 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6020X5	Term delivery with preterm labor, unspecified trimester, fetus 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6020X9	Term delivery with preterm labor, unspecified trimester, other fetus	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6022X0	Term delivery with preterm labor, second trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6022X1	Term delivery with preterm labor, second trimester, fetus 1	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6022X2	Term delivery with preterm labor, second trimester, fetus 2	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6022X3	Term delivery with preterm labor, second trimester, fetus 3	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6022X4	Term delivery with preterm labor, second trimester, fetus 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6022X5	Term delivery with preterm labor, second trimester, fetus 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6022X9	Term delivery with preterm labor, second trimester, other fetus	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	O6023X0	Term delivery with preterm labor, third trimester, not applicable or unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6023X1	Term delivery with preterm labor, third trimester, fetus 1	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6023X2	Term delivery with preterm labor, third trimester, fetus 2	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6023X3	Term delivery with preterm labor, third trimester, fetus 3	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6023X4	Term delivery with preterm labor, third trimester, fetus 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6023X5	Term delivery with preterm labor, third trimester, fetus 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	O6023X9	Term delivery with preterm labor, third trimester, other fetus	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0700	Extremely low birth weight newborn, unspecified weight	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0701	Extremely low birth weight newborn, less than 500 grams	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0702	Extremely low birth weight newborn, 500-749 grams	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0703	Extremely low birth weight newborn, 750-999 grams	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0710	Other low birth weight newborn, unspecified weight	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0714	Other low birth weight newborn, 1000-1249 grams	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0715	Other low birth weight newborn, 1250-1499 grams	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0716	Other low birth weight newborn, 1500-1749 grams	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0717	Other low birth weight newborn, 1750-1999 grams	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0718	Other low birth weight newborn, 2000-2499 grams	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0721	Extreme immaturity of newborn, gestational age less than 23 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0722	Extreme immaturity of newborn, gestational age 23 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0723	Extreme immaturity of newborn, gestational age 24 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0724	Extreme immaturity of newborn, gestational age 25 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0725	Extreme immaturity of newborn, gestational age 26 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0726	Extreme immaturity of newborn, gestational age 27 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0731	Preterm newborn, gestational age 28 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0732	Preterm newborn, gestational age 29 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0733	Preterm newborn, gestational age 30 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0734	Preterm newborn, gestational age 31 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0735	Preterm newborn, gestational age 32 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0736	Preterm newborn, gestational age 33 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0737	Preterm newborn, gestational age 34 completed weeks	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	P0738	Preterm newborn, gestational age 35 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P0739	Preterm newborn, gestational age 36 completed weeks	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	P612	Anemia of prematurity	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	49492	Repair, initial inguinal hernia, preterm infant (younger than 37 weeks gestation at birth), performed from birth up to 50 weeks postconception age, with or without hydrocelectomy; incarcerated or strangulated	Procedure	CPT-4
Exclusion	IP* IS* AV* OA*	1	49491	Repair, initial inguinal hernia, preterm infant (younger than 37 weeks gestation at birth), performed from birth up to 50 weeks postconception age, with or without hydrocelectomy; reducible	Procedure	CPT-4
Exclusion	IP* IS* AV* OA*	1	67229	Treatment of extensive or progressive retinopathy, 1 or more sessions, preterm infant (less than 37 weeks gestation at birth), performed from birth up to 1 year of age (eg, retinopathy of prematurity), photocoagulation or cryotherapy	Procedure	CPT-4
Exclusion	IP* IS* AV* OA*	1	00836	Anesthesia for hernia repairs in the lower abdomen not otherwise specified, infants younger than 37 weeks gestational age at birth and younger than 50 weeks gestational age at time of surgery	Procedure	CPT-4
Exclusion	IP* IS*	1	74601	Congenital atresia of pulmonary valve	Diagnosis	ICD-9-CM
Exclusion	IP* IS*	1	74609	Other congenital anomalies of pulmonary valve	Diagnosis	ICD-9-CM
Exclusion	IP* IS*	1	74683	Congenital infundibular pulmonic stenosis	Diagnosis	ICD-9-CM
Exclusion	IP* IS*	1	Q220	Pulmonary valve atresia	Diagnosis	ICD-10-CM
Exclusion	IP* IS*	1	Q222	Congenital pulmonary valve insufficiency	Diagnosis	ICD-10-CM
Exclusion	IP* IS*	1	Q243	Pulmonary infundibular stenosis	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	7580	Down's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7581	Patau's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7582	Edwards' syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7583	Autosomal deletion syndromes	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75831	Cri-du-chat syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75832	Velo-cardio-facial syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75833	Autosomal deletion syndromes, other microdeletions	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75839	Autosomal deletion syndromes, other autosomal deletions	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7584	Balanced autosomal translocation in normal individual	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	7585	Other conditions due to autosomal anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7586	Gonadal dysgenesis	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7587	Klinefelter's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7588	Other conditions due to chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75881	Other conditions due to sex chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75889	Other conditions due to chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7589	Conditions due to anomaly of unspecified chromosome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75981	Prader-Willi syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75982	Marfan's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75983	Fragile X syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	Q871	Congenital malformation syndromes predominantly associated with short stature	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8740	Marfan's syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q87410	Marfan's syndrome with aortic dilation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q87418	Marfan's syndrome with other cardiovascular manifestations	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8742	Marfan's syndrome with ocular manifestations	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8743	Marfan's syndrome with skeletal manifestation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q900	Trisomy 21, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q901	Trisomy 21, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q902	Trisomy 21, translocation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q909	Down syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q910	Trisomy 18, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q911	Trisomy 18, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q912	Trisomy 18, translocation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q913	Trisomy 18, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q914	Trisomy 13, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q915	Trisomy 13, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q916	Trisomy 13, translocation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q917	Trisomy 13, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q920	Whole chromosome trisomy, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q921	Whole chromosome trisomy, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	Q922	Partial trisomy	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q925	Duplications with other complex rearrangements	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9261	Marker chromosomes in normal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9262	Marker chromosomes in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q927	Triploidy and polyploidy	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q928	Other specified trisomies and partial trisomies of autosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q929	Trisomy and partial trisomy of autosomes, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q930	Whole chromosome monosomy, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q931	Whole chromosome monosomy, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q932	Chromosome replaced with ring, dicentric or isochromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q933	Deletion of short arm of chromosome 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q934	Deletion of short arm of chromosome 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q935	Other deletions of part of a chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q937	Deletions with other complex rearrangements	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9381	Velo-cardio-facial syndrome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9388	Other microdeletions	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9389	Other deletions from the autosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q939	Deletion from autosomes, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q950	Balanced translocation and insertion in normal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q951	Chromosome inversion in normal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q952	Balanced autosomal rearrangement in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q953	Balanced sex/autosomal rearrangement in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q955	Individual with autosomal fragile site	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q958	Other balanced rearrangements and structural markers	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q959	Balanced rearrangement and structural marker, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q960	Karyotype 45, X	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q961	Karyotype 46, X iso (Xq)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q962	Karyotype 46, X with abnormal sex chromosome, except iso (Xq)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q963	Mosaicism, 45, X/46, XX or XY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q964	Mosaicism, 45, X/other cell line(s) with abnormal sex chromosome	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	Q968	Other variants of Turner's syndrome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q969	Turner's syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q970	Karyotype 47, XXX	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q971	Female with more than three X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q972	Mosaicism, lines with various numbers of X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q973	Female with 46, XY karyotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q978	Other specified sex chromosome abnormalities, female phenotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q979	Sex chromosome abnormality, female phenotype, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q980	Klinefelter syndrome karyotype 47, XXY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q981	Klinefelter syndrome, male with more than two X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q983	Other male with 46, XX karyotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q984	Klinefelter syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q985	Karyotype 47, XYY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q986	Male with structurally abnormal sex chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q987	Male with sex chromosome mosaicism	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q988	Other specified sex chromosome abnormalities, male phenotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q989	Sex chromosome abnormality, male phenotype, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q990	Chimera 46, XX/46, XY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q991	46, XX true hermaphrodite	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q992	Fragile X chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q998	Other specified chromosome abnormalities	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q999	Chromosomal abnormality, unspecified	Diagnosis	ICD-10-CM
Other Cardiac Malformation						
Index-defining	IP* IS*	1	745	Bulbus cordis anomalies and anomalies of cardiac septal closure	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7450	Bulbus cordis anomalies and anomalies of cardiac septal closure, common truncus	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7451	Transposition of great vessels	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74510	Complete transposition of great vessels	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74511	Transposition of great vessels, double outlet right ventricle	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74512	Corrected transposition of great vessels	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74519	Other transposition of great vessels	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	IP* IS*	1	7452	Tetralogy of Fallot	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7453	Bulbus cordis anomalies and anomalies of cardiac septal closure, common ventricle	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7456	Endocardial cushion defects	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74560	Unspecified type congenital endocardial cushion defect	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74561	Ostium primum defect	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74569	Other congenital endocardial cushion defect	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7457	Cor biloculare	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7458	Other bulbus cordis anomalies and anomalies of cardiac septal closure	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7459	Unspecified congenital defect of septal closure	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	746	Other congenital anomalies of heart	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74600	Unspecified congenital pulmonary valve anomaly	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7461	Congenital tricuspid atresia and stenosis	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7462	Ebstein's anomaly	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7463	Congenital stenosis of aortic valve	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7465	Congenital mitral stenosis	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7467	Hypoplastic left heart syndrome	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7468	Other specified congenital anomaly of heart	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74681	Congenital subaortic stenosis	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74682	Cor triatriatum	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74684	Congenital obstructive anomalies of heart, not elsewhere classified	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74685	Congenital coronary artery anomaly	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74686	Congenital heart block	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74687	Congenital malposition of heart and cardiac apex	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74689	Other specified congenital anomaly of heart	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	747	Other congenital anomalies of circulatory system	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7471	Coarctation of aorta	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74710	Coarctation of aorta (preductal) (postductal)	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74711	Congenital interruption of aortic arch	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7472	Other congenital anomaly of aorta	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74720	Unspecified congenital anomaly of aorta	Diagnosis	ICD-9-CM

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

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	IP* IS*	1	74721	Congenital anomaly of aortic arch	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74722	Congenital atresia and stenosis of aorta	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74729	Other congenital anomaly of aorta	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7474	Congenital anomalies of great veins	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74740	Congenital anomaly of great veins unspecified	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74741	Total congenital anomalous pulmonary venous connection	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74742	Partial congenital anomalous pulmonary venous connection	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74749	Other congenital anomalies of great veins	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7476	Other congenital anomaly of peripheral vascular system	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74760	Congenital anomaly of the peripheral vascular system, unspecified site	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74761	Congenital gastrointestinal vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74762	Congenital renal vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74763	Congenital upper limb vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74764	Congenital lower limb vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	7478	Other specified congenital anomalies of circulatory system	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74781	Congenital anomaly of cerebrovascular system	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74782	Congenital spinal vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74783	Persistent fetal circulation	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	74789	Other specified congenital anomaly of circulatory system	Diagnosis	ICD-9-CM
Index-defining	IP* IS*	1	P2930	Pulmonary hypertension of newborn	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	P2938	Other persistent fetal circulation	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q200	Common arterial trunk	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q201	Double outlet right ventricle	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q202	Double outlet left ventricle	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q203	Discordant ventriculoarterial connection	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q204	Double inlet ventricle	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q205	Discordant atrioventricular connection	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q206	Isomerism of atrial appendages	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q208	Other congenital malformations of cardiac chambers and connections	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q212	Atrioventricular septal defect	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	IP* IS*	1	Q213	Tetralogy of Fallot	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q214	Aortopulmonary septal defect	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q218	Other congenital malformations of cardiac septa	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q219	Congenital malformation of cardiac septum, unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q223	Other congenital malformations of pulmonary valve	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q224	Congenital tricuspid stenosis	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q225	Ebstein's anomaly	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q226	Hypoplastic right heart syndrome	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q228	Other congenital malformations of tricuspid valve	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q229	Congenital malformation of tricuspid valve, unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q230	Congenital stenosis of aortic valve	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q232	Congenital mitral stenosis	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q234	Hypoplastic left heart syndrome	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q238	Other congenital malformations of aortic and mitral valves	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q239	Congenital malformation of aortic and mitral valves, unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q240	Dextrocardia	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q241	Levocardia	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q242	Cor triatriatum	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q244	Congenital subaortic stenosis	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q245	Malformation of coronary vessels	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q246	Congenital heart block	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q248	Other specified congenital malformations of heart	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q251	Coarctation of aorta	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2521	Interruption of aortic arch	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2529	Other atresia of aorta	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q253	Supravalvular aortic stenosis	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2540	Congenital malformation of aorta unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2541	Absence and aplasia of aorta	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2542	Hypoplasia of aorta	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2543	Congenital aneurysm of aorta	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	IP* IS*	1	Q2544	Congenital dilation of aorta	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2545	Double aortic arch	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2546	Tortuous aortic arch	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2547	Right aortic arch	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2548	Anomalous origin of subclavian artery	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2549	Other congenital malformations of aorta	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q258	Other congenital malformations of other great arteries	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q259	Congenital malformation of great arteries, unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q260	Congenital stenosis of vena cava	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q261	Persistent left superior vena cava	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q262	Total anomalous pulmonary venous connection	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q263	Partial anomalous pulmonary venous connection	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q264	Anomalous pulmonary venous connection, unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q265	Anomalous portal venous connection	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q266	Portal vein-hepatic artery fistula	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q268	Other congenital malformations of great veins	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q269	Congenital malformation of great vein, unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q271	Congenital renal artery stenosis	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q272	Other congenital malformations of renal artery	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2730	Arteriovenous malformation, site unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2731	Arteriovenous malformation of vessel of upper limb	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2732	Arteriovenous malformation of vessel of lower limb	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2733	Arteriovenous malformation of digestive system vessel	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q2734	Arteriovenous malformation of renal vessel	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q274	Congenital phlebectasia	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q279	Congenital malformation of peripheral vascular system, unspecified	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q280	Arteriovenous malformation of precerebral vessels	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q281	Other malformations of precerebral vessels	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q282	Arteriovenous malformation of cerebral vessels	Diagnosis	ICD-10-CM
Index-defining	IP* IS*	1	Q283	Other malformations of cerebral vessels	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	IP* IS*	1	Q288	Other specified congenital malformations of circulatory system	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	7580	Down's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7581	Patau's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7582	Edwards' syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7583	Autosomal deletion syndromes	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75831	Cri-du-chat syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75832	Velo-cardio-facial syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75833	Autosomal deletion syndromes, other microdeletions	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75839	Autosomal deletion syndromes, other autosomal deletions	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7584	Balanced autosomal translocation in normal individual	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7585	Other conditions due to autosomal anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7586	Gonadal dysgenesis	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7587	Klinefelter's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7588	Other conditions due to chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75881	Other conditions due to sex chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75889	Other conditions due to chromosome anomalies	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	7589	Conditions due to anomaly of unspecified chromosome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75981	Prader-Willi syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75982	Marfan's syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	75983	Fragile X syndrome	Diagnosis	ICD-9-CM
Exclusion	IP* IS* AV* OA*	1	Q871	Congenital malformation syndromes predominantly associated with short stature	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8740	Marfan's syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q87410	Marfan's syndrome with aortic dilation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q87418	Marfan's syndrome with other cardiovascular manifestations	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8742	Marfan's syndrome with ocular manifestations	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q8743	Marfan's syndrome with skeletal manifestation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q900	Trisomy 21, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q901	Trisomy 21, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q902	Trisomy 21, translocation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q909	Down syndrome, unspecified	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	Q910	Trisomy 18, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q911	Trisomy 18, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q912	Trisomy 18, translocation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q913	Trisomy 18, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q914	Trisomy 13, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q915	Trisomy 13, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q916	Trisomy 13, translocation	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q917	Trisomy 13, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q920	Whole chromosome trisomy, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q921	Whole chromosome trisomy, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q922	Partial trisomy	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q925	Duplications with other complex rearrangements	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9261	Marker chromosomes in normal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9262	Marker chromosomes in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q927	Triploidy and polyploidy	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q928	Other specified trisomies and partial trisomies of autosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q929	Trisomy and partial trisomy of autosomes, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q930	Whole chromosome monosomy, nonmosaicism (meiotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q931	Whole chromosome monosomy, mosaicism (mitotic nondisjunction)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q932	Chromosome replaced with ring, dicentric or isochromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q933	Deletion of short arm of chromosome 4	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q934	Deletion of short arm of chromosome 5	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q935	Other deletions of part of a chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q937	Deletions with other complex rearrangements	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9381	Velo-cardio-facial syndrome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9388	Other microdeletions	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q9389	Other deletions from the autosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q939	Deletion from autosomes, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q950	Balanced translocation and insertion in normal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q951	Chromosome inversion in normal individual	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	Q952	Balanced autosomal rearrangement in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q953	Balanced sex/autosomal rearrangement in abnormal individual	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q955	Individual with autosomal fragile site	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q958	Other balanced rearrangements and structural markers	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q959	Balanced rearrangement and structural marker, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q960	Karyotype 45, X	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q961	Karyotype 46, X iso (Xq)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q962	Karyotype 46, X with abnormal sex chromosome, except iso (Xq)	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q963	Mosaicism, 45, X/46, XX or XY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q964	Mosaicism, 45, X/other cell line(s) with abnormal sex chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q968	Other variants of Turner's syndrome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q969	Turner's syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q970	Karyotype 47, XXX	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q971	Female with more than three X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q972	Mosaicism, lines with various numbers of X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q973	Female with 46, XY karyotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q978	Other specified sex chromosome abnormalities, female phenotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q979	Sex chromosome abnormality, female phenotype, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q980	Klinefelter syndrome karyotype 47, XXY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q981	Klinefelter syndrome, male with more than two X chromosomes	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q983	Other male with 46, XX karyotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q984	Klinefelter syndrome, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q985	Karyotype 47, XYY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q986	Male with structurally abnormal sex chromosome	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q987	Male with sex chromosome mosaicism	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q988	Other specified sex chromosome abnormalities, male phenotype	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q989	Sex chromosome abnormality, male phenotype, unspecified	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q990	Chimera 46, XX/46, XY	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q991	46, XX true hermaphrodite	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q992	Fragile X chromosome	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Exclusion	IP* IS* AV* OA*	1	Q998	Other specified chromosome abnormalities	Diagnosis	ICD-10-CM
Exclusion	IP* IS* AV* OA*	1	Q999	Chromosomal abnormality, unspecified	Diagnosis	ICD-10-CM
				Bone or Skeletal Malformation		
Index-defining	Any	2	7540	Congenital musculoskeletal deformities of skull, face, and jaw	Diagnosis	ICD-9-CM
Index-defining	Any	2	7541	Congenital musculoskeletal deformity of sternocleidomastoid muscle	Diagnosis	ICD-9-CM
Index-defining	Any	2	7542	Congenital musculoskeletal deformity of spine	Diagnosis	ICD-9-CM
Index-defining	Any	2	7544	Congenital genu recurvatum and bowing of long bones of leg	Diagnosis	ICD-9-CM
Index-defining	Any	2	75440	Congenital genu recurvatum	Diagnosis	ICD-9-CM
Index-defining	Any	2	75441	Congenital dislocation of knee (with genu recurvatum)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75442	Congenital bowing of femur	Diagnosis	ICD-9-CM
Index-defining	Any	2	75443	Congenital bowing of tibia and fibula	Diagnosis	ICD-9-CM
Index-defining	Any	2	75444	Congenital bowing of unspecified long bones of leg	Diagnosis	ICD-9-CM
Index-defining	Any	2	7545	Congenital varus deformities of feet	Diagnosis	ICD-9-CM
Index-defining	Any	2	75450	Congenital talipes varus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75451	Congenital talipes equinovarus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75452	Congenital metatarsus primus varus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75453	Congenital metatarsus varus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75459	Other congenital varus deformity of feet	Diagnosis	ICD-9-CM
Index-defining	Any	2	7546	Congenital valgus deformities of feet	Diagnosis	ICD-9-CM
Index-defining	Any	2	75460	Congenital talipes valgus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75461	Congenital pes planus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75462	Talipes calcaneovalgus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75469	Other congenital valgus deformity of feet	Diagnosis	ICD-9-CM
Index-defining	Any	2	7547	Other congenital deformity of feet	Diagnosis	ICD-9-CM
Index-defining	Any	2	75470	Unspecified talipes	Diagnosis	ICD-9-CM
Index-defining	Any	2	75471	Talipes cavus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75479	Other congenital deformity of feet	Diagnosis	ICD-9-CM
Index-defining	Any	2	7548	Other specified nonteratogenic anomalies	Diagnosis	ICD-9-CM
Index-defining	Any	2	75489	Other specified nonteratogenic anomalies	Diagnosis	ICD-9-CM
Index-defining	Any	2	7550	Polydactyly	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	75500	Polydactyly, unspecified digits	Diagnosis	ICD-9-CM
Index-defining	Any	2	75501	Polydactyly of fingers	Diagnosis	ICD-9-CM
Index-defining	Any	2	75502	Polydactyly of toes	Diagnosis	ICD-9-CM
Index-defining	Any	2	7551	Syndactyly	Diagnosis	ICD-9-CM
Index-defining	Any	2	75510	Syndactyly of multiple and unspecified sites	Diagnosis	ICD-9-CM
Index-defining	Any	2	75511	Syndactyly of fingers without fusion of bone	Diagnosis	ICD-9-CM
Index-defining	Any	2	75512	Syndactyly of fingers with fusion of bone	Diagnosis	ICD-9-CM
Index-defining	Any	2	75513	Syndactyly of toes without fusion of bone	Diagnosis	ICD-9-CM
Index-defining	Any	2	75514	Syndactyly of toes with fusion of bone	Diagnosis	ICD-9-CM
Index-defining	Any	2	7552	Congenital reduction deformities of upper limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	75520	Congenital unspecified reduction deformity of upper limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	75521	Congenital transverse deficiency of upper limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	75522	Congenital longitudinal deficiency of upper limb, not elsewhere classified	Diagnosis	ICD-9-CM
Index-defining	Any	2	75523	Congenital longitudinal deficiency, combined, involving humerus, radius, and ulna (complete or incomplete)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75524	Congenital longitudinal deficiency, humeral, complete or partial (with or without distal deficiencies, incomplete)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75525	Congenital longitudinal deficiency, radioulnar, complete or partial (with or without distal deficiencies, incomplete)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75526	Congenital longitudinal deficiency, radial, complete or partial (with or without distal	Diagnosis	ICD-9-CM
Index-defining	Any	2	75527	Congenital longitudinal deficiency, ulnar, complete or partial (with or without distal	Diagnosis	ICD-9-CM
Index-defining	Any	2	75528	Congenital longitudinal deficiency, carpals or metacarpals, complete or partial (with or without incomplete phalangeal deficiency)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75529	Congenital longitudinal deficiency, phalanges, complete or partial	Diagnosis	ICD-9-CM
Index-defining	Any	2	7553	Congenital reduction deformities of lower limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	75530	Congenital unspecified reduction deformity of lower limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	75531	Congenital transverse deficiency of lower limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	75532	Congenital longitudinal deficiency of lower limb, not elsewhere classified	Diagnosis	ICD-9-CM
Index-defining	Any	2	75533	Congenital longitudinal deficiency, combined, involving femur, tibia, and fibula (complete or incomplete)	Diagnosis	ICD-9-CM

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

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	75534	Congenital longitudinal deficiency, femoral, complete or partial (with or without distal deficiencies, incomplete)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75535	Congenital longitudinal deficiency, tibiofibular, complete or partial (with or without distal deficiencies, incomplete)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75536	Congenital longitudinal deficiency, tibia, complete or partial (with or without distal deficiencies, incomplete)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75537	Congenital longitudinal deficiency, fibular, complete or partial (with or without distal	Diagnosis	ICD-9-CM
Index-defining	Any	2	75538	Congenital longitudinal deficiency, tarsals or metatarsals, complete or partial (with or without incomplete phalangeal deficiency)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75539	Congenital longitudinal deficiency, phalanges, complete or partial	Diagnosis	ICD-9-CM
Index-defining	Any	2	7554	Congenital reduction deformities, unspecified limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	7555	Other congenital anomalies of upper limb, including shoulder girdle	Diagnosis	ICD-9-CM
Index-defining	Any	2	75550	Unspecified congenital anomaly of upper limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	75551	Congenital deformity of clavicle	Diagnosis	ICD-9-CM
Index-defining	Any	2	75552	Congenital elevation of scapula	Diagnosis	ICD-9-CM
Index-defining	Any	2	75553	Radioulnar synostosis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75554	Madelung's deformity	Diagnosis	ICD-9-CM
Index-defining	Any	2	75555	Acrocephalosyndactyly	Diagnosis	ICD-9-CM
Index-defining	Any	2	75556	Accessory carpal bones	Diagnosis	ICD-9-CM
Index-defining	Any	2	75557	Macrodactylia (fingers)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75558	Congenital cleft hand	Diagnosis	ICD-9-CM
Index-defining	Any	2	75559	Other congenital anomaly of upper limb, including shoulder girdle	Diagnosis	ICD-9-CM
Index-defining	Any	2	7556	Other congenital anomaly of lower limb, including pelvic girdle	Diagnosis	ICD-9-CM
Index-defining	Any	2	75560	Unspecified congenital anomaly of lower limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	75561	Congenital coxa valga	Diagnosis	ICD-9-CM
Index-defining	Any	2	75562	Congenital coxa vara	Diagnosis	ICD-9-CM
Index-defining	Any	2	75563	Other congenital deformity of hip (joint)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75564	Congenital deformity of knee (joint)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75566	Other congenital anomaly of toes	Diagnosis	ICD-9-CM
Index-defining	Any	2	75567	Congenital anomalies of foot, not elsewhere classified	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	75569	Other congenital anomaly of lower limb, including pelvic girdle	Diagnosis	ICD-9-CM
Index-defining	Any	2	7558	Other specified congenital anomalies of unspecified limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	7559	Unspecified congenital anomaly of unspecified limb	Diagnosis	ICD-9-CM
Index-defining	Any	2	7560	Congenital anomalies of skull and face bones	Diagnosis	ICD-9-CM
Index-defining	Any	2	7561	Congenital anomalies of spine	Diagnosis	ICD-9-CM
Index-defining	Any	2	75610	Congenital anomaly of spine, unspecified	Diagnosis	ICD-9-CM
Index-defining	Any	2	75611	Congenital spondylolysis, lumbosacral region	Diagnosis	ICD-9-CM
Index-defining	Any	2	75612	Congenital spondylolisthesis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75613	Congenital absence of vertebra	Diagnosis	ICD-9-CM
Index-defining	Any	2	75614	Hemivertebra	Diagnosis	ICD-9-CM
Index-defining	Any	2	75615	Congenital fusion of spine (vertebra)	Diagnosis	ICD-9-CM
Index-defining	Any	2	75616	Klippel-Feil syndrome	Diagnosis	ICD-9-CM
Index-defining	Any	2	75617	Spina bifida occulta	Diagnosis	ICD-9-CM
Index-defining	Any	2	75619	Other congenital anomaly of spine	Diagnosis	ICD-9-CM
Index-defining	Any	2	7563	Other congenital anomaly of ribs and sternum	Diagnosis	ICD-9-CM
Index-defining	Any	2	7564	Chondrodystrophy	Diagnosis	ICD-9-CM
Index-defining	Any	2	7565	Congenital osteodystrophies	Diagnosis	ICD-9-CM
Index-defining	Any	2	75650	Unspecified congenital osteodystrophy	Diagnosis	ICD-9-CM
Index-defining	Any	2	75651	Osteogenesis imperfecta	Diagnosis	ICD-9-CM
Index-defining	Any	2	75652	Osteopetrosis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75653	Osteopoikilosis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75654	Polyostotic fibrous dysplasia of bone	Diagnosis	ICD-9-CM
Index-defining	Any	2	75655	Chondroectodermal dysplasia	Diagnosis	ICD-9-CM
Index-defining	Any	2	75656	Multiple epiphyseal dysplasia	Diagnosis	ICD-9-CM
Index-defining	Any	2	75659	Other congenital osteodystrophy	Diagnosis	ICD-9-CM
Index-defining	Any	2	7566	Congenital anomaly of diaphragm	Diagnosis	ICD-9-CM
Index-defining	Any	2	7567	Congenital anomaly of abdominal wall	Diagnosis	ICD-9-CM
Index-defining	Any	2	75670	Unspecified congenital anomaly of abdominal wall	Diagnosis	ICD-9-CM
Index-defining	Any	2	75671	Prune belly syndrome	Diagnosis	ICD-9-CM
Index-defining	Any	2	75672	Omphalocele	Diagnosis	ICD-9-CM

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

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	75673	Gastroschisis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75679	Other congenital anomalies of abdominal wall	Diagnosis	ICD-9-CM
Index-defining	Any	2	7568	Other specified congenital anomalies of muscle, tendon, fascia, and connective tissue	Diagnosis	ICD-9-CM
Index-defining	Any	2	75681	Congenital absence of muscle and tendon	Diagnosis	ICD-9-CM
Index-defining	Any	2	75682	Accessory muscle	Diagnosis	ICD-9-CM
Index-defining	Any	2	75683	Ehlers-Danlos syndrome	Diagnosis	ICD-9-CM
Index-defining	Any	2	75689	Other specified congenital anomaly of muscle, tendon, fascia, and connective tissue	Diagnosis	ICD-9-CM
Index-defining	Any	2	7569	Other and unspecified congenital anomaly of musculoskeletal system	Diagnosis	ICD-9-CM
Index-defining	Any	2	Q6581	Congenital coxa valga	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6582	Congenital coxa vara	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6589	Other specified congenital deformities of hip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q659	Congenital deformity of hip, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q660	Congenital talipes equinovarus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q661	Congenital talipes calcaneovarus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6621	Congenital metatarsus primus varus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6622	Congenital metatarsus adductus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q663	Other congenital varus deformities of feet	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q664	Congenital talipes calcaneovalgus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6650	Congenital pes planus, unspecified foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6651	Congenital pes planus, right foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6652	Congenital pes planus, left foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q666	Other congenital valgus deformities of feet	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q667	Congenital pes cavus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6680	Congenital vertical talus deformity, unspecified foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6681	Congenital vertical talus deformity, right foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6682	Congenital vertical talus deformity, left foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6689	Other specified congenital deformities of feet	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q669	Congenital deformity of feet, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q670	Congenital facial asymmetry	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q671	Congenital compression facies	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q672	Dolichocephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q673	Plagiocephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q674	Other congenital deformities of skull, face and jaw	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q675	Congenital deformity of spine	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q678	Other congenital deformities of chest	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q680	Congenital deformity of sternocleidomastoid muscle	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q681	Congenital deformity of finger(s) and hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q682	Congenital deformity of knee	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q683	Congenital bowing of femur	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q684	Congenital bowing of tibia and fibula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q685	Congenital bowing of long bones of leg, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q688	Other specified congenital musculoskeletal deformities	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q690	Accessory finger(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q691	Accessory thumb(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q692	Accessory toe(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q699	Polydactyly, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7000	Fused fingers, unspecified hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7001	Fused fingers, right hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7002	Fused fingers, left hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7003	Fused fingers, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7010	Webbed fingers, unspecified hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7011	Webbed fingers, right hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7012	Webbed fingers, left hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7013	Webbed fingers, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7020	Fused toes, unspecified foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7021	Fused toes, right foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7022	Fused toes, left foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7023	Fused toes, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7030	Webbed toes, unspecified foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7031	Webbed toes, right foot	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q7032	Webbed toes, left foot	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7033	Webbed toes, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q704	Polysyndactyly, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q709	Syndactyly, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7100	Congenital complete absence of unspecified upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7101	Congenital complete absence of right upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7102	Congenital complete absence of left upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7103	Congenital complete absence of upper limb, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7110	Congenital absence of unspecified upper arm and forearm with hand present	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7111	Congenital absence of right upper arm and forearm with hand present	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7112	Congenital absence of left upper arm and forearm with hand present	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7113	Congenital absence of upper arm and forearm with hand present, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7120	Congenital absence of both forearm and hand, unspecified upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7121	Congenital absence of both forearm and hand, right upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7122	Congenital absence of both forearm and hand, left upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7123	Congenital absence of both forearm and hand, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7130	Congenital absence of unspecified hand and finger	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7131	Congenital absence of right hand and finger	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7132	Congenital absence of left hand and finger	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7133	Congenital absence of hand and finger, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7140	Longitudinal reduction defect of unspecified radius	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7141	Longitudinal reduction defect of right radius	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7142	Longitudinal reduction defect of left radius	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7143	Longitudinal reduction defect of radius, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7150	Longitudinal reduction defect of unspecified ulna	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7151	Longitudinal reduction defect of right ulna	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7152	Longitudinal reduction defect of left ulna	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7153	Longitudinal reduction defect of ulna, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7160	Lobster-claw hand, unspecified hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7161	Lobster-claw right hand	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q7162	Lobster-claw left hand	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7163	Lobster-claw hand, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q71811	Congenital shortening of right upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q71812	Congenital shortening of left upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q71813	Congenital shortening of upper limb, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q71819	Congenital shortening of unspecified upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q71891	Other reduction defects of right upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q71892	Other reduction defects of left upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q71893	Other reduction defects of upper limb, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q71899	Other reduction defects of unspecified upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7190	Unspecified reduction defect of unspecified upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7191	Unspecified reduction defect of right upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7192	Unspecified reduction defect of left upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7193	Unspecified reduction defect of upper limb, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7200	Congenital complete absence of unspecified lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7201	Congenital complete absence of right lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7202	Congenital complete absence of left lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7203	Congenital complete absence of lower limb, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7210	Congenital absence of unspecified thigh and lower leg with foot present	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7211	Congenital absence of right thigh and lower leg with foot present	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7212	Congenital absence of left thigh and lower leg with foot present	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7213	Congenital absence of thigh and lower leg with foot present, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7220	Congenital absence of both lower leg and foot, unspecified lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7221	Congenital absence of both lower leg and foot, right lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7222	Congenital absence of both lower leg and foot, left lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7223	Congenital absence of both lower leg and foot, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7230	Congenital absence of unspecified foot and toe(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7231	Congenital absence of right foot and toe(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7232	Congenital absence of left foot and toe(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7233	Congenital absence of foot and toe(s), bilateral	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q7240	Longitudinal reduction defect of unspecified femur	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7241	Longitudinal reduction defect of right femur	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7242	Longitudinal reduction defect of left femur	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7243	Longitudinal reduction defect of femur, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7250	Longitudinal reduction defect of unspecified tibia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7251	Longitudinal reduction defect of right tibia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7252	Longitudinal reduction defect of left tibia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7253	Longitudinal reduction defect of tibia, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7260	Longitudinal reduction defect of unspecified fibula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7261	Longitudinal reduction defect of right fibula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7262	Longitudinal reduction defect of left fibula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7263	Longitudinal reduction defect of fibula, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7270	Split foot, unspecified lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7271	Split foot, right lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7272	Split foot, left lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7273	Split foot, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q72811	Congenital shortening of right lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q72812	Congenital shortening of left lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q72813	Congenital shortening of lower limb, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q72819	Congenital shortening of unspecified lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q72891	Other reduction defects of right lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q72892	Other reduction defects of left lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q72893	Other reduction defects of lower limb, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q72899	Other reduction defects of unspecified lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7290	Unspecified reduction defect of unspecified lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7291	Unspecified reduction defect of right lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7292	Unspecified reduction defect of left lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7293	Unspecified reduction defect of lower limb, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q730	Congenital absence of unspecified limb(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q731	Phocomelia, unspecified limb(s)	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q738	Other reduction defects of unspecified limb(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q740	Other congenital malformations of upper limb(s), including shoulder girdle	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q741	Congenital malformation of knee	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q742	Other congenital malformations of lower limb(s), including pelvic girdle	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q743	Arthrogryposis multiplex congenita	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q748	Other specified congenital malformations of limb(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q749	Unspecified congenital malformation of limb(s)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q750	Craniosynostosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q751	Craniofacial dysostosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q752	Hypertelorism	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q753	Macrocephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q754	Mandibulofacial dysostosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q755	Oculomandibular dysostosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q758	Other specified congenital malformations of skull and face bones	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q759	Congenital malformation of skull and face bones, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q760	Spina bifida occulta	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q761	Klippel-Feil syndrome	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q762	Congenital spondylolisthesis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q763	Congenital scoliosis due to congenital bony malformation	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76411	Congenital kyphosis, occipito-atlanto-axial region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76412	Congenital kyphosis, cervical region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76413	Congenital kyphosis, cervicothoracic region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76414	Congenital kyphosis, thoracic region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76415	Congenital kyphosis, thoracolumbar region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76419	Congenital kyphosis, unspecified region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76425	Congenital lordosis, thoracolumbar region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76426	Congenital lordosis, lumbar region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76427	Congenital lordosis, lumbosacral region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76428	Congenital lordosis, sacral and sacrococcygeal region	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q76429	Congenital lordosis, unspecified region	Diagnosis	ICD-10-CM

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

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q7649	Other congenital malformations of spine, not associated with scoliosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q766	Other congenital malformations of ribs	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q767	Congenital malformation of sternum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q768	Other congenital malformations of bony thorax	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q769	Congenital malformation of bony thorax, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q770	Achondrogenesis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q771	Thanatophoric short stature	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q772	Short rib syndrome	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q773	Chondrodysplasia punctata	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q774	Achondroplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q775	Diastrophic dysplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q776	Chondroectodermal dysplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q777	Spondyloepiphyseal dysplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q778	Other osteochondrodysplasia with defects of growth of tubular bones and spine	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q779	Osteochondrodysplasia with defects of growth of tubular bones and spine, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q780	Osteogenesis imperfecta	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q781	Polyostotic fibrous dysplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q782	Osteopetrosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q783	Progressive diaphyseal dysplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q784	Enchondromatosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q785	Metaphyseal dysplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q786	Multiple congenital exostoses	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q788	Other specified osteochondrodysplasias	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q789	Osteochondrodysplasia, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q790	Congenital diaphragmatic hernia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q791	Other congenital malformations of diaphragm	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q792	Exomphalos	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q793	Gastroschisis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q794	Prune belly syndrome	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q7951	Congenital hernia of bladder	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q7959	Other congenital malformations of abdominal wall	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q796	Ehlers-Danlos syndromes	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q798	Other congenital malformations of musculoskeletal system	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q799	Congenital malformation of musculoskeletal system, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q870	Congenital malformation syndromes predominantly affecting facial appearance	Diagnosis	ICD-10-CM
Other Major Congenital Malformation						
Index-defining	Any	2	7400	Anencephalus	Diagnosis	ICD-9-CM
Index-defining	Any	2	7401	Craniorachischisis	Diagnosis	ICD-9-CM
Index-defining	Any	2	7402	Iniencephaly	Diagnosis	ICD-9-CM
Index-defining	Any	2	7410	Spina bifida with hydrocephalus	Diagnosis	ICD-9-CM
Index-defining	Any	2	74100	Spina bifida with hydrocephalus, unspecified region	Diagnosis	ICD-9-CM
Index-defining	Any	2	74101	Spina bifida with hydrocephalus, cervical region	Diagnosis	ICD-9-CM
Index-defining	Any	2	74102	Spina bifida with hydrocephalus, dorsal (thoracic) region	Diagnosis	ICD-9-CM
Index-defining	Any	2	74103	Spina bifida with hydrocephalus, lumbar region	Diagnosis	ICD-9-CM
Index-defining	Any	2	7419	Spina bifida without mention of hydrocephalus	Diagnosis	ICD-9-CM
Index-defining	Any	2	74190	Spina bifida without mention of hydrocephalus, unspecified region	Diagnosis	ICD-9-CM
Index-defining	Any	2	74191	Spina bifida without mention of hydrocephalus, cervical region	Diagnosis	ICD-9-CM
Index-defining	Any	2	74192	Spina bifida without mention of hydrocephalus, dorsal (thoracic) region	Diagnosis	ICD-9-CM
Index-defining	Any	2	74193	Spina bifida without mention of hydrocephalus, lumbar region	Diagnosis	ICD-9-CM
Index-defining	Any	2	7420	Encephalocele	Diagnosis	ICD-9-CM
Index-defining	Any	2	7421	Microcephalus	Diagnosis	ICD-9-CM
Index-defining	Any	2	7422	Congenital reduction deformities of brain	Diagnosis	ICD-9-CM
Index-defining	Any	2	7423	Congenital hydrocephalus	Diagnosis	ICD-9-CM
Index-defining	Any	2	7424	Other specified congenital anomalies of brain	Diagnosis	ICD-9-CM
Index-defining	Any	2	7425	Other specified congenital anomalies of spinal cord	Diagnosis	ICD-9-CM
Index-defining	Any	2	74251	Diastematomyelia	Diagnosis	ICD-9-CM
Index-defining	Any	2	74253	Hydromyelia	Diagnosis	ICD-9-CM
Index-defining	Any	2	74259	Other specified congenital anomaly of spinal cord	Diagnosis	ICD-9-CM
Index-defining	Any	2	7428	Other specified congenital anomalies of nervous system	Diagnosis	ICD-9-CM
Index-defining	Any	2	7429	Unspecified congenital anomaly of brain, spinal cord, and nervous system	Diagnosis	ICD-9-CM

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

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	7430	Anophthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	74300	Unspecified clinical anophthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	74303	Cystic eyeball, congenital	Diagnosis	ICD-9-CM
Index-defining	Any	2	74306	Cryptophthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	7431	Microphthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	74310	Unspecified microphthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	74311	Simple microphthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	74312	Microphthalmos associated with other anomalies of eye and adnexa	Diagnosis	ICD-9-CM
Index-defining	Any	2	7432	Buphthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	74320	Unspecified buphthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	74321	Simple buphthalmos	Diagnosis	ICD-9-CM
Index-defining	Any	2	74322	Buphthalmos associated with other ocular anomaly	Diagnosis	ICD-9-CM
Index-defining	Any	2	7433	Congenital cataract and lens anomalies	Diagnosis	ICD-9-CM
Index-defining	Any	2	74330	Unspecified congenital cataract	Diagnosis	ICD-9-CM
Index-defining	Any	2	74331	Congenital capsular and subcapsular cataract	Diagnosis	ICD-9-CM
Index-defining	Any	2	74332	Congenital cortical and zonular cataract	Diagnosis	ICD-9-CM
Index-defining	Any	2	74333	Congenital nuclear cataract	Diagnosis	ICD-9-CM
Index-defining	Any	2	74334	Congenital total and subtotal cataract	Diagnosis	ICD-9-CM
Index-defining	Any	2	74335	Congenital aphakia	Diagnosis	ICD-9-CM
Index-defining	Any	2	74336	Congenital anomalies of lens shape	Diagnosis	ICD-9-CM
Index-defining	Any	2	74337	Congenital ectopic lens	Diagnosis	ICD-9-CM
Index-defining	Any	2	74339	Other congenital cataract and lens anomalies	Diagnosis	ICD-9-CM
Index-defining	Any	2	7434	Coloboma and other anomalies of anterior segment of eye	Diagnosis	ICD-9-CM
Index-defining	Any	2	74341	Congenital anomaly of corneal size and shape	Diagnosis	ICD-9-CM
Index-defining	Any	2	74342	Congenital corneal opacity, interfering with vision	Diagnosis	ICD-9-CM
Index-defining	Any	2	74343	Other congenital corneal opacity	Diagnosis	ICD-9-CM
Index-defining	Any	2	74344	Specified congenital anomaly of anterior chamber, chamber angle, and related structures	Diagnosis	ICD-9-CM
Index-defining	Any	2	74345	Aniridia	Diagnosis	ICD-9-CM
Index-defining	Any	2	74346	Other specified congenital anomaly of iris and ciliary body	Diagnosis	ICD-9-CM
Index-defining	Any	2	74347	Specified congenital anomaly of sclera	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	74348	Multiple and combined congenital anomalies of anterior segment of eye	Diagnosis	ICD-9-CM
Index-defining	Any	2	74349	Other congenital anomaly of anterior segment of eye	Diagnosis	ICD-9-CM
Index-defining	Any	2	7435	Congenital anomalies of posterior segment of eye	Diagnosis	ICD-9-CM
Index-defining	Any	2	74351	Vitreous anomaly, congenital	Diagnosis	ICD-9-CM
Index-defining	Any	2	74352	Fundus coloboma	Diagnosis	ICD-9-CM
Index-defining	Any	2	74353	Congenital chorioretinal degeneration	Diagnosis	ICD-9-CM
Index-defining	Any	2	74354	Congenital folds and cysts of posterior segment of eye	Diagnosis	ICD-9-CM
Index-defining	Any	2	74355	Congenital macular change	Diagnosis	ICD-9-CM
Index-defining	Any	2	74356	Other congenital retinal changes	Diagnosis	ICD-9-CM
Index-defining	Any	2	74357	Specified congenital anomalies of optic disc	Diagnosis	ICD-9-CM
Index-defining	Any	2	74358	Congenital vascular anomalies of posterior segment of eye	Diagnosis	ICD-9-CM
Index-defining	Any	2	74359	Other congenital anomalies of posterior segment of eye	Diagnosis	ICD-9-CM
Index-defining	Any	2	7439	Unspecified congenital anomaly of eye	Diagnosis	ICD-9-CM
Index-defining	Any	2	7440	Congenital anomalies of ear causing impairment of hearing	Diagnosis	ICD-9-CM
Index-defining	Any	2	74400	Unspecified congenital anomaly of ear causing impairment of hearing	Diagnosis	ICD-9-CM
Index-defining	Any	2	74401	Congenital absence of external ear causing impairment of hearing	Diagnosis	ICD-9-CM
Index-defining	Any	2	74402	Other congenital anomaly of external ear causing impairment of hearing	Diagnosis	ICD-9-CM
Index-defining	Any	2	74403	Congenital anomaly of middle ear, except ossicles, causing impairment of hearing	Diagnosis	ICD-9-CM
Index-defining	Any	2	74404	Congenital anomalies of ear ossicles	Diagnosis	ICD-9-CM
Index-defining	Any	2	74405	Congenital anomalies of inner ear	Diagnosis	ICD-9-CM
Index-defining	Any	2	74409	Other congenital anomalies of ear causing impairment of hearing	Diagnosis	ICD-9-CM
Index-defining	Any	2	7442	Other specified congenital anomalies of ear	Diagnosis	ICD-9-CM
Index-defining	Any	2	74422	Macrotia	Diagnosis	ICD-9-CM
Index-defining	Any	2	74423	Microtia	Diagnosis	ICD-9-CM
Index-defining	Any	2	74424	Specified congenital anomaly of Eustachian tube	Diagnosis	ICD-9-CM
Index-defining	Any	2	7443	Unspecified congenital anomaly of ear	Diagnosis	ICD-9-CM
Index-defining	Any	2	7476	Other congenital anomaly of peripheral vascular system	Diagnosis	ICD-9-CM
Index-defining	Any	2	74760	Congenital anomaly of the peripheral vascular system, unspecified site	Diagnosis	ICD-9-CM
Index-defining	Any	2	74761	Congenital gastrointestinal vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	Any	2	74762	Congenital renal vessel anomaly	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	74763	Congenital upper limb vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	Any	2	74764	Congenital lower limb vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	Any	2	74769	Congenital anomaly of other specified site of peripheral vascular system	Diagnosis	ICD-9-CM
Index-defining	Any	2	7478	Other specified congenital anomalies of circulatory system	Diagnosis	ICD-9-CM
Index-defining	Any	2	74781	Congenital anomaly of cerebrovascular system	Diagnosis	ICD-9-CM
Index-defining	Any	2	74782	Congenital spinal vessel anomaly	Diagnosis	ICD-9-CM
Index-defining	Any	2	74789	Other specified congenital anomaly of circulatory system	Diagnosis	ICD-9-CM
Index-defining	Any	2	7479	Unspecified congenital anomaly of circulatory system	Diagnosis	ICD-9-CM
Index-defining	Any	2	7480	Congenital choanal atresia	Diagnosis	ICD-9-CM
Index-defining	Any	2	7482	Congenital web of larynx	Diagnosis	ICD-9-CM
Index-defining	Any	2	7483	Other congenital anomaly of larynx, trachea, and bronchus	Diagnosis	ICD-9-CM
Index-defining	Any	2	7484	Congenital cystic lung	Diagnosis	ICD-9-CM
Index-defining	Any	2	7485	Congenital agenesis, hypoplasia, and dysplasia of lung	Diagnosis	ICD-9-CM
Index-defining	Any	2	7486	Congenital other anomalies of lung	Diagnosis	ICD-9-CM
Index-defining	Any	2	74860	Unspecified congenital anomaly of lung	Diagnosis	ICD-9-CM
Index-defining	Any	2	74861	Congenital bronchiectasis	Diagnosis	ICD-9-CM
Index-defining	Any	2	74869	Other congenital anomaly of lung	Diagnosis	ICD-9-CM
Index-defining	Any	2	7488	Other specified congenital anomaly of respiratory system	Diagnosis	ICD-9-CM
Index-defining	Any	2	7489	Unspecified congenital anomaly of respiratory system	Diagnosis	ICD-9-CM
Index-defining	Any	2	7490	Cleft palate	Diagnosis	ICD-9-CM
Index-defining	Any	2	74900	Unspecified cleft palate	Diagnosis	ICD-9-CM
Index-defining	Any	2	74901	Unilateral cleft palate, complete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74902	Unilateral cleft palate, incomplete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74903	Bilateral cleft palate, complete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74904	Bilateral cleft palate, incomplete	Diagnosis	ICD-9-CM
Index-defining	Any	2	7491	Cleft lip	Diagnosis	ICD-9-CM
Index-defining	Any	2	74910	Unspecified cleft lip	Diagnosis	ICD-9-CM
Index-defining	Any	2	74911	Unilateral cleft lip, complete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74912	Unilateral cleft lip, incomplete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74913	Bilateral cleft lip, complete	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	74914	Bilateral cleft lip, incomplete	Diagnosis	ICD-9-CM
Index-defining	Any	2	7492	Cleft palate with cleft lip	Diagnosis	ICD-9-CM
Index-defining	Any	2	74920	Unspecified cleft palate with cleft lip	Diagnosis	ICD-9-CM
Index-defining	Any	2	74921	Unilateral cleft palate with cleft lip, complete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74922	Unilateral cleft palate with cleft lip, incomplete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74923	Bilateral cleft palate with cleft lip, complete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74924	Bilateral cleft palate with cleft lip, incomplete	Diagnosis	ICD-9-CM
Index-defining	Any	2	74925	Other combinations of cleft palate with cleft lip	Diagnosis	ICD-9-CM
Index-defining	Any	2	7502	Other specified congenital anomalies of mouth and pharynx	Diagnosis	ICD-9-CM
Index-defining	Any	2	75021	Congenital absence of salivary gland	Diagnosis	ICD-9-CM
Index-defining	Any	2	75022	Congenital accessory salivary gland	Diagnosis	ICD-9-CM
Index-defining	Any	2	75023	Congenital atresia, salivary duct	Diagnosis	ICD-9-CM
Index-defining	Any	2	75024	Congenital fistula of salivary gland	Diagnosis	ICD-9-CM
Index-defining	Any	2	75025	Congenital fistula of lip	Diagnosis	ICD-9-CM
Index-defining	Any	2	75026	Other specified congenital anomalies of mouth	Diagnosis	ICD-9-CM
Index-defining	Any	2	75027	Congenital diverticulum of pharynx	Diagnosis	ICD-9-CM
Index-defining	Any	2	75029	Other specified congenital anomaly of pharynx	Diagnosis	ICD-9-CM
Index-defining	Any	2	7503	Congenital tracheoesophageal fistula, esophageal atresia and stenosis	Diagnosis	ICD-9-CM
Index-defining	Any	2	7504	Other specified congenital anomaly of esophagus	Diagnosis	ICD-9-CM
Index-defining	Any	2	7505	Congenital hypertrophic pyloric stenosis	Diagnosis	ICD-9-CM
Index-defining	Any	2	7506	Congenital hiatus hernia	Diagnosis	ICD-9-CM
Index-defining	Any	2	7507	Other specified congenital anomalies of stomach	Diagnosis	ICD-9-CM
Index-defining	Any	2	7508	Other specified congenital anomalies of upper alimentary tract	Diagnosis	ICD-9-CM
Index-defining	Any	2	7509	Unspecified congenital anomaly of upper alimentary tract	Diagnosis	ICD-9-CM
Index-defining	Any	2	7511	Congenital atresia and stenosis of small intestine	Diagnosis	ICD-9-CM
Index-defining	Any	2	7512	Congenital atresia and stenosis of large intestine, rectum, and anal canal	Diagnosis	ICD-9-CM
Index-defining	Any	2	7513	Hirschsprung's disease and other congenital functional disorders of colon	Diagnosis	ICD-9-CM
Index-defining	Any	2	7514	Congenital anomalies of intestinal fixation	Diagnosis	ICD-9-CM
Index-defining	Any	2	7515	Other congenital anomalies of intestine	Diagnosis	ICD-9-CM
Index-defining	Any	2	7516	Congenital anomalies of gallbladder, bile ducts, and liver	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	75160	Unspecified congenital anomaly of gallbladder, bile ducts, and liver	Diagnosis	ICD-9-CM
Index-defining	Any	2	75161	Congenital biliary atresia	Diagnosis	ICD-9-CM
Index-defining	Any	2	75162	Congenital cystic disease of liver	Diagnosis	ICD-9-CM
Index-defining	Any	2	75169	Other congenital anomaly of gallbladder, bile ducts, and liver	Diagnosis	ICD-9-CM
Index-defining	Any	2	7517	Congenital anomalies of pancreas	Diagnosis	ICD-9-CM
Index-defining	Any	2	7518	Other specified congenital anomalies of digestive system	Diagnosis	ICD-9-CM
Index-defining	Any	2	7519	Unspecified congenital anomaly of digestive system	Diagnosis	ICD-9-CM
Index-defining	Any	2	7520	Congenital anomalies of ovaries	Diagnosis	ICD-9-CM
Index-defining	Any	2	7521	Congenital anomalies of fallopian tubes and broad ligaments	Diagnosis	ICD-9-CM
Index-defining	Any	2	75210	Unspecified congenital anomaly of fallopian tubes and broad ligaments	Diagnosis	ICD-9-CM
Index-defining	Any	2	75211	Embryonic cyst of fallopian tubes and broad ligaments	Diagnosis	ICD-9-CM
Index-defining	Any	2	75219	Other congenital anomaly of fallopian tubes and broad ligaments	Diagnosis	ICD-9-CM
Index-defining	Any	2	7522	Congenital doubling of uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	7523	Other congenital anomaly of uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75231	Agenesis of uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75232	Hypoplasia of uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75233	Unicornuate uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75234	Bicornuate uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75235	Septate uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75236	Arcuate uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	75239	Other anomalies of uterus	Diagnosis	ICD-9-CM
Index-defining	Any	2	7524	Congenital anomalies of cervix, vagina, and external female genitalia	Diagnosis	ICD-9-CM
Index-defining	Any	2	75240	Unspecified congenital anomaly of cervix, vagina, and external female genitalia	Diagnosis	ICD-9-CM
Index-defining	Any	2	75241	Embryonic cyst of cervix, vagina, and external female genitalia	Diagnosis	ICD-9-CM
Index-defining	Any	2	75243	Cervical agenesis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75244	Cervical duplication	Diagnosis	ICD-9-CM
Index-defining	Any	2	75245	Vaginal agenesis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75246	Transverse vaginal septum	Diagnosis	ICD-9-CM
Index-defining	Any	2	75247	Longitudinal vaginal septum	Diagnosis	ICD-9-CM
Index-defining	Any	2	75249	Other congenital anomaly of cervix, vagina, and external female genitalia	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	7526	Hypospadias and epispadias and other penile anomalies	Diagnosis	ICD-9-CM
Index-defining	Any	2	75261	Hypospadias	Diagnosis	ICD-9-CM
Index-defining	Any	2	75262	Epispadias	Diagnosis	ICD-9-CM
Index-defining	Any	2	75263	Congenital chordee	Diagnosis	ICD-9-CM
Index-defining	Any	2	75264	Micropenis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75265	Hidden penis	Diagnosis	ICD-9-CM
Index-defining	Any	2	75269	Other penile anomalies	Diagnosis	ICD-9-CM
Index-defining	Any	2	7527	Indeterminate sex and pseudohermaphroditism	Diagnosis	ICD-9-CM
Index-defining	Any	2	7528	Other specified congenital anomalies of genital organs	Diagnosis	ICD-9-CM
Index-defining	Any	2	75281	Scrotal transposition	Diagnosis	ICD-9-CM
Index-defining	Any	2	75289	Other specified anomalies of genital organs	Diagnosis	ICD-9-CM
Index-defining	Any	2	7529	Unspecified congenital anomaly of genital organs	Diagnosis	ICD-9-CM
Index-defining	Any	2	7530	Congenital renal agenesis and dysgenesis	Diagnosis	ICD-9-CM
Index-defining	Any	2	7531	Congenital cystic kidney disease	Diagnosis	ICD-9-CM
Index-defining	Any	2	75310	Unspecified congenital cystic kidney disease	Diagnosis	ICD-9-CM
Index-defining	Any	2	75311	Congenital single renal cyst	Diagnosis	ICD-9-CM
Index-defining	Any	2	75312	Congenital polycystic kidney, unspecified type	Diagnosis	ICD-9-CM
Index-defining	Any	2	75313	Congenital polycystic kidney, autosomal dominant	Diagnosis	ICD-9-CM
Index-defining	Any	2	75314	Congenital polycystic kidney, autosomal recessive	Diagnosis	ICD-9-CM
Index-defining	Any	2	75315	Congenital renal dysplasia	Diagnosis	ICD-9-CM
Index-defining	Any	2	75316	Congenital medullary cystic kidney	Diagnosis	ICD-9-CM
Index-defining	Any	2	75317	Congenital medullary sponge kidney	Diagnosis	ICD-9-CM
Index-defining	Any	2	75319	Other specified congenital cystic kidney disease	Diagnosis	ICD-9-CM
Index-defining	Any	2	7532	Congenital obstructive defects of renal pelvis and ureter	Diagnosis	ICD-9-CM
Index-defining	Any	2	75320	Unspecified obstructive defect of renal pelvis and ureter	Diagnosis	ICD-9-CM
Index-defining	Any	2	75321	Congenital obstruction of ureteropelvic junction	Diagnosis	ICD-9-CM
Index-defining	Any	2	75322	Congenital obstruction of ureterovesical junction	Diagnosis	ICD-9-CM
Index-defining	Any	2	75323	Congenital ureterocele	Diagnosis	ICD-9-CM
Index-defining	Any	2	75329	Other obstructive defect of renal pelvis and ureter	Diagnosis	ICD-9-CM
Index-defining	Any	2	7533	Other specified congenital anomalies of kidney	Diagnosis	ICD-9-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	7534	Other specified congenital anomalies of ureter	Diagnosis	ICD-9-CM
Index-defining	Any	2	7535	Exstrophy of urinary bladder	Diagnosis	ICD-9-CM
Index-defining	Any	2	7536	Congenital atresia and stenosis of urethra and bladder neck	Diagnosis	ICD-9-CM
Index-defining	Any	2	7538	Other specified congenital anomaly of bladder and urethra	Diagnosis	ICD-9-CM
Index-defining	Any	2	7539	Unspecified congenital anomaly of urinary system	Diagnosis	ICD-9-CM
Index-defining	Any	2	G901	Familial dysautonomia [Riley-Day]	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q000	Anencephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q001	Craniorachischisis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q002	Iniencephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q010	Frontal encephalocele	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q011	Nasofrontal encephalocele	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q012	Occipital encephalocele	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q018	Encephalocele of other sites	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q019	Encephalocele, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q02	Microcephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q030	Malformations of aqueduct of Sylvius	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q031	Atresia of foramina of Magendie and Luschka	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q038	Other congenital hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q039	Congenital hydrocephalus, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q040	Congenital malformations of corpus callosum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q041	Arhinencephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q042	Holoprosencephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q043	Other reduction deformities of brain	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q044	Septo-optic dysplasia of brain	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q045	Megalencephaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q046	Congenital cerebral cysts	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q048	Other specified congenital malformations of brain	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q049	Congenital malformation of brain, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q050	Cervical spina bifida with hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q051	Thoracic spina bifida with hydrocephalus	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q052	Lumbar spina bifida with hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q053	Sacral spina bifida with hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q054	Unspecified spina bifida with hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q055	Cervical spina bifida without hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q056	Thoracic spina bifida without hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q057	Lumbar spina bifida without hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q058	Sacral spina bifida without hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q059	Spina bifida, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q060	Amyelia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q061	Hypoplasia and dysplasia of spinal cord	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q062	Diastematomyelia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q063	Other congenital cauda equina malformations	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q064	Hydromyelia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q068	Other specified congenital malformations of spinal cord	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q069	Congenital malformation of spinal cord, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q0700	Arnold-Chiari syndrome without spina bifida or hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q0701	Arnold-Chiari syndrome with spina bifida	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q0702	Arnold-Chiari syndrome with hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q0703	Arnold-Chiari syndrome with spina bifida and hydrocephalus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q078	Other specified congenital malformations of nervous system	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q079	Congenital malformation of nervous system, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q110	Cystic eyeball	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q111	Other anophthalmos	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q112	Microphthalmos	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q120	Congenital cataract	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q121	Congenital displaced lens	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q122	Coloboma of lens	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q123	Congenital aphakia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q124	Spherophakia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q128	Other congenital lens malformations	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q129	Congenital lens malformation, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q130	Coloboma of iris	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q131	Absence of iris	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q132	Other congenital malformations of iris	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q133	Congenital corneal opacity	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q134	Other congenital corneal malformations	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q135	Blue sclera	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q1381	Rieger's anomaly	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q1389	Other congenital malformations of anterior segment of eye	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q139	Congenital malformation of anterior segment of eye, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q140	Congenital malformation of vitreous humor	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q141	Congenital malformation of retina	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q142	Congenital malformation of optic disc	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q143	Congenital malformation of choroid	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q148	Other congenital malformations of posterior segment of eye	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q149	Congenital malformation of posterior segment of eye, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q150	Congenital glaucoma	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q159	Congenital malformation of eye, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q160	Congenital absence of (ear) auricle	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q161	Congenital absence, atresia and stricture of auditory canal (external)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q162	Absence of eustachian tube	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q163	Congenital malformation of ear ossicles	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q164	Other congenital malformations of middle ear	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q165	Congenital malformation of inner ear	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q169	Congenital malformation of ear causing impairment of hearing, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q171	Macrotia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q172	Microtia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q179	Congenital malformation of ear, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q265	Anomalous portal venous connection	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q266	Portal vein-hepatic artery fistula	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q271	Congenital renal artery stenosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q272	Other congenital malformations of renal artery	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q2730	Arteriovenous malformation, site unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q2731	Arteriovenous malformation of vessel of upper limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q2732	Arteriovenous malformation of vessel of lower limb	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q2733	Arteriovenous malformation of digestive system vessel	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q2734	Arteriovenous malformation of renal vessel	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q2739	Arteriovenous malformation, other site	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q274	Congenital phlebectasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q278	Other specified congenital malformations of peripheral vascular system	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q279	Congenital malformation of peripheral vascular system, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q280	Arteriovenous malformation of precerebral vessels	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q281	Other malformations of precerebral vessels	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q282	Arteriovenous malformation of cerebral vessels	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q283	Other malformations of cerebral vessels	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q288	Other specified congenital malformations of circulatory system	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q289	Congenital malformation of circulatory system, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q300	Choanal atresia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q310	Web of larynx	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q311	Congenital subglottic stenosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q312	Laryngeal hypoplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q313	Laryngocele	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q315	Congenital laryngomalacia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q318	Other congenital malformations of larynx	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q319	Congenital malformation of larynx, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q320	Congenital tracheomalacia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q321	Other congenital malformations of trachea	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q322	Congenital bronchomalacia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q323	Congenital stenosis of bronchus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q324	Other congenital malformations of bronchus	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q330	Congenital cystic lung	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q331	Accessory lobe of lung	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q332	Sequestration of lung	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q333	Agenesis of lung	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q334	Congenital bronchiectasis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q335	Ectopic tissue in lung	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q336	Congenital hypoplasia and dysplasia of lung	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q338	Other congenital malformations of lung	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q339	Congenital malformation of lung, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q340	Anomaly of pleura	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q341	Congenital cyst of mediastinum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q348	Other specified congenital malformations of respiratory system	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q349	Congenital malformation of respiratory system, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q351	Cleft hard palate	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q353	Cleft soft palate	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q355	Cleft hard palate with cleft soft palate	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q357	Cleft uvula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q359	Cleft palate, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q360	Cleft lip, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q361	Cleft lip, median	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q369	Cleft lip, unilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q370	Cleft hard palate with bilateral cleft lip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q371	Cleft hard palate with unilateral cleft lip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q372	Cleft soft palate with bilateral cleft lip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q373	Cleft soft palate with unilateral cleft lip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q374	Cleft hard and soft palate with bilateral cleft lip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q375	Cleft hard and soft palate with unilateral cleft lip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q378	Unspecified cleft palate with bilateral cleft lip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q379	Unspecified cleft palate with unilateral cleft lip	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q380	Congenital malformations of lips, not elsewhere classified	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q384	Congenital malformations of salivary glands and ducts	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q385	Congenital malformations of palate, not elsewhere classified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q386	Other congenital malformations of mouth	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q387	Congenital pharyngeal pouch	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q388	Other congenital malformations of pharynx	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q390	Atresia of esophagus without fistula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q391	Atresia of esophagus with tracheo-esophageal fistula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q392	Congenital tracheo-esophageal fistula without atresia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q393	Congenital stenosis and stricture of esophagus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q394	Esophageal web	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q395	Congenital dilatation of esophagus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q396	Congenital diverticulum of esophagus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q398	Other congenital malformations of esophagus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q399	Congenital malformation of esophagus, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q400	Congenital hypertrophic pyloric stenosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q401	Congenital hiatus hernia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q402	Other specified congenital malformations of stomach	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q403	Congenital malformation of stomach, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q408	Other specified congenital malformations of upper alimentary tract	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q409	Congenital malformation of upper alimentary tract, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q410	Congenital absence, atresia and stenosis of duodenum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q411	Congenital absence, atresia and stenosis of jejunum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q412	Congenital absence, atresia and stenosis of ileum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q418	Congenital absence, atresia and stenosis of other specified parts of small intestine	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q419	Congenital absence, atresia and stenosis of small intestine, part unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q420	Congenital absence, atresia and stenosis of rectum with fistula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q421	Congenital absence, atresia and stenosis of rectum without fistula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q422	Congenital absence, atresia and stenosis of anus with fistula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q423	Congenital absence, atresia and stenosis of anus without fistula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q428	Congenital absence, atresia and stenosis of other parts of large intestine	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q429	Congenital absence, atresia and stenosis of large intestine, part unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q431	Hirschsprung's disease	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q432	Other congenital functional disorders of colon	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q433	Congenital malformations of intestinal fixation	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q434	Duplication of intestine	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q435	Ectopic anus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q436	Congenital fistula of rectum and anus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q437	Persistent cloaca	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q438	Other specified congenital malformations of intestine	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q439	Congenital malformation of intestine, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q440	Agenesis, aplasia and hypoplasia of gallbladder	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q441	Other congenital malformations of gallbladder	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q442	Atresia of bile ducts	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q443	Congenital stenosis and stricture of bile ducts	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q444	Choledochal cyst	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q445	Other congenital malformations of bile ducts	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q446	Cystic disease of liver	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q447	Other congenital malformations of liver	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q450	Agenesis, aplasia and hypoplasia of pancreas	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q451	Annular pancreas	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q452	Congenital pancreatic cyst	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q453	Other congenital malformations of pancreas and pancreatic duct	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q458	Other specified congenital malformations of digestive system	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q459	Congenital malformation of digestive system, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5001	Congenital absence of ovary, unilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5002	Congenital absence of ovary, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q501	Developmental ovarian cyst	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q502	Congenital torsion of ovary	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5031	Accessory ovary	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5032	Ovarian streak	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q5039	Other congenital malformation of ovary	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q504	Embryonic cyst of fallopian tube	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q505	Embryonic cyst of broad ligament	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q506	Other congenital malformations of fallopian tube and broad ligament	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q510	Agenesis and aplasia of uterus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5110	Doubling of uterus with doubling of cervix and vagina without obstruction	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5111	Doubling of uterus with doubling of cervix and vagina with obstruction	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q512	Other doubling of uterus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q513	Bicornate uterus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q514	Unicornate uterus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q515	Agenesis and aplasia of cervix	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q516	Embryonic cyst of cervix	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q517	Congenital fistulae between uterus and digestive and urinary tracts	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q51810	Arcuate uterus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q51811	Hypoplasia of uterus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q51818	Other congenital malformations of uterus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q51820	Cervical duplication	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q51821	Hypoplasia of cervix	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q51828	Other congenital malformations of cervix	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q519	Congenital malformation of uterus and cervix, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q520	Congenital absence of vagina	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5210	Doubling of vagina, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5211	Transverse vaginal septum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q52120	Longitudinal vaginal septum, nonobstructing	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q52121	Longitudinal vaginal septum, obstructing, right side	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q52122	Longitudinal vaginal septum, obstructing, left side	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q52123	Longitudinal vaginal septum, microperforate, right side	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q52124	Longitudinal vaginal septum, microperforate, left side	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q52129	Other and unspecified longitudinal vaginal septum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q522	Congenital rectovaginal fistula	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q524	Other congenital malformations of vagina	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q525	Fusion of labia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q526	Congenital malformation of clitoris	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5270	Unspecified congenital malformations of vulva	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5271	Congenital absence of vulva	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5279	Other congenital malformations of vulva	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q528	Other specified congenital malformations of female genitalia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q529	Congenital malformation of female genitalia, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q540	Hypospadias, balanic	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q541	Hypospadias, penile	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q542	Hypospadias, penoscrotal	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q543	Hypospadias, perineal	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q544	Congenital chordee	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q548	Other hypospadias	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q549	Hypospadias, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q550	Absence and aplasia of testis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q551	Hypoplasia of testis and scrotum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5520	Unspecified congenital malformations of testis and scrotum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5521	Polyorchism	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5523	Scrotal transposition	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5529	Other congenital malformations of testis and scrotum	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q553	Atresia of vas deferens	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q554	Other congenital malformations of vas deferens, epididymis, seminal vesicles and prostate	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q555	Congenital absence and aplasia of penis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5561	Curvature of penis (lateral)	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5562	Hypoplasia of penis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5563	Congenital torsion of penis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5564	Hidden penis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q5569	Other congenital malformation of penis	Diagnosis	ICD-10-CM

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q557	Congenital vasocutaneous fistula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q558	Other specified congenital malformations of male genital organs	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q559	Congenital malformation of male genital organ, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q560	Hermaphroditism, not elsewhere classified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q561	Male pseudohermaphroditism, not elsewhere classified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q562	Female pseudohermaphroditism, not elsewhere classified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q563	Pseudohermaphroditism, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q564	Indeterminate sex, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q600	Renal agenesis, unilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q601	Renal agenesis, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q602	Renal agenesis, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q603	Renal hypoplasia, unilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q604	Renal hypoplasia, bilateral	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q605	Renal hypoplasia, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q606	Potter's syndrome	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6100	Congenital renal cyst, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6101	Congenital single renal cyst	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6102	Congenital multiple renal cysts	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6111	Cystic dilatation of collecting ducts	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6119	Other polycystic kidney, infantile type	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q612	Polycystic kidney, adult type	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q613	Polycystic kidney, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q614	Renal dysplasia	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q615	Medullary cystic kidney	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q618	Other cystic kidney diseases	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q619	Cystic kidney disease, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q620	Congenital hydronephrosis	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6210	Congenital occlusion of ureter, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6211	Congenital occlusion of ureteropelvic junction	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6212	Congenital occlusion of ureterovesical orifice	Diagnosis	ICD-10-CM

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

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q622	Congenital megaureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6231	Congenital ureterocele, orthotopic	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6232	Cecoureterocele	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6239	Other obstructive defects of renal pelvis and ureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q624	Agenesis of ureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q625	Duplication of ureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6260	Malposition of ureter, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6261	Deviation of ureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6262	Displacement of ureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6263	Anomalous implantation of ureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6269	Other malposition of ureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q627	Congenital vesico-uretero-renal reflux	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q628	Other congenital malformations of ureter	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q630	Accessory kidney	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q631	Lobulated, fused and horseshoe kidney	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q632	Ectopic kidney	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q633	Hyperplastic and giant kidney	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q638	Other specified congenital malformations of kidney	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q639	Congenital malformation of kidney, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q640	Epispadias	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6410	Exstrophy of urinary bladder, unspecified	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6411	Supravesical fissure of urinary bladder	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6412	Cloacal exstrophy of urinary bladder	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6419	Other exstrophy of urinary bladder	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q642	Congenital posterior urethral valves	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6431	Congenital bladder neck obstruction	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6432	Congenital stricture of urethra	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6433	Congenital stricture of urinary meatus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6439	Other atresia and stenosis of urethra and bladder neck	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q645	Congenital absence of bladder and urethra	Diagnosis	ICD-10-CM

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

Code Definition	Care Setting[1]	Number of Recordings	Code	Description	Code Category	Code Type
Index-defining	Any	2	Q646	Congenital diverticulum of bladder	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6470	Unspecified congenital malformation of bladder and urethra	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6471	Congenital prolapse of urethra	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6472	Congenital prolapse of urinary meatus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6473	Congenital urethrorectal fistula	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6474	Double urethra	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6475	Double urinary meatus	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q6479	Other congenital malformations of bladder and urethra	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q648	Other specified congenital malformations of urinary system	Diagnosis	ICD-10-CM
Index-defining	Any	2	Q649	Congenital malformation of urinary system, unspecified	Diagnosis	ICD-10-CM

[1]IP* = inpatient, any diagnostic position; IS* = institutional stay, any diagnostic position; AV* = ambulatory visit; OA* = other ambulatory visit

Appendix J. Specifications Defining Cohort Entry in this Request

This request describes baseline characteristics of pregnant and non-pregnant women with and without heart failure (HF), to identify use of oral HF-related therapies before, during and after pregnancy, and to record the capture of maternal and fetal outcomes in the Sentinel Distributed Database (SDD). This analysis required use of the Mother-Infant Linkage (MIL) table in the Sentinel Common Data Model (SCDM).

		Query period:	January 1, 2010 - February 29, 2020
		Coverage requirement:	Medical & Drug Coverage
		Pre-index enrollment requirement:	484 days prior to live birth delivery date
		Post-index enrollment requirement:	90 days post live birth delivery date
		Enrollment gap:	45 days
		Sex:	Female only
		Age groups:	15-19, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54 years
		Stratifications:	Age group; Calendar year; Pregnancy period (pre-pregnancy, trimesters)

	Pregnancy Episode									**Mother-Infant Linkage Criteria**		
Scenario	Pre-pregnancy start evaluation period	Delivery codes definition	Delivery care setting	Delivery washout period	Cohort definition	Pregnancy duration definition (pre/postterm codes)	Pregnancy duration in absence of pre/postterm codes	Pre/postterm evaluation window	Matched non-pregnant cohort	Infant enrollment grace period	Infant birthdate grace period	Linkage type
1	183 days	Medication Exposure in Pregnancy Risk Evaluation Program (MEPREP) Pregnancy Algorithm	Inpatient, any diagnostic position (IP*)	301 days	All valid pregnancy episodes during the query period	MEPREP Pregnancy Algorithm	273 days	7 days	Yes	-	3 days	LINKED: *Birth certificate *Birth registry *Health plan subscriber or family number *Exact or probabilistic last name and address match based upon health plan administrative data *Other

Appendix J. Specifications Defining Cohort Entry in this Request

| Scenario | Pregnancy Episode | | | | | | | | | Mother-Infant Linkage Criteria | | |
	Pre-pregnancy start evaluation period	Delivery codes definition	Delivery care setting	Delivery washout period	Cohort definition	Pregnancy duration definition (pre/postterm codes)	Pregnancy duration in absence of pre/postterm codes	Pre/postterm evaluation window	Matched non-pregnant cohort	Infant enrollment grace period	Infant birthdate grace period	Linkage type
2	183 days	MEPREP Pregnancy Algorithm	Inpatient, any diagnostic position (IP*)	301 days	All valid pregnancy episodes during the query period	MEPREP Pregnancy Algorithm	273 days	7 days	No	-	3 days	LINKED: *Birth certificate *Birth registry *Health plan subscriber or family number *Exact or probabilistic last name and address match based upon health plan administrative data *Other
3	183 days	MEPREP Pregnancy Algorithm	Inpatient, any diagnostic position (IP*)	301 days	All valid pregnancy episodes during the query period	MEPREP Pregnancy Algorithm	273 days	7 days	Yes	-	3 days	LINKED: *Birth certificate *Birth registry *Health plan subscriber or family number *Exact or probabilistic last name and address match based upon health plan administrative data *Other

Appendix J. Specifications Defining Cohort Entry in this Request

	Pregnancy Episode									Mother-Infant Linkage Criteria		
Scenario	Pre-pregnancy start evaluation period	Delivery codes definition	Delivery care setting	Delivery washout period	Cohort definition	Pregnancy duration definition (pre/postterm codes)	Pregnancy duration in absence of pre/postterm codes	Pre/postterm evaluation window	Matched non-pregnant cohort	Infant enrollment grace period	Infant birthdate grace period	Linkage type
4	183 days	MEPREP Pregnancy Algorithm	Inpatient, any diagnostic position (IP*)	301 days	All valid pregnancy episodes during the query period	MEPREP Pregnancy Algorithm	273 days	7 days	No	-	3 days	LINKED: *Birth certificate *Birth registry *Health plan subscriber or family number *Exact or probabilistic last name and address match based upon health plan administrative data *Other

Appendix J. Specifications Defining Cohort Entry in this Request

Scenario	Condition	Number of recordings required to define condition	Care setting	Principal diagnosis position	Anchor date	Evaluation period
			Inclusion/Exclusion Criteria			
1	Heart failure diagnosis	1	Inpatient (IP/IS)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	Heart failure diagnosis	2	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	Heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	AND Heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Delivery date	(-182, 0) *2nd or 3rd trimester*
	Heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) days *pre-pregnancy period and 1st trimester*
	AND Dispensing of oral heart failure-related medication	1	Outpatient pharmacy dispensing	N/A	Outpatient heart failure diagnosis above	(+/- 60) days of HF diagnosis
2	Heart failure diagnosis	1	Inpatient (IP/IS)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	Heart failure diagnosis	2	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	Heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	AND Heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Delivery date	(-182, 0) *2nd or 3rd trimester*
	Heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) days *pre-pregnancy period and 1st trimester*
	AND Dispensing of oral heart failure-related medication	1	Outpatient pharmacy dispensing	N/A	Outpatient heart failure diagnosis above	(+/- 60) days of HF diagnosis

Appendix J. Specifications Defining Cohort Entry in this Request

			Inclusion/Exclusion Criteria			
Scenario	Condition	Number of recordings required to define condition	Care setting	Principal diagnosis position	Anchor date	Evaluation period
3	Reduced ejection fraction heart failure diagnosis	1	Inpatient (IP/IS)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	Reduced ejection fraction heart failure diagnosis	2	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	Reduced ejection fraction heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	AND Reduced ejection fraction heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Delivery date	(-182, 0) *2nd or 3rd trimester*
	Reduced ejection fraction heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) days *pre-pregnancy period and 1st trimester*
	AND Dispensing of oral heart failure-related medication	1	Outpatient pharmacy dispensing	N/A	Outpatient heart failure diagnosis above	(+/- 60) days of HF diagnosis
4	Reduced ejection fraction heart failure diagnosis	1	Inpatient (IP/IS)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	Reduced ejection fraction heart failure diagnosis	2	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	Reduced ejection fraction heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period and 1st trimester*
	AND Reduced ejection fraction heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Delivery date	(-182, 0) *2nd or 3rd trimester*
	Reduced ejection fraction heart failure diagnosis	1	Outpatient (AV/OA)	Any diagnostic position	Estimated pregnancy start date	(-183, +90) days *pre-pregnancy period and 1st trimester*
	AND Dispensing of oral heart failure-related medication	1	Outpatient pharmacy dispensing	N/A	Outpatient heart failure diagnosis above	(+/- 60) days of HF diagnosis

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

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

Baseline Characteristics

Covariate number	Condition	Care setting	Anchor date per Mother-Infant Cohort File	Evaluation period	Number of recordings required to define baseline characteristic
1	Alcohol abuse	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
2	Cardiac arrhythmia	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
3	Cardiac valvular disease	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
4	Cardiomyopathy	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
5	Chronic kidney disease	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
6	Congenital heart disease	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
7	Diabetes (preexisting)	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
8	Drug abuse	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
9	Hypertension (preexisting)	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
10	Ischemic heart disease	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
11	Overweight or obesity	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
12	Pulmonary hypertension	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
13	Rheumatic heart disease	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
14	Thyroid disease	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
15	Tobacco use	Any	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	1
1	Gestational diabetes	Any	Delivery date	(-182, 0) *2nd or 3rd trimester*	1
2	Gestational hypertension	Any	Delivery date	(-182, 0) *2nd or 3rd trimester*	1

Baseline Characteristics

Covariate number	Condition	Care setting	Anchor date per Mother-Infant Cohort File	Evaluation period	Number of recordings required to define baseline characteristic
3	Angiotensin-Converting Enzyme (ACE) inhibitors	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
4	Aldosterone antagonists	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
5	Angiotensin II Receptor Blockers (ARBs)	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
6	Angiotensin Receptor-Neprilysin Inhibitors (ARNIs)	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
7	Beta blockers	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
8	Digoxin	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
9	Diuretics	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
10	Hydralazine and nitrates	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
11	Ivabradine	Outpatient pharmacy dispensing	Delivery date	(+1, +90) *post-pregnancy*	1
-	Combined comorbidity score	-	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Health service utilization intensity	-	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Mean number of ambulatory encounters	AV	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Mean number of emergency room encounters	ED	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Mean number of inpatient hospital encounters	IP	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Mean number of non-acute institutional encounters	IS	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Mean number of other ambulatory encounters	OA	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Drug utilization	-	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-

Baseline Characteristics

Covariate number	Condition	Care setting	Anchor date per Mother-Infant Cohort File	Evaluation period	Number of recordings required to define baseline characteristic
-	Mean number of unique drug classes	-	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Mean number of generics	-	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Mean number of filled prescriptions	-	Estimated pregnancy start date	(-183, +90) *pre-pregnancy period or 1st trimester*	-
-	Combined comorbidity score	-	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Health service utilization intensity	-	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Mean number of ambulatory encounters	AV	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Mean number of emergency room encounters	ED	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Mean number of inpatient hospital encounters	IP	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Mean number of non-acute institutional encounters	IS	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Mean number of other ambulatory encounters	OA	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Drug utilization	-	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Mean number of unique drug classes	-	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Mean number of generics	-	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-
-	Mean number of filled prescriptions	-	Delivery date	(-182, +90) *2nd or 3rd trimester or post-pregnancy period*	-

Evaluation periods:	183 days pre-pregnancy; 1st trimester; 2nd trimester; 3rd trimester
Evaluate dispensings on delivery date:	Yes
Evaluate evidence of dispensing date or days supply:	Dispensing date
Evaluation number:	All valid medical product exposure dispensings
Stockpiling:	Generic name
Episode gap:	0 days
Episode extension:	0 days
Care setting:	Outpatient pharmacy dispensing

Medical Products of Interest (MOI)

MOI number	Exposure	Generic names	Route	Exposure incidence washout period	Forced days supply
1	Angiotensin-Converting Enzyme (ACE) inhibitors	Benazepril Captopril Enalapril Fosinopril Lisinopril Moexipril Perindopril Quinapril Ramipril Trandolapril	Oral	0 days	1
2	Aldosterone antagonists	Eplerenone Spironolactone	Oral	0 days	1
3	Angiotensin II Receptor Blockers (ARBs)	Azilsartan Candesartan Eprosartan Irbesartan Losartan Olmesartan Telmisartan Valsartan	Oral	0 days	1
4	Angiotensin Receptor-Neprilysin Inhibitors (ARNIs)	Sacubitril and valsartan	Oral	0 days	1
5	Beta blockers	Acebutolol Atenolol Betaxolol Bisoprolol Carvedilol Labetalol Metoprolol Nadolol Nebivolol Pindolol Propranolol Sotalol Timolol	Oral	0 days	1
6	Digoxin	Digoxin	Oral	0 days	1

Medical Products of Interest (MOI)

MOI number	Exposure	Generic names	Route	Exposure incidence washout period	Forced days supply
7	Diuretics	Bendroflumethiazide Bumetanide Chlorothiazide Chlorthalidone Ethacrynic acid Furosemide Hydrochlorothiazide Indapamide Methyclothiazide Metolazone Torsemide	Oral	0 days	1
8	Hydralazine and nitrates	Hydralazine Hydralazine/isosorbide dinitrate combination tablet Isosorbide dinitrate Isosorbide mononitrate	Oral	0 days	1
9	Ivabradine	Ivabradine	Oral	0 days	1
10	ACE inhibitors, ARBs, or ARNI	Azilsartan Benazepril Candesartan Captopril Enalapril Eprosartan Fosinopril Irbesartan Lisinopril Losartan Moexipril Olmesartan Perindopril Quinapril Ramipril Sacubitril and valsartan Telmisartan Trandolapril Valsartan	Oral	0 days	1

Maternal and Fetal Health Outcomes of Interest (HOI)

Covariate number	Combo covariate	Event	Care setting	Number of recordings required to define event	Claims to look for outcomes	Anchor date per Mother-Infant Cohort File	Evaluation period
		Maternal HOI					
12	-	Preeclampsia	IP* IS* AV* OA*	1	Mother only (M)	Delivery date	(-140, +30)
13	-	*Mild or unspecified preeclampsia*	IP* IS* AV* OA*	1	Mother only (M)	Delivery date	(-140, +30)
14	-	*Severe preeclampsia / eclampsia*	IP* IS* AV* OA*	1	Mother only (M)	Delivery date	(-140, +30)
15	-	Peripartum cardiomyopathy	Any	1	Mother only (M)	Delivery date	(-140, +90)
16	-	Postpartum hemorrhage	IP* IS*	1	Mother only (M)	Delivery date	(-30, +30)
17	-	Preterm delivery	IP* IS* AV* OA*	1	Mother only (M)	Delivery date	(-30, +30)
18	-	Multiple gestation	Any	1	Mother only (M)	Delivery date	(0, 0)
19	-	Cesarean section	IP* IS*	1	Mother only (M)	Delivery date	(0, 0)
20	-	Acute heart failure recorded during the 2nd or 3rd trimester	Any	1	Mother only (M)	Delivery date	(-182, -1)
21	-	Acute heart failure recorded on delivery date	Any	1	Mother only (M)	Delivery date	(0, 0)
22	-	Acute heart failure recorded after delivery date	Any	1	Mother only (M)	Delivery date	(+1, +90)
23	-	Acute kidney failure recorded during the 2nd or 3rd trimester	Any	1	Mother only (M)	Delivery date	(-182, -1)
24	-	Acute kidney failure recorded on delivery date	Any	1	Mother only (M)	Delivery date	(0, 0)
25	-	Acute kidney failure recorded after delivery date	Any	1	Mother only (M)	Delivery date	(+1, +90)
26	-	Acute respiratory distress syndrome recorded during the 2nd or 3rd trimester	Any	1	Mother only (M)	Delivery date	(-182, -1)
27	-	Acute respiratory distress syndrome recorded on delivery date	Any	1	Mother only (M)	Delivery date	(0, 0)
28	-	Acute respiratory distress syndrome recorded after delivery date	Any	1	Mother only (M)	Delivery date	(+1, +90)
		Infant HOI					
29	-	Small for gestational age	Any	1	Mother only (M)	Delivery date	(0, +30)
42	39 or 40 or 41	Congenital cardiac malformation	-	-	Mother only (M)	Delivery date	(0, +90)
39	30 and not 31	*Ventricular septal defect (VSD)*	-	-	Mother only (M)	Delivery date	(0, +90)
30		*VSD index*	IP* IS*	2	Mother only (M)	Delivery date	(0, +90)
31		*VSD exclusion: Chromosomal abnormality*	IP* IS* AV* OA*	1	Mother only (M)	Delivery date	(0, +90)
40	32 and not (33 or 34)	*Right ventricular outflow tract obstruction (RVOTO)*	-	-	Mother only (M)	Delivery date	(0, +90)
32		*RVOTO index*	IP* IS*	2	Mother only (M)	Delivery date	(0, +90)
33		*RVOTO exclusion: Chromosomal abnormality or preterm delivery*	IP* IS* AV* OA*	1	Mother only (M)	Delivery date	(0, +90)
34		*RVOTO exclusion: Congenital anomaly of the pulmonary valve*	IP* IS*	1	Mother only (M)	Delivery date	(0, +90)
41	35 and not 36	*Other cardiac malformation*	-	-	Mother only (M)	Delivery date	(0, +90)
35		*Other cardiac index*	IP* IS*	1	Mother only (M)	Delivery date	(0, +90)

Maternal and Fetal Health Outcomes of Interest (HOI)

Covariate number	Combo covariate	Event	Care setting	Number of recordings required to define event	Claims to look for outcomes	Anchor date per Mother-Infant Cohort File	Evaluation period
36		*Other cardiac exclusion: Chromosomal abnormality*	IP* IS* AV* OA*	1	Mother only (M)	Delivery date	(0, +90)
37	-	Bone or skeletal malformation	Any	2	Mother only (M)	Delivery date	(0, +90)
38	-	Other major congenital malformation	Any	2	Mother only (M)	Delivery date	(0, +90)
43	37 or 38 or 39 or 40 or 41	Any major malformation: Congenital cardiac malformation, bone or skeletal malformation, or other major congenital malformation	-	-	Mother only (M)	Delivery date	(0, +90)
44	(37 or 38) and not (39 or 40 or 41)	Major malformation, excluding congenital cardiac malformation: Bone or skeletal malformation or other major congenital malformation	-	-	Mother only (M)	Delivery date	(0, +90)