

## 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

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

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

If you are using a web page screen reader and are unable to access this document, please contact the Sentinel Operations Center for assistance at [info@sentinelssystem.org](mailto:info@sentinelssystem.org).

## Overview for Request cder\_mpl1r\_wp097

**Request ID:** cder\_mpl1r\_wp097\_nsdv\_v01

**Request Description:** This report contains estimates of in-vitro fertilization (IVF) and intrauterine insemination (IUI) procedure utilization by gestational age among pregnancies resulting in a live-born delivery.

**Sentinel Routine Querying Module:** Cohort Identification and Descriptive Analysis (CIDA) module, version 5.4.1

**Data Source:** We distributed this request to 16 Data Partners on May 23, 2018. The study period includes data from January 1, 2006 to December 31, 2017. Please see Appendix A for a list of the dates of available data for each Data Partner.

**Study Design:** We identified females between the ages of 15 and 45 years of age with evidence of a live birth. We assessed the prevalence and timing of 12 prenatal tests of interests in the pregnancy period. This is a Type 4 analysis in the Query Request Package (QRP) documentation.

**Pregnancy Episode Creation:** We identified pregnancies ending in a live-birth using a claims-based algorithm.<sup>1</sup> This algorithm used International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) diagnosis codes indicative of weeks of gestation, and International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and ICD-10-CM diagnosis codes for preterm and postterm deliveries, to calculate the length of the pregnancy episode. Codes had to occur within seven days of a delivery date in the inpatient setting. In absence of preterm or postterm codes, pregnancy duration was set to 273 days. Pregnancies were excluded from the cohort if there was evidence of a prior delivery in the 301 days before the delivery date of interest. Please see Appendix B for a list of ICD-9-CM and ICD-10-CM diagnosis codes used in the gestational age algorithm, and Appendix C for codes to define live-born delivery using ICD-9-CM, ICD-10-CM, International Classification of Diseases, Tenth Revision, Procedure Coding System (ICD-10-PCS), and Current Procedural Terminology, Fourth Edition (CPT-4) procedure codes.

**Event Identification During Pregnancy:** We identified prevalent use of IVF/IUI procedures during pregnancy and examined these procedures by gestational weeks. The last exposure during each pregnancy episode was considered to be the valid exposure. IVF and IUI procedures were defined using Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) procedure codes. Please see Appendix D for a list of these codes.

**Cohort Eligibility Criteria:** We required members to be enrolled in plans with medical coverage for 391 days before their delivery date, with gaps in coverage of up to 45 days allowed and treated as continuous enrollment. Females in the following age groups were included in the cohort: 15-19, 20-24, 25-29, 30-34, 35-39, and 40-45 years.

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

**Limitations:** Algorithms used to estimate pregnancy duration and exposures are imperfect; thus, it is possible that there may be misclassification. Therefore, data should be interpreted with this limitation in mind.

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

<sup>1</sup> Andrade, S. E., et al. (2012). "Medication Exposure in Pregnancy Risk Evaluation Program." *Matern Child Health J* 16(7):1349-1354

## Table of Contents

<b><u>Glossary</u></b>	List of Terms Found in this Report and their Definitions
<b><u>Table 1</u></b>	Summary of Pregnancies with In-Vitro Fertilization (IVF)/Intrauterine Insemination (IUI) Procedures in the Sentinel Distributed Database between January 1, 2006 to December 31, 2017, by Gestational Week
<b><u>Figure 1</u></b>	Pregnancies with In-Vitro Fertilization (IVF)/Intrauterine Insemination (IUI) Procedures in the Sentinel Distributed Database (SDD), between January 1, 2006 to December 31, 2017, by Gestational Week
<b><u>Appendix A</u></b>	Start and End Dates for Each Data Partner (DP) as of Request Distribution Date (May 23, 2018)
<b><u>Appendix B</u></b>	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) Diagnosis Codes Used to Define the Gestational Age Algorithm
<b><u>Appendix C</u></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) Diagnosis and Procedure Codes Used to Define Live-Birth Deliveries
<b><u>Appendix D</u></b>	List of Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define the Exposures of Interest in this Request
<b><u>Appendix E</u></b>	Specifications Defining Parameters for this Request

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

**Any Use During Pregnancy** - pregnancy episodes with product use during any trimester.

**Any Use, First Trimester** - pregnancy episodes with product use during the first trimester. The first trimester is 0-90 days following pregnancy start.

**Any Use, Second Trimester** - pregnancy episodes with product use during the second trimester. The second trimester is 91-180 days following pregnancy start.

**Any Use, Third Trimester** - pregnancy episodes with product use during the third trimester. The third trimester is 180+ days following pregnancy start until delivery.

**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). Along with the Principal Diagnosis Indicator, 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.

**Coverage Requirement** - indicates medical and/or drug coverage type requirements for the cohort.

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

**Delivery Washout Period** - number of days before a delivery during which an individual cannot have evidence of a prior delivery.

**Drug Episodes in the 90 Days Before Pregnancy** - number of medical product use episodes in 90 days before pregnancy.

**Drug Episodes During Pregnancy** - number of medical product use episodes in any trimester.

**Drug Episodes, First Trimester** - number of medical product use episodes in the first trimester.

**Drug Episodes, Second Trimester** - number of medical product use episodes in the second trimester.

**Drug Episodes, Third Trimester** - number of medical product use episodes in the third trimester.

**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.

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

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

**Exposure** - defines the medical product(s) of interest. Medical product use is characterized 90 days prior to the start of pregnancy and during each trimester.

**Exposure Washout** - number of days before the start of medical product episode during which an individual cannot have evidence of a prior episode.

**Minimum Pre-delivery Enrollment** - number of days of continuous enrollment in the requester-defined coverage type required before the delivery date.

**Pregnancy Duration in Absence of Pre/Post-Term Codes** - number of days for pregnancy episode length in the absence of pre-term/post-term codes.

**Pre/Post-Term Evaluation Window** - number of days around the delivery date where pre-term/post-term codes to calculate the length of the pregnancy episode are assessed.

**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.

**Use in the 90 Days Before Pregnancy** - pregnancy episodes with product use 90 days before pregnancy start.

**Users** - number of members with exposure during the query period. Member must have no evidence of exposure(s) of interest (defined by incidence criteria) in the prior washout period. A user may only be counted once in a query period.

\*all terms may not be used in this report

**Table 1. Summary of Pregnancies with In-Vitro Fertilization (IVF)/Intrauterine Insemination (IUI) Procedures in the Sentinel Distributed Database between January 1, 2006 to December 31, 2017, by Gestational Week**

Gestational Age (Weeks)	Pregnancies with IVF/IUI	Percentage of Pregnancies with IVF/IUI at Specified Gestational Week per Eligible Pregnancies during Specified Gestational Week		
		Percentage of Pregnancies with IVF/IUI at Specified Gestational Week per Total Eligible Pregnancies <sup>1</sup>	Percentage of Pregnancies with IVF/IUI at Specified Gestational Week per Eligible Pregnancies during Specified Gestational Week <sup>2</sup>	Number of Eligible Pregnancies during Specified Gestational Week
-13	771	0.017%	0.017%	4,617,210
-12	1,030	0.022%	0.022%	4,617,210
-11	1,095	0.024%	0.024%	4,617,210
-10	1,164	0.025%	0.025%	4,617,210
-9	961	0.021%	0.021%	4,617,210
-8	1,111	0.024%	0.024%	4,617,210
-7	1,435	0.031%	0.031%	4,617,210
-6	1,428	0.031%	0.031%	4,617,210
-5	1,015	0.022%	0.022%	4,617,210
-4	1,195	0.026%	0.026%	4,617,210
-3	2,128	0.046%	0.046%	4,617,210
-2	2,182	0.047%	0.047%	4,617,210
-1	1,257	0.027%	0.027%	4,617,210
1	5,141	0.111%	0.111%	4,617,210
2	20,505	0.444%	0.444%	4,617,210
3	40,665	0.881%	0.881%	4,617,210
4	24,380	0.528%	0.528%	4,617,210
5	7,911	0.171%	0.171%	4,617,210
6	2,578	0.056%	0.056%	4,617,210
7	1,332	0.029%	0.029%	4,617,210
8	906	0.020%	0.020%	4,617,210
9	679	0.015%	0.015%	4,617,210
10	522	0.011%	0.011%	4,617,210
11	404	0.009%	0.009%	4,617,210
12	310	0.007%	0.007%	4,617,210
13	333	0.007%	0.007%	4,617,210
14	296	0.006%	0.006%	4,617,210
15	274	0.006%	0.006%	4,617,210
16	240	0.005%	0.005%	4,617,210
17	181	0.004%	0.004%	4,617,210
18	168	0.004%	0.004%	4,617,210
19	144	0.003%	0.003%	4,617,210
20	122	0.003%	0.003%	4,617,210
21	115	0.002%	0.002%	4,617,210
22	128	0.003%	0.003%	4,616,461
23	126	0.003%	0.003%	4,615,762
24	114	0.002%	0.002%	4,614,980
25	95	0.002%	0.002%	4,614,230
26	61	0.001%	0.001%	4,611,441
27	24	0.001%	0.001%	4,610,553
28	12	0.000%	0.000%	4,608,651
29	11	0.000%	0.000%	4,607,385

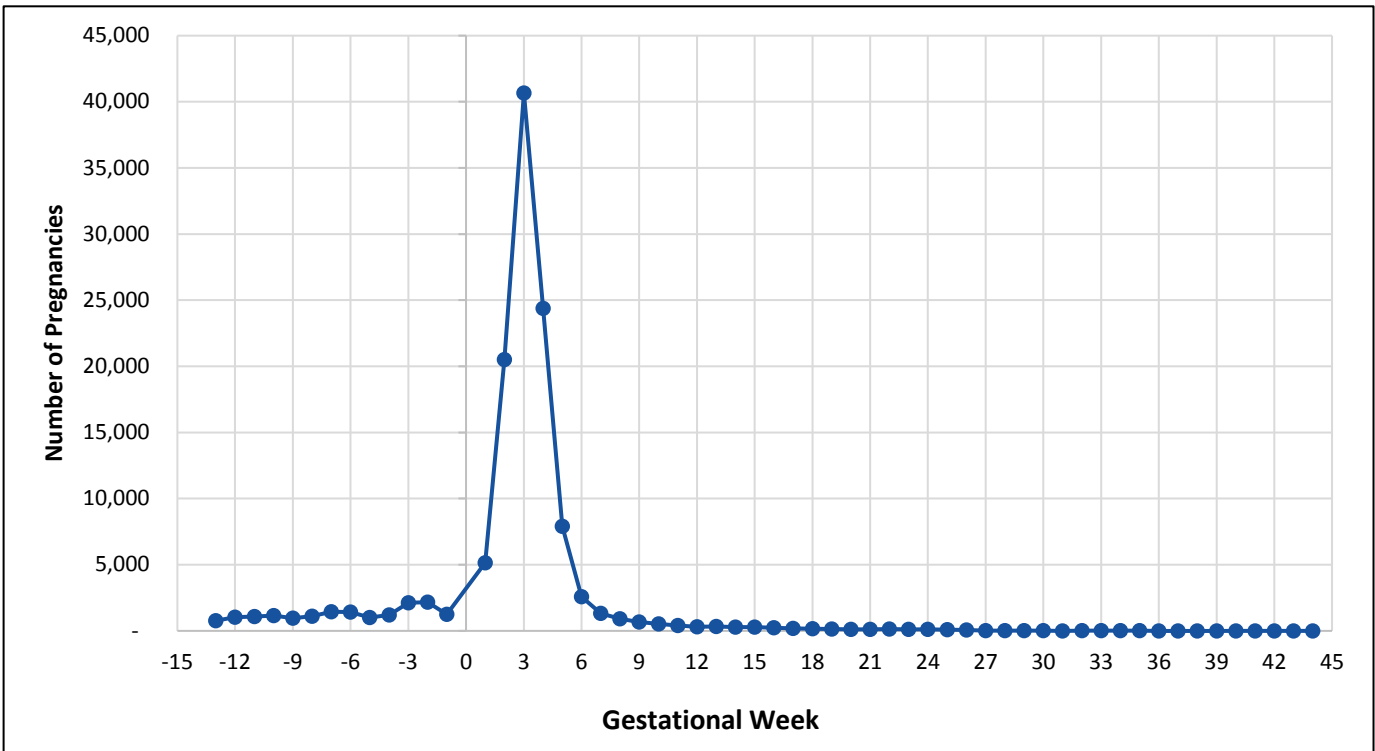
**Table 1. Summary of Pregnancies with In-Vitro Fertilization (IVF)/Intrauterine Insemination (IUI) Procedures in the Sentinel Distributed Database between January 1, 2006 to December 31, 2017, by Gestational Week**

<b>Gestational Age (Weeks)</b>	<b>Pregnancies with IVF/IUI</b>	<b>Percentage of Pregnancies with IVF/IUI at Specified Gestational Week per Total Eligible Pregnancies<sup>1</sup></b>	<b>Percentage of Pregnancies with IVF/IUI at Specified Gestational Week per Eligible Pregnancies during Specified Gestational Week<sup>2</sup></b>	<b>Number of Eligible Pregnancies during Specified Gestational Week</b>
30	8	0.000%	0.000%	4,604,403
31	5	0.000%	0.000%	4,602,713
32	10	0.000%	0.000%	4,599,384
33	8	0.000%	0.000%	4,596,750
34	7	0.000%	0.000%	4,590,636
35	7	0.000%	0.000%	4,585,450
36	6	0.000%	0.000%	4,569,711
37	4	0.000%	0.000%	4,321,746
38	5	0.000%	0.000%	4,271,206
39	3	0.000%	0.000%	4,194,676
40	---	0.000%	0.000%	4,056,030
41	---	0.000%	0.000%	785,036
42	---	0.000%	0.000%	595,910
43	---	0.000%	0.000%	12,427
44	---	0.000%	0.000%	913

<sup>1</sup>The denominator for this column is all eligible pregnancies (n=4,617,210)

<sup>2</sup>The denominator for this column is the number of eligible pregnancies during specified gestational week

**Figure 1. Pregnancies with In-Vitro Fertilization (IVF)/Intrauterine Insemination (IUI) Procedures in the Sentinel Distributed Database (SDD), between January 1, 2006 to December 31, 2017, by Gestational Week**





**Appendix A. Start and End Dates for Each Data Partner (DP) as of Request Distribution Date (May 23, 2018)**

<b>DP ID</b>	<b>DP Start Date*</b>	<b>DP End Date*</b>
DP01	1/1/2008	11/30/2017
DP02	1/1/2006	10/30/2017
DP03	1/1/2004	10/31/2017
DP04	1/1/2000	6/30/2017
DP05	1/1/2000	1/31/2017
DP06	1/2/2000	5/31/2015
DP07	1/1/2000	3/31/2016
DP08	6/1/2007	7/31/2017
DP09	1/1/2000	10/31/2017
DP10	1/1/2000	7/31/2017
DP11	1/1/2005	6/30/2017
DP12	1/1/2000	12/31/2017
DP13	1/1/2000	8/31/2017
DP14	1/1/2008	3/31/2017
DP15	1/1/2000	12/31/2016
DP16	1/1/2012	6/30/2016

\*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.

**Appendix B. 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) Diagnosis Codes Used to Define the Gestational Age Algorithm**

Code	Code Type	Code Category	Duration	Description	Priority Group 1	Priority Group 2	Priority
<b>Gestational Age Look Up</b>							
O48.1	Diagnosis	ICD-10-CM	294	Prolonged pregnancy	0	1	1
P08.22	Diagnosis	ICD-10-CM	294	Prolonged gestation of newborn	0	1	1
Z3A.49	Diagnosis	ICD-10-CM	301	Greater than 42 weeks gestation of pregnancy	1	0	1
O48.0	Diagnosis	ICD-10-CM	287	Post-term pregnancy	0	1	2
P08.21	Diagnosis	ICD-10-CM	287	Post-term newborn	0	1	2
Z3A.42	Diagnosis	ICD-10-CM	298	42 weeks gestation of pregnancy	1	0	2
Z3A.41	Diagnosis	ICD-10-CM	291	41 weeks gestation of pregnancy	1	0	3
Z3A.40	Diagnosis	ICD-10-CM	284	40 weeks gestation of pregnancy	1	0	4
Z3A.39	Diagnosis	ICD-10-CM	277	39 weeks gestation of pregnancy	1	0	5
Z3A.38	Diagnosis	ICD-10-CM	270	38 weeks gestation of pregnancy	1	0	6
Z3A.37	Diagnosis	ICD-10-CM	263	37 weeks gestation of pregnancy	1	0	7
P07.39	Diagnosis	ICD-10-CM	256	Preterm newborn, gestational age 36 completed weeks	1	0	8
Z3A.36	Diagnosis	ICD-10-CM	256	36 weeks gestation of pregnancy	1	0	8
P07.38	Diagnosis	ICD-10-CM	249	Preterm newborn, gestational age 35 completed weeks	1	0	9
Z3A.35	Diagnosis	ICD-10-CM	249	35 weeks gestation of pregnancy	1	0	9
P07.37	Diagnosis	ICD-10-CM	242	Preterm newborn, gestational age 34 completed weeks	1	0	10
Z3A.34	Diagnosis	ICD-10-CM	242	34 weeks gestation of pregnancy	1	0	10
P07.36	Diagnosis	ICD-10-CM	235	Preterm newborn, gestational age 33 completed weeks	1	0	11
Z3A.33	Diagnosis	ICD-10-CM	235	33 weeks gestation of pregnancy	1	0	11
P07.35	Diagnosis	ICD-10-CM	228	Preterm newborn, gestational age 32 completed weeks	1	0	12
Z3A.32	Diagnosis	ICD-10-CM	228	32 weeks gestation of pregnancy	1	0	12
P07.34	Diagnosis	ICD-10-CM	221	Preterm newborn, gestational age 31 completed weeks	1	0	13
Z3A.31	Diagnosis	ICD-10-CM	221	31 weeks gestation of pregnancy	1	0	13
P07.33	Diagnosis	ICD-10-CM	214	Preterm newborn, gestational age 30 completed weeks	1	0	14
Z3A.30	Diagnosis	ICD-10-CM	214	30 weeks gestation of pregnancy	1	0	14
P07.32	Diagnosis	ICD-10-CM	207	Preterm newborn, gestational age 29 completed weeks	1	0	15
Z3A.29	Diagnosis	ICD-10-CM	207	29 weeks gestation of pregnancy	1	0	15
P07.31	Diagnosis	ICD-10-CM	200	Preterm newborn, gestational age 28 completed weeks	1	0	16
Z3A.28	Diagnosis	ICD-10-CM	200	28 weeks gestation of pregnancy	1	0	16

**Appendix B. 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) Diagnosis Codes Used to Define the Gestational Age Algorithm**

Code	Code Type	Code Category	Duration	Description	Priority Group 1	Priority Group 2	Priority
P07.26	Diagnosis	ICD-10-CM	193	Extreme immaturity of newborn, gestational age 27 completed weeks	1	0	17
Z3A.27	Diagnosis	ICD-10-CM	193	27 weeks gestation of pregnancy	1	0	17
P07.25	Diagnosis	ICD-10-CM	186	Extreme immaturity of newborn, gestational age 26 completed weeks	1	0	18
Z3A.26	Diagnosis	ICD-10-CM	186	26 weeks gestation of pregnancy	1	0	18
P07.24	Diagnosis	ICD-10-CM	179	Extreme immaturity of newborn, gestational age 25 completed weeks	1	0	19
Z3A.25	Diagnosis	ICD-10-CM	179	25 weeks gestation of pregnancy	1	0	19
P07.23	Diagnosis	ICD-10-CM	172	Extreme immaturity of newborn, gestational age 24 completed weeks	1	0	20
Z3A.24	Diagnosis	ICD-10-CM	172	24 weeks gestation of pregnancy	1	0	20
P07.22	Diagnosis	ICD-10-CM	165	Extreme immaturity of newborn, gestational age 23 completed weeks	1	0	21
Z3A.23	Diagnosis	ICD-10-CM	165	23 weeks gestation of pregnancy	1	0	21
P07.21	Diagnosis	ICD-10-CM	158	Extreme immaturity of newborn, gestational age less than 23 completed weeks	1	0	22
Z3A.22	Diagnosis	ICD-10-CM	158	22 weeks gestation of pregnancy	1	0	22
Z3A.21	Diagnosis	ICD-10-CM	151	21 weeks gestation of pregnancy	1	0	23
Z3A.20	Diagnosis	ICD-10-CM	144	20 weeks gestation of pregnancy	1	0	24
P07.20	Diagnosis	ICD-10-CM	196	Extreme immaturity of newborn, unspecified weeks of gestation	1	0	25
O60.13X0	Diagnosis	ICD-10-CM	245	Preterm labor second trimester with preterm delivery third trimester	1	0	26
O60.13X1	Diagnosis	ICD-10-CM	245	Preterm labor second trimester with preterm delivery third trimester	1	0	26
O60.13X2	Diagnosis	ICD-10-CM	245	Preterm labor second trimester with preterm delivery third trimester	1	0	26
O60.13X3	Diagnosis	ICD-10-CM	245	Preterm labor second trimester with preterm delivery third trimester	1	0	26
O60.13X4	Diagnosis	ICD-10-CM	245	Preterm labor second trimester with preterm delivery third trimester	1	0	26
O60.13X5	Diagnosis	ICD-10-CM	245	Preterm labor second trimester with preterm delivery third trimester	1	0	26
O60.13X9	Diagnosis	ICD-10-CM	245	Preterm labor second trimester with preterm delivery third trimester	1	0	26
O60.14X0	Diagnosis	ICD-10-CM	245	Preterm labor third trimester with preterm delivery third trimester	1	0	26
O60.14X1	Diagnosis	ICD-10-CM	245	Preterm labor third trimester with preterm delivery third trimester	1	0	26
O60.14X2	Diagnosis	ICD-10-CM	245	Preterm labor third trimester with preterm delivery third trimester	1	0	26
O60.14X3	Diagnosis	ICD-10-CM	245	Preterm labor third trimester with preterm delivery third trimester	1	0	26
O60.14X4	Diagnosis	ICD-10-CM	245	Preterm labor third trimester with preterm delivery third trimester	1	0	26
O60.14X5	Diagnosis	ICD-10-CM	245	Preterm labor third trimester with preterm delivery third trimester	1	0	26
O60.14X9	Diagnosis	ICD-10-CM	245	Preterm labor third trimester with preterm delivery third trimester	1	0	26
P07.30	Diagnosis	ICD-10-CM	245	Preterm newborn, unspecified weeks of gestation	1	0	26

**Appendix B. 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) Diagnosis Codes Used to Define the Gestational Age Algorithm**

Code	Code Type	Code Category	Duration	Description	Priority Group 1	Priority Group 2	Priority
O60.12X0	Diagnosis	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X1	Diagnosis	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X2	Diagnosis	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X3	Diagnosis	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X4	Diagnosis	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X5	Diagnosis	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X9	Diagnosis	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
645.20	Diagnosis	ICD-9-CM	294	Prolonged pregnancy	0	1	28
645.21	Diagnosis	ICD-9-CM	294	Prolonged pregnancy	0	1	28
645.23	Diagnosis	ICD-9-CM	294	Prolonged pregnancy	0	1	28
765.28	Diagnosis	ICD-9-CM	252	35-36 completed weeks of gestation	1	0	28
766.22	Diagnosis	ICD-9-CM	294	Prolonged gestation of infant	0	1	28
645.10	Diagnosis	ICD-9-CM	287	Post term pregnancy	0	1	29
645.11	Diagnosis	ICD-9-CM	287	Post term pregnancy	0	1	29
645.13	Diagnosis	ICD-9-CM	287	Post term pregnancy	0	1	29
765.27	Diagnosis	ICD-9-CM	238	33-34 completed weeks of gestation	1	0	29
766.21	Diagnosis	ICD-9-CM	287	Post-term infant	0	1	29
765.26	Diagnosis	ICD-9-CM	224	31-32 completed weeks of gestation	1	0	30
765.25	Diagnosis	ICD-9-CM	210	29-30 completed weeks of gestation	1	0	31
765.24	Diagnosis	ICD-9-CM	196	27-28 completed weeks of gestation	1	0	32
765.23	Diagnosis	ICD-9-CM	182	25-26 completed weeks of gestation	1	0	33
765.21	Diagnosis	ICD-9-CM	168	Less than 24 completed weeks of gestation	1	0	34
765.22	Diagnosis	ICD-9-CM	168	24 completed weeks of gestation	1	0	34
765.00	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.01	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.02	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.03	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.04	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.05	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.06	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35

**Appendix B. 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) Diagnosis Codes Used to Define the Gestational Age Algorithm**

Code	Code Type	Code Category	Duration	Description	Priority Group 1	Priority Group 2	Priority
765.07	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.08	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.09	Diagnosis	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
644.21	Diagnosis	ICD-9-CM	245	Early onset of delivery, delivered, with or without mention of antepartum condition	1	0	36
765.10	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.11	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.12	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.13	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
7651.4	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.15	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.16	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.17	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.18	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.19	Diagnosis	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.20	Diagnosis	ICD-9-CM	245	Unspecified weeks of gestation	1	0	36

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  $\geq 42$  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, second 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.

**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), 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 Deliveries**

Code	Description	Code Category	Code Type
<b>Live-Birth Delivery</b>			
0W8NXZZ	Division of Female Perineum, External Approach	ICD-10-PCS	Procedure
10900ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Open	ICD-10-PCS	Procedure
10903ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Percutaneous Approach	ICD-10-PCS	Procedure
10904ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Percutaneous Endoscopic Approach	ICD-10-PCS	Procedure
10907ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Via Natural or Artificial Opening	ICD-10-PCS	Procedure
10908ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Via Natural or Artificial Opening Endoscopic	ICD-10-PCS	Procedure
10D00Z0	Extraction of Products of Conception, Classical, Open Approach	ICD-10-PCS	Procedure
10D00Z1	Extraction of Products of Conception, Low Cervical, Open Approach	ICD-10-PCS	Procedure
10D00Z2	Extraction of Products of Conception, Extraperitoneal, Open Approach	ICD-10-PCS	Procedure
10D07Z3	Extraction of Products of Conception, Low Forceps, Via Natural or Artificial	ICD-10-PCS	Procedure
10D07Z4	Extraction of Products of Conception, Mid Forceps, Via Natural or Artificial Opening	ICD-10-PCS	Procedure
10D07Z5	Extraction of Products of Conception, High Forceps, Via Natural or Artificial	ICD-10-PCS	Procedure
10D07Z6	Extraction of Products of Conception, Vacuum, Via Natural or Artificial Opening	ICD-10-PCS	Procedure
10D07Z7	Extraction of Products of Conception, Internal Version, Via Natural or Artificial	ICD-10-PCS	Procedure
10D07Z8	Extraction of Products of Conception, Other, Via Natural or Artificial Opening	ICD-10-PCS	Procedure
10E0XZZ	Delivery of Products of Conception, External Approach	ICD-10-PCS	Procedure
10S07ZZ	Reposition Products of Conception, Via Natural or Artificial Opening	ICD-10-PCS	Procedure
O10.02	Pre-existing essential hypertension complicating childbirth	ICD-10-CM	Diagnosis
O10.12	Pre-existing hypertensive heart disease complicating childbirth	ICD-10-CM	Diagnosis
O10.22	Pre-existing hypertensive chronic kidney disease complicating childbirth	ICD-10-CM	Diagnosis
O10.32	Pre-existing hypertensive heart and chronic kidney disease complicating childbirth	ICD-10-CM	Diagnosis
O10.42	Pre-existing secondary hypertension complicating childbirth	ICD-10-CM	Diagnosis
O10.92	Unspecified pre-existing hypertension complicating childbirth	ICD-10-CM	Diagnosis
O11.4	Pre-existing hypertension with pre-eclampsia, complicating childbirth	ICD-10-CM	Diagnosis
O12.04	Gestational edema, complicating childbirth	ICD-10-CM	Diagnosis
O12.14	Gestational proteinuria, complicating childbirth	ICD-10-CM	Diagnosis
O12.24	Gestational edema with proteinuria, complicating childbirth	ICD-10-CM	Diagnosis
O13.4	Gestational [pregnancy-induced] hypertension without significant proteinuria, complicating childbirth	ICD-10-CM	Diagnosis
O14.04	Mild to moderate pre-eclampsia, complicating childbirth	ICD-10-CM	Diagnosis
O14.14	Severe pre-eclampsia complicating childbirth	ICD-10-CM	Diagnosis
O14.24	HELLP syndrome, complicating childbirth	ICD-10-CM	Diagnosis
O14.94	Unspecified pre-eclampsia, complicating childbirth	ICD-10-CM	Diagnosis
O16.4	Unspecified maternal hypertension, complicating childbirth	ICD-10-CM	Diagnosis
O24.02	Pre-existing type 1 diabetes mellitus, in childbirth	ICD-10-CM	Diagnosis
O24.12	Pre-existing type 2 diabetes mellitus, in childbirth	ICD-10-CM	Diagnosis
O24.32	Unspecified pre-existing diabetes mellitus in childbirth	ICD-10-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
O24.420	Gestational diabetes mellitus in childbirth, diet controlled	ICD-10-CM	Diagnosis
O24.424	Gestational diabetes mellitus in childbirth, insulin controlled	ICD-10-CM	Diagnosis
O24.425	Gestational diabetes mellitus in childbirth, controlled by oral hypoglycemic drugs	ICD-10-CM	Diagnosis
O24.429	Gestational diabetes mellitus in childbirth, unspecified control	ICD-10-CM	Diagnosis
O24.82	Other pre-existing diabetes mellitus in childbirth	ICD-10-CM	Diagnosis
O24.92	Unspecified diabetes mellitus in childbirth	ICD-10-CM	Diagnosis
O25.2	Malnutrition in childbirth	ICD-10-CM	Diagnosis
O26.62	Liver and biliary tract disorders in childbirth	ICD-10-CM	Diagnosis
O26.72	Subluxation of symphysis (pubis) in childbirth	ICD-10-CM	Diagnosis
O60.12X0	Preterm labor second trimester with preterm delivery second trimester, not applicable or unspecified	ICD-10-CM	Diagnosis
O60.12X1	Preterm labor second trimester with preterm delivery second trimester, fetus 1	ICD-10-CM	Diagnosis
O60.12X2	Preterm labor second trimester with preterm delivery second trimester, fetus 2	ICD-10-CM	Diagnosis
O60.12X3	Preterm labor second trimester with preterm delivery second trimester, fetus 3	ICD-10-CM	Diagnosis
O60.12X4	Preterm labor second trimester with preterm delivery second trimester, fetus 4	ICD-10-CM	Diagnosis
O60.12X5	Preterm labor second trimester with preterm delivery second trimester, fetus 5	ICD-10-CM	Diagnosis
O60.12X9	Preterm labor second trimester with preterm delivery second trimester, other	ICD-10-CM	Diagnosis
O60.13X0	Preterm labor second trimester with preterm delivery third trimester, not applicable or unspecified	ICD-10-CM	Diagnosis
O60.13X1	Preterm labor second trimester with preterm delivery third trimester, fetus 1	ICD-10-CM	Diagnosis
O60.13X2	Preterm labor second trimester with preterm delivery third trimester, fetus 2	ICD-10-CM	Diagnosis
O60.13X3	Preterm labor second trimester with preterm delivery third trimester, fetus 3	ICD-10-CM	Diagnosis
O60.13X4	Preterm labor second trimester with preterm delivery third trimester, fetus 4	ICD-10-CM	Diagnosis
O60.13X5	Preterm labor second trimester with preterm delivery third trimester, fetus 5	ICD-10-CM	Diagnosis
O60.13X9	Preterm labor second trimester with preterm delivery third trimester, other fetus	ICD-10-CM	Diagnosis
O60.14X0	Preterm labor third trimester with preterm delivery third trimester, not applicable or unspecified	ICD-10-CM	Diagnosis
O60.14X1	Preterm labor third trimester with preterm delivery third trimester, fetus 1	ICD-10-CM	Diagnosis
O60.14X2	Preterm labor third trimester with preterm delivery third trimester, fetus 2	ICD-10-CM	Diagnosis
O60.14X3	Preterm labor third trimester with preterm delivery third trimester, fetus 3	ICD-10-CM	Diagnosis
O60.14X4	Preterm labor third trimester with preterm delivery third trimester, fetus 4	ICD-10-CM	Diagnosis
O60.14X5	Preterm labor third trimester with preterm delivery third trimester, fetus 5	ICD-10-CM	Diagnosis
O60.14X9	Preterm labor third trimester with preterm delivery third trimester, other fetus	ICD-10-CM	Diagnosis
O60.22X0	Term delivery with preterm labor, second trimester, not applicable or unspecified	ICD-10-CM	Diagnosis
O60.22X1	Term delivery with preterm labor, second trimester, fetus 1	ICD-10-CM	Diagnosis
O60.22X2	Term delivery with preterm labor, second trimester, fetus 2	ICD-10-CM	Diagnosis
O60.22X3	Term delivery with preterm labor, second trimester, fetus 3	ICD-10-CM	Diagnosis
O60.22X4	Term delivery with preterm labor, second trimester, fetus 4	ICD-10-CM	Diagnosis
O60.22X5	Term delivery with preterm labor, second trimester, fetus 5	ICD-10-CM	Diagnosis
O60.22X9	Term delivery with preterm labor, second trimester, other fetus	ICD-10-CM	Diagnosis
O60.23X0	Term delivery with preterm labor, third trimester, not applicable or unspecified	ICD-10-CM	Diagnosis
O60.23X1	Term delivery with preterm labor, third trimester, fetus 1	ICD-10-CM	Diagnosis



**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
O60.23X2	Term delivery with preterm labor, third trimester, fetus 2	ICD-10-CM	Diagnosis
O60.23X3	Term delivery with preterm labor, third trimester, fetus 3	ICD-10-CM	Diagnosis
O60.23X4	Term delivery with preterm labor, third trimester, fetus 4	ICD-10-CM	Diagnosis
O60.23X5	Term delivery with preterm labor, third trimester, fetus 5	ICD-10-CM	Diagnosis
O60.23X9	Term delivery with preterm labor, third trimester, other fetus	ICD-10-CM	Diagnosis
O63.2	Delayed delivery of second twin, triplet, etc	ICD-10-CM	Diagnosis
O67.0	Intrapartum hemorrhage with coagulation defect	ICD-10-CM	Diagnosis
O67.8	Other intrapartum hemorrhage	ICD-10-CM	Diagnosis
O67.9	Intrapartum hemorrhage, unspecified	ICD-10-CM	Diagnosis
O68	Labor and delivery complicated by abnormality of fetal acid-base balance	ICD-10-CM	Diagnosis
O69.0XX0	Labor and delivery complicated by prolapse of cord, not applicable or unspecified	ICD-10-CM	Diagnosis
O69.0XX1	Labor and delivery complicated by prolapse of cord, fetus 1	ICD-10-CM	Diagnosis
O69.0XX2	Labor and delivery complicated by prolapse of cord, fetus 2	ICD-10-CM	Diagnosis
O69.0XX3	Labor and delivery complicated by prolapse of cord, fetus 3	ICD-10-CM	Diagnosis
O69.0XX4	Labor and delivery complicated by prolapse of cord, fetus 4	ICD-10-CM	Diagnosis
O69.0XX5	Labor and delivery complicated by prolapse of cord, fetus 5	ICD-10-CM	Diagnosis
O69.0XX9	Labor and delivery complicated by prolapse of cord, other fetus	ICD-10-CM	Diagnosis
O69.1XX0	Labor and delivery complicated by cord around neck, with compression, not applicable or unspecified	ICD-10-CM	Diagnosis
O69.1XX1	Labor and delivery complicated by cord around neck, with compression, fetus 1	ICD-10-CM	Diagnosis
O69.1XX2	Labor and delivery complicated by cord around neck, with compression, fetus 2	ICD-10-CM	Diagnosis
O69.1XX3	Labor and delivery complicated by cord around neck, with compression, fetus 3	ICD-10-CM	Diagnosis
O69.1XX4	Labor and delivery complicated by cord around neck, with compression, fetus 4	ICD-10-CM	Diagnosis
O69.1XX5	Labor and delivery complicated by cord around neck, with compression, fetus 5	ICD-10-CM	Diagnosis
O69.1XX9	Labor and delivery complicated by cord around neck, with compression, other	ICD-10-CM	Diagnosis
O69.2XX0	Labor and delivery complicated by other cord entanglement, with compression, not applicable or unspecified	ICD-10-CM	Diagnosis
O69.2XX1	Labor and delivery complicated by other cord entanglement, with compression,	ICD-10-CM	Diagnosis
O69.2XX2	Labor and delivery complicated by other cord entanglement, with compression,	ICD-10-CM	Diagnosis
O69.2XX3	Labor and delivery complicated by other cord entanglement, with compression,	ICD-10-CM	Diagnosis
O69.2XX4	Labor and delivery complicated by other cord entanglement, with compression,	ICD-10-CM	Diagnosis
O69.2XX5	Labor and delivery complicated by other cord entanglement, with compression,	ICD-10-CM	Diagnosis
O69.2XX9	Labor and delivery complicated by other cord entanglement, with compression, other fetus	ICD-10-CM	Diagnosis
O69.3XX0	Labor and delivery complicated by short cord, not applicable or unspecified	ICD-10-CM	Diagnosis
O69.3XX1	Labor and delivery complicated by short cord, fetus 1	ICD-10-CM	Diagnosis
O69.3XX2	Labor and delivery complicated by short cord, fetus 2	ICD-10-CM	Diagnosis
O69.3XX3	Labor and delivery complicated by short cord, fetus 3	ICD-10-CM	Diagnosis
O69.3XX4	Labor and delivery complicated by short cord, fetus 4	ICD-10-CM	Diagnosis
O69.3XX5	Labor and delivery complicated by short cord, fetus 5	ICD-10-CM	Diagnosis
O69.3XX9	Labor and delivery complicated by short cord, other fetus	ICD-10-CM	Diagnosis
O69.4XX0	Labor and delivery complicated by vasa previa, not applicable or unspecified	ICD-10-CM	Diagnosis



**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
O69.4XX1	Labor and delivery complicated by vasa previa, fetus 1	ICD-10-CM	Diagnosis
O69.4XX2	Labor and delivery complicated by vasa previa, fetus 2	ICD-10-CM	Diagnosis
O69.4XX3	Labor and delivery complicated by vasa previa, fetus 3	ICD-10-CM	Diagnosis
O69.4XX4	Labor and delivery complicated by vasa previa, fetus 4	ICD-10-CM	Diagnosis
O69.4XX5	Labor and delivery complicated by vasa previa, fetus 5	ICD-10-CM	Diagnosis
O69.4XX9	Labor and delivery complicated by vasa previa, other fetus	ICD-10-CM	Diagnosis
O69.5XX0	Labor and delivery complicated by vascular lesion of cord, not applicable or	ICD-10-CM	Diagnosis
O69.5XX1	Labor and delivery complicated by vascular lesion of cord, fetus 1	ICD-10-CM	Diagnosis
O69.5XX2	Labor and delivery complicated by vascular lesion of cord, fetus 2	ICD-10-CM	Diagnosis
O69.5XX3	Labor and delivery complicated by vascular lesion of cord, fetus 3	ICD-10-CM	Diagnosis
O69.5XX4	Labor and delivery complicated by vascular lesion of cord, fetus 4	ICD-10-CM	Diagnosis
O69.5XX5	Labor and delivery complicated by vascular lesion of cord, fetus 5	ICD-10-CM	Diagnosis
O69.5XX9	Labor and delivery complicated by vascular lesion of cord, other fetus	ICD-10-CM	Diagnosis
O69.81X0	Labor and delivery complicated by cord around neck, without compression, not applicable or unspecified	ICD-10-CM	Diagnosis
O69.81X1	Labor and delivery complicated by cord around neck, without compression, fetus 1	ICD-10-CM	Diagnosis
O69.81X2	Labor and delivery complicated by cord around neck, without compression, fetus 2	ICD-10-CM	Diagnosis
O69.81X3	Labor and delivery complicated by cord around neck, without compression, fetus 3	ICD-10-CM	Diagnosis
O69.81X4	Labor and delivery complicated by cord around neck, without compression, fetus 4	ICD-10-CM	Diagnosis
O69.81X5	Labor and delivery complicated by cord around neck, without compression, fetus 5	ICD-10-CM	Diagnosis
O69.81X9	Labor and delivery complicated by cord around neck, without compression, other	ICD-10-CM	Diagnosis
O69.82X0	Labor and delivery complicated by other cord entanglement, without compression, not applicable or unspecified	ICD-10-CM	Diagnosis
O69.82X1	Labor and delivery complicated by other cord entanglement, without compression, fetus 1	ICD-10-CM	Diagnosis
O69.82X2	Labor and delivery complicated by other cord entanglement, without compression, fetus 2	ICD-10-CM	Diagnosis
O69.82X3	Labor and delivery complicated by other cord entanglement, without compression, fetus 3	ICD-10-CM	Diagnosis
O69.82X4	Labor and delivery complicated by other cord entanglement, without compression, fetus 4	ICD-10-CM	Diagnosis
O69.82X5	Labor and delivery complicated by other cord entanglement, without compression, fetus 5	ICD-10-CM	Diagnosis
O69.82X9	Labor and delivery complicated by other cord entanglement, without compression, other fetus	ICD-10-CM	Diagnosis
O69.89X0	Labor and delivery complicated by other cord complications, not applicable or unspecified	ICD-10-CM	Diagnosis
O69.89X1	Labor and delivery complicated by other cord complications, fetus 1	ICD-10-CM	Diagnosis
O69.89X2	Labor and delivery complicated by other cord complications, fetus 2	ICD-10-CM	Diagnosis
O69.89X3	Labor and delivery complicated by other cord complications, fetus 3	ICD-10-CM	Diagnosis
O69.89X4	Labor and delivery complicated by other cord complications, fetus 4	ICD-10-CM	Diagnosis
O69.89X5	Labor and delivery complicated by other cord complications, fetus 5	ICD-10-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
O69.89X9	Labor and delivery complicated by other cord complications, other fetus	ICD-10-CM	Diagnosis
O69.9XX0	Labor and delivery complicated by cord complication, unspecified, not applicable or unspecified	ICD-10-CM	Diagnosis
O69.9XX1	Labor and delivery complicated by cord complication, unspecified, fetus 1	ICD-10-CM	Diagnosis
O69.9XX2	Labor and delivery complicated by cord complication, unspecified, fetus 2	ICD-10-CM	Diagnosis
O69.9XX3	Labor and delivery complicated by cord complication, unspecified, fetus 3	ICD-10-CM	Diagnosis
O69.9XX4	Labor and delivery complicated by cord complication, unspecified, fetus 4	ICD-10-CM	Diagnosis
O69.9XX5	Labor and delivery complicated by cord complication, unspecified, fetus 5	ICD-10-CM	Diagnosis
O69.9XX9	Labor and delivery complicated by cord complication, unspecified, other fetus	ICD-10-CM	Diagnosis
O70.0	First degree perineal laceration during delivery	ICD-10-CM	Diagnosis
O70.1	Second degree perineal laceration during delivery	ICD-10-CM	Diagnosis
O70.20	Third degree perineal laceration during delivery, unspecified	ICD-10-CM	Diagnosis
O70.21	Third degree perineal laceration during delivery, IIIa	ICD-10-CM	Diagnosis
O70.22	Third degree perineal laceration during delivery, IIIb	ICD-10-CM	Diagnosis
O70.23	Third degree perineal laceration during delivery, IIIc	ICD-10-CM	Diagnosis
O70.3	Fourth degree perineal laceration during delivery	ICD-10-CM	Diagnosis
O70.4	Anal sphincter tear complicating delivery, not associated with third degree	ICD-10-CM	Diagnosis
O70.9	Perineal laceration during delivery, unspecified	ICD-10-CM	Diagnosis
O74.0	Aspiration pneumonitis due to anesthesia during labor and delivery	ICD-10-CM	Diagnosis
O74.1	Other pulmonary complications of anesthesia during labor and delivery	ICD-10-CM	Diagnosis
O74.2	Cardiac complications of anesthesia during labor and delivery	ICD-10-CM	Diagnosis
O74.3	Central nervous system complications of anesthesia during labor and delivery	ICD-10-CM	Diagnosis
O74.4	Toxic reaction to local anesthesia during labor and delivery	ICD-10-CM	Diagnosis
O74.5	Spinal and epidural anesthesia-induced headache during labor and delivery	ICD-10-CM	Diagnosis
O74.6	Other complications of spinal and epidural anesthesia during labor and delivery	ICD-10-CM	Diagnosis
O74.7	Failed or difficult intubation for anesthesia during labor and delivery	ICD-10-CM	Diagnosis
O74.8	Other complications of anesthesia during labor and delivery	ICD-10-CM	Diagnosis
O74.9	Complication of anesthesia during labor and delivery, unspecified	ICD-10-CM	Diagnosis
O75.0	Maternal distress during labor and delivery	ICD-10-CM	Diagnosis
O75.1	Shock during or following labor and delivery	ICD-10-CM	Diagnosis
O75.5	Delayed delivery after artificial rupture of membranes	ICD-10-CM	Diagnosis
O75.81	Maternal exhaustion complicating labor and delivery	ICD-10-CM	Diagnosis
O75.82	Onset (spontaneous) of labor after 37 completed weeks of gestation but before 39 completed weeks gestation, with delivery by (planned) cesarean section	ICD-10-CM	Diagnosis
O75.89	Other specified complications of labor and delivery	ICD-10-CM	Diagnosis
O75.9	Complication of labor and delivery, unspecified	ICD-10-CM	Diagnosis
O76	Abnormality in fetal heart rate and rhythm complicating labor and delivery	ICD-10-CM	Diagnosis
O77.0	Labor and delivery complicated by meconium in amniotic fluid	ICD-10-CM	Diagnosis
O77.8	Labor and delivery complicated by other evidence of fetal stress	ICD-10-CM	Diagnosis
O77.9	Labor and delivery complicated by fetal stress, unspecified	ICD-10-CM	Diagnosis
O80	Encounter for full-term uncomplicated delivery	ICD-10-CM	Diagnosis
O82	Encounter for cesarean delivery without indication	ICD-10-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
O88.02	Air embolism in childbirth	ICD-10-CM	Diagnosis
O88.12	Amniotic fluid embolism in childbirth	ICD-10-CM	Diagnosis
O88.22	Thromboembolism in childbirth	ICD-10-CM	Diagnosis
O88.32	Pyemic and septic embolism in childbirth	ICD-10-CM	Diagnosis
O88.82	Other embolism in childbirth	ICD-10-CM	Diagnosis
O98.02	Tuberculosis complicating childbirth	ICD-10-CM	Diagnosis
O98.12	Syphilis complicating childbirth	ICD-10-CM	Diagnosis
O98.22	Gonorrhea complicating childbirth	ICD-10-CM	Diagnosis
O98.32	Other infections with a predominantly sexual mode of transmission complicating childbirth	ICD-10-CM	Diagnosis
O98.42	Viral hepatitis complicating childbirth	ICD-10-CM	Diagnosis
O98.52	Other viral diseases complicating childbirth	ICD-10-CM	Diagnosis
O98.62	Protozoal diseases complicating childbirth	ICD-10-CM	Diagnosis
O98.72	Human immunodeficiency virus [HIV] disease complicating childbirth	ICD-10-CM	Diagnosis
O98.82	Other maternal infectious and parasitic diseases complicating childbirth	ICD-10-CM	Diagnosis
O98.92	Unspecified maternal infectious and parasitic disease complicating childbirth	ICD-10-CM	Diagnosis
O99.02	Anemia complicating childbirth	ICD-10-CM	Diagnosis
O99.12	Other diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism complicating childbirth	ICD-10-CM	Diagnosis
O99.214	Obesity complicating childbirth	ICD-10-CM	Diagnosis
O99.284	Endocrine, nutritional and metabolic diseases complicating childbirth	ICD-10-CM	Diagnosis
O99.314	Alcohol use complicating childbirth	ICD-10-CM	Diagnosis
O99.324	Drug use complicating childbirth	ICD-10-CM	Diagnosis
O99.334	Smoking (tobacco) complicating childbirth	ICD-10-CM	Diagnosis
O99.344	Other mental disorders complicating childbirth	ICD-10-CM	Diagnosis
O99.354	Diseases of the nervous system complicating childbirth	ICD-10-CM	Diagnosis
O99.42	Diseases of the circulatory system complicating childbirth	ICD-10-CM	Diagnosis
O99.52	Diseases of the respiratory system complicating childbirth	ICD-10-CM	Diagnosis
O99.62	Diseases of the digestive system complicating childbirth	ICD-10-CM	Diagnosis
O99.72	Diseases of the skin and subcutaneous tissue complicating childbirth	ICD-10-CM	Diagnosis
O99.814	Abnormal glucose complicating childbirth	ICD-10-CM	Diagnosis
O99.824	Streptococcus B carrier state complicating childbirth	ICD-10-CM	Diagnosis
O99.834	Other infection carrier state complicating childbirth	ICD-10-CM	Diagnosis
O99.844	Bariatric surgery status complicating childbirth	ICD-10-CM	Diagnosis
O9A.12	Malignant neoplasm complicating childbirth	ICD-10-CM	Diagnosis
O9A.22	Injury, poisoning and certain other consequences of external causes complicating childbirth	ICD-10-CM	Diagnosis
O9A.32	Physical abuse complicating childbirth	ICD-10-CM	Diagnosis
O9A.42	Sexual abuse complicating childbirth	ICD-10-CM	Diagnosis
O9A.52	Psychological abuse complicating childbirth	ICD-10-CM	Diagnosis
P03.0	Newborn affected by breech delivery and extraction	ICD-10-CM	Diagnosis
P03.2	Newborn affected by forceps delivery	ICD-10-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
P03.3	Newborn affected by delivery by vacuum extractor [ventouse]	ICD-10-CM	Diagnosis
P03.4	Newborn affected by Cesarean delivery	ICD-10-CM	Diagnosis
P03.5	Newborn affected by precipitate delivery	ICD-10-CM	Diagnosis
P07.00	Extremely low birth weight newborn, unspecified weight	ICD-10-CM	Diagnosis
P07.01	Extremely low birth weight newborn, less than 500 grams	ICD-10-CM	Diagnosis
P07.02	Extremely low birth weight newborn, 500-749 grams	ICD-10-CM	Diagnosis
P07.03	Extremely low birth weight newborn, 750-999 grams	ICD-10-CM	Diagnosis
P07.10	Other low birth weight newborn, unspecified weight	ICD-10-CM	Diagnosis
P07.14	Other low birth weight newborn, 1000-1249 grams	ICD-10-CM	Diagnosis
P07.15	Other low birth weight newborn, 1250-1499 grams	ICD-10-CM	Diagnosis
P07.16	Other low birth weight newborn, 1500-1749 grams	ICD-10-CM	Diagnosis
P07.17	Other low birth weight newborn, 1750-1999 grams	ICD-10-CM	Diagnosis
P07.18	Other low birth weight newborn, 2000-2499 grams	ICD-10-CM	Diagnosis
P07.20	Extreme immaturity of newborn, unspecified weeks of gestation	ICD-10-CM	Diagnosis
P07.21	Extreme immaturity of newborn, gestational age less than 23 completed weeks	ICD-10-CM	Diagnosis
P07.22	Extreme immaturity of newborn, gestational age 23 completed weeks	ICD-10-CM	Diagnosis
P07.23	Extreme immaturity of newborn, gestational age 24 completed weeks	ICD-10-CM	Diagnosis
P07.24	Extreme immaturity of newborn, gestational age 25 completed weeks	ICD-10-CM	Diagnosis
P07.25	Extreme immaturity of newborn, gestational age 26 completed weeks	ICD-10-CM	Diagnosis
P07.26	Extreme immaturity of newborn, gestational age 27 completed weeks	ICD-10-CM	Diagnosis
P07.30	Preterm newborn, unspecified weeks of gestation	ICD-10-CM	Diagnosis
P07.31	Preterm newborn, gestational age 28 completed weeks	ICD-10-CM	Diagnosis
P07.32	Preterm newborn, gestational age 29 completed weeks	ICD-10-CM	Diagnosis
P07.33	Preterm newborn, gestational age 30 completed weeks	ICD-10-CM	Diagnosis
P07.34	Preterm newborn, gestational age 31 completed weeks	ICD-10-CM	Diagnosis
P07.35	Preterm newborn, gestational age 32 completed weeks	ICD-10-CM	Diagnosis
P07.36	Preterm newborn, gestational age 33 completed weeks	ICD-10-CM	Diagnosis
P07.37	Preterm newborn, gestational age 34 completed weeks	ICD-10-CM	Diagnosis
P07.38	Preterm newborn, gestational age 35 completed weeks	ICD-10-CM	Diagnosis
P07.39	Preterm newborn, gestational age 36 completed weeks	ICD-10-CM	Diagnosis
P08.21	Post-term newborn	ICD-10-CM	Diagnosis
P08.22	Prolonged gestation of newborn	ICD-10-CM	Diagnosis
Z37.0	Single live birth	ICD-10-CM	Diagnosis
Z37.2	Twins, both liveborn	ICD-10-CM	Diagnosis
Z37.3	Twins, one liveborn and one stillborn	ICD-10-CM	Diagnosis
Z37.50	Multiple births, unspecified, all liveborn	ICD-10-CM	Diagnosis
Z37.51	Triplets, all liveborn	ICD-10-CM	Diagnosis
Z37.52	Quadruplets, all liveborn	ICD-10-CM	Diagnosis
Z37.53	Quintuplets, all liveborn	ICD-10-CM	Diagnosis
Z37.54	Sextuplets, all liveborn	ICD-10-CM	Diagnosis
Z37.59	Other multiple births, all liveborn	ICD-10-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
Z37.60	Multiple births, unspecified, some liveborn	ICD-10-CM	Diagnosis
Z37.61	Triplets, some liveborn	ICD-10-CM	Diagnosis
Z37.62	Quadruplets, some liveborn	ICD-10-CM	Diagnosis
Z37.63	Quintuplets, some liveborn	ICD-10-CM	Diagnosis
Z37.64	Sextuplets, some liveborn	ICD-10-CM	Diagnosis
Z37.69	Other multiple births, some liveborn	ICD-10-CM	Diagnosis
Z37.9	Outcome of delivery, unspecified	ICD-10-CM	Diagnosis
Z38.00	Single liveborn infant, delivered vaginally	ICD-10-CM	Diagnosis
Z38.01	Single liveborn infant, delivered by cesarean	ICD-10-CM	Diagnosis
Z38.1	Single liveborn infant, born outside hospital	ICD-10-CM	Diagnosis
Z38.2	Single liveborn infant, unspecified as to place of birth	ICD-10-CM	Diagnosis
Z38.30	Twin liveborn infant, delivered vaginally	ICD-10-CM	Diagnosis
Z38.31	Twin liveborn infant, delivered by cesarean	ICD-10-CM	Diagnosis
Z38.4	Twin liveborn infant, born outside hospital	ICD-10-CM	Diagnosis
Z38.5	Twin liveborn infant, unspecified as to place of birth	ICD-10-CM	Diagnosis
Z38.61	Triplet liveborn infant, delivered vaginally	ICD-10-CM	Diagnosis
Z38.62	Triplet liveborn infant, delivered by cesarean	ICD-10-CM	Diagnosis
Z38.63	Quadruplet liveborn infant, delivered vaginally	ICD-10-CM	Diagnosis
Z38.64	Quadruplet liveborn infant, delivered by cesarean	ICD-10-CM	Diagnosis
Z38.65	Quintuplet liveborn infant, delivered vaginally	ICD-10-CM	Diagnosis
Z38.66	Quintuplet liveborn infant, delivered by cesarean	ICD-10-CM	Diagnosis
Z38.68	Other multiple liveborn infant, delivered vaginally	ICD-10-CM	Diagnosis
Z38.69	Other multiple liveborn infant, delivered by cesarean	ICD-10-CM	Diagnosis
Z38.7	Other multiple liveborn infant, born outside hospital	ICD-10-CM	Diagnosis
Z38.8	Other multiple liveborn infant, unspecified as to place of birth	ICD-10-CM	Diagnosis
59400	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care	CPT-4	Procedure
59409	Vaginal delivery only (with or without episiotomy and/or forceps);	CPT-4	Procedure
59410	Vaginal delivery only (with or without episiotomy and/or forceps); including postpartum care	CPT-4	Procedure
59510	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care	CPT-4	Procedure
59514	Cesarean delivery only;	CPT-4	Procedure
59515	Cesarean delivery only; including postpartum care	CPT-4	Procedure
59610	Routine obstetric care including antepartum care, vaginal delivery (with or without episiotomy, and/or forceps) and postpartum care, after previous cesarean delivery	CPT-4	Procedure
59612	Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps);	CPT-4	Procedure
59614	Vaginal delivery only, after previous cesarean delivery (with or without episiotomy and/or forceps); including postpartum care	CPT-4	Procedure
59618	Routine obstetric care including antepartum care, cesarean delivery, and postpartum care, following attempted vaginal delivery after previous cesarean	CPT-4	Procedure



**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
59620	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery;	CPT-4	Procedure
59622	Cesarean delivery only, following attempted vaginal delivery after previous cesarean delivery; including postpartum care	CPT-4	Procedure
650	Normal delivery	ICD-9-CM	Diagnosis
763.0	Fetus or newborn affected by breech delivery and extraction	ICD-9-CM	Diagnosis
763.2	Fetus or newborn affected by forceps delivery	ICD-9-CM	Diagnosis
763.3	Fetus or newborn affected by delivery by vacuum extractor	ICD-9-CM	Diagnosis
763.4	Fetus or newborn affected by cesarean delivery	ICD-9-CM	Diagnosis
763.6	Fetus or newborn affected by precipitate delivery	ICD-9-CM	Diagnosis
768.0	Fetal death from asphyxia or anoxia before onset of labor or at unspecified time	ICD-9-CM	Diagnosis
768.1	Fetal death from asphyxia or anoxia during labor	ICD-9-CM	Diagnosis
641.01	Placenta previa without hemorrhage, with delivery	ICD-9-CM	Diagnosis
641.11	Hemorrhage from placenta previa, with delivery	ICD-9-CM	Diagnosis
641.21	Premature separation of placenta, with delivery	ICD-9-CM	Diagnosis
641.31	Antepartum hemorrhage associated with coagulation defects, with delivery	ICD-9-CM	Diagnosis
641.81	Other antepartum hemorrhage, with delivery	ICD-9-CM	Diagnosis
641.91	Unspecified antepartum hemorrhage, with delivery	ICD-9-CM	Diagnosis
642.01	Benign essential hypertension with delivery	ICD-9-CM	Diagnosis
642.02	Benign essential hypertension, with delivery, with current postpartum	ICD-9-CM	Diagnosis
642.11	Hypertension secondary to renal disease, with delivery	ICD-9-CM	Diagnosis
642.12	Hypertension secondary to renal disease, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
642.21	Other pre-existing hypertension, with delivery	ICD-9-CM	Diagnosis
642.22	Other pre-existing hypertension, with delivery, with current postpartum	ICD-9-CM	Diagnosis
642.31	Transient hypertension of pregnancy, with delivery	ICD-9-CM	Diagnosis
642.32	Transient hypertension of pregnancy, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
642.41	Mild or unspecified pre-eclampsia, with delivery	ICD-9-CM	Diagnosis
642.42	Mild or unspecified pre-eclampsia, with delivery, with current postpartum	ICD-9-CM	Diagnosis
642.51	Severe pre-eclampsia, with delivery	ICD-9-CM	Diagnosis
642.52	Severe pre-eclampsia, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
642.61	Eclampsia, with delivery	ICD-9-CM	Diagnosis
642.62	Eclampsia, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
642.71	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with	ICD-9-CM	Diagnosis
642.72	Pre-eclampsia or eclampsia superimposed on pre-existing hypertension, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
642.91	Unspecified hypertension, with delivery	ICD-9-CM	Diagnosis
642.92	Unspecified hypertension, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
643.01	Mild hyperemesis gravidarum, delivered	ICD-9-CM	Diagnosis
643.11	Hyperemesis gravidarum with metabolic disturbance, delivered	ICD-9-CM	Diagnosis
643.21	Late vomiting of pregnancy, delivered	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
643.81	Other vomiting complicating pregnancy, delivered	ICD-9-CM	Diagnosis
643.91	Unspecified vomiting of pregnancy, delivered	ICD-9-CM	Diagnosis
644.21	Early onset of delivery, delivered, with or without mention of antepartum	ICD-9-CM	Diagnosis
645.01	Prolonged pregnancy, with delivery	ICD-9-CM	Diagnosis
645.11	Post term pregnancy, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
645.21	Prolonged pregnancy, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
645.23	Prolonged pregnancy, antepartum condition or complication	ICD-9-CM	Diagnosis
646.01	Papyraceous fetus, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
646.11	Edema or excessive weight gain in pregnancy, with delivery, with or without mention of antepartum complication	ICD-9-CM	Diagnosis
646.12	Edema or excessive weight gain in pregnancy, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
646.21	Unspecified renal disease in pregnancy, with delivery	ICD-9-CM	Diagnosis
646.22	Unspecified renal disease in pregnancy, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
646.31	Pregnancy complication, recurrent pregnancy loss, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
646.41	Peripheral neuritis in pregnancy, with delivery	ICD-9-CM	Diagnosis
646.42	Peripheral neuritis in pregnancy, with delivery, with current postpartum	ICD-9-CM	Diagnosis
646.51	Asymptomatic bacteriuria in pregnancy, with delivery	ICD-9-CM	Diagnosis
646.52	Asymptomatic bacteriuria in pregnancy, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
646.61	Infections of genitourinary tract in pregnancy, with delivery	ICD-9-CM	Diagnosis
646.62	Infections of genitourinary tract in pregnancy, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
646.71	Liver and biliary tract disorders in pregnancy, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
646.81	Other specified complication of pregnancy, with delivery	ICD-9-CM	Diagnosis
646.82	Other specified complications of pregnancy, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
646.91	Unspecified complication of pregnancy, with delivery	ICD-9-CM	Diagnosis
647.01	Maternal syphilis, complicating pregnancy, with delivery	ICD-9-CM	Diagnosis
647.02	Maternal syphilis, complicating pregnancy, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
647.11	Maternal gonorrhea with delivery	ICD-9-CM	Diagnosis
647.12	Maternal gonorrhea, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
647.21	Other maternal venereal diseases with delivery	ICD-9-CM	Diagnosis
647.22	Other maternal venereal diseases with delivery, with current postpartum	ICD-9-CM	Diagnosis
647.31	Maternal tuberculosis with delivery	ICD-9-CM	Diagnosis
647.32	Maternal tuberculosis with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
647.41	Maternal malaria with delivery	ICD-9-CM	Diagnosis
647.42	Maternal malaria with delivery, with current postpartum complication	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
647.51	Maternal rubella with delivery	ICD-9-CM	Diagnosis
647.52	Maternal rubella with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
647.61	Other maternal viral disease with delivery	ICD-9-CM	Diagnosis
647.62	Other maternal viral disease with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
647.81	Other specified maternal infectious and parasitic disease with delivery	ICD-9-CM	Diagnosis
647.82	Other specified maternal infectious and parasitic disease with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
647.91	Unspecified maternal infection or infestation with delivery	ICD-9-CM	Diagnosis
647.92	Unspecified maternal infection or infestation with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.01	Maternal diabetes mellitus with delivery	ICD-9-CM	Diagnosis
648.02	Maternal diabetes mellitus with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.11	Maternal thyroid dysfunction with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
648.12	Maternal thyroid dysfunction with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.21	Maternal anemia, with delivery	ICD-9-CM	Diagnosis
648.22	Maternal anemia with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.31	Maternal drug dependence, with delivery	ICD-9-CM	Diagnosis
648.32	Maternal drug dependence, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.41	Maternal mental disorders, with delivery	ICD-9-CM	Diagnosis
648.42	Maternal mental disorders, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.51	Maternal congenital cardiovascular disorders, with delivery	ICD-9-CM	Diagnosis
648.52	Maternal congenital cardiovascular disorders, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.61	Other maternal cardiovascular diseases, with delivery	ICD-9-CM	Diagnosis
648.62	Other maternal cardiovascular diseases, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.71	Bone and joint disorders of maternal back, pelvis, and lower limbs, with delivery	ICD-9-CM	Diagnosis
648.72	Bone and joint disorders of maternal back, pelvis, and lower limbs, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.81	Abnormal maternal glucose tolerance, with delivery	ICD-9-CM	Diagnosis
648.82	Abnormal maternal glucose tolerance, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
648.91	Other current maternal conditions classifiable elsewhere, with delivery	ICD-9-CM	Diagnosis
648.92	Other current maternal conditions classifiable elsewhere, with delivery, with current postpartum complication	ICD-9-CM	Diagnosis
649.01	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
649.02	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
649.11	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis



**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
649.12	Obesity complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
649.21	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
649.22	Bariatric surgery status complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
649.31	Coagulation defects complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
649.32	Coagulation defects complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
649.41	Epilepsy complicating pregnancy, childbirth, or the puerperium, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
649.42	Epilepsy complicating pregnancy, childbirth, or the puerperium, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
649.51	Spotting complicating pregnancy, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
649.61	Uterine size date discrepancy, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
649.62	Uterine size date discrepancy, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
649.71	Cervical shortening, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
649.81	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	ICD-9-CM	Diagnosis
649.82	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	ICD-9-CM	Diagnosis
651.01	Twin pregnancy, delivered	ICD-9-CM	Diagnosis
651.11	Triplet pregnancy, delivered	ICD-9-CM	Diagnosis
651.21	Quadruplet pregnancy, delivered	ICD-9-CM	Diagnosis
651.31	Twin pregnancy with fetal loss and retention of one fetus, delivered	ICD-9-CM	Diagnosis
651.41	Triplet pregnancy with fetal loss and retention of one or more, delivered	ICD-9-CM	Diagnosis
651.51	Quadruplet pregnancy with fetal loss and retention of one or more, delivered	ICD-9-CM	Diagnosis
651.61	Other multiple pregnancy with fetal loss and retention of one or more fetus(es), delivered	ICD-9-CM	Diagnosis
651.71	Multiple gestation following (elective) fetal reduction, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
651.81	Other specified multiple gestation, delivered	ICD-9-CM	Diagnosis
651.91	Unspecified multiple gestation, delivered	ICD-9-CM	Diagnosis
652.01	Unstable lie of fetus, delivered	ICD-9-CM	Diagnosis
652.11	Breech or other malpresentation successfully converted to cephalic presentation, delivered	ICD-9-CM	Diagnosis
652.21	Breech presentation without mention of version, delivered	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
652.31	Transverse or oblique fetal presentation, delivered	ICD-9-CM	Diagnosis
652.41	Fetal face or brow presentation, delivered	ICD-9-CM	Diagnosis
652.51	High fetal head at term, delivered	ICD-9-CM	Diagnosis
652.61	Multiple gestation with malpresentation of one fetus or more, delivered	ICD-9-CM	Diagnosis
652.71	Prolapsed arm of fetus, delivered	ICD-9-CM	Diagnosis
652.81	Other specified malposition or malpresentation of fetus, delivered	ICD-9-CM	Diagnosis
652.91	Unspecified malposition or malpresentation of fetus, delivered	ICD-9-CM	Diagnosis
653.01	Major abnormality of bony pelvis, not further specified, delivered	ICD-9-CM	Diagnosis
653.11	Generally contracted pelvis in pregnancy, delivered	ICD-9-CM	Diagnosis
653.21	Inlet contraction of pelvis in pregnancy, delivered	ICD-9-CM	Diagnosis
653.31	Outlet contraction of pelvis in pregnancy, delivered	ICD-9-CM	Diagnosis
653.41	Fetopelvic disproportion, delivered	ICD-9-CM	Diagnosis
653.51	Unusually large fetus causing disproportion, delivered	ICD-9-CM	Diagnosis
653.61	Hydrocephalic fetus causing disproportion, delivered	ICD-9-CM	Diagnosis
653.71	Other fetal abnormality causing disproportion, delivered	ICD-9-CM	Diagnosis
653.81	Fetal disproportion of other origin, delivered	ICD-9-CM	Diagnosis
653.91	Unspecified fetal disproportion, delivered	ICD-9-CM	Diagnosis
654.01	Congenital abnormalities of pregnant uterus, delivered	ICD-9-CM	Diagnosis
654.02	Congenital abnormalities of pregnant uterus, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
654.11	Tumors of body of uterus, delivered	ICD-9-CM	Diagnosis
654.12	Tumors of body of uterus, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
654.21	Previous cesarean delivery, delivered, with or without mention of antepartum	ICD-9-CM	Diagnosis
654.31	Retroverted and incarcerated gravid uterus, delivered	ICD-9-CM	Diagnosis
654.32	Retroverted and incarcerated gravid uterus, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
654.41	Other abnormalities in shape or position of gravid uterus and of neighboring structures, delivered	ICD-9-CM	Diagnosis
654.42	Other abnormalities in shape or position of gravid uterus and of neighboring structures, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
654.51	Cervical incompetence, delivered	ICD-9-CM	Diagnosis
654.52	Cervical incompetence, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
654.61	Other congenital or acquired abnormality of cervix, with delivery	ICD-9-CM	Diagnosis
654.62	Other congenital or acquired abnormality of cervix, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
654.71	Congenital or acquired abnormality of vagina, with delivery	ICD-9-CM	Diagnosis
654.72	Congenital or acquired abnormality of vagina, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
654.81	Congenital or acquired abnormality of vulva, with delivery	ICD-9-CM	Diagnosis
654.82	Congenital or acquired abnormality of vulva, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
654.91	Other and unspecified abnormality of organs and soft tissues of pelvis, with	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
654.92	Other and unspecified abnormality of organs and soft tissues of pelvis, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
655.01	Central nervous system malformation in fetus, with delivery	ICD-9-CM	Diagnosis
655.11	Chromosomal abnormality in fetus, affecting management of mother, with delivery	ICD-9-CM	Diagnosis
655.21	Hereditary disease in family possibly affecting fetus, affecting management of mother, with delivery	ICD-9-CM	Diagnosis
655.31	Suspected damage to fetus from viral disease in mother, affecting management of mother, with delivery	ICD-9-CM	Diagnosis
655.41	Suspected damage to fetus from other disease in mother, affecting management of mother, with delivery	ICD-9-CM	Diagnosis
655.51	Suspected damage to fetus from drugs, affecting management of mother,	ICD-9-CM	Diagnosis
655.61	Suspected damage to fetus from radiation, affecting management of mother,	ICD-9-CM	Diagnosis
655.71	Decreased fetal movements, affecting management of mother, delivered	ICD-9-CM	Diagnosis
655.81	Other known or suspected fetal abnormality, not elsewhere classified, affecting management of mother, delivery	ICD-9-CM	Diagnosis
655.91	Unspecified fetal abnormality affecting management of mother, delivery	ICD-9-CM	Diagnosis
656.01	Fetal-maternal hemorrhage, with delivery	ICD-9-CM	Diagnosis
656.11	Rhesus isoimmunization affecting management of mother, delivered	ICD-9-CM	Diagnosis
656.21	Isoimmunization from other and unspecified blood-group incompatibility, affecting management of mother, delivered	ICD-9-CM	Diagnosis
656.31	Fetal distress affecting management of mother, delivered	ICD-9-CM	Diagnosis
656.41	Intrauterine death affecting management of mother, delivered	ICD-9-CM	Diagnosis
656.51	Poor fetal growth, affecting management of mother, delivered	ICD-9-CM	Diagnosis
656.61	Excessive fetal growth affecting management of mother, delivered	ICD-9-CM	Diagnosis
656.71	Other placental conditions affecting management of mother, delivered	ICD-9-CM	Diagnosis
656.81	Other specified fetal and placental problems affecting management of mother,	ICD-9-CM	Diagnosis
656.91	Unspecified fetal and placental problem affecting management of mother,	ICD-9-CM	Diagnosis
657.01	Polyhydramnios, with delivery	ICD-9-CM	Diagnosis
658.01	Oligohydramnios, delivered	ICD-9-CM	Diagnosis
658.11	Premature rupture of membranes in pregnancy, delivered	ICD-9-CM	Diagnosis
658.21	Delayed delivery after spontaneous or unspecified rupture of membranes,	ICD-9-CM	Diagnosis
658.31	Delayed delivery after artificial rupture of membranes, delivered	ICD-9-CM	Diagnosis
658.41	Infection of amniotic cavity, delivered	ICD-9-CM	Diagnosis
658.81	Other problem associated with amniotic cavity and membranes, delivered	ICD-9-CM	Diagnosis
658.91	Unspecified problem associated with amniotic cavity and membranes, delivered	ICD-9-CM	Diagnosis
659.01	Failed mechanical induction of labor, delivered	ICD-9-CM	Diagnosis
659.11	Failed medical or unspecified induction of labor, delivered	ICD-9-CM	Diagnosis
659.21	Unspecified maternal pyrexia during labor, delivered	ICD-9-CM	Diagnosis
659.31	Generalized infection during labor, delivered	ICD-9-CM	Diagnosis
659.41	Grand multiparity, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
659.51	Elderly primigravida, delivered	ICD-9-CM	Diagnosis
659.61	Elderly multigravida, delivered, with mention of antepartum condition	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
659.71	Abnormality in fetal heart rate or rhythm, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
659.81	Other specified indication for care or intervention related to labor and delivery, delivered	ICD-9-CM	Diagnosis
659.91	Unspecified indication for care or intervention related to labor and delivery,	ICD-9-CM	Diagnosis
660.01	Obstruction caused by malposition of fetus at onset of labor, delivered	ICD-9-CM	Diagnosis
660.11	Obstruction by bony pelvis during labor and delivery, delivered	ICD-9-CM	Diagnosis
660.21	Obstruction by abnormal pelvic soft tissues during labor and delivery, delivered	ICD-9-CM	Diagnosis
660.31	Deep transverse arrest and persistent occipitoposterior position during labor and deliver, delivered	ICD-9-CM	Diagnosis
660.41	Shoulder (girdle) dystocia during labor and deliver, delivered	ICD-9-CM	Diagnosis
660.51	Locked twins, delivered	ICD-9-CM	Diagnosis
660.61	Unspecified failed trial of labor, delivered	ICD-9-CM	Diagnosis
660.71	Unspecified failed forceps or vacuum extractor, delivered	ICD-9-CM	Diagnosis
660.81	Other causes of obstructed labor, delivered	ICD-9-CM	Diagnosis
660.91	Unspecified obstructed labor, with delivery	ICD-9-CM	Diagnosis
661.01	Primary uterine inertia, with delivery	ICD-9-CM	Diagnosis
661.11	Secondary uterine inertia, with delivery	ICD-9-CM	Diagnosis
661.21	Other and unspecified uterine inertia, with delivery	ICD-9-CM	Diagnosis
661.31	Precipitate labor, with delivery	ICD-9-CM	Diagnosis
661.41	Hypertonic, incoordinate, or prolonged uterine contractions, with delivery	ICD-9-CM	Diagnosis
661.91	Unspecified abnormality of labor, with delivery	ICD-9-CM	Diagnosis
662.01	Prolonged first stage of labor, delivered	ICD-9-CM	Diagnosis
662.11	Unspecified prolonged labor, delivered	ICD-9-CM	Diagnosis
662.21	Prolonged second stage of labor, delivered	ICD-9-CM	Diagnosis
662.31	Delayed delivery of second twin, triplet, etc., delivered	ICD-9-CM	Diagnosis
663.01	Prolapse of cord, complicating labor and delivery, delivered	ICD-9-CM	Diagnosis
663.11	Cord around neck, with compression, complicating labor and delivery, delivered	ICD-9-CM	Diagnosis
663.21	Other and unspecified cord entanglement, with compression, complicating labor and delivery, delivered	ICD-9-CM	Diagnosis
663.31	Other and unspecified cord entanglement, without mention of compression, complicating labor and delivery, delivered	ICD-9-CM	Diagnosis
663.41	Short cord complicating labor and delivery, delivered	ICD-9-CM	Diagnosis
663.51	Vasa previa complicating labor and delivery, delivered	ICD-9-CM	Diagnosis
663.61	Vascular lesions of cord complicating labor and delivery, delivered	ICD-9-CM	Diagnosis
663.81	Other umbilical cord complications during labor and delivery, delivered	ICD-9-CM	Diagnosis
663.91	Unspecified umbilical cord complication during labor and delivery, delivered	ICD-9-CM	Diagnosis
664.01	First-degree perineal laceration, with delivery	ICD-9-CM	Diagnosis
664.11	Second-degree perineal laceration, with delivery	ICD-9-CM	Diagnosis
664.21	Third-degree perineal laceration, with delivery	ICD-9-CM	Diagnosis
664.31	Fourth-degree perineal laceration, with delivery	ICD-9-CM	Diagnosis
664.41	Unspecified perineal laceration, with delivery	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
664.51	Vulvar and perineal hematoma, with delivery	ICD-9-CM	Diagnosis
664.61	Anal sphincter tear complicating delivery, not associated with third-degree perineal laceration, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
664.81	Other specified trauma to perineum and vulva, with delivery	ICD-9-CM	Diagnosis
664.91	Unspecified trauma to perineum and vulva, with delivery	ICD-9-CM	Diagnosis
665.01	Rupture of uterus before onset of labor, with delivery	ICD-9-CM	Diagnosis
665.11	Rupture of uterus during labor, with delivery	ICD-9-CM	Diagnosis
665.22	Inversion of uterus, delivered with postpartum complication	ICD-9-CM	Diagnosis
665.31	Laceration of cervix, with delivery	ICD-9-CM	Diagnosis
665.41	High vaginal laceration, with delivery	ICD-9-CM	Diagnosis
665.51	Other injury to pelvic organs, with delivery	ICD-9-CM	Diagnosis
665.61	Damage to pelvic joints and ligaments, with delivery	ICD-9-CM	Diagnosis
665.71	Pelvic hematoma, with delivery	ICD-9-CM	Diagnosis
665.72	Pelvic hematoma, delivered with postpartum complication	ICD-9-CM	Diagnosis
665.81	Other specified obstetrical trauma, with delivery	ICD-9-CM	Diagnosis
665.82	Other specified obstetrical trauma, delivered, with postpartum	ICD-9-CM	Diagnosis
665.91	Unspecified obstetrical trauma, with delivery	ICD-9-CM	Diagnosis
665.92	Unspecified obstetrical trauma, delivered, with postpartum complication	ICD-9-CM	Diagnosis
666.02	Third-stage postpartum hemorrhage, with delivery	ICD-9-CM	Diagnosis
666.12	Other immediate postpartum hemorrhage, with delivery	ICD-9-CM	Diagnosis
666.22	Delayed and secondary postpartum hemorrhage, with delivery	ICD-9-CM	Diagnosis
666.32	Postpartum coagulation defects, with delivery	ICD-9-CM	Diagnosis
667.02	Retained placenta without hemorrhage, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
667.12	Retained portions of placenta or membranes, without hemorrhage, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
668.01	Pulmonary complications of the administration of anesthesia or other sedation in labor and delivery, delivered	ICD-9-CM	Diagnosis
668.02	Pulmonary complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
668.11	Cardiac complications of the administration of anesthesia or other sedation in labor and delivery, delivered	ICD-9-CM	Diagnosis
668.12	Cardiac complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
668.21	Central nervous system complications of the administration of anesthesia or other sedation in labor and delivery, delivered	ICD-9-CM	Diagnosis
668.22	Central nervous system complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
668.81	Other complications of the administration of anesthesia or other sedation in labor and delivery, delivered	ICD-9-CM	Diagnosis
668.82	Other complications of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
668.91	Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, delivered	ICD-9-CM	Diagnosis
668.92	Unspecified complication of the administration of anesthesia or other sedation in labor and delivery, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
669.01	Maternal distress, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.02	Maternal distress, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
669.11	Shock during or following labor and delivery, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.12	Shock during or following labor and delivery, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
669.21	Maternal hypotension syndrome, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.22	Maternal hypotension syndrome, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
669.32	Acute kidney failure following labor and delivery, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
669.41	Other complications of obstetrical surgery and procedures, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.42	Other complications of obstetrical surgery and procedures, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
669.51	Forceps or vacuum extractor delivery without mention of indication, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.61	Breech extraction, without mention of indication, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.71	Cesarean delivery, without mention of indication, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.81	Other complication of labor and delivery, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.82	Other complication of labor and delivery, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
669.91	Unspecified complication of labor and delivery, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
669.92	Unspecified complication of labor and delivery, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
670.02	Major puerperal infection, unspecified, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
670.12	Puerperal endometritis, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
670.22	Puerperal sepsis, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
670.32	Puerperal septic thrombophlebitis, delivered, with mention of postpartum	ICD-9-CM	Diagnosis
670.82	Other major puerperal infection, delivered, with mention of postpartum	ICD-9-CM	Diagnosis
671.01	Varicose veins of legs, with delivery, with or without mention of antepartum	ICD-9-CM	Diagnosis
671.02	Varicose veins of legs, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis



**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
671.11	Varicose veins of vulva and perineum, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
671.12	Varicose veins of vulva and perineum, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
671.21	Superficial thrombophlebitis with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
671.22	Superficial thrombophlebitis with delivery, with mention of postpartum	ICD-9-CM	Diagnosis
671.31	Deep phlebothrombosis, antepartum, with delivery	ICD-9-CM	Diagnosis
671.42	Deep phlebothrombosis, postpartum, with delivery	ICD-9-CM	Diagnosis
671.51	Other phlebitis and thrombosis with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
671.52	Other phlebitis and thrombosis with delivery, with mention of postpartum	ICD-9-CM	Diagnosis
671.81	Other venous complication, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
671.82	Other venous complication, with delivery, with mention of postpartum	ICD-9-CM	Diagnosis
671.91	Unspecified venous complication, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
671.92	Unspecified venous complication, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
672.02	Puerperal pyrexia of unknown origin, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
673.01	Obstetrical air embolism, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
673.02	Obstetrical air embolism, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
673.11	Amniotic fluid embolism, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
673.12	Amniotic fluid embolism, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
673.21	Obstetrical blood-clot embolism, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
673.22	Obstetrical blood-clot embolism, with mention of postpartum complication	ICD-9-CM	Diagnosis
673.31	Obstetrical pyemic and septic embolism, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
673.32	Obstetrical pyemic and septic embolism, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
673.81	Other obstetrical pulmonary embolism, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
673.82	Other obstetrical pulmonary embolism, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
674.01	Cerebrovascular disorder, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
674.02	Cerebrovascular disorder, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
674.12	Disruption of cesarean wound, with delivery, with mention of postpartum	ICD-9-CM	Diagnosis
674.22	Disruption of perineal wound, with delivery, with mention of postpartum	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
674.32	Other complication of obstetrical surgical wounds, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
674.42	Placental polyp, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
674.51	Peripartum cardiomyopathy, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
674.52	Peripartum cardiomyopathy, delivered, with mention of postpartum condition	ICD-9-CM	Diagnosis
674.82	Other complication of puerperium, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
674.92	Unspecified complications of puerperium, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
675.01	Infection of nipple associated with childbirth, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
675.02	Infection of nipple associated with childbirth, delivered with mention of postpartum complication	ICD-9-CM	Diagnosis
675.11	Abscess of breast associated with childbirth, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
675.12	Abscess of breast associated with childbirth, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
675.21	Nonpurulent mastitis, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
675.22	Nonpurulent mastitis, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
675.81	Other specified infection of the breast and nipple associated with childbirth, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
675.82	Other specified infection of the breast and nipple associated with childbirth, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
675.91	Unspecified infection of the breast and nipple, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
675.92	Unspecified infection of the breast and nipple, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
676.01	Retracted nipple, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
676.02	Retracted nipple, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
676.11	Cracked nipple, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
676.12	Cracked nipple, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
676.21	Engorgement of breasts, delivered, with or without mention of antepartum	ICD-9-CM	Diagnosis
676.22	Engorgement of breasts, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
676.31	Other and unspecified disorder of breast associated with childbirth, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
676.32	Other and unspecified disorder of breast associated with childbirth, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
676.41	Failure of lactation, with delivery, with or without mention of antepartum	ICD-9-CM	Diagnosis
676.42	Failure of lactation, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
676.51	Suppressed lactation, with delivery, with or without mention of antepartum	ICD-9-CM	Diagnosis
676.52	Suppressed lactation, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis



**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
676.61	Galactorrhea, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
676.62	Galactorrhea, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
676.81	Other disorder of lactation, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
676.82	Other disorder of lactation, with delivery, with mention of postpartum	ICD-9-CM	Diagnosis
676.91	Unspecified disorder of lactation, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
72	Forceps, vacuum, and breech delivery	ICD-9-CM	Procedure
72.0	Other procedures inducing or assisting delivery	ICD-9-CM	Procedure
72.1	Low forceps operation	ICD-9-CM	Procedure
72.2	Low forceps operation with episiotomy	ICD-9-CM	Procedure
72.21	Mid forceps operation	ICD-9-CM	Procedure
72.29	High forceps operation	ICD-9-CM	Procedure
72.3	Forceps rotation of fetal head	ICD-9-CM	Procedure
72.31	Breech extraction	ICD-9-CM	Procedure
72.39	Forceps application to aftercoming head	ICD-9-CM	Procedure
72.4	Vacuum extraction	ICD-9-CM	Procedure
72.5	Other specified instrumental delivery	ICD-9-CM	Procedure
72.51	Unspecified instrumental delivery	ICD-9-CM	Procedure
72.52	Artificial rupture of membranes	ICD-9-CM	Procedure
72.53	Other surgical induction of labor	ICD-9-CM	Procedure
72.54	Internal and combined version and extraction	ICD-9-CM	Procedure
72.6	Failed forceps	ICD-9-CM	Procedure
72.7	Medical induction of labor	ICD-9-CM	Procedure
72.71	Manually assisted delivery	ICD-9-CM	Procedure
72.79	Episiotomy	ICD-9-CM	Procedure
72.8	Operations on fetus to facilitate delivery	ICD-9-CM	Procedure
72.9	Other operations assisting delivery	ICD-9-CM	Procedure
73	Classical cesarean section	ICD-9-CM	Procedure
73.0	Low cervical cesarean section	ICD-9-CM	Procedure
73.01	Extraperitoneal cesarean section	ICD-9-CM	Procedure
73.09	Cesarean section of other specified type	ICD-9-CM	Procedure
73.1	Cesarean section of unspecified type	ICD-9-CM	Procedure
73.2	Mid forceps operation with episiotomy	ICD-9-CM	Procedure
73.21	Other mid forceps operation	ICD-9-CM	Procedure
73.22	High forceps operation with episiotomy	ICD-9-CM	Procedure
73.3	Other high forceps operation	ICD-9-CM	Procedure
73.4	Partial breech extraction with forceps to aftercoming head	ICD-9-CM	Procedure
73.5	Other partial breech extraction	ICD-9-CM	Procedure
73.51	Total breech extraction with forceps to aftercoming head	ICD-9-CM	Procedure
73.59	Other total breech extraction	ICD-9-CM	Procedure
73.6	Vacuum extraction with episiotomy	ICD-9-CM	Procedure

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
73.8	Other vacuum extraction	ICD-9-CM	Procedure
73.9	Induction of labor by artificial rupture of membranes	ICD-9-CM	Procedure
73.91	Other artificial rupture of membranes	ICD-9-CM	Procedure
73.92	Internal and combined version without extraction	ICD-9-CM	Procedure
73.93	Internal and combined version with extraction	ICD-9-CM	Procedure
73.94	Manual rotation of fetal head	ICD-9-CM	Procedure
73.99	Other manually assisted delivery	ICD-9-CM	Procedure
74.0	External version to assist delivery	ICD-9-CM	Procedure
74.1	Replacement of prolapsed umbilical cord	ICD-9-CM	Procedure
74.2	Incision of cervix to assist delivery	ICD-9-CM	Procedure
74.4	Pubiotomy to assist delivery	ICD-9-CM	Procedure
74.9	Other operations to assist delivery	ICD-9-CM	Procedure
74.99	Other cesarean section of unspecified type	ICD-9-CM	Procedure
676.92	Unspecified disorder of lactation, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
678.01	Fetal hematologic conditions, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
678.11	Fetal conjoined twins, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
679.01	Maternal complications from in utero procedure, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
679.02	Maternal complications from in utero procedure, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
679.11	Fetal complications from in utero procedure, delivered, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
679.12	Fetal complications from in utero procedure, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
V27	Outcome of delivery	ICD-9-CM	Diagnosis
V27.0	Outcome of delivery, single liveborn	ICD-9-CM	Diagnosis
V27.1	Outcome of delivery, single stillborn	ICD-9-CM	Diagnosis
V27.2	Outcome of delivery, twins, both liveborn	ICD-9-CM	Diagnosis
V27.3	Outcome of delivery, twins, one liveborn and one stillborn	ICD-9-CM	Diagnosis
V27.4	Outcome of delivery, twins, both stillborn	ICD-9-CM	Diagnosis
V27.5	Outcome of delivery, other multiple birth, all liveborn	ICD-9-CM	Diagnosis
V27.6	Outcome of delivery, other multiple birth, some liveborn	ICD-9-CM	Diagnosis
V27.7	Outcome of delivery, other multiple birth, all stillborn	ICD-9-CM	Diagnosis
V27.9	Outcome of delivery, unspecified	ICD-9-CM	Diagnosis
V30	Single liveborn	ICD-9-CM	Diagnosis
V30.0	Single liveborn, born in hospital	ICD-9-CM	Diagnosis
V30.00	Single liveborn, born in hospital, delivered without mention of cesarean delivery	ICD-9-CM	Diagnosis
V30.01	Single liveborn, born in hospital, delivered by cesarean delivery	ICD-9-CM	Diagnosis
V30.1	Single liveborn, born before admission to hospital	ICD-9-CM	Diagnosis
V30.2	Single liveborn, born outside hospital and not hospitalized	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
V31	Twin birth, mate liveborn	ICD-9-CM	Diagnosis
V31.0	Twin, mate liveborn, born in hospital	ICD-9-CM	Diagnosis
V31.00	Twin, mate liveborn, born in hospital, delivered without mention of cesarean	ICD-9-CM	Diagnosis
V31.01	Twin, mate liveborn, born in hospital, delivered by cesarean delivery	ICD-9-CM	Diagnosis
V31.1	Twin birth, mate liveborn, born before admission to hospital	ICD-9-CM	Diagnosis
V31.2	Twin birth, mate liveborn, born outside hospital and not hospitalized	ICD-9-CM	Diagnosis
V32	Twin birth, mate stillborn	ICD-9-CM	Diagnosis
V32.0	Twin, mate stillborn, born in hospital	ICD-9-CM	Diagnosis
V32.00	Twin, mate stillborn, born in hospital, delivered without mention of cesarean	ICD-9-CM	Diagnosis
V32.01	Twin, mate stillborn, born in hospital, delivered by cesarean delivery	ICD-9-CM	Diagnosis
V32.1	Twin birth, mate stillborn, born before admission to hospital	ICD-9-CM	Diagnosis
V32.2	Twin birth, mate stillborn, born outside hospital and not hospitalized	ICD-9-CM	Diagnosis
V33	Twin birth, unspecified whether mate liveborn or stillborn	ICD-9-CM	Diagnosis
V33.0	Twin, unspecified, born in hospital	ICD-9-CM	Diagnosis
V33.00	Twin, unspecified whether mate stillborn or liveborn, born in hospital, delivered without mention of cesarean delivery	ICD-9-CM	Diagnosis
V33.01	Twin, unspecified whether mate stillborn or liveborn, born in hospital, delivered by cesarean delivery	ICD-9-CM	Diagnosis
V33.1	Twin birth, unspecified whether mate liveborn or stillborn, born before admission to hospital	ICD-9-CM	Diagnosis
V33.2	Twin birth, unspecified whether mate liveborn or stillborn, born outside hospital and not hospitalized	ICD-9-CM	Diagnosis
V34	Other multiple birth (three or more), mates all liveborn	ICD-9-CM	Diagnosis
V34.0	Other multiple, mates all liveborn, born in hospital	ICD-9-CM	Diagnosis
V34.00	Other multiple, mates all liveborn, born in hospital, delivered without mention of cesarean delivery	ICD-9-CM	Diagnosis
V34.01	Other multiple, mates all liveborn, born in hospital, delivered by cesarean delivery	ICD-9-CM	Diagnosis
V34.1	Other multiple birth (three or more), mates all liveborn, born before admission to hospital	ICD-9-CM	Diagnosis
V34.2	Other multiple birth (three or more), mates all liveborn, born outside hospital and not hospitalized	ICD-9-CM	Diagnosis
V35	Other multiple birth (three or more), mates all stillborn	ICD-9-CM	Diagnosis
V35.0	Other multiple, mates all stillborn, born in hospital	ICD-9-CM	Diagnosis
V35.00	Other multiple, mates all stillborn, born in hospital, delivered without mention of cesarean delivery	ICD-9-CM	Diagnosis
V35.01	Other multiple, mates all stillborn, born in hospital, delivered by cesarean delivery	ICD-9-CM	Diagnosis
V35.1	Other multiple birth (three or more), mates all stillborn, born before admission to hospital	ICD-9-CM	Diagnosis
V35.2	Other multiple birth (three or more), mates all stillborn, born outside of hospital and not hospitalized	ICD-9-CM	Diagnosis
V36	Other multiple birth (three or more), mates liveborn and stillborn	ICD-9-CM	Diagnosis
V36.0	Other multiple, mates liveborn and stillborn, born in hospital	ICD-9-CM	Diagnosis

**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), 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 Deliveries**

<b>Code</b>	<b>Description</b>	<b>Code Category</b>	<b>Code Type</b>
V36.00	Other multiple, mates liveborn and stillborn, born in hospital, delivered without mention of cesarean delivery	ICD-9-CM	Diagnosis
V36.01	Other multiple, mates liveborn and stillborn, born in hospital, delivered by cesarean delivery	ICD-9-CM	Diagnosis
V36.1	Other multiple birth (three or more), mates liveborn and stillborn, born before admission to hospital	ICD-9-CM	Diagnosis
V36.2	Other multiple birth (three or more), mates liveborn and stillborn, born outside hospital and not hospitalized	ICD-9-CM	Diagnosis
V37	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn	ICD-9-CM	Diagnosis
V37.0	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital	ICD-9-CM	Diagnosis
V37.00	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital, delivered without mention of cesarean delivery	ICD-9-CM	Diagnosis
V37.01	Other multiple, unspecified whether mates stillborn or liveborn, born in hospital, delivered by cesarean delivery	ICD-9-CM	Diagnosis
V37.1	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn, born before admission to hospital	ICD-9-CM	Diagnosis
V37.2	Other multiple birth (three or more), unspecified whether mates liveborn or stillborn, born outside of hospital	ICD-9-CM	Diagnosis
V39	Liveborn, unspecified whether single, twin, or multiple	ICD-9-CM	Diagnosis
V39.0	Other liveborn, unspecified whether single, twin, or multiple, born in hospital	ICD-9-CM	Diagnosis
V39.00	Liveborn infant, unspecified whether single, twin, or multiple, born in hospital, delivered without mention of cesarean delivery	ICD-9-CM	Diagnosis
V39.01	Liveborn infant, unspecified whether single, twin, or multiple, born in hospital, delivered by cesarean	ICD-9-CM	Diagnosis
V39.1	Liveborn, unspecified whether single, twin or multiple, born before admission to	ICD-9-CM	Diagnosis
V39.2	Liveborn, unspecified whether single, twin or multiple, born outside hospital and not hospitalized	ICD-9-CM	Diagnosis

**Appendix D. List of Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define the Exposures of Interest in this Request**

<b>Code</b>	<b>Description</b>	<b>Code Type</b>	<b>Code Category</b>
58321	Artificial insemination; intra-cervical	CPT-4	Procedure
58322	Artificial insemination; intra-uterine	CPT-4	Procedure
58974	Embryo transfer, intrauterine	CPT-4	Procedure
58976	Gamete, zygote, or embryo intrafallopian transfer	CPT-4	Procedure
S4011	In vitro fertilization; including but not limited to identification and incubation of mature oocytes, fertilization with sperm, incubation of embryo(s), and subsequent visualization for determination of development	HCPCS	Procedure
S4013	Complete cycle, gamete intrafallopian transfer (GIFT), case rate	HCPCS	Procedure
S4014	Complete cycle, zygote intrafallopian transfer (ZIFT), case rate	HCPCS	Procedure
S4015	Complete in vitro fertilization cycle, not otherwise specified, case rate	HCPCS	Procedure
S4016	Frozen in vitro fertilization cycle, case rate	HCPCS	Procedure
S4035	Stimulated intrauterine insemination (IUI), case rate	HCPCS	Procedure
S4037	Cryopreserved embryo transfer, case rate	HCPCS	Procedure

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

This request executed the Cohort Identification and Descriptive Analysis (CIDA) module, version 5.4.1 to examine the use of prenatal tests and procedures among women aged 15-45 with live births in the Sentinel Distributed Database (SDD).

**Query Period:** January 1, 2006 - December 31, 2017  
**Coverage Requirement:** Medical  
**Enrollment Requirement Prior to Delivery Date:** 391 days (301 + 90)  
**Enrollment Gap:** 45 days  
**Sex:** Female  
**Age Groups (calculated at delivery date):** 15-19, 20-24, 25-29, 30-34, 35-39, 40-45 years

Pregnancy Episode Creation						Event			
Scenario	Delivery Definition	Delivery Washout Period (Days)	Pregnancy Duration Definition (Pre/Postterm Codes)	Pregnancy Duration in Absence of Priority Codes (Days)	Priority Codes Evaluation Window (Days)	Event	Incident with Respect to:	Washout (days)	Cohort Definition
1	Use Algorithm Codes*	183	Use Algorithm Codes*	273	7	In-vitro Fertilization (IVF)/Intrauterine Insemination (IUI)	N/A	0	Cohort includes <b>last</b> exposure during each pregnancy episode

\*Use codes from a previously-validated algorithm from Sentinel's Medication Exposure in Pregnancy Risk Evaluation Program (default). This algorithm uses priority delivery codes present around the delivery date to determine a pregnancy duration. Requesters must set a default pregnancy duration value should no priority codes be observed around the delivery date (e.g., 273 days [39 weeks]). See 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), Current Procedural Terminology, Fourth Edition (CPT-4), and Healthcare Common Procedure Coding System (HCPCS) diagnosis and procedure codes used to define the gestational age algorithm and live-born deliveries in this request in Appendices B and C.