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

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## Overview for Request: cder\_mpl1p\_wp020

**Request ID:** cder\_mpl1p\_wp020\_nsdv\_v02

**Request Description:** This report contains estimates of magnetic resonance imaging (MRI) procedure utilization, with and without gadolinium-based contrast agents (GBCAs) before and during pregnancies resulting in a live-born delivery among women of reproductive age in the Sentinel Distributed Database (SDD).

**Sentinel Modular Program Tool Used:** Cohort Identification and Descriptive Analysis (CIDA) tool, version 5.4.1 with additional ad hoc programming

**Data Source:** Data from January 1, 2006 to January 31, 2018 from 16 Data Partners contributing to the SDD were included in this report. This request was distributed to Data Partners on June 28, 2018. Please see Appendix A for a list of the dates of available data for each Data Partner.

**Study Design:** The total number of pregnancy episodes with MRI procedures, MRI procedure episodes, and adjusted counts of MRI procedure codes were presented for MRIs with or without GBCAs and by MRI body location. Additionally, the results were stratified by exposure during the 90 days prior to pregnancy start and pregnancy trimester, by maternal age at delivery, and by calendar year of delivery. An age-matched cohort of non-pregnant women was used as a comparator during the same time period in which pregnancy episodes were assessed, and those results are presented for all above analyses. Finally, the counts of MRI procedures, at code level, anytime during pregnancy were estimated for the pregnant cohort.

**Exposures of Interest:** The exposures of interest in this request were prevalent MRI procedures. MRI were classified depending on section of the body they were performed and with or without GBCA use. Contrast (with GBCAs) and non-contrast (without GBCAs) MRIs were stratified by the following 9 body locations: lower extremity, upper extremity, head, cardiac, abdomen, chest, pelvis, spinal canal and neck. Additionally, the contrast group included breast MRIs and the non-contrast group included fetal MRIs. Please see Appendix B for a list of Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) procedure codes used to define MRIs in this request.

**Cohort Eligibility Criteria:** Women of reproductive age in the following age groups were included in the cohort: 15-19, 20-24, 25-29, 30-34, 35-39, and 40-45 years. Eligible women were required to be enrolled in plans with medical coverage for 391 days before their delivery date, with gaps in coverage of up to 45 days. Women were eligible for the non-pregnant cohort when they had no evidence of a live-birth delivery during their matched comparator's pregnancy time period. Pregnancy episodes were matched within Data Partner, to the first woman with an enrollment episode without a live birth that met all inclusion/exclusion criteria, who was also the same (integer) age, and where pregnancy index date overlaps the eligible enrollment span.

**Pregnancy Episode Creation:** A claims-based algorithm was used to identify pregnancies ending in a live birth.<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 pre-term and post-term deliveries, to calculate the length of the pregnancy episode. Codes had to occur within 7 days of a delivery date in the inpatient setting. In absence of pre-/post-term codes, pregnancy duration was set to 273 days. 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 C for a list of ICD-9-CM and ICD-10-CM codes used in the gestational age algorithm, and Appendix D for codes to define live-born delivery using Current Procedural Terminology, Fourth Edition (CPT-4) procedure codes, and ICD-9-CM and ICD-10-CM diagnosis and procedure codes.

**Overview for Request: cder\_mpl1p\_wp020, continued**

**Exposure Identification During Pregnancy:** Pregnancy episodes with MRI procedures and counts of MRI procedure episodes were identified during the 90 days prior to pregnancy start and pregnancy trimester. MRI procedures performed during days 0-13 of a pregnancy episode and on the date of delivery were not included. Furthermore, the number of pregnancy episodes with an MRI episode and total MRI procedure episodes were reported by gestational week, which included any MRIs performed on days 0-13 of the pregnancy episode and on the date of delivery.

**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 Query Fulfillment Team ([qf@sentinelssystem.org](mailto:qf@sentinelssystem.org)) for questions and to provide comments/suggestions for future enhancements to this document.

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

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

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

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

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

**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.

**Pregnancy Duration in Absence of Pre/PostTerm Codes** - number of days for pregnancy episode length in the absence of preterm/postterm codes.

**Pre/PostTerm Evaluation Window** - number of days around the delivery date where preterm/postterm codes to calculate the length of the pregnancy episode are assessed.

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

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

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

**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.

**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.

**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.

**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.

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

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

**Any Use, First Trimester** - pregnancy episodes with product use during the 1st trimester. The 1st trimester is 0-90 days following pregnancy start.

**Any Use, Second Trimester** - pregnancy episodes with product use during the 2nd trimester. The 2nd trimester is 91-180 days following pregnancy start.

**Any Use, Third Trimester** - pregnancy episodes with product use during the 3rd trimester. The 3rd trimester is 180+ days following pregnancy start until 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 1st trimester.

**Drug Episodes, Second Trimester** - number of medical product use episodes in the 2nd trimester.

**Drug Episodes, Third Trimester** - number of medical product use episodes in the 3rd trimester.

\*all terms may not be used in this report

**Table 1. Overall Counts of Pregnancy Episodes and Pregnant Women with Live-Birth Deliveries and Counts of Matched Comparator Women<sup>1</sup> in the Sentinel Distributed Database (SDD) from January 1, 2006 to January 31, 2018, by Calendar Year and Maternal Age (in Years) at Delivery**

	Pregnant Women with Live-Birth Deliveries	Matched Comparators without Live-Birth Deliveries	Pregnancy Episodes
<b>Unique Total</b>	3,911,676	3,917,503	4,692,744
<b>Year</b>			
2006	78,308	74,070	78,395
2007	197,430	188,818	197,571
2008	215,076	205,911	215,221
2009	455,162	436,625	455,338
2010	466,038	446,735	466,234
2011	469,003	449,605	469,226
2012	474,947	455,369	475,176
2013	496,242	475,857	496,461
2014	489,089	468,990	489,350
2015	496,742	476,713	496,977
2016	498,813	478,624	499,047
2017	353,267	342,316	353,327
2018	421	418	421
<b>Maternal Age</b>			
15-19	166,785	169,241	178,052
20-24	511,473	514,964	560,092
25-29	1,116,686	1,074,207	1,217,523
30-34	1,494,615	1,410,709	1,649,436
35-39	820,898	812,849	882,120
40-45	197,602	201,864	205,521

<sup>1</sup>Women in non-pregnant cohort may have been pregnant at some point during the request period. Women were eligible for the non-pregnant cohort if they had no evidence of a live-born delivery during the time period of their matched comparator's pregnancy.

**Table 2a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods and MRI Body Location**

MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Pregnancy Episodes with MRI Procedure</b>									
<b>Contrast</b>	21,863	5,457	3,907	883	753	5	3,851	818	707
Lower Extremity	922	228	193	15	22	0	191	13	22
Upper Extremity	801	210	162	28	23	0	160	25	22
Head	13,193	3,060	2,327	445	333	2	2,297	413	307
Cardiac	167	52	22	12	18	0	22	12	18
Abdomen	1,671	642	304	203	136	0	304	202	135
Chest	88	38	24	4	10	0	24	4	10
Pelvis	2,387	799	454	175	174	0	452	172	171
Spinal Canal	2,440	559	458	58	48	0	454	54	46
Neck	459	160	76	31	54	0	76	30	53
Breast	1,683	274	214	36	28	0	211	34	25
<b>Non-Contrast</b>	36,554	49,044	12,675	19,029	18,824	48	12,113	17,791	17,704
Lower Extremity	10,834	4,150	2,556	948	687	0	2,531	914	664
Upper Extremity	2,987	1,176	739	286	161	0	731	277	158
Head	8,651	16,712	3,586	6,421	7,103	28	3,434	6,111	6,797
Cardiac	64	156	19	73	68	0	19	69	64
Abdomen	874	11,253	2,144	5,500	3,818	3	2,058	5,319	3,670
Chest	77	237	45	104	105	1	41	89	91
Pelvis	1,281	13,526	1,382	5,930	6,565	4	1,336	5,598	6,245
Spinal Canal	13,706	6,296	3,352	1,650	1,368	0	3,300	1,600	1,322
Neck	264	1,292	235	438	630	1	230	431	621
Fetal	6	1,549	0	702	915	0	0	634	847



**Table 2a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods and MRI Body Location**

MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>MRI Procedure Episodes</b>									
<b>Contrast</b>	22,800	5,712	4,008	925	779	21	3,946	840	727
Lower Extremity	938	236	197	16	23	0	195	14	23
Upper Extremity	813	214	163	28	23	0	161	25	22
Head	13,543	3,173	2,359	465	349	10	2,325	422	320
Cardiac	168	52	22	12	18	0	22	12	18
Abdomen	1,706	654	310	207	137	0	310	206	136
Chest	88	40	25	4	11	0	25	4	11
Pelvis	2,415	813	457	179	177	0	455	176	174
Spinal Canal	2,564	580	471	61	48	0	467	55	46
Neck	468	168	80	32	56	0	80	31	55
Breast	1,723	284	218	38	28	0	215	36	25
<b>Non-Contrast</b>	38,169	53,504	13,239	20,194	20,071	170	12,611	18,824	18,823
Lower Extremity	11,065	4,271	2,590	972	709	0	2,564	936	683
Upper Extremity	3,050	1,210	752	294	164	0	743	285	160
Head	8,895	18,172	3,747	6,797	7,628	99	3,571	6,451	7,279
Cardiac	67	163	19	74	70	0	19	70	66
Abdomen	897	12,059	2,243	5,791	4,025	9	2,149	5,590	3,864
Chest	77	264	47	106	111	4	41	90	95
Pelvis	1,290	14,413	1,442	6,177	6,794	13	1,393	5,813	6,456
Spinal Canal	14,114	6,620	3,449	1,721	1,450	0	3,393	1,663	1,400
Neck	274	1,355	246	451	658	3	241	444	649
Fetal	6	1,677	0	726	951	0	0	655	881

**Table 2a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods and MRI Body Location**

MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Adjusted Counts of MRI Procedure Codes</b>									
<b>Contrast</b>	27,198	6,879	4,796	1,128	955	-	-	-	-
Lower Extremity	1,036	259	218	16	25	-	-	-	-
Upper Extremity	873	240	177	37	26	-	-	-	-
Head	14,952	3,499	2,600	511	388	-	-	-	-
Cardiac	185	55	23	13	19	-	-	-	-
Abdomen	1,817	689	333	212	144	-	-	-	-
Chest	95	41	26	4	11	-	-	-	-
Pelvis	2,535	847	478	182	187	-	-	-	-
Spinal Canal	3,375	768	624	78	66	-	-	-	-
Neck	531	180	89	33	58	-	-	-	-
Breast	1,799	301	228	42	31	-	-	-	-
<b>Non-Contrast</b>	43,911	72,867	17,008	27,899	27,960	-	-	-	-
Lower Extremity	11,618	4,500	2,714	1,026	760	-	-	-	-
Upper Extremity	3,212	1,285	796	313	176	-	-	-	-
Head	10,311	26,698	5,118	9,891	11,689	-	-	-	-
Cardiac	74	172	20	79	73	-	-	-	-
Abdomen	935	13,248	2,493	6,435	4,320	-	-	-	-
Chest	79	280	49	112	119	-	-	-	-
Pelvis	1,342	15,266	1,545	6,573	7,148	-	-	-	-
Spinal Canal	16,045	8,028	4,001	2,131	1,896	-	-	-	-
Neck	289	1,522	272	502	748	-	-	-	-
Fetal	6	1,868	0	837	1,031	-	-	-	-

**Table 2b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup> and MRI Body Location**

MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Pregnancy Episodes with MRI Procedure<sup>3</sup></b>									
<b>Contrast</b>	24,130	66,605	21,160	24,805	25,577	535	18,122	21,788	22,293
Lower Extremity	1,353	3,849	1,132	1,396	1,443	14	1,057	1,326	1,358
Upper Extremity	1,166	3,364	1,048	1,166	1,207	2	1,013	1,129	1,167
Head	14,340	39,077	12,448	14,450	14,811	355	10,818	12,948	13,034
Cardiac	185	578	172	217	199	1	164	211	194
Abdomen	1,863	5,382	1,669	1,962	2,082	26	1,460	1,788	1,829
Chest	113	326	96	123	127	2	89	108	111
Pelvis	1,964	5,942	1,697	2,138	2,307	18	1,569	2,015	2,176
Spinal Canal	3,662	10,438	3,295	3,820	3,996	44	2,877	3,384	3,548
Neck	549	1,574	473	567	568	3	451	541	551
Breast	1,696	5,107	1,459	1,882	1,938	5	1,341	1,791	1,808
<b>Non-Contrast</b>	45,725	128,276	40,281	46,491	47,871	232	36,353	42,125	43,663
Lower Extremity	14,518	41,741	12,816	14,861	15,104	26	12,156	14,169	14,402
Upper Extremity	4,036	11,952	3,664	4,087	4,393	2	3,551	3,959	4,252
Head	9,902	28,401	8,666	9,928	10,352	22	8,335	9,533	10,010
Cardiac	37	208	62	73	74	0	61	72	74
Abdomen	789	2,269	661	798	842	0	643	776	818
Chest	95	256	77	88	92	0	76	87	92
Pelvis	1,056	2,953	927	1,013	1,038	1	912	994	1,023
Spinal Canal	17,841	50,998	15,603	18,316	18,655	37	14,633	17,207	17,619
Neck	322	932	300	293	347	0	294	288	342
Fetal	1	14	1	6	7	0	1	6	7

**Table 2b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup> and MRI Body Location**

MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>MRI Procedure Episodes</b>									
<b>Contrast</b>	25,706	76,288	22,366	26,494	27,428	2,194	18,819	22,881	23,618
Lower Extremity	1,396	4,074	1,160	1,432	1,482	44	1,080	1,355	1,389
Upper Extremity	1,189	3,472	1,064	1,187	1,221	6	1,027	1,150	1,181
Head	14,977	43,601	12,920	15,104	15,577	1,444	11,027	13,294	13,539
Cardiac	190	600	172	222	206	3	164	216	201
Abdomen	1,912	5,852	1,696	2,013	2,143	84	1,478	1,826	1,876
Chest	118	353	96	125	132	6	89	108	116
Pelvis	2,012	6,273	1,732	2,185	2,356	63	1,591	2,056	2,216
Spinal Canal	3,870	11,810	3,490	4,063	4,257	173	3,009	3,560	3,761
Neck	575	1,671	487	593	591	11	460	564	572
Breast	1,742	5,422	1,488	1,946	1,988	15	1,362	1,847	1,853
<b>Non-Contrast</b>	48,058	141,416	42,173	48,939	50,304	793	37,948	44,164	45,741
Lower Extremity	14,823	43,800	13,098	15,228	15,474	84	12,419	14,493	14,743
Upper Extremity	4,134	12,374	3,734	4,170	4,470	7	3,615	4,031	4,323
Head	10,204	29,829	8,923	10,261	10,645	81	8,562	9,831	10,278
Cardiac	38	211	64	73	74	0	63	72	74
Abdomen	808	2,339	671	812	856	0	653	788	832
Chest	95	259	77	90	92	0	76	89	92
Pelvis	1,072	3,008	937	1,022	1,049	3	922	1,001	1,033
Spinal Canal	18,476	54,418	16,117	18,986	19,315	120	15,097	17,821	18,220
Neck	328	958	306	301	351	0	300	296	346
Fetal	1	14	1	6	7	0	1	6	7

**Table 2b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup> and MRI Body Location**

MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Adjusted Counts of MRI Procedure Codes</b>									
<b>Contrast</b>	31,523	93,750	27,377	32,582	33,791	-	-	-	-
Lower Extremity	1,509	4,429	1,259	1,566	1,604	-	-	-	-
Upper Extremity	1,270	3,718	1,132	1,278	1,308	-	-	-	-
Head	16,581	48,180	14,235	16,682	17,263	-	-	-	-
Cardiac	203	657	192	244	221	-	-	-	-
Abdomen	2,047	6,238	1,824	2,146	2,268	-	-	-	-
Chest	127	376	103	131	142	-	-	-	-
Pelvis	2,132	6,676	1,847	2,322	2,507	-	-	-	-
Spinal Canal	5,184	15,921	4,671	5,530	5,720	-	-	-	-
Neck	638	1,864	552	645	667	-	-	-	-
Breast	1,832	5,691	1,562	2,038	2,091	-	-	-	-
<b>Non-Contrast</b>	55,356	163,072	48,576	56,446	58,050	-	-	-	-
Lower Extremity	15,608	46,192	13,832	16,076	16,284	-	-	-	-
Upper Extremity	4,346	12,982	3,922	4,383	4,677	-	-	-	-
Head	11,795	34,517	10,294	11,841	12,382	-	-	-	-
Cardiac	39	226	68	80	78	-	-	-	-
Abdomen	844	2,429	686	849	894	-	-	-	-
Chest	98	264	81	91	92	-	-	-	-
Pelvis	1,110	3,104	965	1,060	1,079	-	-	-	-
Spinal Canal	21,170	62,323	18,402	21,740	22,181	-	-	-	-
Neck	345	1,017	324	318	375	-	-	-	-
Fetal	1	18	2	8	8	-	-	-	-

<sup>1</sup>Women in matched comparator cohort may have been pregnant at some point during the request period. Women were eligible for the "non-pregnant" cohort if they had no evidence of a live-born delivery during the time period of their pregnant comparator's pregnancy.

<sup>2</sup>Trimester time periods in the non-pregnant cohort are determined by the corresponding trimester period in each woman's matched pregnant comparator.

<sup>3</sup>Pregnancy episodes describes the window of time assessed for each woman that corresponds to the gestational period of their matched pregnant comparator.

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Pregnancy Episodes with MRI Procedure</b>										
2006	<b>Contrast</b>	170	55	34	9	12	0	34	9	12
	Lower Extremity	5	2	1	0	1	0	1	0	1
	Upper Extremity	3	1	0	0	1	0	0	0	1
	Head	121	39	27	6	6	0	27	6	6
	Cardiac	0	0	0	0	0	0	0	0	0
	Abdomen	9	2	0	1	1	0	0	1	1
	Chest	1	2	1	0	1	0	1	0	1
	Pelvis	11	5	3	1	1	0	3	1	1
	Spinal Canal	24	6	3	2	1	0	3	2	1
	Neck	7	2	0	2	0	0	0	2	0
	Breast	0	0	0	0	0	0	0	0	0
	<b>Non-Contrast</b>	463	400	134	134	145	1	132	123	133
	Lower Extremity	110	51	38	3	10	0	38	3	10
	Upper Extremity	33	9	7	0	2	0	7	0	2
	Head	116	165	34	73	62	0	33	70	58
	Cardiac	0	0	0	0	0	0	0	0	0
	Abdomen	4	42	4	19	22	0	4	16	19
	Chest	2	5	0	1	4	0	0	1	4
	Pelvis	13	75	13	27	40	0	13	22	35
Spinal Canal	208	82	45	21	16	0	45	21	16	
Neck	1	13	4	6	4	0	4	5	3	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2007	<b>Contrast</b>	760	226	155	36	36	0	155	35	35
	Lower Extremity	35	4	3	0	1	0	3	0	1
	Upper Extremity	34	8	5	3	0	0	5	3	0
	Head	535	155	115	20	21	0	115	19	20
	Cardiac	1	0	0	0	0	0	0	0	0
	Abdomen	33	13	4	5	4	0	4	5	4
	Chest	2	0	0	0	0	0	0	0	0
	Pelvis	56	21	7	6	8	0	7	6	8
	Spinal Canal	111	34	27	3	4	0	27	3	4
	Neck	18	6	2	2	2	0	2	2	2
	Breast	3	3	2	1	0	0	2	1	0
	<b>Non-Contrast</b>	1421	1349	437	451	488	2	421	430	473
	Lower Extremity	418	161	110	30	23	0	108	29	22
	Upper Extremity	126	46	32	9	5	0	32	9	5
	Head	321	516	104	202	219	1	98	195	215
	Cardiac	0	3	0	1	2	0	0	1	2
	Abdomen	17	170	22	82	68	0	21	80	67
	Chest	5	9	2	0	7	0	2	0	7
	Pelvis	39	268	23	105	144	0	22	102	140
Spinal Canal	565	270	169	54	49	0	167	54	47	
Neck	4	29	6	7	16	0	6	7	16	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2008	<b>Contrast</b>	840	261	187	35	42	0	184	32	42
	Lower Extremity	32	12	9	0	3	0	9	0	3
	Upper Extremity	25	8	8	0	0	0	8	0	0
	Head	538	144	112	20	14	0	110	18	14
	Cardiac	3	0	0	0	0	0	0	0	0
	Abdomen	54	23	11	5	7	0	11	5	7
	Chest	5	0	0	0	0	0	0	0	0
	Pelvis	61	42	17	9	16	0	17	9	16
	Spinal Canal	96	30	24	3	3	0	24	3	3
	Neck	16	9	3	1	5	0	3	1	5
	Breast	63	13	12	0	1	0	12	0	1
	<b>Non-Contrast</b>	1617	1570	468	520	625	1	452	485	591
	Lower Extremity	450	167	109	31	28	0	109	30	27
	Upper Extremity	134	49	26	17	6	0	26	17	6
	Head	388	632	135	235	277	1	129	224	265
	Cardiac	3	5	1	2	2	0	1	2	2
	Abdomen	24	214	33	89	96	0	32	85	93
	Chest	2	14	2	4	8	0	2	4	8
	Pelvis	69	361	34	122	214	0	34	113	205
Spinal Canal	633	269	158	66	53	0	153	61	47	
Neck	10	49	10	13	27	0	10	12	26	
Fetal	0	0	0	0	0	0	0	0	0	



**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2009	<b>Contrast</b>	2143	544	395	80	74	0	392	76	71
	Lower Extremity	84	19	14	2	3	0	14	2	3
	Upper Extremity	66	26	22	3	1	0	22	3	1
	Head	1397	328	248	47	36	0	246	45	34
	Cardiac	5	9	3	3	3	0	3	3	3
	Abdomen	117	40	20	11	9	0	20	11	9
	Chest	7	3	3	0	0	0	3	0	0
	Pelvis	191	65	41	9	15	0	41	9	15
	Spinal Canal	233	46	38	4	4	0	38	4	4
	Neck	39	14	7	3	4	0	7	3	4
	Breast	173	26	21	3	3	0	20	2	3
	<b>Non-Contrast</b>	3797	3962	1078	1478	1513	4	1043	1393	1423
	Lower Extremity	1115	411	260	97	56	0	260	95	54
	Upper Extremity	301	111	68	29	15	0	67	28	15
	Head	910	1445	283	550	636	1	274	532	616
	Cardiac	8	13	2	7	5	0	2	6	4
	Abdomen	84	721	88	365	289	1	86	346	269
	Chest	16	18	5	6	9	0	4	5	7
	Pelvis	130	988	77	431	508	1	73	407	481
Spinal Canal	1419	626	362	141	126	0	359	140	124	
Neck	33	97	14	32	51	0	14	32	51	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2010	<b>Contrast</b>	2299	557	390	104	73	0	382	97	68
	Lower Extremity	98	17	15	0	2	0	15	0	2
	Upper Extremity	72	24	20	1	3	0	20	1	3
	Head	1462	333	250	58	30	0	246	55	27
	Cardiac	14	6	2	2	2	0	2	2	2
	Abdomen	129	49	21	16	12	0	21	16	12
	Chest	8	0	0	0	0	0	0	0	0
	Pelvis	216	69	41	14	15	0	40	13	15
	Spinal Canal	239	60	46	10	4	0	46	10	4
	Neck	45	18	6	6	6	0	6	6	6
	Breast	176	36	23	7	6	0	23	7	6
	<b>Non-Contrast</b>	3942	4293	1193	1603	1618	2	1152	1496	1526
	Lower Extremity	1136	401	261	88	59	0	258	81	55
	Upper Extremity	325	115	64	32	19	0	64	32	19
	Head	949	1571	353	626	630	2	336	600	599
	Cardiac	8	11	1	6	4	0	1	6	4
	Abdomen	98	900	152	408	359	0	149	390	342
	Chest	5	24	7	8	10	0	7	7	9
	Pelvis	122	1104	103	478	552	0	101	449	525
	Spinal Canal	1521	604	338	147	124	0	334	143	122
Neck	28	100	23	32	48	0	21	31	45	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2011	<b>Contrast</b>	2204	535	387	98	62	0	378	87	58
	Lower Extremity	102	22	17	1	4	0	17	1	4
	Upper Extremity	85	14	8	3	3	0	8	3	3
	Head	1392	303	227	54	28	0	223	48	26
	Cardiac	13	7	4	1	2	0	4	1	2
	Abdomen	152	61	34	19	8	0	34	19	8
	Chest	5	4	4	0	0	0	4	0	0
	Pelvis	207	81	56	16	9	0	56	16	9
	Spinal Canal	250	47	38	7	4	0	36	5	4
	Neck	56	13	6	3	4	0	6	3	4
	Breast	151	30	24	4	3	0	23	4	2
	<b>Non-Contrast</b>	3758	4638	1195	1809	1771	2	1137	1693	1673
	Lower Extremity	1161	418	251	101	69	0	250	98	67
	Upper Extremity	313	126	83	32	13	0	81	30	13
	Head	852	1691	362	651	717	1	344	619	690
	Cardiac	7	13	1	6	6	0	1	6	6
	Abdomen	102	1014	146	503	380	1	143	490	367
	Chest	9	17	4	9	7	1	3	7	5
	Pelvis	122	1235	125	533	605	0	120	506	581
Spinal Canal	1389	638	325	192	128	0	320	185	126	
Neck	28	166	30	59	78	0	29	59	77	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2012	<b>Contrast</b>	2172	544	390	84	74	0	387	80	73
	Lower Extremity	99	19	17	1	1	0	17	1	1
	Upper Extremity	78	19	15	4	0	0	15	4	0
	Head	1307	325	245	41	41	0	244	39	40
	Cardiac	21	8	4	4	0	0	4	4	0
	Abdomen	162	60	30	18	12	0	30	18	12
	Chest	10	2	2	0	0	0	2	0	0
	Pelvis	249	79	47	17	15	0	47	17	15
	Spinal Canal	245	49	40	7	2	0	40	7	2
	Neck	48	18	9	1	8	0	9	1	8
	Breast	160	21	14	2	5	0	14	2	5
	<b>Non-Contrast</b>	3904	4976	1337	1944	1837	5	1278	1823	1738
	Lower Extremity	1172	436	262	100	76	0	260	98	76
	Upper Extremity	298	129	86	28	17	0	84	26	17
	Head	880	1692	367	674	695	5	354	637	662
	Cardiac	11	18	3	9	7	0	3	8	6
	Abdomen	80	1201	228	582	415	0	215	561	401
	Chest	6	32	6	13	16	0	6	10	13
	Pelvis	136	1396	147	615	672	0	144	578	636
	Spinal Canal	1522	694	355	195	150	0	351	190	147
Neck	27	118	20	42	56	0	20	42	56	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2013	<b>Contrast</b>	2390	560	410	82	75	1	407	78	69
	Lower Extremity	89	31	25	4	2	0	25	4	2
	Upper Extremity	96	15	13	1	2	0	13	0	1
	Head	1431	314	248	36	34	1	246	34	31
	Cardiac	17	5	2	2	1	0	2	2	1
	Abdomen	182	63	27	21	15	0	27	21	15
	Chest	7	7	4	1	2	0	4	1	2
	Pelvis	279	86	50	19	19	0	49	18	17
	Spinal Canal	260	51	43	4	5	0	42	4	4
	Neck	60	22	13	2	7	0	13	2	7
	Breast	180	26	19	5	2	0	19	5	2
	<b>Non-Contrast</b>	3979	5471	1407	2116	2123	5	1336	1972	1993
	Lower Extremity	1221	446	272	104	74	0	270	101	71
	Upper Extremity	338	118	75	23	21	0	74	22	21
	Head	910	1829	395	729	740	1	376	702	717
	Cardiac	3	13	3	6	4	0	3	6	4
	Abdomen	100	1292	262	610	442	0	248	593	429
	Chest	10	25	4	14	8	0	4	13	7
	Pelvis	159	1723	175	726	882	1	166	671	827
Spinal Canal	1459	690	362	179	156	0	357	175	151	
Neck	29	138	26	42	70	0	26	42	70	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2014	<b>Contrast</b>	2374	560	397	89	82	0	390	83	79
	Lower Extremity	92	23	23	0	0	0	23	0	0
	Upper Extremity	92	24	18	2	4	0	18	2	4
	Head	1380	313	242	50	27	0	237	46	24
	Cardiac	19	4	2	0	2	0	2	0	2
	Abdomen	221	68	27	24	17	0	27	24	17
	Chest	9	2	1	0	1	0	1	0	1
	Pelvis	284	82	39	17	26	0	39	17	26
	Spinal Canal	251	70	58	4	8	0	58	4	8
	Neck	57	30	15	7	8	0	15	7	8
	Breast	181	24	18	3	3	0	18	3	3
	<b>Non-Contrast</b>	3783	5778	1483	2242	2222	7	1412	2100	2104
	Lower Extremity	1134	400	254	84	64	0	253	82	63
	Upper Extremity	303	148	92	38	20	0	91	37	18
	Head	897	1896	422	708	820	6	400	670	778
	Cardiac	13	21	3	11	9	0	3	9	7
	Abdomen	87	1420	305	691	451	0	289	668	436
	Chest	6	25	5	13	8	0	5	12	7
	Pelvis	123	1914	193	846	921	0	189	801	878
Spinal Canal	1406	681	361	180	148	0	353	173	147	
Neck	33	146	23	61	65	1	21	59	64	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2015	<b>Contrast</b>	2319	600	419	118	78	1	411	105	70
	Lower Extremity	91	29	25	2	3	0	24	1	3
	Upper Extremity	110	22	15	5	3	0	14	4	3
	Head	1313	302	222	62	27	1	218	55	21
	Cardiac	29	1	0	0	1	0	0	0	1
	Abdomen	209	108	49	33	27	0	49	32	26
	Chest	12	7	4	1	2	0	4	1	2
	Pelvis	293	99	55	22	22	0	55	22	22
	Spinal Canal	259	60	50	6	4	0	50	6	4
	Neck	35	8	4	2	2	0	4	2	2
	Breast	202	35	32	2	1	0	32	2	1
	<b>Non-Contrast</b>	3762	5995	1445	2358	2378	7	1375	2209	2232
	Lower Extremity	1145	474	284	117	80	0	279	111	77
	Upper Extremity	319	118	78	25	17	0	77	23	16
	Head	908	1925	421	707	841	3	409	671	804
	Cardiac	3	24	3	11	10	0	3	11	10
	Abdomen	99	1544	313	752	501	1	302	734	487
	Chest	6	28	4	10	16	0	3	8	15
	Pelvis	137	2013	153	892	1031	0	146	831	973
Spinal Canal	1344	645	337	177	136	0	336	172	132	
Neck	23	152	33	46	73	0	33	46	73	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2016	<b>Contrast</b>	2459	634	457	97	92	2	450	89	85
	Lower Extremity	119	32	26	5	2	0	25	4	2
	Upper Extremity	84	30	24	4	3	0	23	3	3
	Head	1379	313	234	34	49	0	230	32	47
	Cardiac	30	8	4	0	4	0	4	0	4
	Abdomen	238	93	48	30	15	0	48	30	15
	Chest	9	9	5	1	3	0	5	1	3
	Pelvis	302	108	67	26	16	0	67	25	15
	Spinal Canal	281	69	56	7	7	0	55	6	7
	Neck	43	15	9	2	5	0	9	1	4
	Breast	218	32	26	5	1	0	26	5	1
	<b>Non-Contrast</b>	3602	6175	1474	2557	2357	8	1398	2376	2196
	Lower Extremity	1038	489	275	127	96	0	268	121	91
	Upper Extremity	304	123	76	30	17	0	76	30	17
	Head	893	1944	424	737	830	4	409	698	794
	Cardiac	4	23	1	10	12	0	1	10	12
	Abdomen	99	1597	332	841	454	0	319	814	434
	Chest	7	27	3	20	8	0	2	16	5
	Pelvis	129	1548	194	748	635	1	188	720	612
	Spinal Canal	1333	654	327	174	167	0	317	167	156
Neck	28	142	26	48	68	0	26	48	68	
Fetal	0	748	0	316	462	0	0	286	432	



**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2017	<b>Contrast</b>	1730	381	286	51	53	1	281	47	45
	Lower Extremity	76	18	18	0	0	0	18	0	0
	Upper Extremity	56	19	14	2	3	0	14	2	3
	Head	937	191	157	17	20	0	155	16	17
	Cardiac	15	4	1	0	3	0	1	0	3
	Abdomen	165	62	33	20	9	0	33	20	9
	Chest	13	2	0	1	1	0	0	1	1
	Pelvis	237	62	31	19	12	0	31	19	12
	Spinal Canal	191	37	35	1	2	0	35	0	1
	Neck	34	5	2	0	3	0	2	0	3
	Breast	176	28	23	4	3	0	22	3	1
	<b>Non-Contrast</b>	2522	4433	1024	1815	1745	4	977	1689	1620
	Lower Extremity	734	296	180	66	52	0	178	65	51
	Upper Extremity	193	84	52	23	9	0	52	23	9
	Head	624	1406	286	529	636	3	272	493	599
	Cardiac	4	12	1	4	7	0	1	4	7
	Abdomen	80	1138	259	558	341	0	250	542	326
	Chest	3	13	3	6	4	0	3	6	4
	Pelvis	102	901	145	407	361	1	140	398	352
	Spinal Canal	905	442	213	123	115	0	208	118	107
Neck	20	142	20	50	74	0	20	48	72	
Fetal	6	798	0	385	451	0	0	347	413	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>MRI Procedure Episodes</b>										
2006	<b>Contrast</b>	176	57	34	11	12	0	34	11	12
	Lower Extremity	5	2	1	0	1	0	1	0	1
	Upper Extremity	3	1	0	0	1	0	0	0	1
	Head	123	40	27	7	6	0	27	7	6
	Cardiac	0	0	0	0	0	0	0	0	0
	Abdomen	9	2	0	1	1	0	0	1	1
	Chest	1	2	1	0	1	0	1	0	1
	Pelvis	11	5	3	1	1	0	3	1	1
	Spinal Canal	27	7	3	3	1	0	3	3	1
	Neck	7	2	0	2	0	0	0	2	0
	Breast	0	0	0	0	0	0	0	0	0
	<b>Non-Contrast</b>	475	440	140	143	157	3	138	132	141
	Lower Extremity	112	52	39	3	10	0	39	3	10
	Upper Extremity	33	10	8	0	2	0	8	0	2
	Head	120	183	34	78	71	0	33	75	63
	Cardiac	0	0	0	0	0	0	0	0	0
	Abdomen	4	47	4	20	23	0	4	17	20
	Chest	2	5	0	1	4	0	0	1	4
	Pelvis	13	83	14	28	41	0	14	23	36
Spinal Canal	211	85	46	22	17	0	46	22	17	
Neck	1	14	4	6	4	0	4	5	3	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2007	<b>Contrast</b>	787	231	158	36	37	0	158	35	36
	Lower Extremity	36	4	3	0	1	0	3	0	1
	Upper Extremity	34	8	5	3	0	0	5	3	0
	Head	546	156	115	20	21	0	115	19	20
	Cardiac	1	0	0	0	0	0	0	0	0
	Abdomen	33	13	4	5	4	0	4	5	4
	Chest	2	0	0	0	0	0	0	0	0
	Pelvis	57	22	7	6	9	0	7	6	9
	Spinal Canal	113	34	27	3	4	0	27	3	4
	Neck	18	6	2	2	2	0	2	2	2
	Breast	3	3	2	1	0	0	2	1	0
	<b>Non-Contrast</b>	1484	1434	454	474	506	7	435	449	490
	Lower Extremity	426	163	110	30	23	0	108	29	22
	Upper Extremity	127	47	33	9	5	0	33	9	5
	Head	329	546	106	212	228	3	99	204	223
	Cardiac	0	3	0	1	2	0	0	1	2
	Abdomen	17	181	24	86	71	0	22	82	70
	Chest	5	9	2	0	7	0	2	0	7
	Pelvis	39	277	23	108	146	0	22	105	142
Spinal Canal	583	279	173	55	51	0	171	55	49	
Neck	4	30	6	7	17	0	6	7	17	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2008	<b>Contrast</b>	883	268	188	36	44	0	185	33	44
	Lower Extremity	32	12	9	0	3	0	9	0	3
	Upper Extremity	25	8	8	0	0	0	8	0	0
	Head	552	147	112	20	15	0	110	18	15
	Cardiac	3	0	0	0	0	0	0	0	0
	Abdomen	56	24	11	6	7	0	11	6	7
	Chest	5	0	0	0	0	0	0	0	0
	Pelvis	61	44	17	10	17	0	17	10	17
	Spinal Canal	102	30	24	3	3	0	24	3	3
	Neck	17	9	3	1	5	0	3	1	5
	Breast	66	13	12	0	1	0	12	0	1
	<b>Non-Contrast</b>	1696	1690	482	555	653	4	466	514	618
	Lower Extremity	462	169	109	32	28	0	109	31	27
	Upper Extremity	138	50	27	17	6	0	27	17	6
	Head	396	681	140	252	289	4	134	239	277
	Cardiac	3	5	1	2	2	0	1	2	2
	Abdomen	25	225	34	94	97	0	33	89	94
	Chest	2	14	2	4	8	0	2	4	8
	Pelvis	69	384	34	127	223	0	34	117	213
Spinal Canal	652	288	162	69	57	0	157	64	51	
Neck	10	51	10	13	28	0	10	12	27	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2009	<b>Contrast</b>	2235	559	399	85	75	0	395	80	72
	Lower Extremity	85	19	14	2	3	0	14	2	3
	Upper Extremity	66	26	22	3	1	0	22	3	1
	Head	1438	336	251	48	37	0	248	46	35
	Cardiac	5	9	3	3	3	0	3	3	3
	Abdomen	118	40	20	11	9	0	20	11	9
	Chest	7	3	3	0	0	0	3	0	0
	Pelvis	191	67	41	11	15	0	41	11	15
	Spinal Canal	245	46	38	4	4	0	38	4	4
	Neck	41	14	7	3	4	0	7	3	4
	Breast	179	27	21	3	3	0	20	2	3
	<b>Non-Contrast</b>	3961	4292	1120	1560	1612	15	1082	1469	1518
	Lower Extremity	1148	421	264	99	58	0	264	97	56
	Upper Extremity	308	113	68	30	15	0	67	29	15
	Head	932	1552	289	584	679	3	279	565	657
	Cardiac	8	15	2	8	5	0	2	7	4
	Abdomen	84	766	91	378	297	3	89	359	277
	Chest	16	22	5	6	11	0	4	5	9
	Pelvis	131	1055	81	442	532	3	77	415	505
Spinal Canal	1459	652	376	146	130	0	373	145	128	
Neck	35	103	15	33	55	0	15	33	55	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2010	<b>Contrast</b>	2395	580	398	106	76	0	388	99	70
	Lower Extremity	101	17	15	0	2	0	15	0	2
	Upper Extremity	73	24	20	1	3	0	20	1	3
	Head	1498	341	252	59	30	0	247	56	27
	Cardiac	14	6	2	2	2	0	2	2	2
	Abdomen	131	49	21	16	12	0	21	16	12
	Chest	8	0	0	0	0	0	0	0	0
	Pelvis	218	71	41	14	16	0	40	13	16
	Spinal Canal	248	61	47	10	4	0	47	10	4
	Neck	45	18	6	6	6	0	6	6	6
	Breast	178	39	25	8	6	0	25	8	6
	<b>Non-Contrast</b>	4135	4668	1240	1695	1733	7	1196	1577	1627
	Lower Extremity	1157	416	266	90	60	0	263	83	56
	Upper Extremity	332	115	64	32	19	0	64	32	19
	Head	982	1693	367	650	676	7	349	622	641
	Cardiac	9	11	1	6	4	0	1	6	4
	Abdomen	101	979	164	432	383	0	160	412	365
	Chest	5	26	7	8	11	0	7	7	10
	Pelvis	122	1190	109	506	575	0	106	472	544
Spinal Canal	1577	635	345	156	134	0	341	152	132	
Neck	28	109	24	33	52	0	22	32	49	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2011	<b>Contrast</b>	2305	566	399	104	63	0	388	90	58
	Lower Extremity	104	24	18	1	5	0	18	1	5
	Upper Extremity	87	14	8	3	3	0	8	3	3
	Head	1428	318	232	58	28	0	227	50	26
	Cardiac	13	7	4	1	2	0	4	1	2
	Abdomen	155	62	35	19	8	0	35	19	8
	Chest	5	4	4	0	0	0	4	0	0
	Pelvis	209	81	56	16	9	0	56	16	9
	Spinal Canal	263	51	39	8	4	0	37	5	4
	Neck	56	14	7	3	4	0	7	3	4
	Breast	159	32	24	5	3	0	23	5	2
	<b>Non-Contrast</b>	3908	5035	1249	1909	1877	8	1184	1787	1772
	Lower Extremity	1183	429	256	104	69	0	255	101	67
	Upper Extremity	322	130	85	32	13	0	83	30	13
	Head	874	1826	379	691	756	3	359	657	727
	Cardiac	7	13	1	6	6	0	1	6	6
	Abdomen	106	1088	152	530	406	3	149	517	392
	Chest	9	21	5	9	7	4	3	7	5
	Pelvis	122	1298	128	547	623	0	122	519	598
Spinal Canal	1423	667	333	198	136	0	328	191	134	
Neck	30	172	31	60	81	0	30	60	80	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2012	<b>Contrast</b>	2255	569	402	89	78	0	399	83	77
	Lower Extremity	101	19	17	1	1	0	17	1	1
	Upper Extremity	80	19	15	4	0	0	15	4	0
	Head	1338	339	250	44	45	0	249	41	44
	Cardiac	21	8	4	4	0	0	4	4	0
	Abdomen	165	61	31	18	12	0	31	18	12
	Chest	10	2	2	0	0	0	2	0	0
	Pelvis	251	79	47	17	15	0	47	17	15
	Spinal Canal	254	49	40	7	2	0	40	7	2
	Neck	48	20	10	1	9	0	10	1	9
	Breast	165	22	15	2	5	0	15	2	5
	<b>Non-Contrast</b>	4073	5402	1396	2047	1959	19	1330	1914	1845
	Lower Extremity	1199	443	263	100	80	0	261	98	80
	Upper Extremity	302	133	88	28	17	0	86	26	17
	Head	910	1846	386	715	745	19	369	675	709
	Cardiac	11	19	3	9	7	0	3	8	6
	Abdomen	84	1278	239	600	439	0	225	576	422
	Chest	6	37	6	14	17	0	6	10	13
	Pelvis	136	1499	155	646	698	0	152	603	657
Spinal Canal	1562	723	367	198	158	0	363	193	155	
Neck	28	124	22	45	57	0	22	45	57	
Fetal	0	0	0	0	0	0	0	0	0	



**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2013	<b>Contrast</b>	2476	590	423	88	79	5	420	82	73
	Lower Extremity	90	31	25	4	2	0	25	4	2
	Upper Extremity	97	17	14	1	2	0	14	0	1
	Head	1464	330	253	40	37	5	251	36	34
	Cardiac	17	5	2	2	1	0	2	2	1
	Abdomen	189	64	27	22	15	0	27	22	15
	Chest	7	7	4	1	2	0	4	1	2
	Pelvis	287	88	50	19	19	0	49	18	17
	Spinal Canal	269	55	46	4	5	0	45	4	4
	Neck	61	23	13	2	8	0	13	2	8
	Breast	182	26	19	5	2	0	19	5	2
	<b>Non-Contrast</b>	4156	5990	1477	2249	2264	18	1399	2092	2118
	Lower Extremity	1248	458	272	108	78	0	270	104	73
	Upper Extremity	347	121	77	23	21	0	76	22	21
	Head	928	1987	415	766	806	5	392	738	780
	Cardiac	3	13	3	6	4	0	3	6	4
	Abdomen	103	1375	274	641	460	0	260	623	446
	Chest	10	27	4	14	9	0	4	13	7
	Pelvis	160	1867	188	767	912	3	179	708	853
Spinal Canal	1504	721	373	185	163	0	368	180	157	
Neck	29	143	27	42	74	0	27	42	74	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2014	<b>Contrast</b>	2469	586	406	93	87	0	399	84	82
	Lower Extremity	94	24	24	0	0	0	24	0	0
	Upper Extremity	93	24	18	2	4	0	18	2	4
	Head	1415	326	243	53	30	0	238	46	25
	Cardiac	19	4	2	0	2	0	2	0	2
	Abdomen	223	71	28	25	18	0	28	25	18
	Chest	9	2	1	0	1	0	1	0	1
	Pelvis	285	83	40	17	26	0	40	17	26
	Spinal Canal	265	71	59	4	8	0	59	4	8
	Neck	60	30	15	7	8	0	15	7	8
	Breast	183	24	18	3	3	0	18	3	3
	<b>Non-Contrast</b>	3950	6314	1554	2392	2368	29	1469	2236	2234
	Lower Extremity	1155	410	255	87	68	0	254	85	67
	Upper Extremity	312	154	93	39	22	0	91	38	19
	Head	923	2088	448	757	883	24	420	713	832
	Cardiac	13	23	3	11	9	0	3	9	7
	Abdomen	88	1526	321	732	473	0	304	706	457
	Chest	6	27	5	14	8	0	5	13	7
	Pelvis	125	2029	199	876	954	0	195	829	910
Spinal Canal	1446	716	369	190	157	0	360	183	156	
Neck	35	155	23	64	68	3	21	62	67	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2015	<b>Contrast</b>	2430	634	431	124	79	5	422	105	70
	Lower Extremity	92	31	26	2	3	0	25	1	3
	Upper Extremity	112	23	15	5	3	0	14	4	3
	Head	1354	319	226	65	28	5	221	55	21
	Cardiac	29	1	0	0	1	0	0	0	1
	Abdomen	213	109	49	33	27	0	49	32	26
	Chest	12	8	5	1	2	0	5	1	2
	Pelvis	296	100	56	22	22	0	56	22	22
	Spinal Canal	280	62	52	6	4	0	52	6	4
	Neck	36	9	4	3	2	0	4	3	2
	Breast	203	35	32	2	1	0	32	2	1
	<b>Non-Contrast</b>	3933	6552	1518	2506	2528	22	1438	2334	2366
	Lower Extremity	1169	493	292	120	81	0	286	114	78
	Upper Extremity	323	122	79	26	17	0	78	24	16
	Head	947	2107	442	758	907	10	428	712	863
	Cardiac	3	24	3	11	10	0	3	11	10
	Abdomen	99	1657	330	795	532	3	316	773	518
	Chest	6	31	4	10	17	0	3	8	16
	Pelvis	139	2152	161	930	1061	0	154	863	1003
Spinal Canal	1385	675	346	183	146	0	344	178	141	
Neck	25	157	36	47	74	0	36	47	74	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2016	<b>Contrast</b>	2578	671	476	99	96	8	469	90	88
	Lower Extremity	121	35	27	6	2	0	26	5	2
	Upper Extremity	86	31	24	4	3	0	23	3	3
	Head	1419	325	239	34	52	0	235	32	50
	Cardiac	30	8	4	0	4	0	4	0	4
	Abdomen	244	96	51	30	15	0	51	30	15
	Chest	9	10	5	1	4	0	5	1	4
	Pelvis	307	109	67	26	16	0	67	25	15
	Spinal Canal	300	72	58	7	7	0	57	6	7
	Neck	43	18	11	2	5	0	11	1	4
	Breast	225	33	27	5	1	0	27	5	1
	<b>Non-Contrast</b>	3747	6819	1532	2740	2547	25	1448	2536	2361
	Lower Extremity	1053	512	279	131	102	0	272	124	96
	Upper Extremity	306	128	76	34	18	0	76	34	18
	Head	910	2137	440	782	915	12	423	741	874
	Cardiac	5	24	1	10	13	0	1	10	13
	Abdomen	105	1712	340	891	481	0	326	861	458
	Chest	7	32	4	20	8	0	2	16	5
	Pelvis	130	1635	197	782	656	3	191	750	631
Spinal Canal	1369	710	339	189	182	0	328	176	169	
Neck	29	150	27	51	72	0	27	51	72	
Fetal	0	799	0	324	475	0	0	291	445	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2017	<b>Contrast</b>	1808	401	294	54	53	3	289	48	45
	Lower Extremity	77	18	18	0	0	0	18	0	0
	Upper Extremity	57	19	14	2	3	0	14	2	3
	Head	967	196	159	17	20	0	157	16	17
	Cardiac	16	4	1	0	3	0	1	0	3
	Abdomen	170	63	33	21	9	0	33	21	9
	Chest	13	2	0	1	1	0	0	1	1
	Pelvis	241	64	32	20	12	0	32	20	12
	Spinal Canal	198	42	38	2	2	0	38	0	1
	Neck	35	5	2	0	3	0	2	0	3
	Breast	180	30	23	4	3	0	22	3	1
	<b>Non-Contrast</b>	2645	4864	1077	1922	1865	13	1026	1782	1731
	Lower Extremity	753	305	185	68	52	0	183	67	51
	Upper Extremity	200	87	54	24	9	0	54	24	9
	Head	640	1526	301	552	673	9	286	510	633
	Cardiac	5	13	1	4	8	0	1	4	8
	Abdomen	81	1225	270	592	363	0	261	575	345
	Chest	3	13	3	6	4	0	3	6	4
	Pelvis	104	944	153	418	373	4	147	409	364
Spinal Canal	940	468	220	129	119	0	214	123	111	
Neck	20	147	21	50	76	0	21	48	74	
Fetal	6	875	0	401	474	0	0	363	434	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Adjusted Counts of MRI Procedure Codes</b>										
<b>2006</b>	<b>Contrast</b>	222	64	36	14	14	-	-	-	-
	Lower Extremity	5	2	1	0	1	-	-	-	-
	Upper Extremity	3	1	0	0	1	-	-	-	-
	Head	141	42	28	7	7	-	-	-	-
	Cardiac	0	0	0	0	0	-	-	-	-
	Abdomen	11	2	0	1	1	-	-	-	-
	Chest	1	2	1	0	1	-	-	-	-
	Pelvis	15	5	3	1	1	-	-	-	-
	Spinal Canal	38	8	3	3	2	-	-	-	-
	Neck	8	2	0	2	0	-	-	-	-
	Breast	0	0	0	0	0	-	-	-	-
	<b>Non-Contrast</b>	578	606	173	222	211	-	-	-	-
	Lower Extremity	119	56	43	3	10	-	-	-	-
	Upper Extremity	35	10	8	0	2	-	-	-	-
	Head	146	268	44	123	101	-	-	-	-
	Cardiac	0	0	0	0	0	-	-	-	-
	Abdomen	4	53	4	23	26	-	-	-	-
	Chest	2	5	0	1	4	-	-	-	-
	Pelvis	14	90	14	31	45	-	-	-	-
Spinal Canal	257	107	55	34	18	-	-	-	-	
Neck	1	17	5	7	5	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2007	<b>Contrast</b>	1000	283	190	45	48	-	-	-	-
	Lower Extremity	45	4	3	0	1	-	-	-	-
	Upper Extremity	38	11	6	5	0	-	-	-	-
	Head	634	178	130	22	26	-	-	-	-
	Cardiac	1	0	0	0	0	-	-	-	-
	Abdomen	40	14	4	6	4	-	-	-	-
	Chest	2	0	0	0	0	-	-	-	-
	Pelvis	65	22	7	6	9	-	-	-	-
	Spinal Canal	150	45	36	3	6	-	-	-	-
	Neck	22	6	2	2	2	-	-	-	-
	Breast	3	3	2	1	0	-	-	-	-
	<b>Non-Contrast</b>	1753	1870	541	616	713	-	-	-	-
	Lower Extremity	470	174	114	32	28	-	-	-	-
	Upper Extremity	133	52	36	10	6	-	-	-	-
	Head	399	775	137	294	344	-	-	-	-
	Cardiac	0	3	0	1	2	-	-	-	-
	Abdomen	19	198	26	93	79	-	-	-	-
	Chest	5	9	2	0	7	-	-	-	-
	Pelvis	41	289	23	112	154	-	-	-	-
Spinal Canal	682	336	197	66	73	-	-	-	-	
Neck	4	34	6	8	20	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2008	<b>Contrast</b>	1062	324	223	43	58	-	-	-	-
	Lower Extremity	36	14	11	0	3	-	-	-	-
	Upper Extremity	31	10	10	0	0	-	-	-	-
	Head	623	164	123	23	18	-	-	-	-
	Cardiac	3	0	0	0	0	-	-	-	-
	Abdomen	67	26	13	6	7	-	-	-	-
	Chest	6	0	0	0	0	-	-	-	-
	Pelvis	71	47	19	10	18	-	-	-	-
	Spinal Canal	134	38	30	3	5	-	-	-	-
	Neck	19	10	3	1	6	-	-	-	-
	Breast	72	15	14	0	1	-	-	-	-
	<b>Non-Contrast</b>	1976	2289	605	756	928	-	-	-	-
	Lower Extremity	501	185	120	35	30	-	-	-	-
	Upper Extremity	145	55	28	20	7	-	-	-	-
	Head	464	967	184	354	429	-	-	-	-
	Cardiac	3	7	1	4	2	-	-	-	-
	Abdomen	25	245	39	102	104	-	-	-	-
	Chest	2	16	2	5	9	-	-	-	-
	Pelvis	77	413	36	138	239	-	-	-	-
Spinal Canal	749	345	184	84	77	-	-	-	-	
Neck	10	56	11	14	31	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	



**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2009	<b>Contrast</b>	2614	646	467	94	85	-	-	-	-
	Lower Extremity	95	19	14	2	3	-	-	-	-
	Upper Extremity	71	28	23	4	1	-	-	-	-
	Head	1559	372	278	52	42	-	-	-	-
	Cardiac	5	9	3	3	3	-	-	-	-
	Abdomen	122	42	22	11	9	-	-	-	-
	Chest	10	3	3	0	0	-	-	-	-
	Pelvis	201	68	41	11	16	-	-	-	-
	Spinal Canal	318	62	53	5	4	-	-	-	-
	Neck	45	15	8	3	4	-	-	-	-
	Breast	188	28	22	3	3	-	-	-	-
	<b>Non-Contrast</b>	4549	5609	1373	2059	2177	-	-	-	-
	Lower Extremity	1212	447	277	105	65	-	-	-	-
	Upper Extremity	320	119	72	32	15	-	-	-	-
	Head	1073	2205	391	837	977	-	-	-	-
	Cardiac	10	17	2	9	6	-	-	-	-
	Abdomen	88	821	98	408	315	-	-	-	-
	Chest	18	23	6	6	11	-	-	-	-
	Pelvis	141	1110	86	469	555	-	-	-	-
Spinal Canal	1651	757	425	157	175	-	-	-	-	
Neck	36	110	16	36	58	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2010	<b>Contrast</b>	2816	689	471	126	92	-	-	-	-
	Lower Extremity	113	19	16	0	3	-	-	-	-
	Upper Extremity	79	27	21	2	4	-	-	-	-
	Head	1647	379	280	67	32	-	-	-	-
	Cardiac	19	6	2	2	2	-	-	-	-
	Abdomen	142	51	22	16	13	-	-	-	-
	Chest	8	0	0	0	0	-	-	-	-
	Pelvis	230	76	43	14	19	-	-	-	-
	Spinal Canal	345	72	56	11	5	-	-	-	-
	Neck	47	19	6	6	7	-	-	-	-
	Breast	186	40	25	8	7	-	-	-	-
	<b>Non-Contrast</b>	4790	6200	1553	2295	2352	-	-	-	-
	Lower Extremity	1225	445	281	97	67	-	-	-	-
	Upper Extremity	360	123	68	35	20	-	-	-	-
	Head	1123	2418	489	916	1013	-	-	-	-
	Cardiac	10	11	1	6	4	-	-	-	-
	Abdomen	103	1053	177	469	407	-	-	-	-
	Chest	5	28	8	9	11	-	-	-	-
	Pelvis	126	1247	114	537	596	-	-	-	-
Spinal Canal	1807	758	390	190	178	-	-	-	-	
Neck	31	117	25	36	56	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2011	<b>Contrast</b>	2749	664	467	122	75	-	-	-	-
	Lower Extremity	117	27	20	1	6	-	-	-	-
	Upper Extremity	94	15	9	3	3	-	-	-	-
	Head	1561	345	252	61	32	-	-	-	-
	Cardiac	13	7	4	1	2	-	-	-	-
	Abdomen	170	66	38	19	9	-	-	-	-
	Chest	6	5	5	0	0	-	-	-	-
	Pelvis	223	84	58	17	9	-	-	-	-
	Spinal Canal	336	64	48	10	6	-	-	-	-
	Neck	62	14	7	3	4	-	-	-	-
	Breast	167	37	26	7	4	-	-	-	-
	<b>Non-Contrast</b>	4474	6862	1608	2621	2633	-	-	-	-
	Lower Extremity	1236	449	265	112	72	-	-	-	-
	Upper Extremity	338	139	91	34	14	-	-	-	-
	Head	1021	2656	511	984	1161	-	-	-	-
	Cardiac	8	13	1	6	6	-	-	-	-
	Abdomen	108	1184	165	582	437	-	-	-	-
	Chest	9	21	5	9	7	-	-	-	-
	Pelvis	125	1369	139	574	656	-	-	-	-
Spinal Canal	1598	838	393	256	189	-	-	-	-	
Neck	31	193	38	64	91	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2012	<b>Contrast</b>	2666	669	467	108	94	-	-	-	-
	Lower Extremity	112	21	19	1	1	-	-	-	-
	Upper Extremity	85	20	16	4	0	-	-	-	-
	Head	1460	362	268	47	47	-	-	-	-
	Cardiac	22	8	4	4	0	-	-	-	-
	Abdomen	174	64	33	18	13	-	-	-	-
	Chest	10	2	2	0	0	-	-	-	-
	Pelvis	259	85	51	18	16	-	-	-	-
	Spinal Canal	318	63	49	12	2	-	-	-	-
	Neck	54	20	10	1	9	-	-	-	-
	Breast	172	24	15	3	6	-	-	-	-
	<b>Non-Contrast</b>	4688	7290	1755	2824	2711	-	-	-	-
	Lower Extremity	1254	459	275	101	83	-	-	-	-
	Upper Extremity	319	140	91	30	19	-	-	-	-
	Head	1062	2667	498	1033	1136	-	-	-	-
	Cardiac	12	22	4	10	8	-	-	-	-
	Abdomen	84	1380	261	660	459	-	-	-	-
	Chest	6	44	6	16	22	-	-	-	-
Pelvis	146	1577	164	684	729	-	-	-	-	
Spinal Canal	1775	867	433	242	192	-	-	-	-	
Neck	30	134	23	48	63	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2013	<b>Contrast</b>	2956	718	502	112	104	-	-	-	-
	Lower Extremity	100	34	28	4	2	-	-	-	-
	Upper Extremity	104	20	15	2	3	-	-	-	-
	Head	1608	359	273	44	42	-	-	-	-
	Cardiac	20	6	2	3	1	-	-	-	-
	Abdomen	196	67	28	23	16	-	-	-	-
	Chest	7	7	4	1	2	-	-	-	-
	Pelvis	297	94	53	20	21	-	-	-	-
	Spinal Canal	360	76	62	7	7	-	-	-	-
	Neck	72	27	17	2	8	-	-	-	-
	Breast	192	28	20	6	2	-	-	-	-
	<b>Non-Contrast</b>	4751	8134	1941	3074	3119	-	-	-	-
	Lower Extremity	1302	483	285	116	82	-	-	-	-
	Upper Extremity	362	128	82	24	22	-	-	-	-
	Head	1064	2956	592	1110	1254	-	-	-	-
	Cardiac	4	13	3	6	4	-	-	-	-
	Abdomen	108	1520	311	720	489	-	-	-	-
	Chest	10	28	4	15	9	-	-	-	-
	Pelvis	162	1972	195	807	970	-	-	-	-
Spinal Canal	1710	870	439	228	203	-	-	-	-	
Neck	29	164	30	48	86	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2014	<b>Contrast</b>	2919	727	501	118	108	-	-	-	-
	Lower Extremity	105	26	26	0	0	-	-	-	-
	Upper Extremity	97	25	19	2	4	-	-	-	-
	Head	1552	361	269	57	35	-	-	-	-
	Cardiac	19	4	2	0	2	-	-	-	-
	Abdomen	232	76	32	26	18	-	-	-	-
	Chest	10	2	1	0	1	-	-	-	-
	Pelvis	291	85	42	17	26	-	-	-	-
	Spinal Canal	352	92	76	5	11	-	-	-	-
	Neck	70	32	16	8	8	-	-	-	-
	Breast	191	24	18	3	3	-	-	-	-
	<b>Non-Contrast</b>	4487	8666	2014	3370	3282	-	-	-	-
	Lower Extremity	1189	428	264	92	72	-	-	-	-
	Upper Extremity	325	162	98	41	23	-	-	-	-
	Head	1059	3120	605	1141	1374	-	-	-	-
	Cardiac	13	23	3	11	9	-	-	-	-
	Abdomen	92	1686	359	818	509	-	-	-	-
Chest	6	27	5	14	8	-	-	-	-	
Pelvis	129	2156	219	938	999	-	-	-	-	
Spinal Canal	1637	886	434	242	210	-	-	-	-	
Neck	37	178	27	73	78	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2015	<b>Contrast</b>	2907	771	525	147	99	-	-	-	-
	Lower Extremity	98	37	32	2	3	-	-	-	-
	Upper Extremity	121	24	15	6	3	-	-	-	-
	Head	1491	355	254	71	30	-	-	-	-
	Cardiac	31	1	0	0	1	-	-	-	-
	Abdomen	223	113	52	33	28	-	-	-	-
	Chest	13	8	5	1	2	-	-	-	-
	Pelvis	309	103	58	22	23	-	-	-	-
	Spinal Canal	373	84	71	7	6	-	-	-	-
	Neck	39	10	5	3	2	-	-	-	-
	Breast	209	36	33	2	1	-	-	-	-
	<b>Non-Contrast</b>	4476	8997	1985	3487	3525	-	-	-	-
	Lower Extremity	1227	519	307	125	87	-	-	-	-
	Upper Extremity	337	129	82	27	20	-	-	-	-
	Head	1081	3157	607	1138	1412	-	-	-	-
	Cardiac	4	25	3	11	11	-	-	-	-
	Abdomen	103	1835	365	897	573	-	-	-	-
	Chest	6	33	4	11	18	-	-	-	-
Pelvis	139	2301	176	1005	1120	-	-	-	-	
Spinal Canal	1552	818	403	220	195	-	-	-	-	
Neck	27	180	38	53	89	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2016	<b>Contrast</b>	3106	817	575	125	117	-	-	-	-
	Lower Extremity	127	36	28	6	2	-	-	-	-
	Upper Extremity	90	37	29	5	3	-	-	-	-
	Head	1587	365	268	41	56	-	-	-	-
	Cardiac	34	9	5	0	4	-	-	-	-
	Abdomen	259	100	53	31	16	-	-	-	-
	Chest	9	10	5	1	4	-	-	-	-
	Pelvis	321	112	69	26	17	-	-	-	-
	Spinal Canal	395	95	78	8	9	-	-	-	-
	Neck	51	20	13	2	5	-	-	-	-
	Breast	233	33	27	5	1	-	-	-	-
	<b>Non-Contrast</b>	4341	9412	2000	3832	3580	-	-	-	-
	Lower Extremity	1094	534	288	137	109	-	-	-	-
	Upper Extremity	322	137	84	35	18	-	-	-	-
	Head	1071	3138	617	1128	1393	-	-	-	-
	Cardiac	5	25	1	11	13	-	-	-	-
	Abdomen	109	1891	377	998	516	-	-	-	-
	Chest	7	32	4	20	8	-	-	-	-
	Pelvis	135	1727	208	830	689	-	-	-	-
Spinal Canal	1566	871	391	243	237	-	-	-	-	
Neck	32	168	30	55	83	-	-	-	-	
Fetal	0	889	0	375	514	-	-	-	-	



**Table 3a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Calendar Year of Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2017	<b>Contrast</b>	2175	507	372	74	61	-	-	-	-
	Lower Extremity	83	20	20	0	0	-	-	-	-
	Upper Extremity	60	22	14	4	4	-	-	-	-
	Head	1087	217	177	19	21	-	-	-	-
	Cardiac	18	5	1	0	4	-	-	-	-
	Abdomen	181	68	36	22	10	-	-	-	-
	Chest	13	2	0	1	1	-	-	-	-
	Pelvis	252	66	34	20	12	-	-	-	-
	Spinal Canal	256	69	62	4	3	-	-	-	-
	Neck	39	5	2	0	3	-	-	-	-
	Breast	186	33	26	4	3	-	-	-	-
	<b>Non-Contrast</b>	3039	6926	1460	2740	2726	-	-	-	-
	Lower Extremity	789	321	195	71	55	-	-	-	-
	Upper Extremity	216	91	56	25	10	-	-	-	-
	Head	742	2371	443	833	1095	-	-	-	-
	Cardiac	5	13	1	4	8	-	-	-	-
	Abdomen	92	1382	311	665	406	-	-	-	-
	Chest	3	14	3	6	5	-	-	-	-
	Pelvis	107	1015	171	448	396	-	-	-	-
Spinal Canal	1058	574	257	168	149	-	-	-	-	
Neck	21	171	23	60	88	-	-	-	-	
Fetal	6	974	0	460	514	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Pregnancy Episodes with MRI Procedure<sup>3</sup></b>										
<b>2006</b>	<b>Contrast</b>	223	662	207	234	270	8	174	205	242
	Lower Extremity	10	35	14	7	14	0	14	7	14
	Upper Extremity	13	38	15	12	12	0	14	11	12
	Head	150	469	133	172	198	7	112	152	178
	Cardiac	0	1	1	0	0	0	1	0	0
	Abdomen	12	27	12	6	10	0	11	6	9
	Chest	2	6	4	2	0	0	4	2	0
	Pelvis	10	31	9	10	13	0	8	9	13
	Spinal Canal	35	105	31	33	46	0	27	31	42
	Neck	7	17	5	7	6	0	4	6	6
	Breast	0	0	0	0	0	0	0	0	0
	<b>Non-Contrast</b>	604	1796	543	636	707	0	490	573	643
	Lower Extremity	160	475	158	147	187	0	147	134	177
	Upper Extremity	42	154	43	54	58	0	43	53	57
	Head	158	445	125	151	173	0	124	147	170
	Cardiac	0	2	1	1	0	0	1	1	0
	Abdomen	5	23	5	8	12	0	4	7	10
	Chest	3	2	1	1	0	0	1	1	0
	Pelvis	11	35	13	8	14	0	13	8	14
Spinal Canal	256	808	233	295	300	0	223	280	285	
Neck	3	19	2	6	11	0	2	6	11	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2007	<b>Contrast</b>	837	2457	815	883	931	12	705	783	809
	Lower Extremity	43	112	31	41	41	0	30	41	40
	Upper Extremity	35	104	39	28	39	0	38	26	38
	Head	601	1614	530	583	605	10	466	523	531
	Cardiac	2	7	3	1	4	0	2	1	3
	Abdomen	29	122	44	43	42	0	38	41	36
	Chest	4	19	7	7	6	0	7	6	5
	Pelvis	47	161	59	51	53	0	57	50	52
	Spinal Canal	129	424	132	157	159	0	115	143	142
	Neck	22	56	25	13	19	0	24	13	18
	Breast	3	105	22	38	51	0	17	35	47
	<b>Non-Contrast</b>	1843	5068	1576	1875	1870	7	1417	1698	1707
	Lower Extremity	553	1584	443	605	562	0	427	589	542
	Upper Extremity	155	442	140	156	159	0	133	145	151
	Head	396	1048	317	381	372	0	302	365	359
	Cardiac	0	6	1	3	2	0	1	3	2
	Abdomen	36	82	19	36	29	0	18	34	28
	Chest	5	7	3	3	2	0	2	2	2
	Pelvis	40	120	46	41	34	0	45	40	34
	Spinal Canal	744	2191	697	751	810	1	654	705	766
Neck	14	30	15	7	10	0	13	7	8	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First Trimester			Second Trimester		Third Trimester		First, Second, and Third Trimester		Only First Trimester	Only Second Trimester	Only Third Trimester
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester				
2008	<b>Contrast</b>	995	2737	846	1041	1042	22	728	924	915				
	Lower Extremity	44	134	47	33	56	0	46	32	54				
	Upper Extremity	38	111	30	50	33	0	29	48	32				
	Head	610	1768	538	671	662	13	473	615	590				
	Cardiac	3	9	3	5	2	0	2	4	2				
	Abdomen	58	148	38	57	59	1	33	55	55				
	Chest	10	12	2	4	7	0	2	3	6				
	Pelvis	73	159	41	57	61	0	41	57	61				
	Spinal Canal	145	432	138	154	157	1	128	144	144				
	Neck	19	74	20	34	23	1	19	32	21				
	Breast	67	194	60	68	80	0	51	61	68				
	<b>Non-Contrast</b>	1911	5735	1775	2066	2181	10	1597	1859	2002				
	Lower Extremity	568	1792	540	624	671	1	513	595	642				
	Upper Extremity	157	530	149	185	208	0	140	179	199				
	Head	406	1253	395	450	440	2	380	422	421				
	Cardiac	0	3	0	1	2	0	0	1	2				
	Abdomen	21	85	24	29	32	0	24	29	32				
	Chest	6	12	4	4	4	0	4	4	4				
	Pelvis	40	120	30	43	48	0	30	42	47				
	Spinal Canal	809	2402	723	841	899	2	682	796	865				
Neck	18	33	13	8	12	0	13	8	12					
Fetal	0	0	0	0	0	0	0	0	0					

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First Trimester			Second Trimester		Third Trimester		First, Second, and Third Trimester		Only First Trimester	Only Second Trimester	Only Third Trimester
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester				
2009	<b>Contrast</b>	2430	6688	2091	2454	2626	43	1790	2156	2302				
	Lower Extremity	122	319	99	125	105	2	95	118	98				
	Upper Extremity	106	318	89	111	133	1	80	100	124				
	Head	1516	4182	1273	1499	1666	26	1107	1353	1492				
	Cardiac	16	45	11	18	17	0	10	17	17				
	Abdomen	149	381	123	149	128	0	111	138	113				
	Chest	14	26	7	11	10	0	7	9	8				
	Pelvis	163	438	121	167	169	1	109	156	155				
	Spinal Canal	381	1060	340	377	412	5	299	334	363				
	Neck	60	169	47	62	62	0	45	62	60				
	Breast	177	537	161	202	193	1	148	191	180				
	<b>Non-Contrast</b>	4760	13619	4176	4925	5196	24	3779	4453	4733				
	Lower Extremity	1509	4431	1352	1583	1606	2	1282	1515	1526				
	Upper Extremity	442	1323	408	465	474	0	400	444	455				
	Head	1022	2916	831	1019	1117	1	799	985	1082				
	Cardiac	6	27	6	12	10	0	5	11	10				
	Abdomen	65	226	57	89	82	0	56	87	81				
	Chest	9	32	12	9	11	0	12	9	11				
	Pelvis	116	316	88	112	120	0	84	110	118				
Spinal Canal	1893	5457	1624	1939	2081	3	1510	1804	1959					
Neck	33	100	24	31	45	0	24	31	45					
Fetal	0	0	0	0	0	0	0	0	0					

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2010	<b>Contrast</b>	2600	6874	2237	2566	2525	46	1950	2284	2232
	Lower Extremity	111	379	119	135	134	0	113	129	128
	Upper Extremity	101	335	111	115	113	0	108	113	110
	Head	1663	4223	1404	1567	1515	33	1232	1417	1344
	Cardiac	15	40	14	14	13	0	13	13	13
	Abdomen	157	466	131	172	184	2	116	163	168
	Chest	9	30	12	8	10	0	12	8	10
	Pelvis	173	494	129	180	198	1	118	171	193
	Spinal Canal	395	1091	335	417	408	5	291	373	363
	Neck	67	169	54	54	63	0	52	52	63
	Breast	177	480	146	174	176	1	138	161	166
	<b>Non-Contrast</b>	4761	13717	4330	4923	5097	23	3951	4481	4675
	Lower Extremity	1453	4393	1337	1542	1605	1	1276	1485	1542
	Upper Extremity	439	1242	381	435	446	1	369	424	430
	Head	1075	2955	922	1011	1073	1	890	972	1043
	Cardiac	4	26	7	8	11	0	7	8	11
	Abdomen	76	231	77	75	82	0	76	73	79
	Chest	6	30	8	12	10	0	8	12	10
	Pelvis	117	293	91	109	96	1	90	107	94
	Spinal Canal	1875	5629	1737	2024	2027	4	1652	1909	1913
Neck	37	102	38	28	36	0	38	28	36	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2011	<b>Contrast</b>	2487	6765	2136	2558	2585	61	1808	2250	2254
	Lower Extremity	119	374	102	145	139	2	95	137	132
	Upper Extremity	110	314	94	103	123	0	88	100	120
	Head	1523	4089	1321	1537	1526	39	1127	1366	1340
	Cardiac	15	51	15	17	19	0	15	17	19
	Abdomen	169	486	138	196	184	4	120	179	159
	Chest	7	33	11	11	16	0	9	7	12
	Pelvis	171	592	166	211	234	2	156	199	220
	Spinal Canal	428	1059	327	399	407	5	284	349	357
	Neck	65	194	50	59	87	0	49	57	86
	Breast	174	490	139	179	188	0	125	173	176
	<b>Non-Contrast</b>	4803	13597	4260	5002	4999	30	3838	4559	4566
	Lower Extremity	1505	4371	1335	1552	1597	5	1259	1483	1521
	Upper Extremity	429	1298	419	453	445	0	404	442	433
	Head	964	2993	937	1077	1036	2	899	1037	1002
	Cardiac	2	17	3	8	6	0	3	8	6
	Abdomen	96	242	75	89	82	0	72	86	80
	Chest	10	30	5	13	12	0	5	13	12
	Pelvis	114	279	80	95	104	0	80	95	104
	Spinal Canal	1954	5535	1648	2037	2010	3	1550	1922	1906
Neck	39	110	36	36	41	0	33	34	40	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2012	<b>Contrast</b>	2465	6937	2235	2560	2631	36	1936	2247	2301
	Lower Extremity	135	361	104	129	143	2	95	120	133
	Upper Extremity	129	341	107	118	119	0	106	116	116
	Head	1465	4045	1293	1472	1533	25	1144	1317	1356
	Cardiac	20	65	16	23	26	0	16	23	26
	Abdomen	188	543	186	192	201	2	161	175	173
	Chest	11	46	14	17	17	0	13	16	15
	Pelvis	181	650	193	240	241	1	175	227	225
	Spinal Canal	373	1100	345	395	426	1	302	346	387
	Neck	78	177	64	60	60	0	60	53	57
	Breast	177	530	153	213	178	1	145	206	166
	<b>Non-Contrast</b>	5002	13908	4404	5044	5203	26	3960	4528	4703
	Lower Extremity	1608	4457	1358	1590	1630	3	1285	1504	1550
	Upper Extremity	466	1288	421	407	480	0	407	398	463
	Head	1062	3062	949	1088	1115	3	896	1016	1063
	Cardiac	1	19	6	6	7	0	6	6	7
	Abdomen	91	249	68	81	103	0	65	80	101
	Chest	7	33	8	12	13	0	8	12	13
	Pelvis	113	306	99	101	110	0	98	97	107
	Spinal Canal	1946	5629	1745	2023	2037	7	1640	1902	1918
Neck	33	109	38	38	34	0	37	37	34	
Fetal	0	0	0	0	0	0	0	0	0	



**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2013	<b>Contrast</b>	2575	6991	2245	2612	2663	62	1905	2290	2329
	Lower Extremity	164	449	115	146	201	2	106	141	191
	Upper Extremity	137	358	115	120	129	0	111	117	124
	Head	1481	4024	1317	1502	1482	40	1142	1337	1308
	Cardiac	17	80	26	26	28	0	26	26	28
	Abdomen	213	590	181	219	225	5	158	203	199
	Chest	15	26	9	12	9	1	7	10	6
	Pelvis	225	668	198	237	262	4	181	218	244
	Spinal Canal	379	1070	342	409	384	3	296	370	342
	Neck	51	179	49	72	65	0	45	66	61
	Breast	182	515	159	191	190	0	139	177	174
	<b>Non-Contrast</b>	4914	13684	4425	4908	5024	17	3994	4466	4568
	Lower Extremity	1651	4454	1428	1591	1552	1	1351	1508	1479
	Upper Extremity	383	1223	392	403	443	0	384	393	431
	Head	1069	3132	968	1077	1141	3	933	1040	1108
	Cardiac	5	22	11	4	7	0	11	4	7
	Abdomen	76	254	71	86	99	0	70	84	98
	Chest	16	24	7	9	8	0	7	9	8
	Pelvis	105	308	93	104	113	0	91	102	113
Spinal Canal	1874	5404	1688	1906	1966	1	1596	1801	1852	
Neck	39	96	27	35	34	0	27	35	34	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2014	<b>Contrast</b>	2497	6988	2200	2568	2766	68	1881	2239	2390
	Lower Extremity	161	450	138	163	159	1	132	155	154
	Upper Extremity	137	374	132	114	138	1	126	108	131
	Head	1417	3868	1197	1438	1522	52	1029	1281	1321
	Cardiac	28	73	24	26	23	0	24	26	23
	Abdomen	207	660	217	213	262	2	198	195	237
	Chest	10	39	6	19	15	0	6	18	14
	Pelvis	223	702	192	247	286	1	176	234	270
	Spinal Canal	357	1137	356	388	476	11	304	331	430
	Neck	64	168	40	69	61	0	39	68	59
	Breast	178	552	154	202	214	1	143	193	199
	<b>Non-Contrast</b>	4784	12983	4085	4715	4826	22	3678	4273	4411
	Lower Extremity	1535	4350	1331	1564	1562	2	1260	1491	1494
	Upper Extremity	414	1196	354	425	435	0	343	413	422
	Head	1017	2931	916	992	1069	2	888	959	1040
	Cardiac	6	28	10	10	8	0	10	10	8
	Abdomen	86	200	61	79	63	0	60	76	61
	Chest	8	20	6	2	12	0	6	2	12
	Pelvis	102	315	108	102	107	0	107	101	105
	Spinal Canal	1858	4953	1520	1775	1822	4	1417	1658	1718
Neck	22	90	32	25	33	0	32	25	33	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First Trimester			Second Trimester		Third Trimester		First, Second, and Third Trimester		Only First Trimester	Only Second Trimester	Only Third Trimester
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester				
2015	<b>Contrast</b>	2528	7011	2219	2618	2731	55	1884	2274	2351				
	Lower Extremity	174	480	149	180	167	2	138	171	157				
	Upper Extremity	136	377	110	143	128	0	108	141	124				
	Head	1430	3899	1248	1451	1494	35	1066	1288	1286				
	Cardiac	25	73	22	28	26	0	20	27	23				
	Abdomen	231	650	195	233	255	1	176	213	229				
	Chest	12	30	9	8	14	0	9	7	13				
	Pelvis	242	709	220	257	251	1	207	246	238				
	Spinal Canal	386	1107	336	416	434	3	294	362	375				
	Neck	47	145	51	55	42	1	49	53	41				
	Breast	184	592	159	205	253	1	142	194	232				
	<b>Non-Contrast</b>	4509	12857	3947	4683	4833	22	3563	4271	4439				
	Lower Extremity	1452	4266	1294	1504	1579	3	1226	1431	1501				
	Upper Extremity	413	1217	357	420	460	0	342	405	450				
	Head	993	2955	886	1023	1093	3	860	988	1063				
	Cardiac	4	12	3	4	5	0	3	4	5				
	Abdomen	70	227	56	85	87	0	56	84	86				
	Chest	10	24	5	9	10	0	5	9	10				
	Pelvis	95	328	108	108	117	0	104	104	115				
	Spinal Canal	1734	4865	1454	1798	1759	4	1355	1694	1674				
Neck	22	96	30	27	39	0	30	27	39					
Fetal	0	0	0	0	0	0	0	0	0					

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First Trimester			Second Trimester		Third Trimester		First, Second, and Third Trimester		Only First Trimester	Only Second Trimester	Only Third Trimester
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester				
2016	<b>Contrast</b>	2672	7318	2368	2723	2795	71	2029	2383	2409				
	Lower Extremity	151	456	134	167	178	3	120	156	160				
	Upper Extremity	143	407	114	153	143	0	113	151	140				
	Head	1508	4042	1332	1469	1505	43	1171	1326	1324				
	Cardiac	23	76	22	31	25	1	21	30	24				
	Abdomen	250	761	235	296	303	6	192	254	248				
	Chest	12	29	11	12	9	1	9	10	8				
	Pelvis	255	782	216	287	312	5	200	263	291				
	Spinal Canal	381	1070	373	383	384	6	328	342	336				
	Neck	45	145	48	52	48	1	46	50	47				
	Breast	228	636	174	227	246	0	168	219	238				
	<b>Non-Contrast</b>	4638	12629	3970	4511	4790	27	3580	4067	4367				
	Lower Extremity	1490	4224	1295	1464	1569	4	1230	1395	1499				
	Upper Extremity	421	1210	344	399	483	0	339	387	468				
	Head	1042	2810	843	985	1044	3	805	946	1000				
	Cardiac	7	30	8	11	11	0	8	11	11				
	Abdomen	100	258	85	83	97	0	81	79	91				
	Chest	11	25	10	9	6	0	10	9	6				
	Pelvis	125	316	95	131	92	0	95	129	90				
	Spinal Canal	1705	4840	1528	1714	1764	4	1425	1595	1658				
Neck	42	82	29	29	26	0	29	27	24					
Fetal	0	2	0	2	0	0	0	2	0					

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First Trimester			Second Trimester		Third Trimester		First, Second, and Third Trimester		Only First Trimester	Only Second Trimester	Only Third Trimester
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester				
2017	<b>Contrast</b>	1820	5174	1561	1987	2010	51	1332	1752	1757				
	Lower Extremity	119	299	80	125	105	0	73	119	96				
	Upper Extremity	81	287	92	99	97	0	92	98	96				
	Head	975	2854	862	1089	1103	32	749	973	964				
	Cardiac	21	58	15	28	16	0	14	27	16				
	Abdomen	200	548	169	186	229	3	146	166	203				
	Chest	7	30	4	12	14	0	4	12	14				
	Pelvis	201	556	153	194	227	2	141	185	214				
	Spinal Canal	273	782	240	292	302	4	209	259	266				
	Neck	24	81	20	30	32	0	19	29	32				
	Breast	149	475	132	182	169	0	125	180	162				
	<b>Non-Contrast</b>	3193	8675	2786	3201	3143	24	2502	2895	2847				
	Lower Extremity	1034	2940	943	1093	984	4	898	1037	929				
	Upper Extremity	275	828	255	285	302	1	246	276	293				
	Head	696	1900	576	674	679	2	558	656	659				
	Cardiac	2	16	6	5	5	0	6	5	5				
	Abdomen	67	192	63	58	74	0	61	57	71				
	Chest	4	17	8	5	4	0	8	5	4				
	Pelvis	78	217	76	59	83	0	75	59	82				
	Spinal Canal	1192	3283	1006	1213	1178	4	929	1141	1103				
Neck	20	65	16	23	26	0	16	23	26					
Fetal	1	12	1	4	7	0	1	4	7					

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>MRI Procedure Episodes</b>										
<b>2006</b>	<b>Contrast</b>	244	756	216	251	289	34	180	216	255
	Lower Extremity	10	36	15	7	14	0	15	7	14
	Upper Extremity	13	42	16	14	12	0	15	13	12
	Head	164	528	137	179	212	29	114	155	187
	Cardiac	0	1	1	0	0	0	1	0	0
	Abdomen	12	28	12	6	10	0	11	6	9
	Chest	2	6	4	2	0	0	4	2	0
	Pelvis	12	32	9	10	13	0	8	9	13
	Spinal Canal	38	115	32	35	48	0	28	32	44
	Neck	7	18	5	7	6	0	4	6	6
	Breast	0	0	0	0	0	0	0	0	0
	<b>Non-Contrast</b>	628	1973	568	664	741	0	514	597	672
	Lower Extremity	160	507	161	149	197	0	150	136	186
	Upper Extremity	42	161	47	55	59	0	47	54	58
	Head	163	456	127	154	175	0	126	150	172
	Cardiac	0	2	1	1	0	0	1	1	0
	Abdomen	5	25	5	8	12	0	4	7	10
	Chest	3	2	1	1	0	0	1	1	0
	Pelvis	11	35	13	8	14	0	13	8	14
	Spinal Canal	264	859	241	307	311	0	230	291	293
Neck	3	20	2	6	12	0	2	6	12	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First Trimester			Second Trimester		Third Trimester		First, Second, and Third Trimester		Only First Trimester	Only Second Trimester	Only Third Trimester
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester				
2007	<b>Contrast</b>	881	2776	861	936	979	59	736	818	838				
	Lower Extremity	44	116	33	42	41	0	32	42	40				
	Upper Extremity	35	108	41	28	39	0	39	26	38				
	Head	621	1768	542	600	626	44	472	530	542				
	Cardiac	2	8	3	1	4	0	2	1	3				
	Abdomen	29	136	46	46	44	0	39	44	37				
	Chest	4	20	7	7	6	0	7	6	5				
	Pelvis	48	167	59	53	55	0	57	52	53				
	Spinal Canal	140	469	139	167	163	0	121	151	146				
	Neck	22	59	25	13	21	0	24	13	20				
	Breast	3	117	24	41	52	0	18	37	48				
	<b>Non-Contrast</b>	1926	5573	1646	1977	1950	23	1474	1785	1778				
	Lower Extremity	561	1641	453	618	570	0	437	600	549				
	Upper Extremity	159	460	143	157	160	0	136	146	151				
	Head	406	1103	326	395	382	0	311	378	369				
	Cardiac	0	6	1	3	2	0	1	3	2				
	Abdomen	37	86	19	38	29	0	18	36	28				
	Chest	5	8	3	3	2	0	2	2	2				
	Pelvis	40	123	47	42	34	0	46	41	34				
	Spinal Canal	767	2333	717	779	837	3	674	731	790				
Neck	14	33	15	8	10	0	13	8	8					
Fetal	0	0	0	0	0	0	0	0	0					

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2008	<b>Contrast</b>	1040	3096	896	1098	1102	94	763	959	964
	Lower Extremity	44	138	47	35	56	0	46	34	54
	Upper Extremity	39	115	30	51	34	0	29	49	33
	Head	632	1939	560	695	684	60	483	629	604
	Cardiac	3	10	3	5	2	0	2	4	2
	Abdomen	59	155	38	57	60	3	33	55	56
	Chest	10	13	2	4	7	0	2	3	6
	Pelvis	73	160	42	57	61	0	42	57	61
	Spinal Canal	147	477	146	164	167	4	136	152	153
	Neck	22	78	20	35	23	3	19	33	21
	Breast	68	218	61	73	84	0	52	65	71
	<b>Non-Contrast</b>	1994	6321	1849	2173	2299	35	1662	1940	2106
	Lower Extremity	574	1876	547	638	691	3	520	609	661
	Upper Extremity	161	552	152	188	212	0	143	181	203
	Head	419	1318	399	465	454	9	383	434	434
	Cardiac	0	3	0	1	2	0	0	1	2
	Abdomen	23	87	24	29	34	0	24	29	34
	Chest	6	12	4	4	4	0	4	4	4
	Pelvis	40	121	30	43	48	0	30	42	47
	Spinal Canal	834	2554	746	874	934	6	702	826	899
Neck	18	33	13	8	12	0	13	8	12	
Fetal	0	0	0	0	0	0	0	0	0	



**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First, Second, Third, First, Second, and Third Trimester, Only First Trimester, Only Second Trimester, Only Third Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2009	<b>Contrast</b>	2591	7637	2203	2643	2791	171	1858	2283	2432
	Lower Extremity	127	345	104	132	109	6	99	123	102
	Upper Extremity	109	338	90	112	136	3	81	101	127
	Head	1580	4618	1317	1560	1741	105	1125	1393	1553
	Cardiac	17	46	11	18	17	0	10	17	17
	Abdomen	154	416	124	158	134	0	111	144	117
	Chest	15	28	7	11	10	0	7	9	8
	Pelvis	167	462	121	171	170	3	109	160	156
	Spinal Canal	400	1203	362	404	437	21	316	351	385
	Neck	62	176	48	65	63	0	46	65	61
	Breast	183	577	166	212	199	3	151	201	184
	<b>Non-Contrast</b>	5036	15025	4367	5202	5456	75	3944	4690	4964
	Lower Extremity	1550	4664	1389	1628	1647	6	1318	1556	1565
	Upper Extremity	453	1368	415	472	481	0	407	450	461
	Head	1053	3035	848	1045	1142	3	814	1010	1106
	Cardiac	6	28	6	12	10	0	5	11	10
	Abdomen	65	230	57	90	83	0	56	88	82
	Chest	9	33	12	10	11	0	12	10	11
	Pelvis	116	325	90	114	121	0	86	111	119
	Spinal Canal	1973	5859	1683	2019	2157	9	1561	1879	2028
Neck	34	100	24	31	45	0	24	31	45	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester Time Periods							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2010	<b>Contrast</b>	2753	7736	2351	2699	2686	183	2012	2368	2354
	Lower Extremity	116	396	120	139	137	0	114	132	130
	Upper Extremity	103	347	114	118	115	0	111	116	112
	Head	1725	4655	1453	1622	1580	134	1253	1449	1391
	Cardiac	15	42	14	14	14	0	13	13	14
	Abdomen	163	493	132	173	188	6	116	164	172
	Chest	10	30	12	8	10	0	12	8	10
	Pelvis	177	513	130	182	201	4	118	173	196
	Spinal Canal	416	1219	351	438	430	18	302	388	381
	Neck	71	177	54	56	67	0	52	54	67
	Breast	183	505	149	175	181	3	139	161	170
	<b>Non-Contrast</b>	5001	15047	4534	5175	5338	76	4119	4702	4882
	Lower Extremity	1486	4575	1364	1569	1642	3	1298	1507	1577
	Upper Extremity	451	1291	389	446	456	4	377	433	439
	Head	1104	3104	950	1053	1101	3	915	1013	1070
	Cardiac	4	27	8	8	11	0	8	8	11
	Abdomen	78	237	80	75	82	0	79	73	79
	Chest	6	30	8	12	10	0	8	12	10
	Pelvis	118	298	91	110	97	3	90	108	95
	Spinal Canal	1934	6000	1792	2104	2104	12	1699	1988	1980
Neck	37	105	40	29	36	0	40	29	36	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First, Second, Third, First, Second, and Third Trimester, Only First Trimester, Only Second Trimester, Only Third Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2011	<b>Contrast</b>	2649	7760	2242	2726	2792	247	1867	2362	2404
	Lower Extremity	125	391	103	146	142	6	96	138	135
	Upper Extremity	112	323	96	103	124	0	89	100	121
	Head	1594	4588	1364	1606	1618	151	1144	1406	1407
	Cardiac	16	51	15	17	19	0	15	17	19
	Abdomen	171	525	139	199	187	13	120	180	162
	Chest	7	40	11	12	17	0	9	7	13
	Pelvis	173	623	171	214	238	7	158	202	224
	Spinal Canal	445	1208	343	431	434	17	296	375	377
	Neck	71	204	51	61	92	0	50	59	90
	Breast	177	524	140	189	195	0	126	183	182
	<b>Non-Contrast</b>	5072	15043	4473	5301	5269	103	4015	4798	4791
	Lower Extremity	1536	4619	1377	1599	1643	16	1297	1524	1563
	Upper Extremity	438	1348	428	466	454	0	410	452	441
	Head	996	3138	960	1110	1068	6	920	1067	1031
	Cardiac	2	17	3	8	6	0	3	8	6
	Abdomen	100	249	75	91	83	0	72	87	81
	Chest	10	30	5	13	12	0	5	13	12
	Pelvis	116	284	82	97	105	0	82	97	105
	Spinal Canal	2036	5898	1700	2128	2070	9	1597	1999	1961
Neck	39	116	37	37	42	0	34	35	41	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	MRI Imaging							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2012	<b>Contrast</b>	2606	7914	2352	2733	2829	150	2005	2353	2432
	Lower Extremity	138	389	108	133	148	7	99	123	137
	Upper Extremity	131	349	108	120	121	0	107	118	118
	Head	1525	4510	1348	1546	1616	107	1171	1356	1399
	Cardiac	21	65	16	23	26	0	16	23	26
	Abdomen	190	592	189	197	206	8	163	179	176
	Chest	11	48	14	17	17	0	13	16	15
	Pelvis	184	687	195	247	245	3	176	234	228
	Spinal Canal	389	1227	360	414	453	7	312	356	411
	Neck	80	188	67	61	60	0	61	53	57
	Breast	183	553	154	217	182	3	146	210	170
	<b>Non-Contrast</b>	5261	15369	4618	5291	5460	83	4144	4712	4921
	Lower Extremity	1638	4682	1383	1631	1668	9	1308	1539	1584
	Upper Extremity	476	1335	430	417	488	0	416	407	471
	Head	1101	3243	983	1119	1141	9	924	1034	1088
	Cardiac	1	19	6	6	7	0	6	6	7
	Abdomen	93	256	70	83	103	0	67	82	101
	Chest	7	33	8	12	13	0	8	12	13
	Pelvis	117	316	101	103	112	0	100	98	108
	Spinal Canal	2013	6004	1812	2088	2104	24	1703	1959	1977
Neck	33	111	38	39	34	0	37	38	34	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2013	<b>Contrast</b>	2752	8056	2386	2799	2871	259	1985	2411	2475
	Lower Extremity	167	471	117	149	205	6	108	144	195
	Upper Extremity	137	369	116	121	132	0	112	118	127
	Head	1560	4519	1373	1572	1574	169	1172	1372	1364
	Cardiac	17	80	26	26	28	0	26	26	28
	Abdomen	216	637	182	224	231	16	159	206	204
	Chest	17	30	9	12	9	3	7	10	6
	Pelvis	233	717	206	243	268	16	186	222	248
	Spinal Canal	400	1222	366	437	419	10	313	393	371
	Neck	53	197	51	77	69	0	46	70	65
	Breast	188	556	164	199	193	0	142	183	177
	<b>Non-Contrast</b>	5146	15038	4626	5131	5281	61	4166	4647	4784
	Lower Extremity	1679	4662	1454	1621	1587	3	1377	1534	1510
	Upper Extremity	398	1256	397	410	449	0	389	400	437
	Head	1102	3278	1003	1102	1173	12	966	1064	1138
	Cardiac	5	22	11	4	7	0	11	4	7
	Abdomen	76	259	71	86	102	0	70	84	101
	Chest	16	24	7	9	8	0	7	9	8
	Pelvis	106	312	93	104	115	0	91	102	115
	Spinal Canal	1933	5735	1737	1967	2031	3	1642	1854	1911
Neck	42	97	27	36	34	0	27	36	34	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2014	<b>Contrast</b>	2689	8073	2329	2760	2984	286	1952	2358	2541
	Lower Extremity	166	470	141	165	164	3	134	156	159
	Upper Extremity	140	391	135	117	139	3	129	111	132
	Head	1509	4355	1243	1516	1596	210	1048	1321	1361
	Cardiac	29	74	24	26	24	0	24	26	24
	Abdomen	214	718	223	223	272	6	203	205	245
	Chest	10	42	6	19	17	0	6	18	16
	Pelvis	227	743	196	252	295	3	177	238	277
	Spinal Canal	384	1307	380	418	509	38	316	351	457
	Neck	67	180	43	73	64	0	42	72	62
	Breast	183	582	156	206	220	3	145	196	205
	<b>Non-Contrast</b>	5019	14318	4273	4964	5081	75	3836	4493	4630
	Lower Extremity	1564	4568	1363	1605	1600	6	1289	1531	1530
	Upper Extremity	424	1238	359	432	447	0	347	418	434
	Head	1051	3085	947	1037	1101	8	916	1001	1067
	Cardiac	6	29	11	10	8	0	11	10	8
	Abdomen	88	208	63	82	63	0	62	79	61
	Chest	8	20	6	2	12	0	6	2	12
	Pelvis	106	320	109	103	108	0	108	102	106
	Spinal Canal	1928	5303	1577	1838	1888	13	1470	1716	1782
Neck	22	94	34	27	33	0	34	27	33	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	MRI Imaging							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2015	<b>Contrast</b>	2714	8094	2342	2822	2930	219	1952	2407	2498
	Lower Extremity	182	510	152	185	173	7	139	175	160
	Upper Extremity	139	386	111	146	129	0	109	144	125
	Head	1487	4403	1297	1533	1573	137	1086	1329	1344
	Cardiac	26	78	22	29	27	0	20	28	24
	Abdomen	240	693	197	234	262	3	178	214	235
	Chest	13	32	9	8	15	0	9	7	14
	Pelvis	246	740	221	261	258	3	208	249	244
	Spinal Canal	414	1264	355	441	468	14	304	379	401
	Neck	49	155	53	58	44	4	50	56	42
	Breast	190	634	164	214	256	3	147	201	235
	<b>Non-Contrast</b>	4767	14170	4142	4934	5094	83	3728	4484	4665
	Lower Extremity	1495	4483	1317	1550	1616	11	1249	1471	1535
	Upper Extremity	422	1257	365	427	465	0	349	411	455
	Head	1026	3116	918	1066	1132	15	886	1028	1094
	Cardiac	4	12	3	4	5	0	3	4	5
	Abdomen	72	234	56	86	92	0	56	85	91
	Chest	10	25	5	10	10	0	5	10	10
	Pelvis	95	337	110	108	119	0	106	104	117
	Spinal Canal	1796	5165	1498	1847	1820	12	1395	1743	1732
Neck	22	98	31	27	40	0	31	27	40	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2016	<b>Contrast</b>	2841	8390	2510	2890	2990	283	2114	2487	2545
	Lower Extremity	155	491	138	170	183	9	123	158	163
	Upper Extremity	147	414	115	156	143	0	114	154	140
	Head	1568	4503	1384	1530	1589	171	1197	1352	1381
	Cardiac	23	84	22	33	29	3	21	32	28
	Abdomen	259	859	240	305	314	20	196	259	256
	Chest	12	33	11	13	9	3	9	10	8
	Pelvis	263	837	223	296	318	18	205	270	296
	Spinal Canal	407	1194	398	398	398	22	343	355	345
	Neck	46	155	50	56	49	4	47	53	48
	Breast	232	661	176	233	252	0	169	225	244
	<b>Non-Contrast</b>	4853	13973	4158	4767	5048	91	3741	4285	4588
	Lower Extremity	1514	4434	1319	1504	1611	12	1253	1430	1539
	Upper Extremity	430	1247	349	409	489	0	343	397	473
	Head	1066	2971	870	1018	1083	10	828	974	1036
	Cardiac	8	30	8	11	11	0	8	11	11
	Abdomen	104	270	87	85	98	0	83	81	92
	Chest	11	25	10	9	6	0	10	9	6
	Pelvis	128	318	95	131	92	0	95	129	90
	Spinal Canal	1762	5207	1579	1788	1840	15	1471	1660	1727
Neck	43	85	29	29	27	0	29	27	25	
Fetal	0	2	0	2	0	0	0	2	0	



**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	MRI Imaging			First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
			Any Trimester	First Trimester	Second Trimester					Third Trimester
2017	<b>Contrast</b>	1945	5997	1678	2136	2183	209	1395	1858	1878
	Lower Extremity	122	320	82	129	109	0	75	123	99
	Upper Extremity	84	290	92	101	97	0	92	100	96
	Head	1011	3215	902	1145	1168	127	762	1002	1006
	Cardiac	21	61	15	30	16	0	14	29	16
	Abdomen	205	600	174	191	235	9	149	170	207
	Chest	7	31	4	12	15	0	4	12	15
	Pelvis	209	592	159	199	234	6	147	190	220
	Spinal Canal	290	904	258	316	330	22	222	277	289
	Neck	25	84	20	31	33	0	19	30	33
	Breast	152	494	134	186	174	0	127	184	167
	<b>Non-Contrast</b>	3352	9558	2915	3358	3285	88	2601	3029	2958
	Lower Extremity	1066	3085	969	1114	1002	15	921	1054	944
	Upper Extremity	280	860	259	291	310	3	250	282	300
	Head	715	1981	591	697	693	6	572	678	673
	Cardiac	2	16	6	5	5	0	6	5	5
	Abdomen	67	198	64	59	75	0	62	57	72
	Chest	4	17	8	5	4	0	8	5	4
	Pelvis	79	219	76	59	84	0	75	59	83
	Spinal Canal	1235	3499	1035	1247	1217	14	953	1175	1138
Neck	21	66	16	24	26	0	16	24	26	
Fetal	1	12	1	4	7	0	1	4	7	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Adjusted Counts of MRI Procedure Codes</b>										
<b>2006</b>	<b>Contrast</b>	297	917	262	295	360	-	-	-	-
	Lower Extremity	10	40	16	9	15	-	-	-	-
	Upper Extremity	15	45	16	16	13	-	-	-	-
	Head	184	577	150	196	231	-	-	-	-
	Cardiac	0	1	1	0	0	-	-	-	-
	Abdomen	15	31	13	7	11	-	-	-	-
	Chest	2	7	4	3	0	-	-	-	-
	Pelvis	15	36	10	11	15	-	-	-	-
	Spinal Canal	48	157	46	44	67	-	-	-	-
	Neck	8	23	6	9	8	-	-	-	-
	Breast	0	0	0	0	0	-	-	-	-
	<b>Non-Contrast</b>	735	2360	674	796	890	-	-	-	-
	Lower Extremity	173	557	173	164	220	-	-	-	-
	Upper Extremity	45	167	49	57	61	-	-	-	-
	Head	190	546	146	187	213	-	-	-	-
	Cardiac	0	2	1	1	0	-	-	-	-
	Abdomen	5	27	5	9	13	-	-	-	-
	Chest	3	2	1	1	0	-	-	-	-
	Pelvis	13	37	14	9	14	-	-	-	-
	Spinal Canal	303	1000	283	362	355	-	-	-	-
Neck	3	22	2	6	14	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2007	<b>Contrast</b>	1123	3491	1081	1179	1231	-	-	-	-
	Lower Extremity	53	142	39	53	50	-	-	-	-
	Upper Extremity	39	125	49	30	46	-	-	-	-
	Head	719	2020	623	693	704	-	-	-	-
	Cardiac	2	8	3	1	4	-	-	-	-
	Abdomen	37	152	52	52	48	-	-	-	-
	Chest	4	25	10	7	8	-	-	-	-
	Pelvis	53	194	67	61	66	-	-	-	-
	Spinal Canal	187	627	184	221	222	-	-	-	-
	Neck	26	66	27	15	24	-	-	-	-
	Breast	3	132	27	46	59	-	-	-	-
	<b>Non-Contrast</b>	2283	6644	1963	2346	2335	-	-	-	-
	Lower Extremity	613	1795	495	678	622	-	-	-	-
	Upper Extremity	172	506	157	171	178	-	-	-	-
	Head	491	1319	381	476	462	-	-	-	-
	Cardiac	0	7	2	3	2	-	-	-	-
	Abdomen	38	91	20	42	29	-	-	-	-
	Chest	5	9	4	3	2	-	-	-	-
	Pelvis	42	137	50	48	39	-	-	-	-
	Spinal Canal	905	2743	837	917	989	-	-	-	-
Neck	17	37	17	8	12	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2008	<b>Contrast</b>	1289	3828	1111	1375	1342	-	-	-	-
	Lower Extremity	49	155	51	41	63	-	-	-	-
	Upper Extremity	43	132	32	61	39	-	-	-	-
	Head	721	2200	638	799	763	-	-	-	-
	Cardiac	3	14	4	7	3	-	-	-	-
	Abdomen	70	178	42	65	71	-	-	-	-
	Chest	13	14	2	4	8	-	-	-	-
	Pelvis	83	181	52	61	68	-	-	-	-
	Spinal Canal	201	617	193	219	205	-	-	-	-
	Neck	27	92	26	39	27	-	-	-	-
	Breast	79	245	71	79	95	-	-	-	-
	<b>Non-Contrast</b>	2369	7531	2209	2592	2730	-	-	-	-
	Lower Extremity	616	2062	610	702	750	-	-	-	-
	Upper Extremity	172	592	168	198	226	-	-	-	-
	Head	497	1572	463	562	547	-	-	-	-
	Cardiac	0	5	0	2	3	-	-	-	-
	Abdomen	23	95	26	32	37	-	-	-	-
	Chest	6	12	4	4	4	-	-	-	-
	Pelvis	44	128	31	45	52	-	-	-	-
	Spinal Canal	993	3032	894	1039	1099	-	-	-	-
Neck	18	33	13	8	12	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Trimester							
			Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
2009	<b>Contrast</b>	3103	9136	2609	3151	3376	-	-	-	-
	Lower Extremity	135	372	107	144	121	-	-	-	-
	Upper Extremity	115	367	98	123	146	-	-	-	-
	Head	1712	5057	1439	1699	1919	-	-	-	-
	Cardiac	17	48	11	18	19	-	-	-	-
	Abdomen	166	440	133	166	141	-	-	-	-
	Chest	15	30	7	12	11	-	-	-	-
	Pelvis	179	495	128	182	185	-	-	-	-
	Spinal Canal	509	1535	461	513	561	-	-	-	-
	Neck	66	186	52	67	67	-	-	-	-
	Breast	189	606	173	227	206	-	-	-	-
	<b>Non-Contrast</b>	5827	17343	5025	5998	6320	-	-	-	-
	Lower Extremity	1626	4922	1474	1711	1737	-	-	-	-
	Upper Extremity	475	1451	437	503	511	-	-	-	-
	Head	1249	3496	984	1199	1313	-	-	-	-
	Cardiac	6	30	7	13	10	-	-	-	-
	Abdomen	67	240	58	96	86	-	-	-	-
	Chest	9	33	12	10	11	-	-	-	-
	Pelvis	117	334	93	119	122	-	-	-	-
	Spinal Canal	2243	6733	1934	2315	2484	-	-	-	-
Neck	35	104	26	32	46	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2010	<b>Contrast</b>	3361	9389	2821	3287	3281	-	-	-	-
	Lower Extremity	133	433	132	154	147	-	-	-	-
	Upper Extremity	107	374	121	126	127	-	-	-	-
	Head	1897	5085	1588	1774	1723	-	-	-	-
	Cardiac	19	47	17	15	15	-	-	-	-
	Abdomen	172	527	142	182	203	-	-	-	-
	Chest	11	31	12	8	11	-	-	-	-
	Pelvis	187	545	140	192	213	-	-	-	-
	Spinal Canal	563	1621	454	590	577	-	-	-	-
	Neck	79	189	57	60	72	-	-	-	-
	Breast	193	537	158	186	193	-	-	-	-
	<b>Non-Contrast</b>	5786	17381	5240	5971	6170	-	-	-	-
	Lower Extremity	1587	4852	1452	1650	1750	-	-	-	-
	Upper Extremity	471	1361	408	477	476	-	-	-	-
	Head	1285	3618	1108	1206	1304	-	-	-	-
	Cardiac	4	29	9	9	11	-	-	-	-
	Abdomen	84	244	81	77	86	-	-	-	-
	Chest	6	30	8	12	10	-	-	-	-
	Pelvis	120	315	98	115	102	-	-	-	-
	Spinal Canal	2191	6820	2034	2396	2390	-	-	-	-
Neck	38	112	42	29	41	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2011	<b>Contrast</b>	3287	9445	2698	3328	3419	-	-	-	-
	Lower Extremity	134	427	113	158	156	-	-	-	-
	Upper Extremity	121	349	100	114	135	-	-	-	-
	Head	1772	5009	1481	1761	1767	-	-	-	-
	Cardiac	16	57	17	20	20	-	-	-	-
	Abdomen	182	558	147	210	201	-	-	-	-
	Chest	7	42	11	12	19	-	-	-	-
	Pelvis	185	656	178	229	249	-	-	-	-
	Spinal Canal	607	1584	448	561	575	-	-	-	-
	Neck	82	221	57	65	99	-	-	-	-
	Breast	181	542	146	198	198	-	-	-	-
	<b>Non-Contrast</b>	5847	17337	5173	6130	6034	-	-	-	-
	Lower Extremity	1630	4864	1458	1683	1723	-	-	-	-
	Upper Extremity	453	1407	446	490	471	-	-	-	-
	Head	1138	3606	1108	1279	1219	-	-	-	-
	Cardiac	2	18	3	9	6	-	-	-	-
	Abdomen	106	255	77	93	85	-	-	-	-
	Chest	11	31	5	14	12	-	-	-	-
	Pelvis	122	288	82	98	108	-	-	-	-
	Spinal Canal	2345	6744	1953	2425	2366	-	-	-	-
Neck	40	124	41	39	44	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2012	<b>Contrast</b>	3167	9547	2867	3259	3421	-	-	-	-
	Lower Extremity	145	420	120	140	160	-	-	-	-
	Upper Extremity	144	371	116	127	128	-	-	-	-
	Head	1670	4930	1480	1674	1776	-	-	-	-
	Cardiac	22	70	17	25	28	-	-	-	-
	Abdomen	196	609	196	201	212	-	-	-	-
	Chest	11	52	17	17	18	-	-	-	-
	Pelvis	189	708	200	253	255	-	-	-	-
	Spinal Canal	510	1614	490	538	586	-	-	-	-
	Neck	90	201	73	63	65	-	-	-	-
	Breast	190	572	158	221	193	-	-	-	-
	<b>Non-Contrast</b>	6061	17610	5316	6029	6265	-	-	-	-
	Lower Extremity	1715	4909	1455	1710	1744	-	-	-	-
	Upper Extremity	506	1401	459	436	506	-	-	-	-
	Head	1293	3694	1118	1264	1312	-	-	-	-
	Cardiac	1	19	6	6	7	-	-	-	-
	Abdomen	96	262	71	86	105	-	-	-	-
	Chest	7	35	10	12	13	-	-	-	-
	Pelvis	121	319	102	105	112	-	-	-	-
	Spinal Canal	2286	6858	2057	2369	2432	-	-	-	-
Neck	36	113	38	41	34	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	



**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2013	<b>Contrast</b>	3340	9874	2938	3437	3499	-	-	-	-
	Lower Extremity	179	507	127	163	217	-	-	-	-
	Upper Extremity	143	384	121	129	134	-	-	-	-
	Head	1706	4976	1509	1726	1741	-	-	-	-
	Cardiac	17	85	30	27	28	-	-	-	-
	Abdomen	228	671	192	236	243	-	-	-	-
	Chest	19	31	9	13	9	-	-	-	-
	Pelvis	248	753	214	257	282	-	-	-	-
	Spinal Canal	545	1655	503	592	560	-	-	-	-
	Neck	56	233	64	86	83	-	-	-	-
	Breast	199	579	169	208	202	-	-	-	-
	<b>Non-Contrast</b>	5856	17282	5296	5885	6101	-	-	-	-
	Lower Extremity	1761	4891	1528	1706	1657	-	-	-	-
	Upper Extremity	414	1301	410	427	464	-	-	-	-
	Head	1234	3794	1159	1274	1361	-	-	-	-
	Cardiac	5	24	12	5	7	-	-	-	-
	Abdomen	79	268	72	88	108	-	-	-	-
	Chest	16	24	7	9	8	-	-	-	-
	Pelvis	109	319	95	107	117	-	-	-	-
Spinal Canal	2196	6556	1985	2229	2342	-	-	-	-	
Neck	42	105	28	40	37	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2014	<b>Contrast</b>	3264	9994	2847	3420	3727	-	-	-	-
	Lower Extremity	176	517	157	182	178	-	-	-	-
	Upper Extremity	149	423	149	125	149	-	-	-	-
	Head	1658	4779	1358	1669	1752	-	-	-	-
	Cardiac	32	79	26	28	25	-	-	-	-
	Abdomen	231	751	229	235	287	-	-	-	-
	Chest	11	44	6	20	18	-	-	-	-
	Pelvis	233	789	204	269	316	-	-	-	-
	Spinal Canal	506	1808	505	602	701	-	-	-	-
	Neck	76	202	51	78	73	-	-	-	-
	Breast	192	602	162	212	228	-	-	-	-
	<b>Non-Contrast</b>	5737	16317	4887	5638	5792	-	-	-	-
	Lower Extremity	1627	4780	1423	1695	1662	-	-	-	-
	Upper Extremity	443	1290	371	452	467	-	-	-	-
	Head	1205	3546	1085	1181	1280	-	-	-	-
	Cardiac	6	29	11	10	8	-	-	-	-
	Abdomen	92	212	65	83	64	-	-	-	-
	Chest	9	20	6	2	12	-	-	-	-
	Pelvis	112	327	111	105	111	-	-	-	-
	Spinal Canal	2220	6015	1780	2083	2152	-	-	-	-
Neck	23	98	35	27	36	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2015	<b>Contrast</b>	3355	10071	2895	3538	3638	-	-	-	-
	Lower Extremity	197	537	161	194	182	-	-	-	-
	Upper Extremity	149	411	117	153	141	-	-	-	-
	Head	1646	4895	1423	1710	1762	-	-	-	-
	Cardiac	28	86	25	31	30	-	-	-	-
	Abdomen	257	749	224	254	271	-	-	-	-
	Chest	15	32	9	8	15	-	-	-	-
	Pelvis	263	796	243	280	273	-	-	-	-
	Spinal Canal	550	1729	463	618	648	-	-	-	-
	Neck	51	178	59	67	52	-	-	-	-
	Breast	199	658	171	223	264	-	-	-	-
	<b>Non-Contrast</b>	5474	16238	4699	5678	5861	-	-	-	-
	Lower Extremity	1569	4684	1363	1625	1696	-	-	-	-
	Upper Extremity	446	1310	378	450	482	-	-	-	-
	Head	1163	3644	1070	1239	1335	-	-	-	-
	Cardiac	5	12	3	4	5	-	-	-	-
	Abdomen	78	244	56	89	99	-	-	-	-
	Chest	11	25	5	10	10	-	-	-	-
	Pelvis	98	349	113	114	122	-	-	-	-
	Spinal Canal	2079	5866	1678	2118	2070	-	-	-	-
Neck	25	104	33	29	42	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2016	<b>Contrast</b>	3508	10477	3136	3622	3719	-	-	-	-
	Lower Extremity	164	529	149	184	196	-	-	-	-
	Upper Extremity	150	432	118	166	148	-	-	-	-
	Head	1770	5047	1542	1705	1800	-	-	-	-
	Cardiac	26	95	25	37	33	-	-	-	-
	Abdomen	273	927	268	327	332	-	-	-	-
	Chest	12	35	12	13	10	-	-	-	-
	Pelvis	276	891	239	317	335	-	-	-	-
	Spinal Canal	542	1658	544	572	542	-	-	-	-
	Neck	51	174	56	61	57	-	-	-	-
	Breast	244	689	183	240	266	-	-	-	-
	<b>Non-Contrast</b>	5552	16057	4781	5497	5779	-	-	-	-
	Lower Extremity	1572	4645	1382	1577	1686	-	-	-	-
	Upper Extremity	451	1309	370	427	512	-	-	-	-
	Head	1212	3392	999	1159	1234	-	-	-	-
	Cardiac	8	32	8	12	12	-	-	-	-
	Abdomen	108	284	91	92	101	-	-	-	-
	Chest	11	25	10	9	6	-	-	-	-
	Pelvis	131	327	98	135	94	-	-	-	-
	Spinal Canal	2013	5950	1793	2053	2104	-	-	-	-
Neck	46	91	30	31	30	-	-	-	-	
Fetal	0	2	0	2	0	-	-	-	-	

**Table 3b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Calendar Year of Comparator's Delivery**

Calendar Year	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First	Second	Third	First, Second, and	Only First	Only Second	Only Third
				Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
2017	<b>Contrast</b>	2427	7577	2112	2690	2775	-	-	-	-
	Lower Extremity	134	348	87	144	117	-	-	-	-
	Upper Extremity	95	305	95	108	102	-	-	-	-
	Head	1124	3605	1004	1276	1325	-	-	-	-
	Cardiac	21	67	16	35	16	-	-	-	-
	Abdomen	220	645	186	211	248	-	-	-	-
	Chest	7	33	4	14	15	-	-	-	-
	Pelvis	221	632	172	210	250	-	-	-	-
	Spinal Canal	416	1315	380	460	475	-	-	-	-
	Neck	26	99	24	35	40	-	-	-	-
	Breast	163	528	144	197	187	-	-	-	-
	<b>Non-Contrast</b>	3825	10963	3308	3884	3771	-	-	-	-
	Lower Extremity	1119	3227	1017	1173	1037	-	-	-	-
	Upper Extremity	298	886	268	295	323	-	-	-	-
	Head	836	2288	671	815	802	-	-	-	-
	Cardiac	2	19	6	6	7	-	-	-	-
	Abdomen	68	207	64	62	81	-	-	-	-
	Chest	4	18	9	5	4	-	-	-	-
	Pelvis	81	224	78	60	86	-	-	-	-
Spinal Canal	1394	4004	1174	1434	1396	-	-	-	-	
Neck	22	74	19	28	27	-	-	-	-	
Fetal	1	16	2	6	8	-	-	-	-	

<sup>1</sup>Women in matched comparator cohort may have been pregnant at some point during the request period. Women were eligible for the "non-pregnant" cohort if they had no evidence of a live-born delivery during the time period of their pregnant comparator's pregnancy.

<sup>2</sup>Trimester time periods in the non-pregnant cohort are determined by the corresponding trimester period in each woman's matched pregnant comparator.

<sup>3</sup>Pregnancy episodes describes the window of time assessed for each woman that corresponds to the gestational period of their matched pregnant comparator.

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
		Any Trimester								
<b>Pregnancy Episodes with MRI Procedure</b>										
15-19	<b>Contrast</b>	396	177	112	50	16	0	111	49	16
	Lower Extremity	26	4	3	0	1	0	3	0	1
	Upper Extremity	26	13	9	3	1	0	9	3	1
	Head	287	126	80	36	11	0	79	35	11
	Cardiac	6	7	4	3	0	0	4	3	0
	Abdomen	18	18	10	6	2	0	10	6	2
	Chest	1	1	1	0	0	0	1	0	0
	Pelvis	17	12	5	5	2	0	5	5	2
	Spinal Canal	38	6	6	0	0	0	6	0	0
	Neck	8	3	1	1	1	0	1	1	1
	Breast	3	0	0	0	0	0	0	0	0
	<b>Non-Contrast</b>	1085	1820	543	697	619	0	528	665	588
	Lower Extremity	436	220	150	38	33	0	150	37	32
	Upper Extremity	97	52	39	10	3	0	39	10	3
	Head	283	577	142	222	225	0	139	211	215
	Cardiac	2	6	1	5	0	0	1	5	0
	Abdomen	25	528	90	271	173	0	87	266	169
	Chest	1	13	3	5	6	0	3	4	5
	Pelvis	12	410	43	184	188	0	43	179	183
Spinal Canal	264	210	119	41	50	0	119	41	50	
Neck	4	34	7	11	16	0	7	11	16	
Fetal	0	23	0	8	15	0	0	8	15	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start		First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
		Pregnancy Start	Any Trimester	Trimester	Trimester	Trimester	Third Trimester	Trimester	Trimester	Trimester
20-24	<b>Contrast</b>	1606	579	413	91	80	1	409	88	78
	Lower Extremity	63	26	23	1	2	0	23	1	2
	Upper Extremity	74	28	21	3	4	0	21	3	4
	Head	1136	353	272	47	39	1	268	44	37
	Cardiac	11	8	4	1	3	0	4	1	3
	Abdomen	109	63	20	24	19	0	20	24	19
	Chest	5	2	1	0	1	0	1	0	1
	Pelvis	93	75	34	23	18	0	34	23	18
	Spinal Canal	203	50	46	2	2	0	46	2	2
	Neck	43	16	9	4	3	0	9	4	3
	Breast	15	9	6	2	1	0	6	2	1
	<b>Non-Contrast</b>	3530	6255	1677	2518	2258	7	1586	2367	2111
	Lower Extremity	981	459	300	98	65	0	297	94	64
	Upper Extremity	298	110	68	25	18	0	68	24	17
	Head	942	2340	500	928	960	3	481	893	921
	Cardiac	4	21	1	10	11	0	1	9	10
	Abdomen	124	1805	385	909	549	1	362	879	527
	Chest	3	23	3	11	11	0	2	9	10
	Pelvis	80	1447	195	648	636	0	190	618	607
Spinal Canal	1265	745	392	210	155	0	383	206	144	
Neck	22	143	26	57	60	0	26	57	60	
Fetal	0	138	0	54	87	0	0	51	84	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
	Location	Any Trimester									
25-29	<b>Contrast</b>		4938	1209	891	170	159	0	884	160	154
	Lower Extremity		201	48	40	1	7	0	40	1	7
	Upper Extremity		203	38	32	3	3	0	32	3	3
	Head		3261	720	579	74	72	0	576	70	69
	Cardiac		38	11	5	2	4	0	5	2	4
	Abdomen		346	150	65	52	33	0	65	52	33
	Chest		26	5	2	0	3	0	2	0	3
	Pelvis		455	169	96	44	31	0	95	42	30
	Spinal Canal		541	116	97	12	8	0	97	11	7
	Neck		106	43	18	9	16	0	18	9	16
	Breast		184	29	23	2	4	0	23	2	4
	<b>Non-Contrast</b>		8439	11754	3020	4655	4409	11	2890	4376	4169
	Lower Extremity		2431	891	561	208	128	0	558	203	124
	Upper Extremity		656	231	145	60	26	0	145	60	26
	Head		2173	4452	941	1743	1860	8	903	1670	1795
	Cardiac		18	43	6	19	18	0	6	19	18
	Abdomen		233	2871	553	1429	936	0	535	1387	902
	Chest		11	57	9	21	29	0	8	19	28
	Pelvis		275	2949	336	1336	1355	0	323	1260	1288
	Spinal Canal		3083	1418	757	357	323	0	742	344	313
Neck		50	328	64	105	163	0	62	102	160	
Fetal		2	304	0	137	180	0	0	124	167	



**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
			Any Trimester								
30-34	<b>Contrast</b>		8304	1728	1270	268	206	0	1258	254	200
	Lower Extremity		345	80	70	5	6	0	69	4	6
	Upper Extremity		283	58	48	7	3	0	48	7	3
	Head		4992	951	735	131	94	0	729	123	90
	Cardiac		73	14	6	4	4	0	6	4	4
	Abdomen		648	210	101	69	40	0	101	69	40
	Chest		33	17	12	3	2	0	12	3	2
	Pelvis		943	261	154	57	50	0	154	57	50
	Spinal Canal		954	187	168	14	6	0	167	13	6
	Neck		169	43	19	7	17	0	19	7	17
	Breast		635	81	75	2	5	0	74	2	4
	<b>Non-Contrast</b>		13076	16379	4110	6456	6308	17	3936	6028	5937
	Lower Extremity		3873	1309	812	303	210	0	801	289	203
	Upper Extremity		1028	372	247	84	43	0	245	82	43
	Head		3137	5679	1191	2195	2448	12	1136	2070	2330
	Cardiac		26	46	5	18	25	0	5	16	23
	Abdomen		282	3534	674	1736	1191	1	648	1674	1146
	Chest		32	77	17	37	30	0	17	30	23
	Pelvis		481	4692	459	2104	2247	1	443	1991	2141
Spinal Canal		4903	1964	1074	518	392	0	1060	504	380	
Neck		97	466	78	162	230	0	77	159	226	
Fetal		2	604	0	294	343	0	0	261	310	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
	Location	Any Trimester									
35-39	<b>Contrast</b>		5204	1201	906	172	147	1	888	156	134
	Lower Extremity		218	42	37	3	2	0	37	3	2
	Upper Extremity		163	55	44	5	7	0	43	4	7
	Head		2823	640	502	92	59	0	493	84	50
	Cardiac		32	9	2	2	5	0	2	2	5
	Abdomen		439	135	81	29	25	0	81	29	25
	Chest		18	11	7	0	4	0	7	0	4
	Pelvis		675	179	111	29	39	0	111	29	39
	Spinal Canal		562	134	107	16	13	0	105	15	12
	Neck		112	38	21	9	9	0	21	8	8
	Breast		621	88	73	11	6	0	71	10	5
	<b>Non-Contrast</b>		8126	9817	2523	3606	3992	7	2422	3347	3751
	Lower Extremity		2459	893	530	208	163	0	528	200	157
	Upper Extremity		675	260	153	65	46	0	150	62	44
	Head		1670	2904	634	1058	1283	3	608	1002	1226
	Cardiac		10	33	4	18	12	0	4	17	11
	Abdomen		163	2017	364	916	779	0	349	882	744
	Chest		27	53	11	24	22	1	10	21	19
	Pelvis		340	3133	285	1295	1649	2	276	1207	1556
Spinal Canal		3241	1378	751	346	296	0	742	332	289	
Neck		68	259	44	77	138	0	44	77	138	
Fetal		2	363	0	166	210	0	0	153	197	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
			Any Trimester								
40-45	<b>Contrast</b>		1415	563	315	132	145	3	301	111	125
	Lower Extremity		69	28	20	5	4	0	19	4	4
	Upper Extremity		52	18	8	7	5	0	7	5	4
	Head		694	270	159	65	58	1	152	57	50
	Cardiac		7	3	1	0	2	0	1	0	2
	Abdomen		111	66	27	23	17	0	27	22	16
	Chest		5	2	1	1	0	0	1	1	0
	Pelvis		204	103	54	17	34	0	53	16	32
	Spinal Canal		142	66	34	14	19	0	33	13	19
	Neck		21	17	8	1	8	0	8	1	8
	Breast		225	67	37	19	12	0	37	18	11
	<b>Non-Contrast</b>		2298	3019	802	1097	1238	6	751	1008	1148
	Lower Extremity		654	378	203	93	88	0	197	91	84
	Upper Extremity		233	151	87	42	25	0	84	39	25
	Head		446	760	178	275	327	2	167	265	310
	Cardiac		4	7	2	3	2	0	2	3	2
	Abdomen		47	498	78	239	190	1	77	231	182
	Chest		3	14	2	6	7	0	1	6	6
	Pelvis		93	895	64	363	490	1	61	343	470
	Spinal Canal		950	581	259	178	152	0	254	173	146
Neck		23	62	16	26	23	1	14	25	21	
Fetal		0	117	0	43	80	0	0	37	74	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
		Any Trimester								
<b>MRI Procedure Episodes</b>										
15-19	<b>Contrast</b>	419	182	115	51	16	0	114	49	16
	Lower Extremity	27	4	3	0	1	0	3	0	1
	Upper Extremity	26	13	9	3	1	0	9	3	1
	Head	301	131	83	37	11	0	82	35	11
	Cardiac	6	7	4	3	0	0	4	3	0
	Abdomen	19	18	10	6	2	0	10	6	2
	Chest	1	1	1	0	0	0	1	0	0
	Pelvis	17	12	5	5	2	0	5	5	2
	Spinal Canal	39	6	6	0	0	0	6	0	0
	Neck	9	4	1	2	1	0	1	2	1
	Breast	3	0	0	0	0	0	0	0	0
	<b>Non-Contrast</b>	1130	1966	569	741	656	0	552	708	622
	Lower Extremity	448	226	152	39	35	0	152	38	34
	Upper Extremity	99	53	40	10	3	0	40	10	3
	Head	299	622	145	239	238	0	142	228	228
	Cardiac	2	7	1	6	0	0	1	6	0
	Abdomen	26	570	98	287	185	0	94	281	181
	Chest	1	14	3	5	6	0	3	4	5
	Pelvis	12	430	45	195	190	0	45	190	185
	Spinal Canal	272	220	124	41	55	0	124	41	55
Neck	4	37	7	14	16	0	7	14	16	
Fetal	0	23	0	8	15	0	0	8	15	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
			Any Trimester								
20-24	<b>Contrast</b>		1685	603	427	94	82	5	422	89	79
	Lower Extremity		64	26	23	1	2	0	23	1	2
	Upper Extremity		75	29	22	3	4	0	22	3	4
	Head		1172	367	277	50	40	5	272	45	37
	Cardiac		11	8	4	1	3	0	4	1	3
	Abdomen		110	63	20	24	19	0	20	24	19
	Chest		5	2	1	0	1	0	1	0	1
	Pelvis		93	76	35	23	18	0	35	23	18
	Spinal Canal		220	53	49	2	2	0	49	2	2
	Neck		43	17	9	4	4	0	9	4	4
	Breast		15	9	6	2	1	0	6	2	1
	<b>Non-Contrast</b>		3682	6850	1761	2672	2417	25	1662	2506	2244
	Lower Extremity		1005	466	300	100	66	0	297	96	65
	Upper Extremity		303	114	71	25	18	0	71	24	17
	Head		967	2544	522	976	1046	12	502	939	996
	Cardiac		4	22	1	10	11	0	1	9	10
	Abdomen		132	1946	409	958	579	3	385	924	557
	Chest		3	27	4	11	12	0	2	9	10
	Pelvis		80	1537	201	678	658	0	196	647	626
	Spinal Canal		1299	788	406	221	161	0	396	217	150
Neck		23	152	31	58	63	0	31	58	63	
Fetal		0	146	0	55	91	0	0	52	87	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
	Location	Any Trimester									
25-29	<b>Contrast</b>		5140	1250	911	175	164	0	901	163	158
	Lower Extremity		203	51	42	1	8	0	42	1	8
	Upper Extremity		205	38	32	3	3	0	32	3	3
	Head		3354	737	587	75	75	0	582	71	72
	Cardiac		38	11	5	2	4	0	5	2	4
	Abdomen		356	154	68	53	33	0	68	53	33
	Chest		26	5	2	0	3	0	2	0	3
	Pelvis		464	173	96	45	32	0	95	43	31
	Spinal Canal		562	120	98	14	8	0	98	12	7
	Neck		107	46	20	9	17	0	20	9	17
	Breast		187	30	24	2	4	0	24	2	4
	<b>Non-Contrast</b>		8807	12794	3145	4937	4712	36	2999	4632	4451
	Lower Extremity		2475	910	569	211	130	0	566	206	126
	Upper Extremity		669	240	149	64	27	0	149	64	27
	Head		2235	4817	976	1839	2002	25	933	1760	1933
	Cardiac		20	44	6	19	19	0	6	19	19
	Abdomen		235	3064	575	1505	984	0	554	1459	946
	Chest		11	62	9	22	31	0	8	20	30
	Pelvis		280	3143	355	1380	1408	0	341	1301	1339
Spinal Canal		3180	1494	777	375	342	0	760	360	329	
Neck		52	347	65	108	174	0	63	105	171	
Fetal		2	326	0	137	189	0	0	124	176	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
	Location	Any Trimester									
30-34	<b>Contrast</b>		8664	1801	1309	280	212	0	1297	263	206
	Lower Extremity		352	83	72	5	6	0	71	4	6
	Upper Extremity		288	58	48	7	3	0	48	7	3
	Head		5107	980	746	136	98	0	740	126	94
	Cardiac		73	14	6	4	4	0	6	4	4
	Abdomen		664	214	102	72	40	0	102	72	40
	Chest		33	18	12	3	3	0	12	3	3
	Pelvis		955	267	156	60	51	0	156	60	51
	Spinal Canal		1008	194	173	15	6	0	172	13	6
	Neck		174	43	19	7	17	0	19	7	17
	Breast		650	83	76	2	5	0	75	2	4
	<b>Non-Contrast</b>		13639	17852	4286	6873	6693	62	4089	6387	6277
	Lower Extremity		3948	1352	825	311	216	0	813	296	209
	Upper Extremity		1048	378	248	86	44	0	246	84	44
	Head		3213	6204	1250	2347	2607	46	1182	2199	2469
	Cardiac		26	49	5	18	26	0	5	16	24
	Abdomen		289	3778	704	1825	1249	3	676	1756	1198
	Chest		32	86	17	38	31	0	17	30	23
	Pelvis		483	5001	480	2191	2330	3	463	2063	2213
	Spinal Canal		5061	2056	1103	540	413	0	1088	523	401
Neck		100	484	82	166	236	0	81	163	232	
Fetal		2	659	0	304	355	0	0	270	321	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
	Location	Any Trimester									
35-39	<b>Contrast</b>		5411	1254	923	180	151	3	903	160	137
	Lower Extremity		221	42	37	3	2	0	37	3	2
	Upper Extremity		166	56	44	5	7	0	43	4	7
	Head		2890	664	506	97	61	0	496	87	52
	Cardiac		33	9	2	2	5	0	2	2	5
	Abdomen		444	137	82	29	26	0	82	29	26
	Chest		18	11	7	0	4	0	7	0	4
	Pelvis		682	179	111	29	39	0	111	29	39
	Spinal Canal		586	139	110	16	13	0	108	15	12
	Neck		114	41	23	9	9	0	23	8	8
	Breast		637	94	75	13	6	0	73	12	5
	<b>Non-Contrast</b>		8503	10704	2637	3808	4259	24	2527	3526	3991
	Lower Extremity		2515	930	539	218	173	0	537	209	164
	Upper Extremity		692	268	155	66	47	0	151	63	44
	Head		1723	3146	668	1104	1374	9	640	1046	1309
	Cardiac		11	34	4	18	12	0	4	17	11
	Abdomen		166	2163	378	965	820	0	362	927	783
	Chest		27	59	12	24	23	4	10	21	20
	Pelvis		342	3352	296	1355	1701	7	286	1257	1606
Spinal Canal		3328	1458	774	363	321	0	765	346	313	
Neck		71	269	45	79	145	0	45	79	145	
Fetal		2	394	0	175	219	0	0	161	206	



**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester	
	Location	Any Trimester									
40-45	<b>Contrast</b>		1481	622	323	145	154	13	309	116	131
	Lower Extremity		71	30	20	6	4	0	19	5	4
	Upper Extremity		53	20	8	7	5	0	7	5	4
	Head		719	294	160	70	64	5	153	58	54
	Cardiac		7	3	1	0	2	0	1	0	2
	Abdomen		113	68	28	23	17	0	28	22	16
	Chest		5	3	2	1	0	0	2	1	0
	Pelvis		204	106	54	17	35	0	53	16	33
	Spinal Canal		149	68	35	14	19	0	34	13	19
	Neck		21	17	8	1	8	0	8	1	8
	Breast		231	68	37	19	12	0	37	18	11
	<b>Non-Contrast</b>		2408	3338	841	1163	1334	23	782	1065	1238
	Lower Extremity		674	387	205	93	89	0	199	91	85
	Upper Extremity		239	157	89	43	25	0	86	40	25
	Head		458	839	186	292	361	7	172	279	344
	Cardiac		4	7	2	3	2	0	2	3	2
	Abdomen		49	538	79	251	208	3	78	243	199
	Chest		3	16	2	6	8	0	1	6	7
	Pelvis		93	950	65	378	507	3	62	355	487
	Spinal Canal		974	604	265	181	158	0	260	176	152
Neck		24	66	16	26	24	3	14	25	22	
Fetal		0	129	0	47	82	0	0	40	76	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Adjusted Counts of MRI Procedure Codes</b>											
15-19	<b>Contrast</b>		504	224	142	61	21	-	-	-	-
	Lower Extremity		29	5	4	0	1	-	-	-	-
	Upper Extremity		27	13	9	3	1	-	-	-	-
	Head		325	151	95	42	14	-	-	-	-
	Cardiac		6	7	4	3	0	-	-	-	-
	Abdomen		20	19	11	6	2	-	-	-	-
	Chest		1	1	1	0	0	-	-	-	-
	Pelvis		21	14	7	5	2	-	-	-	-
	Spinal Canal		62	10	10	0	0	-	-	-	-
	Neck		9	4	1	2	1	-	-	-	-
	Breast		4	0	0	0	0	-	-	-	-
	<b>Non-Contrast</b>		1288	2593	706	996	891	-	-	-	-
	Lower Extremity		462	239	161	43	35	-	-	-	-
	Upper Extremity		102	56	42	11	3	-	-	-	-
	Head		331	856	174	328	354	-	-	-	-
	Cardiac		2	9	2	7	0	-	-	-	-
	Abdomen		27	610	107	310	193	-	-	-	-
	Chest		1	14	3	5	6	-	-	-	-
	Pelvis		12	447	46	205	196	-	-	-	-
Spinal Canal		347	295	163	60	72	-	-	-	-	
Neck		4	40	8	16	16	-	-	-	-	
Fetal		0	27	0	11	16	-	-	-	-	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
	Location	Any Trimester								
20-24	<b>Contrast</b>		2039	721	502	119	100	-	-	-
	Lower Extremity		71	31	28	1	2	-	-	-
	Upper Extremity		79	31	24	3	4	-	-	-
	Head		1311	405	306	56	43	-	-	-
	Cardiac		11	9	4	2	3	-	-	-
	Abdomen		115	64	20	25	19	-	-	-
	Chest		5	2	1	0	1	-	-	-
	Pelvis		98	78	35	23	20	-	-	-
	Spinal Canal		282	70	65	2	3	-	-	-
	Neck		51	21	12	5	4	-	-	-
	Breast		16	10	7	2	1	-	-	-
	<b>Non-Contrast</b>		4305	9485	2306	3811	3368	-	-	-
	Lower Extremity		1065	494	314	107	73	-	-	-
	Upper Extremity		321	123	77	26	20	-	-	-
	Head		1118	3680	726	1423	1531	-	-	-
	Cardiac		4	24	1	12	11	-	-	-
	Abdomen		136	2169	458	1086	625	-	-	-
	Chest		3	29	4	11	14	-	-	-
	Pelvis		82	1645	213	737	695	-	-	-
	Spinal Canal		1552	988	480	278	230	-	-	-
Neck		24	163	33	62	68	-	-	-	
Fetal		0	170	0	69	101	-	-	-	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
	Location	Any Trimester								
25-29	<b>Contrast</b>		6139	1499	1080	213	206	-	-	-
	Lower Extremity		222	52	42	1	9	-	-	-
	Upper Extremity		222	41	34	4	3	-	-	-
	Head		3688	815	649	80	86	-	-	-
	Cardiac		44	11	5	2	4	-	-	-
	Abdomen		384	160	73	53	34	-	-	-
	Chest		29	6	3	0	3	-	-	-
	Pelvis		489	179	99	45	35	-	-	-
	Spinal Canal		749	158	131	17	10	-	-	-
	Neck		118	46	20	9	17	-	-	-
	Breast		194	31	24	2	5	-	-	-
	<b>Non-Contrast</b>		10158	17715	4115	6882	6718	-	-	-
	Lower Extremity		2612	959	597	224	138	-	-	-
	Upper Extremity		700	255	158	68	29	-	-	-
	Head		2569	7095	1344	2660	3091	-	-	-
	Cardiac		23	46	6	20	20	-	-	-
	Abdomen		249	3373	633	1677	1063	-	-	-
	Chest		11	64	9	22	33	-	-	-
	Pelvis		292	3333	378	1468	1487	-	-	-
Spinal Canal		3645	1839	917	466	456	-	-	-	
Neck		55	388	73	117	198	-	-	-	
Fetal		2	363	0	160	203	-	-	-	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
	Location	Any Trimester								
30-34	<b>Contrast</b>		10354	2165	1577	339	249	-	-	-
	Lower Extremity		389	90	79	5	6	-	-	-
	Upper Extremity		311	64	50	11	3	-	-	-
	Head		5623	1072	820	148	104	-	-	-
	Cardiac		81	14	6	4	4	-	-	-
	Abdomen		704	227	110	75	42	-	-	-
	Chest		36	18	12	3	3	-	-	-
	Pelvis		1009	282	166	62	54	-	-	-
	Spinal Canal		1318	265	233	22	10	-	-	-
	Neck		200	46	22	7	17	-	-	-
	Breast		683	87	79	2	6	-	-	-
	<b>Non-Contrast</b>		15649	24333	5532	9479	9322	-	-	-
	Lower Extremity		4142	1431	870	326	235	-	-	-
	Upper Extremity		1109	412	270	95	47	-	-	-
	Head		3742	9135	1707	3436	3992	-	-	-
	Cardiac		29	52	5	19	28	-	-	-
	Abdomen		296	4161	788	2029	1344	-	-	-
	Chest		33	90	17	41	32	-	-	-
	Pelvis		502	5313	522	2330	2461	-	-	-
Spinal Canal		5689	2459	1263	670	526	-	-	-	
Neck		105	540	90	184	266	-	-	-	
Fetal		2	740	0	349	391	-	-	-	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
	Location	Any Trimester								
35-39	<b>Contrast</b>		6429	1515	1098	223	194	-	-	-
	Lower Extremity		244	48	42	3	3	-	-	-
	Upper Extremity		177	64	50	6	8	-	-	-
	Head		3214	722	543	109	70	-	-	-
	Cardiac		35	10	3	2	5	-	-	-
	Abdomen		473	147	89	30	28	-	-	-
	Chest		18	11	7	0	4	-	-	-
	Pelvis		711	183	115	29	39	-	-	-
	Spinal Canal		768	185	144	21	20	-	-	-
	Neck		126	45	25	9	11	-	-	-
	Breast		663	100	80	14	6	-	-	-
	<b>Non-Contrast</b>		9748	14399	3308	5174	5917	-	-	-
	Lower Extremity		2630	975	560	230	185	-	-	-
	Upper Extremity		730	278	159	70	49	-	-	-
	Head		2016	4700	901	1624	2175	-	-	-
	Cardiac		12	34	4	18	12	-	-	-
	Abdomen		177	2346	422	1052	872	-	-	-
	Chest		28	66	14	27	25	-	-	-
	Pelvis		358	3530	317	1430	1783	-	-	-
Spinal Canal		3720	1723	879	433	411	-	-	-	
Neck		75	320	52	95	173	-	-	-	
Fetal		2	427	0	195	232	-	-	-	

**Table 4a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries in the Sentinel Distributed Database (SDD), by Pregnancy-Related Time Periods, MRI Body Location, and Maternal Age at Delivery**

Maternal Age (years)	MRI Imaging Procedures, by Body Location		90 Days Before Pregnancy Start	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
	Location	Any Trimester								
40-45	<b>Contrast</b>		1733	755	397	173	185	-	-	-
	Lower Extremity		81	33	23	6	4	-	-	-
	Upper Extremity		57	27	10	10	7	-	-	-
	Head		791	334	187	76	71	-	-	-
	Cardiac		8	4	1	0	3	-	-	-
	Abdomen		121	72	30	23	19	-	-	-
	Chest		6	3	2	1	0	-	-	-
	Pelvis		207	111	56	18	37	-	-	-
	Spinal Canal		196	80	41	16	23	-	-	-
	Neck		27	18	9	1	8	-	-	-
	Breast		239	73	38	22	13	-	-	-
	<b>Non-Contrast</b>		2763	4342	1041	1557	1744	-	-	-
	Lower Extremity		707	402	212	96	94	-	-	-
	Upper Extremity		250	161	90	43	28	-	-	-
	Head		535	1232	266	420	546	-	-	-
	Cardiac		4	7	2	3	2	-	-	-
	Abdomen		50	589	85	281	223	-	-	-
	Chest		3	17	2	6	9	-	-	-
	Pelvis		96	998	69	403	526	-	-	-
	Spinal Canal		1092	724	299	224	201	-	-	-
Neck		26	71	16	28	27	-	-	-	
Fetal		0	141	0	53	88	-	-	-	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Pregnancy Episodes with MRI Procedure<sup>3</sup></b>										
<b>15-19</b>	<b>Contrast</b>	480	1313	398	476	513	6	353	432	460
	Lower Extremity	44	121	44	41	42	1	41	38	37
	Upper Extremity	61	178	66	60	54	0	64	60	52
	Head	303	807	224	310	313	4	201	284	286
	Cardiac	3	16	7	4	5	0	7	4	5
	Abdomen	21	71	17	19	39	0	14	17	36
	Chest	3	10	2	4	4	0	2	4	4
	Pelvis	30	77	24	27	33	1	18	24	29
	Spinal Canal	39	127	32	44	61	1	28	37	53
	Neck	8	24	8	8	9	0	7	8	8
	Breast	2	3	2	0	1	0	2	0	1
	<b>Non-Contrast</b>	1488	3972	1285	1465	1383	6	1183	1365	1269
	Lower Extremity	726	1906	636	701	623	1	605	666	582
	Upper Extremity	148	384	122	125	139	0	120	125	137
	Head	324	863	254	321	301	1	245	313	293
	Cardiac	1	8	1	4	3	0	1	4	3
	Abdomen	7	59	16	27	17	0	15	27	16
	Chest	3	11	1	5	5	0	1	5	5
	Pelvis	16	77	20	31	31	1	17	28	28
Spinal Canal	302	885	280	302	321	1	269	293	306	
Neck	4	17	6	4	7	0	6	4	7	
Fetal	0	0	0	0	0	0	0	0	0	



**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>20-24</b>	<b>Contrast</b>	1680	4503	1472	1664	1671	40	1279	1475	1485
	Lower Extremity	127	306	88	118	107	1	84	113	103
	Upper Extremity	159	349	114	136	105	0	109	132	102
	Head	1071	2949	942	1061	1132	29	823	957	1012
	Cardiac	22	62	23	21	18	0	23	21	18
	Abdomen	110	327	113	118	115	2	100	106	104
	Chest	14	33	10	12	11	0	10	12	11
	Pelvis	104	295	90	103	112	0	85	94	106
	Spinal Canal	194	597	196	225	223	6	167	192	197
	Neck	34	94	25	28	43	0	24	27	41
	Breast	24	54	22	20	15	0	19	18	14
	<b>Non-Contrast</b>	3915	10669	3344	3804	4019	21	3044	3473	3675
	Lower Extremity	1492	4056	1271	1394	1498	4	1199	1330	1424
	Upper Extremity	314	917	268	311	348	0	264	304	339
	Head	892	2630	798	915	966	3	767	883	934
	Cardiac	8	30	8	9	13	0	8	9	13
	Abdomen	68	163	44	58	64	0	44	55	61
	Chest	11	26	9	6	11	0	9	6	11
	Pelvis	80	200	61	56	85	0	60	54	84
	Spinal Canal	1201	3412	1028	1248	1238	2	966	1176	1170
Neck	21	71	24	18	32	0	21	17	30	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
25-29	<b>Contrast</b>	5043	14249	4540	5269	5468	110	3908	4639	4784
	Lower Extremity	330	838	248	293	324	2	232	276	305
	Upper Extremity	214	763	246	252	277	1	238	246	268
	Head	3241	9023	2890	3296	3413	71	2534	2964	3020
	Cardiac	46	143	40	62	43	0	38	61	42
	Abdomen	387	1133	347	421	432	6	310	377	385
	Chest	26	64	12	34	28	1	10	26	19
	Pelvis	372	1164	343	417	456	8	311	389	420
	Spinal Canal	700	2049	639	765	795	14	542	676	695
	Neck	108	336	87	125	129	0	82	120	129
	Breast	179	575	146	215	231	0	135	206	217
	<b>Non-Contrast</b>	9878	28140	8793	10266	10387	43	7976	9379	9522
	Lower Extremity	3196	9355	2854	3342	3365	5	2720	3199	3235
	Upper Extremity	807	2385	733	840	853	1	712	807	826
	Head	2283	6832	2045	2450	2464	3	1974	2358	2376
	Cardiac	7	46	16	10	20	0	16	10	20
	Abdomen	186	488	154	173	167	0	153	167	162
	Chest	17	52	15	17	20	0	15	17	20
	Pelvis	223	572	168	226	183	0	165	222	180
	Spinal Canal	3654	10567	3267	3784	3861	8	3037	3554	3639
Neck	63	200	57	78	68	0	55	75	67	
Fetal	1	1	0	0	1	0	0	0	0	1

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>30-34</b>	<b>Contrast</b>	9189	25285	7945	9496	9738	194	6785	8339	8461
	Lower Extremity	487	1455	416	540	545	6	386	516	513
	Upper Extremity	385	1123	318	406	419	0	307	393	403
	Head	5499	14965	4741	5582	5659	136	4115	5001	4968
	Cardiac	71	206	56	71	82	0	53	70	80
	Abdomen	730	2093	647	783	804	7	556	716	687
	Chest	35	132	39	51	51	1	35	45	44
	Pelvis	787	2317	630	840	917	3	586	797	867
	Spinal Canal	1480	4129	1302	1517	1552	9	1152	1351	1393
	Neck	225	612	191	221	217	2	183	208	206
	Breast	593	1822	536	647	707	2	487	612	657
	<b>Non-Contrast</b>	16913	47408	14836	17124	17767	81	13394	15536	16240
	Lower Extremity	5080	14790	4513	5290	5360	11	4274	5044	5110
	Upper Extremity	1442	4316	1326	1456	1595	0	1289	1418	1548
	Head	3795	10488	3190	3642	3846	6	3069	3499	3736
	Cardiac	14	73	19	32	23	0	18	31	23
	Abdomen	290	917	266	314	350	0	257	306	341
	Chest	32	94	30	36	29	0	29	35	29
	Pelvis	422	1146	385	379	389	0	381	374	384
	Spinal Canal	6845	19587	5971	6993	7224	12	5613	6561	6824
Neck	137	354	116	98	141	0	115	98	140	
Fetal	0	10	1	5	4	0	1	5	4	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
35-39	<b>Contrast</b>	6063	16665	5357	6180	6402	147	4592	5396	5550
	Lower Extremity	291	889	280	311	326	3	262	294	308
	Upper Extremity	271	748	246	248	268	1	238	236	261
	Head	3388	9032	2918	3333	3427	93	2527	2962	2990
	Cardiac	31	116	32	47	42	1	29	43	40
	Abdomen	497	1421	436	503	568	9	381	461	502
	Chest	31	62	26	14	23	0	25	13	23
	Pelvis	526	1672	489	595	634	4	458	566	606
	Spinal Canal	997	2731	867	971	1058	12	775	864	939
	Neck	136	378	120	140	126	1	113	134	124
	Breast	609	1901	538	741	686	1	498	705	635
	<b>Non-Contrast</b>	10572	29849	9457	10821	11192	63	8482	9664	10145
	Lower Extremity	3156	9127	2778	3254	3336	4	2631	3091	3168
	Upper Extremity	1006	3007	948	1026	1092	1	907	990	1052
	Head	2075	6013	1883	2082	2183	5	1805	1982	2096
	Cardiac	3	41	15	14	12	0	15	14	12
	Abdomen	193	509	149	176	192	0	143	171	187
	Chest	24	54	16	18	20	0	16	18	20
	Pelvis	249	764	238	252	279	0	235	247	277
	Spinal Canal	4527	12906	3957	4658	4696	9	3710	4363	4437
Neck	75	199	67	67	66	0	67	66	65	
Fetal	0	3	0	1	2	0	0	1	2	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
40-45	<b>Contrast</b>	1675	4590	1448	1720	1785	38	1205	1507	1553
	Lower Extremity	74	240	56	93	99	1	52	89	92
	Upper Extremity	76	203	58	64	84	0	57	62	81
	Head	838	2301	733	868	867	22	618	780	758
	Cardiac	12	35	14	12	9	0	14	12	9
	Abdomen	118	337	109	118	124	2	99	111	115
	Chest	4	25	7	8	10	0	7	8	10
	Pelvis	145	417	121	156	155	2	111	145	148
	Spinal Canal	252	805	259	298	307	2	213	264	271
	Neck	38	130	42	45	44	0	42	44	43
	Breast	289	752	215	259	298	2	200	250	284
	<b>Non-Contrast</b>	2959	8238	2566	3011	3123	18	2274	2708	2812
	Lower Extremity	868	2507	764	880	922	1	727	839	883
	Upper Extremity	319	943	267	329	366	0	259	315	350
	Head	533	1575	496	518	592	4	475	498	575
	Cardiac	4	10	3	4	3	0	3	4	3
	Abdomen	45	133	32	50	52	0	31	50	51
	Chest	8	19	6	6	7	0	6	6	7
	Pelvis	66	194	55	69	71	0	54	69	70
	Spinal Canal	1312	3641	1100	1331	1315	5	1038	1260	1243
Neck	22	91	30	28	33	0	30	28	33	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>MRI Procedure Episodes</b>										
<b>15-19</b>	<b>Contrast</b>	504	1462	416	499	547	22	367	446	490
	Lower Extremity	44	129	46	41	42	3	43	38	37
	Upper Extremity	61	182	68	60	54	0	66	60	52
	Head	312	890	231	323	336	14	206	292	306
	Cardiac	3	16	7	4	5	0	7	4	5
	Abdomen	21	75	17	19	39	0	14	17	36
	Chest	3	10	2	4	4	0	2	4	4
	Pelvis	33	84	24	27	33	3	18	24	29
	Spinal Canal	42	150	35	48	67	4	31	39	59
	Neck	8	28	9	9	10	0	8	9	9
	Breast	2	3	2	0	1	0	2	0	1
	<b>Non-Contrast</b>	1531	4279	1324	1528	1427	21	1217	1419	1305
	Lower Extremity	739	1997	645	719	633	3	614	679	591
	Upper Extremity	151	389	124	126	139	0	122	126	137
	Head	328	900	261	335	304	3	250	327	296
	Cardiac	1	8	1	4	3	0	1	4	3
	Abdomen	7	60	16	27	17	0	15	27	16
	Chest	3	11	1	5	5	0	1	5	5
	Pelvis	17	85	20	33	32	3	17	29	28
Spinal Canal	308	935	286	316	333	6	273	307	316	
Neck	4	18	6	5	7	0	6	5	7	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>20-24</b>	<b>Contrast</b>	1788	5110	1553	1774	1783	169	1326	1539	1564
	Lower Extremity	129	322	91	121	110	4	87	116	105
	Upper Extremity	161	361	116	139	106	0	111	135	103
	Head	1128	3279	984	1108	1187	118	840	981	1051
	Cardiac	23	63	23	21	19	0	23	21	19
	Abdomen	114	355	114	123	118	7	101	110	106
	Chest	15	34	10	12	12	0	10	12	12
	Pelvis	108	314	91	107	116	0	86	97	109
	Spinal Canal	207	684	207	243	234	25	174	204	204
	Neck	37	98	25	29	44	0	24	28	42
	Breast	25	58	22	21	15	0	19	18	14
	<b>Non-Contrast</b>	4067	11609	3442	3976	4191	71	3130	3610	3819
	Lower Extremity	1524	4236	1285	1427	1524	12	1213	1360	1446
	Upper Extremity	324	945	274	318	353	0	270	310	344
	Head	919	2745	815	938	992	10	781	905	958
	Cardiac	8	30	8	9	13	0	8	9	13
	Abdomen	68	167	44	58	65	0	44	55	62
	Chest	11	26	9	6	11	0	9	6	11
	Pelvis	81	204	61	56	87	0	60	54	86
	Spinal Canal	1234	3604	1043	1285	1276	6	980	1211	1205
Neck	21	76	24	19	33	0	21	18	31	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
25-29	<b>Contrast</b>	5383	16206	4765	5610	5831	447	4031	4869	5039
	Lower Extremity	343	881	250	299	332	6	233	280	313
	Upper Extremity	220	788	249	256	283	3	241	250	274
	Head	3402	10018	2991	3450	3577	292	2579	3051	3123
	Cardiac	49	147	40	62	45	0	38	61	44
	Abdomen	400	1232	352	435	445	19	314	387	395
	Chest	29	74	12	34	28	3	10	26	19
	Pelvis	379	1242	352	425	465	29	315	396	425
	Spinal Canal	736	2340	682	818	840	51	565	718	730
	Neck	115	354	90	131	133	0	84	126	133
	Breast	183	604	147	220	237	0	136	211	222
	<b>Non-Contrast</b>	10346	30875	9202	10799	10874	153	8332	9824	9936
	Lower Extremity	3263	9793	2919	3418	3456	17	2779	3264	3317
	Upper Extremity	821	2473	747	861	865	3	721	822	837
	Head	2357	7163	2107	2538	2518	14	2034	2434	2423
	Cardiac	7	46	16	10	20	0	16	10	20
	Abdomen	191	503	158	177	168	0	157	170	163
	Chest	17	52	15	17	20	0	15	17	20
	Pelvis	225	579	168	226	185	0	165	222	182
	Spinal Canal	3780	11289	3381	3921	3987	26	3141	3681	3752
Neck	65	209	60	78	71	0	58	75	70	
Fetal	1	1	0	0	1	0	0	0	0	1



**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>30-34</b>	<b>Contrast</b>	9813	29059	8421	10157	10481	802	7052	8770	9006
	Lower Extremity	507	1552	429	557	566	18	397	529	529
	Upper Extremity	395	1159	322	416	421	0	310	403	405
	Head	5743	16713	4915	5832	5966	550	4190	5132	5178
	Cardiac	72	211	56	72	83	0	53	71	81
	Abdomen	752	2280	659	798	823	21	564	729	702
	Chest	36	144	39	53	52	3	35	45	45
	Pelvis	809	2437	640	861	936	9	592	817	883
	Spinal Canal	1575	4660	1384	1615	1661	38	1210	1420	1483
	Neck	232	653	195	231	227	7	185	215	215
	Breast	607	1938	544	663	731	6	492	627	679
	<b>Non-Contrast</b>	17803	52346	15560	18059	18727	265	14004	16314	17059
	Lower Extremity	5197	15565	4628	5428	5509	35	4382	5170	5249
	Upper Extremity	1474	4453	1347	1486	1620	0	1309	1444	1571
	Head	3902	11014	3283	3768	3963	21	3152	3614	3847
	Cardiac	15	75	20	32	23	0	19	31	23
	Abdomen	299	945	270	318	357	0	261	309	348
	Chest	32	97	30	38	29	0	29	37	29
	Pelvis	432	1164	392	381	391	0	388	375	386
	Spinal Canal	7091	20914	6165	7261	7488	37	5791	6803	7068
Neck	140	359	118	100	141	0	117	100	140	
Fetal	0	10	1	5	4	0	1	5	4	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
35-39	<b>Contrast</b>	6442	19164	5667	6624	6873	602	4782	5676	5869
	Lower Extremity	298	936	287	319	330	10	267	301	311
	Upper Extremity	274	775	250	252	273	3	241	240	266
	Head	3523	10124	3028	3492	3604	381	2579	3039	3095
	Cardiac	31	127	32	51	44	3	29	47	42
	Abdomen	507	1551	444	518	589	30	385	470	518
	Chest	31	66	26	14	26	0	25	13	26
	Pelvis	535	1753	501	604	648	14	467	574	619
	Spinal Canal	1039	3058	910	1020	1128	49	806	898	998
	Neck	144	400	124	144	132	4	115	138	129
	Breast	628	2028	551	774	703	3	507	733	650
	<b>Non-Contrast</b>	11175	33110	9939	11389	11782	221	8871	10140	10658
	Lower Extremity	3218	9583	2839	3334	3410	13	2687	3163	3237
	Upper Extremity	1033	3131	965	1042	1124	4	924	1006	1081
	Head	2145	6350	1944	2149	2257	21	1854	2040	2162
	Cardiac	3	42	16	14	12	0	16	14	12
	Abdomen	195	528	151	180	197	0	145	175	192
	Chest	24	54	16	18	20	0	16	18	20
	Pelvis	251	776	241	255	280	0	238	250	278
	Spinal Canal	4700	13764	4099	4801	4864	29	3835	4495	4588
Neck	76	204	68	70	66	0	68	69	65	
Fetal	0	3	0	1	2	0	0	1	2	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
40-45	<b>Contrast</b>	1776	5287	1544	1830	1913	152	1261	1581	1650
	Lower Extremity	75	254	57	95	102	3	53	91	94
	Upper Extremity	78	207	59	64	84	0	58	62	81
	Head	869	2577	771	899	907	89	633	799	786
	Cardiac	12	36	14	12	10	0	14	12	10
	Abdomen	118	359	110	120	129	7	100	113	119
	Chest	4	25	7	8	10	0	7	8	10
	Pelvis	148	443	124	161	158	8	113	148	151
	Spinal Canal	271	918	272	319	327	6	223	281	287
	Neck	39	138	44	49	45	0	44	48	44
	Breast	297	791	222	268	301	6	206	258	287
	<b>Non-Contrast</b>	3136	9197	2706	3188	3303	62	2394	2857	2964
	Lower Extremity	882	2626	782	902	942	4	744	857	903
	Upper Extremity	331	983	277	337	369	0	269	323	353
	Head	553	1657	513	533	611	12	491	511	592
	Cardiac	4	10	3	4	3	0	3	4	3
	Abdomen	48	136	32	52	52	0	31	52	51
	Chest	8	19	6	6	7	0	6	6	7
	Pelvis	66	200	55	71	74	0	54	71	73
	Spinal Canal	1363	3912	1143	1402	1367	16	1077	1324	1291
Neck	22	92	30	29	33	0	30	29	33	
Fetal	0	0	0	0	0	0	0	0	0	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
<b>Adjusted Counts of MRI Procedure Codes</b>										
<b>15-19</b>	<b>Contrast</b>	599	1783	496	590	697	-	-	-	-
	Lower Extremity	45	138	49	42	47	-	-	-	-
	Upper Extremity	63	188	68	63	57	-	-	-	-
	Head	350	981	256	344	381	-	-	-	-
	Cardiac	3	17	7	5	5	-	-	-	-
	Abdomen	23	83	18	21	44	-	-	-	-
	Chest	3	10	2	4	4	-	-	-	-
	Pelvis	37	90	27	27	36	-	-	-	-
	Spinal Canal	65	243	56	75	112	-	-	-	-
	Neck	8	30	11	9	10	-	-	-	-
	Breast	2	3	2	0	1	-	-	-	-
	<b>Non-Contrast</b>	1726	4831	1492	1726	1613	-	-	-	-
	Lower Extremity	782	2094	676	751	667	-	-	-	-
	Upper Extremity	158	410	132	132	146	-	-	-	-
	Head	365	1010	296	376	338	-	-	-	-
	Cardiac	1	9	1	5	3	-	-	-	-
	Abdomen	8	61	17	27	17	-	-	-	-
	Chest	3	11	1	5	5	-	-	-	-
	Pelvis	17	87	21	33	33	-	-	-	-
Spinal Canal	388	1130	342	391	397	-	-	-	-	
Neck	4	19	6	6	7	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
20-24	<b>Contrast</b>	2205	6326	1899	2191	2236	-	-	-	-
	Lower Extremity	138	358	98	140	120	-	-	-	-
	Upper Extremity	173	389	125	147	117	-	-	-	-
	Head	1238	3636	1080	1234	1322	-	-	-	-
	Cardiac	24	69	25	24	20	-	-	-	-
	Abdomen	127	373	121	127	125	-	-	-	-
	Chest	16	35	10	12	13	-	-	-	-
	Pelvis	117	332	98	113	121	-	-	-	-
	Spinal Canal	307	968	293	343	332	-	-	-	-
	Neck	39	107	27	29	51	-	-	-	-
	Breast	26	59	22	22	15	-	-	-	-
	<b>Non-Contrast</b>	4632	13229	3912	4511	4806	-	-	-	-
	Lower Extremity	1595	4443	1362	1488	1593	-	-	-	-
	Upper Extremity	338	983	291	334	358	-	-	-	-
	Head	1035	3120	910	1068	1142	-	-	-	-
	Cardiac	8	31	8	9	14	-	-	-	-
	Abdomen	69	174	45	59	70	-	-	-	-
	Chest	11	26	9	6	11	-	-	-	-
	Pelvis	84	206	62	56	88	-	-	-	-
	Spinal Canal	1468	4166	1200	1470	1496	-	-	-	-
Neck	24	80	25	21	34	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
25-29	<b>Contrast</b>	6632	20050	5792	7000	7258	-	-	-	-
	Lower Extremity	376	975	280	325	370	-	-	-	-
	Upper Extremity	236	857	264	287	306	-	-	-	-
	Head	3775	11085	3287	3820	3978	-	-	-	-
	Cardiac	55	164	42	74	48	-	-	-	-
	Abdomen	424	1313	381	462	470	-	-	-	-
	Chest	34	79	14	37	28	-	-	-	-
	Pelvis	403	1323	374	452	497	-	-	-	-
	Spinal Canal	1013	3234	900	1172	1162	-	-	-	-
	Neck	127	388	99	141	148	-	-	-	-
	Breast	189	632	151	230	251	-	-	-	-
	<b>Non-Contrast</b>	11915	35596	10545	12544	12507	-	-	-	-
	Lower Extremity	3424	10317	3070	3618	3629	-	-	-	-
	Upper Extremity	879	2587	775	905	907	-	-	-	-
	Head	2710	8216	2389	2919	2908	-	-	-	-
	Cardiac	7	48	16	11	21	-	-	-	-
	Abdomen	199	524	160	185	179	-	-	-	-
	Chest	17	53	16	17	20	-	-	-	-
	Pelvis	235	603	175	239	189	-	-	-	-
Spinal Canal	4376	13029	3881	4571	4577	-	-	-	-	
Neck	67	218	63	79	76	-	-	-	-	
Fetal	1	1	0	0	1	-	-	-	-	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
30-34	<b>Contrast</b>	12129	35771	10357	12509	12905	-	-	-	-
	Lower Extremity	540	1679	455	613	611	-	-	-	-
	Upper Extremity	425	1235	343	446	446	-	-	-	-
	Head	6373	18443	5412	6429	6602	-	-	-	-
	Cardiac	76	230	65	76	89	-	-	-	-
	Abdomen	814	2418	697	845	876	-	-	-	-
	Chest	36	152	40	55	57	-	-	-	-
	Pelvis	859	2600	679	923	998	-	-	-	-
	Spinal Canal	2102	6237	1863	2169	2205	-	-	-	-
	Neck	264	739	224	256	259	-	-	-	-
	Breast	640	2038	579	697	762	-	-	-	-
	<b>Non-Contrast</b>	20554	60535	18010	20844	21681	-	-	-	-
	Lower Extremity	5462	16422	4880	5742	5800	-	-	-	-
	Upper Extremity	1550	4675	1416	1565	1694	-	-	-	-
	Head	4532	12796	3802	4367	4627	-	-	-	-
	Cardiac	16	83	23	35	25	-	-	-	-
	Abdomen	318	977	275	333	369	-	-	-	-
	Chest	32	99	32	38	29	-	-	-	-
	Pelvis	449	1208	404	396	408	-	-	-	-
	Spinal Canal	8048	23874	7049	8256	8569	-	-	-	-
Neck	147	387	127	105	155	-	-	-	-	
Fetal	0	14	2	7	5	-	-	-	-	

**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
35-39	<b>Contrast</b>	7817	23355	6932	8035	8388	-	-	-	-
	Lower Extremity	328	996	309	341	346	-	-	-	-
	Upper Extremity	292	827	270	263	294	-	-	-	-
	Head	3871	11196	3351	3854	3991	-	-	-	-
	Cardiac	33	137	36	53	48	-	-	-	-
	Abdomen	533	1672	490	560	622	-	-	-	-
	Chest	33	73	30	15	28	-	-	-	-
	Pelvis	562	1859	535	639	685	-	-	-	-
	Spinal Canal	1355	4009	1192	1342	1475	-	-	-	-
	Neck	155	448	142	155	151	-	-	-	-
	Breast	655	2138	577	813	748	-	-	-	-
	<b>Non-Contrast</b>	12900	38087	11449	13093	13545	-	-	-	-
	Lower Extremity	3412	10121	3010	3513	3598	-	-	-	-
	Upper Extremity	1069	3287	1013	1094	1180	-	-	-	-
	Head	2504	7380	2275	2469	2636	-	-	-	-
	Cardiac	3	43	16	15	12	-	-	-	-
	Abdomen	202	552	156	191	205	-	-	-	-
	Chest	27	56	17	19	20	-	-	-	-
	Pelvis	259	798	247	264	287	-	-	-	-
	Spinal Canal	5344	15632	4643	5452	5537	-	-	-	-
Neck	80	215	72	75	68	-	-	-	-	
Fetal	0	3	0	1	2	-	-	-	-	



**Table 4b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup> in the Sentinel Distributed Database (SDD), by Corresponding Trimester Time Periods<sup>2</sup>, MRI Body Location, and Age**

Age (years)	MRI Imaging Procedures, by Body Location	90 Days Before Pregnancy Start	Any Trimester	First Trimester	Second Trimester	Third Trimester	First, Second, and Third Trimester	Only First Trimester	Only Second Trimester	Only Third Trimester
40-45	<b>Contrast</b>	2141	6465	1901	2257	2307	-	-	-	-
	Lower Extremity	82	283	68	105	110	-	-	-	-
	Upper Extremity	81	222	62	72	88	-	-	-	-
	Head	974	2839	849	1001	989	-	-	-	-
	Cardiac	12	40	17	12	11	-	-	-	-
	Abdomen	126	379	117	131	131	-	-	-	-
	Chest	5	27	7	8	12	-	-	-	-
	Pelvis	154	472	134	168	170	-	-	-	-
	Spinal Canal	342	1230	367	429	434	-	-	-	-
	Neck	45	152	49	55	48	-	-	-	-
	Breast	320	821	231	276	314	-	-	-	-
	<b>Non-Contrast</b>	3629	10794	3168	3728	3898	-	-	-	-
	Lower Extremity	933	2795	834	964	997	-	-	-	-
	Upper Extremity	352	1040	295	353	392	-	-	-	-
	Head	649	1995	622	642	731	-	-	-	-
	Cardiac	4	12	4	5	3	-	-	-	-
	Abdomen	48	141	33	54	54	-	-	-	-
	Chest	8	19	6	6	7	-	-	-	-
	Pelvis	66	202	56	72	74	-	-	-	-
	Spinal Canal	1546	4492	1287	1600	1605	-	-	-	-
Neck	23	98	31	32	35	-	-	-	-	
Fetal	0	0	0	0	0	-	-	-	-	

<sup>1</sup>Women in matched comparator cohort may have been pregnant at some point during the request period. Women were eligible for the "non-pregnant" cohort if they had no evidence of a live-born delivery during the time period of their pregnant comparator's pregnancy.

<sup>2</sup>Trimester time periods in the non-pregnant cohort are determined by the corresponding trimester period in each woman's matched pregnant comparator.

<sup>3</sup>Pregnancy episodes describes the window of time assessed for each woman that corresponds to the gestational period of their matched pregnant comparator.

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>All Body Locations</b>				
Week -13	1,870	1,569	3,002	2,607
Week -12	2,231	1,833	3,605	3,153
Week -11	2,176	1,849	3,474	3,029
Week -10	2,159	1,801	3,529	3,056
Week -9	2,025	1,694	3,386	2,967
Week -8	2,228	1,844	3,469	3,028
Week -7	2,242	1,855	3,482	3,003
Week -6	2,151	1,809	3,500	3,044
Week -5	2,104	1,774	3,400	2,949
Week -4	2,058	1,719	3,395	2,909
Week -3	2,170	1,831	3,325	2,887
Week -2	1,918	1,644	3,183	2,801
Week -1	1,866	1,578	3,161	2,736
Week 1	1,914	1,614	3,108	2,724
Week 2	1,796	1,511	3,093	2,710
Week 3	1,497	1,268	2,651	2,307
Week 4	1,126	957	2,313	1,998
Week 5	748	624	1,899	1,604
Week 6	444	359	1,453	1,148
Week 7	251	208	1,227	940
Week 8	167	140	1,110	812
Week 9	123	106	1,171	828
Week 10	131	100	1,254	862
Week 11	104	83	1,206	832
Week 12	111	90	1,285	919
Week 13	94	73	1,439	989
Week 14	84	75	1,697	1,163
Week 15	85	72	1,877	1,301
Week 16	85	69	1,942	1,375
Week 17	96	77	2,014	1,391
Week 18	97	77	2,106	1,464
Week 19	104	85	2,118	1,503
Week 20	109	91	2,239	1,637
Week 21	94	79	2,459	1,796
Week 22	87	65	2,617	1,960
Week 23	84	68	2,402	1,797
Week 24	93	73	2,451	1,840
Week 25	75	64	2,283	1,712
Week 26	75	59	2,149	1,580

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>All Body Locations, continued</b>				
Week 27	76	53	2,174	1,579
Week 28	90	73	2,144	1,537
Week 29	86	73	2,226	1,655
Week 30	87	72	2,271	1,656
Week 31	80	63	2,281	1,671
Week 32	70	59	2,370	1,721
Week 33	107	88	2,374	1,766
Week 34	90	77	2,670	1,925
Week 35	137	116	2,496	1,808
Week 36	457	374	3,380	2,382
Week 37	137	107	2,100	1,468
Week 38	115	95	1,871	1,292
Week 39	132	105	1,667	1,162
Week 40	1,378	1,078	4,338	3,154
Week 41	66	49	253	174
Week 42	169	133	509	383
Week 43	5	4	13	8
Week 44	-	-	2	2
<b>Lower Extremity</b>				
Week -13	70	63	756	721
Week -12	93	82	958	913
Week -11	93	86	924	872
Week -10	74	69	942	897
Week -9	81	71	953	912
Week -8	82	75	942	896
Week -7	99	86	892	843
Week -6	58	54	967	910
Week -5	90	84	877	830
Week -4	73	63	875	839
Week -3	82	77	855	819
Week -2	65	61	835	804
Week -1	76	67	842	809
Week 1	78	72	794	769
Week 2	71	65	830	798
Week 3	75	71	704	669
Week 4	60	51	583	559
Week 5	33	32	450	434
Week 6	19	17	280	268
Week 7	12	9	173	162

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Lower Extremity, continued</b>				
Week 8	5	5	111	106
Week 9	2	2	89	84
Week 10	4	3	81	79
Week 11	0	0	79	74
Week 12	5	5	74	70
Week 13	3	2	90	85
Week 14	3	3	96	92
Week 15	0	0	85	81
Week 16	1	1	88	84
Week 17	0	0	80	79
Week 18	0	0	76	69
Week 19	2	2	71	68
Week 20	2	2	77	73
Week 21	1	1	73	69
Week 22	0	0	88	83
Week 23	1	1	65	59
Week 24	3	3	90	84
Week 25	1	1	78	76
Week 26	2	2	68	64
Week 27	2	2	60	56
Week 28	2	2	67	61
Week 29	1	1	70	64
Week 30	5	4	71	63
Week 31	1	1	75	69
Week 32	4	3	71	67
Week 33	2	2	62	56
Week 34	3	3	50	49
Week 35	1	1	57	55
Week 36	2	2	55	51
Week 37	1	1	39	37
Week 38	2	2	43	42
Week 39	3	3	39	38
Week 40	11	11	75	73
Week 41	0	0	3	3
Week 42	0	0	9	9
Week 43	1	1	-	-
Week 44	0	0	-	-
<b>Upper Extremity</b>				
Week -13	59	55	215	206

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Upper Extremity, continued</b>				
Week -12	56	53	278	262
Week -11	72	67	284	272
Week -10	75	71	258	245
Week -9	73	70	236	227
Week -8	68	62	268	252
Week -7	68	66	255	244
Week -6	79	70	252	242
Week -5	63	60	251	240
Week -4	67	61	216	205
Week -3	63	57	245	228
Week -2	77	71	230	215
Week -1	53	50	224	212
Week 1	65	61	262	252
Week 2	77	69	253	241
Week 3	59	54	196	189
Week 4	52	48	158	147
Week 5	34	30	156	150
Week 6	10	10	73	71
Week 7	9	8	57	50
Week 8	0	0	36	36
Week 9	1	1	34	30
Week 10	5	5	17	16
Week 11	3	3	18	17
Week 12	4	4	23	20
Week 13	0	0	28	26
Week 14	1	1	29	29
Week 15	2	2	30	26
Week 16	2	1	29	26
Week 17	6	4	26	26
Week 18	6	4	29	27
Week 19	6	5	30	28
Week 20	3	3	19	18
Week 21	1	1	23	23
Week 22	4	3	20	18
Week 23	5	3	19	18
Week 24	1	1	30	26
Week 25	0	0	17	17
Week 26	0	0	17	17
Week 27	3	2	25	24

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Upper Extremity, continued</b>				
Week 28	3	3	16	15
Week 29	4	3	18	18
Week 30	1	1	19	17
Week 31	0	0	10	10
Week 32	2	2	10	8
Week 33	5	4	12	10
Week 34	0	0	23	21
Week 35	3	3	10	10
Week 36	2	2	13	12
Week 37	3	3	12	11
Week 38	2	2	5	5
Week 39	1	1	2	2
Week 40	5	5	13	12
Week 41	0	0	-	-
Week 42	0	0	-	-
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Head</b>				
Week -13	1024	928	704	630
Week -12	1200	1080	838	719
Week -11	1210	1091	812	704
Week -10	1175	1067	821	709
Week -9	1096	998	779	666
Week -8	1208	1085	826	710
Week -7	1237	1101	841	712
Week -6	1180	1086	735	640
Week -5	1189	1078	833	710
Week -4	1154	1055	855	723
Week -3	1150	1040	760	667
Week -2	1069	978	774	672
Week -1	1060	956	733	633
Week 1	1064	961	746	639
Week 2	933	843	720	633
Week 3	805	730	600	513
Week 4	624	576	566	485
Week 5	422	385	432	346
Week 6	237	208	382	292
Week 7	126	119	341	250
Week 8	102	95	368	258

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Head, continued</b>				
Week 9	62	57	394	263
Week 10	63	55	498	320
Week 11	51	45	474	311
Week 12	57	47	490	336
Week 13	51	42	573	373
Week 14	45	43	673	442
Week 15	47	44	736	499
Week 16	38	35	812	566
Week 17	50	43	849	583
Week 18	39	34	834	575
Week 19	50	46	836	579
Week 20	46	43	755	542
Week 21	41	37	793	540
Week 22	30	28	814	551
Week 23	31	27	715	485
Week 24	39	34	732	520
Week 25	42	38	760	527
Week 26	31	27	747	508
Week 27	35	27	779	529
Week 28	35	33	759	512
Week 29	35	33	811	561
Week 30	36	33	803	537
Week 31	36	30	836	564
Week 32	28	27	914	615
Week 33	50	43	954	629
Week 34	42	38	1,099	720
Week 35	63	59	1,067	702
Week 36	277	254	1,788	1,215
Week 37	75	66	1,116	731
Week 38	50	46	1,055	668
Week 39	66	58	922	575
Week 40	763	679	2,512	1,861
Week 41	30	25	164	108
Week 42	85	77	258	196
Week 43	4	3	9	6
Week 44	0	0	1	1
<b>Cardiac</b>				
Week -13	12	11	5	5
Week -12	16	15	10	10

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Cardiac, continued</b>				
Week -11	18	15	7	6
Week -10	11	10	8	6
Week -9	15	15	8	7
Week -8	16	15	3	2
Week -7	18	14	5	4
Week -6	15	13	-	-
Week -5	7	7	7	6
Week -4	10	9	5	5
Week -3	14	12	8	8
Week -2	19	18	3	3
Week -1	14	14	5	5
Week 1	5	5	3	3
Week 2	11	11	9	7
Week 3	7	6	1	1
Week 4	6	6	7	6
Week 5	6	6	4	4
Week 6	1	1	-	-
Week 7	0	0	1	1
Week 8	0	0	1	1
Week 9	1	1	2	2
Week 10	0	0	-	-
Week 11	0	0	1	1
Week 12	0	0	2	2
Week 13	2	2	1	1
Week 14	2	2	4	4
Week 15	0	0	8	7
Week 16	1	1	6	6
Week 17	1	1	5	5
Week 18	0	0	7	7
Week 19	0	0	5	5
Week 20	1	1	3	3
Week 21	4	3	8	8
Week 22	0	0	1	1
Week 23	1	1	7	7
Week 24	1	1	11	9
Week 25	2	2	10	9
Week 26	1	1	5	4
Week 27	2	2	5	5
Week 28	2	2	5	5



**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Cardiac, continued</b>				
Week 29	2	2	4	4
Week 30	3	3	7	7
Week 31	2	2	6	5
Week 32	2	2	6	6
Week 33	1	1	12	11
Week 34	1	1	9	9
Week 35	3	3	6	5
Week 36	6	6	5	5
Week 37	4	4	2	2
Week 38	4	3	6	6
Week 39	1	1	4	4
Week 40	19	19	3	3
Week 41	0	0	-	-
Week 42	2	2	-	-
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Abdomen</b>				
Week -13	141	130	80	75
Week -12	160	150	85	83
Week -11	146	138	69	66
Week -10	143	137	81	77
Week -9	124	117	62	62
Week -8	166	157	81	80
Week -7	132	119	75	69
Week -6	135	128	91	85
Week -5	146	138	56	54
Week -4	138	127	58	58
Week -3	140	134	70	65
Week -2	116	111	61	60
Week -1	130	120	66	63
Week 1	123	119	51	49
Week 2	119	109	51	49
Week 3	84	81	59	53
Week 4	63	56	92	82
Week 5	42	38	134	122
Week 6	28	25	189	171
Week 7	25	23	237	213
Week 8	14	14	260	235
Week 9	22	21	272	244

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Abdomen, continued</b>				
Week 10	13	12	307	274
Week 11	10	10	290	264
Week 12	20	18	327	296
Week 13	12	12	326	289
Week 14	16	16	403	357
Week 15	11	11	472	423
Week 16	17	15	490	439
Week 17	17	17	508	449
Week 18	20	19	561	494
Week 19	12	11	545	492
Week 20	24	24	588	521
Week 21	22	22	569	510
Week 22	21	21	542	497
Week 23	20	20	469	424
Week 24	18	17	481	442
Week 25	12	12	463	424
Week 26	15	15	449	417
Week 27	7	6	403	376
Week 28	18	17	431	397
Week 29	13	11	421	391
Week 30	12	12	404	381
Week 31	14	14	393	361
Week 32	13	13	416	389
Week 33	9	9	382	365
Week 34	9	9	403	374
Week 35	18	16	346	327
Week 36	41	41	433	408
Week 37	15	14	191	186
Week 38	9	9	175	169
Week 39	11	11	175	158
Week 40	69	68	286	284
Week 41	4	4	8	8
Week 42	7	7	6	6
Week 43	0	0	1	1
Week 44	0	0	1	1
<b>Chest</b>				
Week -13	8	8	3	3
Week -12	8	8	9	9
Week -11	7	6	6	6

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Chest, continued</b>				
Week -10	7	7	4	4
Week -9	6	6	8	8
Week -8	7	7	10	10
Week -7	11	10	4	4
Week -6	4	3	9	9
Week -5	7	7	6	5
Week -4	5	5	5	5
Week -3	11	9	6	6
Week -2	4	4	3	3
Week -1	10	8	6	5
Week 1	11	10	8	8
Week 2	9	9	3	3
Week 3	5	4	4	4
Week 4	11	11	5	5
Week 5	4	4	6	6
Week 6	3	3	2	2
Week 7	0	0	6	5
Week 8	0	0	3	3
Week 9	0	0	3	3
Week 10	0	0	3	3
Week 11	2	2	5	5
Week 12	0	0	6	5
Week 13	1	1	6	6
Week 14	0	0	5	5
Week 15	1	1	9	7
Week 16	1	1	9	9
Week 17	1	1	8	7
Week 18	0	0	7	7
Week 19	0	0	13	12
Week 20	1	1	6	6
Week 21	0	0	11	11
Week 22	0	0	9	9
Week 23	0	0	9	9
Week 24	0	0	10	9
Week 25	0	0	8	7
Week 26	0	0	12	12
Week 27	0	0	12	11
Week 28	1	1	11	11
Week 29	1	1	14	12

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Chest, continued</b>				
Week 30	2	2	11	11
Week 31	0	0	7	6
Week 32	1	1	10	10
Week 33	1	1	5	4
Week 34	3	3	12	12
Week 35	0	0	17	16
Week 36	1	1	8	7
Week 37	1	1	6	6
Week 38	1	1	10	9
Week 39	1	1	1	1
Week 40	5	5	7	7
Week 41	0	0	1	1
Week 42	0	0	1	1
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Pelvis</b>				
Week -13	171	165	89	86
Week -12	203	195	127	125
Week -11	222	210	117	112
Week -10	216	208	116	109
Week -9	183	175	116	109
Week -8	225	213	106	103
Week -7	215	203	105	102
Week -6	212	198	110	107
Week -5	175	169	107	102
Week -4	177	173	100	94
Week -3	195	182	103	100
Week -2	179	170	73	72
Week -1	162	154	73	69
Week 1	158	150	89	85
Week 2	141	135	70	70
Week 3	140	134	62	62
Week 4	106	101	59	56
Week 5	70	68	73	71
Week 6	58	53	116	107
Week 7	24	23	140	132
Week 8	15	14	161	153
Week 9	14	14	171	159
Week 10	11	11	167	156

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Pelvis, continued</b>				
Week 11	14	14	179	160
Week 12	15	15	187	176
Week 13	11	10	230	210
Week 14	11	11	272	243
Week 15	8	8	330	300
Week 16	14	13	310	286
Week 17	13	12	310	286
Week 18	19	19	361	330
Week 19	15	14	399	375
Week 20	20	20	542	507
Week 21	14	14	686	643
Week 22	13	13	778	749
Week 23	19	19	766	734
Week 24	15	15	729	695
Week 25	11	11	628	596
Week 26	14	14	577	543
Week 27	13	11	578	545
Week 28	13	13	545	515
Week 29	14	14	591	560
Week 30	6	6	612	585
Week 31	17	16	659	622
Week 32	11	11	640	602
Week 33	16	16	675	639
Week 34	19	17	714	680
Week 35	27	26	670	646
Week 36	38	38	654	636
Week 37	16	15	428	412
Week 38	18	17	331	322
Week 39	24	22	335	320
Week 40	102	101	331	329
Week 41	3	3	15	15
Week 42	13	13	22	22
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Spinal Canal</b>				
Week -13	237	180	1,125	988
Week -12	323	240	1,280	1,138
Week -11	239	191	1,236	1,098
Week -10	268	200	1,280	1,111

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Spinal Canal, continued</b>				
Week -9	291	221	1,201	1,065
Week -8	261	193	1,207	1,076
Week -7	251	180	1,275	1,123
Week -6	292	224	1,320	1,158
Week -5	255	193	1,237	1,092
Week -4	252	185	1,257	1,096
Week -3	278	221	1,257	1,093
Week -2	216	165	1,185	1,040
Week -1	212	171	1,185	1,036
Week 1	247	195	1,133	997
Week 2	221	177	1,134	999
Week 3	200	154	1,012	890
Week 4	133	95	821	721
Week 5	101	78	623	551
Week 6	67	52	386	332
Week 7	38	30	256	216
Week 8	18	14	152	126
Week 9	13	10	181	141
Week 10	25	17	142	113
Week 11	15	9	127	107
Week 12	4	4	148	123
Week 13	10	8	153	129
Week 14	0	0	170	141
Week 15	8	7	168	140
Week 16	5	5	155	131
Week 17	6	6	185	146
Week 18	3	3	174	139
Week 19	8	7	156	129
Week 20	7	5	158	138
Week 21	5	5	159	130
Week 22	14	6	169	135
Week 23	3	2	147	108
Week 24	13	9	197	141
Week 25	5	5	161	136
Week 26	5	3	160	126
Week 27	9	5	182	142
Week 28	9	5	173	129
Week 29	7	7	140	113
Week 30	15	9	201	144

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Spinal Canal, continued</b>				
Week 31	5	4	164	128
Week 32	5	4	141	110
Week 33	10	6	120	95
Week 34	5	3	180	140
Week 35	8	8	171	130
Week 36	59	40	269	195
Week 37	14	9	182	125
Week 38	20	14	134	108
Week 39	16	13	110	97
Week 40	341	258	977	838
Week 41	25	21	52	45
Week 42	51	42	197	169
Week 43	0	0	2	1
Week 44	0	0	-	-
<b>Neck</b>				
Week -13	36	32	24	24
Week -12	51	45	20	19
Week -11	41	35	19	17
Week -10	50	46	18	17
Week -9	31	28	23	22
Week -8	53	44	25	25
Week -7	45	40	28	25
Week -6	38	32	15	15
Week -5	41	35	26	23
Week -4	45	39	24	23
Week -3	36	33	21	21
Week -2	29	27	19	18
Week -1	35	32	27	25
Week 1	30	29	22	19
Week 2	32	28	23	21
Week 3	27	23	13	13
Week 4	20	17	22	20
Week 5	12	11	21	17
Week 6	5	5	25	24
Week 7	7	6	16	15
Week 8	4	4	18	16
Week 9	3	3	25	22
Week 10	5	5	39	36
Week 11	2	2	33	30

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Neck, continued</b>				
Week 12	2	2	28	26
Week 13	2	2	32	27
Week 14	2	2	44	38
Week 15	2	2	39	35
Week 16	1	1	42	37
Week 17	2	2	42	37
Week 18	4	3	44	39
Week 19	5	5	39	34
Week 20	3	3	41	38
Week 21	3	3	37	35
Week 22	2	2	44	39
Week 23	2	2	37	35
Week 24	2	2	30	28
Week 25	1	1	35	32
Week 26	4	4	35	31
Week 27	3	3	59	47
Week 28	3	3	48	43
Week 29	6	6	47	41
Week 30	5	5	55	50
Week 31	4	4	34	32
Week 32	1	1	58	51
Week 33	9	9	49	46
Week 34	2	2	79	70
Week 35	12	11	60	56
Week 36	30	29	90	79
Week 37	6	6	71	62
Week 38	6	6	65	59
Week 39	9	9	58	49
Week 40	52	52	128	126
Week 41	4	4	8	8
Week 42	11	11	16	16
Week 43	0	0	1	1
Week 44	0	0	-	-
<b>Breast</b>				
Week -13	112	109	-	-
Week -12	121	116	-	-
Week -11	128	126	-	-
Week -10	140	131	-	-
Week -9	125	121	-	-



**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Breast, continued</b>				
Week -8	142	134	-	-
Week -7	166	157	-	-
Week -6	138	131	-	-
Week -5	131	125	-	-
Week -4	137	131	-	-
Week -3	201	192	-	-
Week -2	144	141	-	-
Week -1	114	109	-	-
Week 1	133	128	-	-
Week 2	182	174	-	-
Week 3	95	91	-	-
Week 4	51	49	-	-
Week 5	24	23	-	-
Week 6	16	16	-	-
Week 7	10	10	-	-
Week 8	9	8	-	-
Week 9	5	4	-	-
Week 10	5	5	-	-
Week 11	7	6	-	-
Week 12	4	4	-	-
Week 13	2	2	-	-
Week 14	4	4	-	-
Week 15	6	5	-	-
Week 16	5	5	-	-
Week 17	0	0	-	-
Week 18	6	6	-	-
Week 19	6	5	-	-
Week 20	2	2	-	-
Week 21	3	2	-	-
Week 22	3	2	-	-
Week 23	2	2	-	-
Week 24	1	1	-	-
Week 25	1	1	-	-
Week 26	3	3	-	-
Week 27	2	2	-	-
Week 28	4	3	-	-
Week 29	3	3	-	-
Week 30	2	2	-	-
Week 31	1	1	-	-

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Breast, continued</b>				
Week 32	3	2	-	-
Week 33	4	4	-	-
Week 34	6	6	-	-
Week 35	2	2	-	-
Week 36	1	1	-	-
Week 37	2	2	-	-
Week 38	3	2	-	-
Week 39	0	0	-	-
Week 40	11	11	-	-
Week 41	0	0	-	-
Week 42	0	0	-	-
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Fetal</b>				
Week -13	-	-	1	1
Week -12	-	-	-	-
Week -11	-	-	-	-
Week -10	-	-	1	1
Week -9	-	-	-	-
Week -8	-	-	1	1
Week -7	-	-	2	2
Week -6	-	-	1	1
Week -5	-	-	-	-
Week -4	-	-	-	-
Week -3	-	-	-	-
Week -2	-	-	-	-
Week -1	-	-	-	-
Week 1	-	-	-	-
Week 2	-	-	-	-
Week 3	-	-	-	-
Week 4	-	-	-	-
Week 5	-	-	-	-
Week 6	-	-	-	-
Week 7	-	-	-	-
Week 8	-	-	-	-
Week 9	-	-	-	-
Week 10	-	-	-	-
Week 11	-	-	-	-
Week 12	-	-	-	-

**Table 5a. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Pregnancies with Live-Birth Deliveries, by Gestational Week<sup>1</sup>**

<b>MRI Procedures, by Body Location and Gestational Week<sup>2</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Fetal, continued</b>				
Week 13	-	-	-	-
Week 14	-	-	1	1
Week 15	-	-	-	-
Week 16	-	-	1	1
Week 17	-	-	1	1
Week 18	-	-	13	10
Week 19	-	-	24	20
Week 20	-	-	50	40
Week 21	-	-	100	86
Week 22	-	-	152	135
Week 23	-	-	168	148
Week 24	-	-	141	121
Week 25	-	-	123	107
Week 26	-	-	79	70
Week 27	-	-	71	63
Week 28	-	-	89	77
Week 29	-	-	110	99
Week 30	-	-	88	80
Week 31	-	-	97	89
Week 32	-	-	104	97
Week 33	-	-	103	97
Week 34	-	-	101	98
Week 35	-	-	92	85
Week 36	-	-	65	61
Week 37	-	-	53	51
Week 38	-	-	47	44
Week 39	-	-	21	21
Week 40	-	-	6	6
Week 41	-	-	2	2
Week 42	-	-	-	-
Week 43	-	-	-	-
Week 44	-	-	-	-

<sup>1</sup>No blackout (MRI procedures occurring on days 0-13 during pregnancy or on delivery date) was assessed in this table.

<sup>2</sup>Negative gestational weeks are pre-conception, and positive weeks are post-conception, pre-delivery.

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>All Body Locations</b>				
Week -13	2181	1789	3,679	3,203
Week -12	2373	1942	4,218	3,648
Week -11	2478	2032	4,321	3,730
Week -10	2429	1977	4,438	3,857
Week -9	2413	1980	4,325	3,742
Week -8	2534	2047	4,190	3,666
Week -7	2343	1893	4,263	3,725
Week -6	2426	2005	4,295	3,709
Week -5	2423	1963	4,393	3,817
Week -4	2409	1993	4,346	3,776
Week -3	2532	2053	4,366	3,781
Week -2	2516	2039	4,148	3,615
Week -1	2466	1993	4,374	3,789
Week 1	2471	1972	4,366	3,736
Week 2	2389	1976	4,348	3,776
Week 3	2503	2023	4,380	3,805
Week 4	2607	2120	4,379	3,842
Week 5	2341	1944	4,504	3,905
Week 6	2397	1975	4,440	3,863
Week 7	2554	2045	4,312	3,746
Week 8	2512	2041	4,378	3,782
Week 9	2417	1997	4,308	3,725
Week 10	2575	2133	4,471	3,909
Week 11	2435	2019	4,380	3,796
Week 12	2454	1993	4,578	3,965
Week 13	2582	2076	4,446	3,835
Week 14	2447	2004	4,343	3,765
Week 15	2492	2022	4,508	3,926
Week 16	2506	2050	4,475	3,834
Week 17	2589	2064	4,472	3,879
Week 18	2475	1999	4,352	3,764
Week 19	2551	2066	4,349	3,778
Week 20	2502	2043	4,339	3,730
Week 21	2649	2167	4,448	3,854
Week 22	2527	2072	4,317	3,757
Week 23	2493	2033	4,286	3,756
Week 24	2696	2176	4,411	3,819
Week 25	2556	2074	4,429	3,839
Week 26	2476	2012	4,359	3,773

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>All Body Locations, continued</b>				
Week 27	2470	2030	4,418	3,829
Week 28	2577	2111	4,519	3,889
Week 29	2614	2133	4,403	3,824
Week 30	2669	2126	4,306	3,733
Week 31	2481	2030	4,585	3,965
Week 32	2445	1974	4,293	3,762
Week 33	2599	2098	4,347	3,769
Week 34	2607	2116	4,370	3,788
Week 35	2589	2110	4,392	3,797
Week 36	2456	1993	4,143	3,601
Week 37	2364	1905	4,103	3,558
Week 38	2407	1951	4,103	3,571
Week 39	2257	1844	3,964	3,425
Week 40	812	660	1,337	1,173
Week 41	407	330	661	564
Week 42	69	57	136	114
Week 43	1	1	4	3
Week 44	0	0	-	-
<b>Lower Extremity</b>				
Week -13	110	99	992	951
Week -12	108	101	1,214	1,155
Week -11	131	123	1,252	1,173
Week -10	120	108	1,247	1,194
Week -9	139	127	1,187	1,136
Week -8	113	108	1,157	1,104
Week -7	105	100	1,263	1,190
Week -6	107	97	1,193	1,125
Week -5	101	97	1,234	1,162
Week -4	119	109	1,183	1,129
Week -3	125	119	1,258	1,202
Week -2	119	107	1,156	1,097
Week -1	112	101	1,272	1,205
Week 1	99	90	1,254	1,174
Week 2	106	100	1,247	1,176
Week 3	116	106	1,253	1,178
Week 4	115	106	1,271	1,206
Week 5	100	94	1,265	1,202
Week 6	143	134	1,301	1,231
Week 7	89	81	1,236	1,169

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Lower Extremity, continued</b>				
Week 8	118	104	1,216	1,142
Week 9	115	105	1,261	1,194
Week 10	123	112	1,240	1,187
Week 11	103	97	1,261	1,191
Week 12	108	100	1,251	1,188
Week 13	129	121	1,277	1,210
Week 14	121	111	1,302	1,221
Week 15	137	125	1,262	1,212
Week 16	153	139	1,269	1,191
Week 17	110	103	1,246	1,194
Week 18	126	112	1,243	1,178
Week 19	116	105	1,221	1,161
Week 20	106	96	1,261	1,191
Week 21	113	105	1,255	1,194
Week 22	112	102	1,238	1,176
Week 23	127	114	1,271	1,195
Week 24	136	126	1,221	1,143
Week 25	126	115	1,248	1,180
Week 26	96	90	1,224	1,168
Week 27	138	122	1,248	1,179
Week 28	122	114	1,248	1,190
Week 29	123	118	1,174	1,121
Week 30	103	94	1,227	1,146
Week 31	132	121	1,261	1,186
Week 32	114	107	1,268	1,204
Week 33	109	101	1,230	1,171
Week 34	127	114	1,216	1,163
Week 35	109	101	1,228	1,165
Week 36	131	121	1,163	1,113
Week 37	113	108	1,154	1,104
Week 38	115	108	1,131	1,089
Week 39	113	103	1,114	1,046
Week 40	45	42	406	390
Week 41	15	12	184	177
Week 42	3	2	46	43
Week 43	0	0	2	2
Week 44	0	0	-	-
<b>Upper Extremity</b>				
Week -13	88	85	300	284

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

MRI Procedures, by Body Location and Time Corresponding to Gestational Week <sup>3</sup>	Contrast MRI Codes	Contrast MRI Episodes	Non-Contrast MRI Codes	Non-Contrast MRI Episodes
<b>Upper Extremity, continued</b>				
Week -12	87	81	318	305
Week -11	100	96	328	313
Week -10	99	88	387	364
Week -9	103	95	339	315
Week -8	117	110	355	335
Week -7	81	75	293	283
Week -6	90	86	339	318
Week -5	103	98	341	324
Week -4	104	98	343	333
Week -3	104	96	343	329
Week -2	98	95	336	319
Week -1	96	86	324	312
Week 1	84	80	355	338
Week 2	101	93	362	346
Week 3	83	81	346	326
Week 4	106	100	351	334
Week 5	109	102	348	331
Week 6	113	106	363	346
Week 7	90	85	341	324
Week 8	116	107	402	380
Week 9	103	98	326	311
Week 10	88	85	368	350
Week 11	113	108	334	323
Week 12	105	95	372	352
Week 13	106	97	371	357
Week 14	103	95	291	280
Week 15	108	103	318	304
Week 16	81	77	340	323
Week 17	101	93	360	341
Week 18	92	86	358	344
Week 19	114	110	386	363
Week 20	80	75	298	283
Week 21	94	85	380	358
Week 22	111	103	362	346
Week 23	104	90	324	309
Week 24	112	103	322	311
Week 25	93	87	357	336
Week 26	100	94	338	322
Week 27	94	89	342	329

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Upper Extremity, continued</b>				
Week 28	93	90	339	319
Week 29	99	94	361	343
Week 30	105	98	364	354
Week 31	91	84	377	358
Week 32	107	99	346	334
Week 33	128	115	347	329
Week 34	107	99	338	324
Week 35	103	95	353	334
Week 36	102	99	352	337
Week 37	69	64	318	309
Week 38	81	76	335	325
Week 39	76	70	319	296
Week 40	28	27	116	113
Week 41	20	17	56	52
Week 42	4	4	9	8
Week 43	1	1	2	1
Week 44	0	0	-	-
<b>Head</b>				
Week -13	1113	1019	838	724
Week -12	1254	1129	904	786
Week -11	1313	1176	927	787
Week -10	1282	1165	938	808
Week -9	1255	1136	914	807
Week -8	1321	1184	914	783
Week -7	1223	1098	866	745
Week -6	1333	1215	948	821
Week -5	1278	1148	894	772
Week -4	1261	1137	963	819
Week -3	1331	1193	937	827
Week -2	1333	1220	891	781
Week -1	1284	1157	861	744
Week 1	1290	1162	902	780
Week 2	1281	1152	904	795
Week 3	1314	1186	963	843
Week 4	1390	1251	922	803
Week 5	1223	1124	950	831
Week 6	1203	1099	902	790
Week 7	1325	1188	922	797
Week 8	1332	1203	920	779



**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

MRI Procedures, by Body Location and Time Corresponding to Gestational Week <sup>3</sup>	Contrast MRI Codes	Contrast MRI Episodes	Non-Contrast MRI Codes	Non-Contrast MRI Episodes
<b>Head, continued</b>				
Week 9	1224	1117	916	780
Week 10	1361	1235	954	831
Week 11	1302	1190	922	812
Week 12	1230	1131	950	820
Week 13	1331	1196	973	837
Week 14	1278	1148	910	784
Week 15	1225	1103	980	845
Week 16	1266	1157	956	813
Week 17	1337	1198	981	845
Week 18	1259	1144	924	800
Week 19	1270	1152	836	740
Week 20	1291	1160	915	793
Week 21	1384	1264	927	807
Week 22	1308	1190	847	741
Week 23	1239	1110	862	753
Week 24	1416	1277	966	827
Week 25	1312	1196	963	849
Week 26	1276	1166	897	766
Week 27	1266	1152	922	808
Week 28	1337	1213	1,018	866
Week 29	1407	1259	977	851
Week 30	1342	1200	927	799
Week 31	1219	1116	978	833
Week 32	1257	1123	865	752
Week 33	1286	1156	895	773
Week 34	1334	1205	915	798
Week 35	1303	1186	943	803
Week 36	1242	1114	911	777
Week 37	1236	1115	863	737
Week 38	1254	1138	874	754
Week 39	1175	1064	866	740
Week 40	367	326	262	220
Week 41	220	195	140	119
Week 42	38	34	35	28
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Cardiac</b>				
Week -13	18	18	3	3
Week -12	19	19	3	3

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

MRI Procedures, by Body Location and Time Corresponding to Gestational Week <sup>3</sup>	Contrast MRI Codes	Contrast MRI Episodes	Non-Contrast MRI Codes	Non-Contrast MRI Episodes
<b>Cardiac, continued</b>				
Week -11	21	18	4	4
Week -10	14	14	5	4
Week -9	12	12	1	1
Week -8	20	18	2	2
Week -7	13	12	2	2
Week -6	12	11	5	5
Week -5	21	19	5	5
Week -4	11	11	3	3
Week -3	13	12	3	3
Week -2	8	7	3	3
Week -1	21	19	-	-
Week 1	19	19	3	2
Week 2	17	16	6	5
Week 3	23	22	5	5
Week 4	17	16	3	3
Week 5	12	10	10	8
Week 6	13	10	8	8
Week 7	21	18	7	7
Week 8	18	16	7	7
Week 9	20	18	7	6
Week 10	14	12	4	3
Week 11	22	21	7	7
Week 12	18	17	8	8
Week 13	14	12	2	2
Week 14	18	17	11	10
Week 15	14	13	10	10
Week 16	11	8	4	3
Week 17	23	19	4	4
Week 18	20	18	1	1
Week 19	17	16	8	6
Week 20	21	21	6	6
Week 21	16	16	3	3
Week 22	21	19	6	5
Week 23	17	16	6	6
Week 24	20	18	7	6
Week 25	26	23	7	7
Week 26	24	22	9	8
Week 27	21	20	3	3
Week 28	17	16	8	7

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Cardiac, continued</b>				
Week 29	17	17	4	4
Week 30	12	11	5	5
Week 31	14	14	2	2
Week 32	10	9	5	5
Week 33	24	24	4	4
Week 34	17	16	5	5
Week 35	21	20	11	10
Week 36	10	9	6	6
Week 37	11	9	5	4
Week 38	14	12	10	9
Week 39	17	15	3	3
Week 40	9	7	5	5
Week 41	7	6	-	-
Week 42	0	0	-	-
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Abdomen</b>				
Week -13	139	134	57	55
Week -12	156	144	69	64
Week -11	154	144	55	54
Week -10	152	141	69	67
Week -9	150	144	79	78
Week -8	173	161	68	67
Week -7	163	155	62	59
Week -6	142	133	54	52
Week -5	153	144	78	72
Week -4	168	157	82	80
Week -3	175	159	64	60
Week -2	155	142	49	46
Week -1	167	154	58	54
Week 1	164	155	60	53
Week 2	167	155	79	77
Week 3	186	174	67	64
Week 4	168	156	59	59
Week 5	165	152	69	66
Week 6	164	150	64	64
Week 7	173	160	71	70
Week 8	137	129	52	51
Week 9	170	158	69	66

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Abdomen, continued</b>				
Week 10	169	159	70	68
Week 11	147	141	56	56
Week 12	179	163	59	59
Week 13	166	154	50	48
Week 14	139	135	58	56
Week 15	155	143	78	78
Week 16	179	166	69	65
Week 17	182	174	55	53
Week 18	157	147	72	68
Week 19	173	163	68	62
Week 20	177	165	66	65
Week 21	199	182	78	72
Week 22	162	153	57	56
Week 23	183	175	52	51
Week 24	154	142	49	48
Week 25	147	137	79	73
Week 26	157	148	77	74
Week 27	152	146	64	63
Week 28	162	152	74	71
Week 29	162	153	83	78
Week 30	200	185	62	61
Week 31	185	172	75	71
Week 32	170	160	65	61
Week 33	196	189	67	64
Week 34	167	158	65	61
Week 35	166	157	60	60
Week 36	166	153	69	69
Week 37	147	141	67	63
Week 38	157	145	59	54
Week 39	156	151	59	57
Week 40	62	62	20	19
Week 41	26	25	3	2
Week 42	5	5	1	1
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Chest</b>				
Week -13	8	7	4	4
Week -12	17	15	7	7
Week -11	5	4	14	13

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Chest, continued</b>				
Week -10	12	12	7	7
Week -9	8	7	6	6
Week -8	10	9	6	6
Week -7	9	9	5	5
Week -6	9	9	6	6
Week -5	7	7	6	5
Week -4	13	11	7	6
Week -3	15	15	12	12
Week -2	4	3	9	9
Week -1	10	10	9	9
Week 1	9	9	7	7
Week 2	8	8	9	8
Week 3	4	4	6	6
Week 4	7	7	6	6
Week 5	8	8	3	3
Week 6	8	7	5	5
Week 7	14	13	8	7
Week 8	12	10	12	11
Week 9	18	17	8	8
Week 10	12	11	12	11
Week 11	5	5	5	5
Week 12	5	5	12	11
Week 13	10	9	4	4
Week 14	11	11	5	5
Week 15	15	14	8	8
Week 16	11	10	7	6
Week 17	7	7	5	5
Week 18	5	5	10	10
Week 19	10	10	7	7
Week 20	9	8	10	10
Week 21	14	13	12	12
Week 22	16	15	7	7
Week 23	9	8	6	6
Week 24	8	8	6	6
Week 25	11	11	5	5
Week 26	7	7	10	10
Week 27	7	7	11	11
Week 28	14	12	9	9
Week 29	11	10	7	7

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Chest, continued</b>				
Week 30	9	8	5	5
Week 31	14	12	7	7
Week 32	11	11	4	4
Week 33	13	13	8	8
Week 34	13	12	6	6
Week 35	7	7	4	4
Week 36	10	9	6	6
Week 37	8	7	4	4
Week 38	12	11	8	8
Week 39	6	6	5	5
Week 40	4	4	2	2
Week 41	2	2	-	-
Week 42	0	0	-	-
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Pelvis</b>				
Week -13	141	133	64	62
Week -12	163	152	86	84
Week -11	161	152	93	90
Week -10	174	166	90	85
Week -9	157	146	67	66
Week -8	169	161	93	91
Week -7	176	168	90	87
Week -6	157	144	78	75
Week -5	164	154	100	97
Week -4	194	183	89	86
Week -3	150	146	100	94
Week -2	172	162	69	68
Week -1	154	145	91	87
Week 1	172	159	85	83
Week 2	147	140	69	68
Week 3	159	150	74	71
Week 4	179	167	89	84
Week 5	139	133	86	83
Week 6	156	148	84	84
Week 7	182	165	92	91
Week 8	170	159	92	91
Week 9	163	154	76	73
Week 10	161	153	104	98

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Pelvis, continued</b>				
Week 11	169	162	90	88
Week 12	191	174	90	90
Week 13	178	167	88	84
Week 14	164	154	63	62
Week 15	192	178	95	93
Week 16	186	175	79	76
Week 17	182	172	79	74
Week 18	194	182	87	83
Week 19	177	166	88	87
Week 20	177	170	96	93
Week 21	189	182	69	69
Week 22	175	163	89	87
Week 23	189	179	82	80
Week 24	172	161	85	79
Week 25	169	156	73	69
Week 26	185	171	85	80
Week 27	188	181	92	89
Week 28	176	169	74	71
Week 29	185	173	91	85
Week 30	195	184	81	79
Week 31	219	208	79	77
Week 32	152	139	78	76
Week 33	175	165	66	66
Week 34	210	196	83	79
Week 35	189	181	73	71
Week 36	178	167	86	84
Week 37	175	163	74	73
Week 38	207	190	86	85
Week 39	153	143	76	75
Week 40	69	67	35	34
Week 41	27	26	8	8
Week 42	7	6	3	3
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Spinal Canal</b>				
Week -13	384	277	1,388	1,213
Week -12	364	278	1,585	1,385
Week -11	405	304	1,625	1,429
Week -10	396	290	1,671	1,464

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Spinal Canal, continued</b>				
Week -9	380	292	1,703	1,464
Week -8	419	316	1,567	1,378
Week -7	409	297	1,664	1,459
Week -6	390	302	1,648	1,439
Week -5	407	293	1,709	1,485
Week -4	341	265	1,654	1,437
Week -3	426	321	1,620	1,408
Week -2	436	322	1,608	1,404
Week -1	427	313	1,728	1,511
Week 1	428	303	1,678	1,436
Week 2	370	296	1,648	1,447
Week 3	429	311	1,635	1,442
Week 4	446	335	1,658	1,474
Week 5	402	300	1,729	1,514
Week 6	413	310	1,681	1,469
Week 7	460	333	1,612	1,423
Week 8	406	304	1,647	1,457
Week 9	383	290	1,619	1,424
Week 10	434	328	1,693	1,490
Week 11	408	309	1,679	1,446
Week 12	423	317	1,808	1,563
Week 13	467	353	1,641	1,415
Week 14	406	306	1,675	1,466
Week 15	446	328	1,724	1,502
Week 16	435	325	1,727	1,499
Week 17	442	325	1,714	1,495
Week 18	412	302	1,637	1,417
Week 19	450	330	1,703	1,483
Week 20	418	298	1,650	1,422
Week 21	413	297	1,699	1,477
Week 22	414	299	1,697	1,489
Week 23	415	321	1,665	1,480
Week 24	469	341	1,729	1,517
Week 25	461	331	1,677	1,464
Week 26	440	321	1,690	1,483
Week 27	426	317	1,712	1,457
Week 28	445	343	1,713	1,493
Week 29	395	306	1,677	1,468
Week 30	466	344	1,616	1,409



**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Spinal Canal, continued</b>				
Week 31	397	293	1,778	1,569
Week 32	405	306	1,646	1,437
Week 33	471	348	1,696	1,484
Week 34	434	314	1,708	1,469
Week 35	489	352	1,693	1,477
Week 36	410	313	1,516	1,322
Week 37	404	303	1,587	1,382
Week 38	392	284	1,572	1,373
Week 39	351	269	1,502	1,312
Week 40	157	117	478	431
Week 41	57	42	259	224
Week 42	10	9	41	35
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Neck</b>				
Week -13	43	43	33	31
Week -12	53	46	32	32
Week -11	44	40	22	22
Week -10	49	43	24	23
Week -9	55	50	29	28
Week -8	49	41	28	27
Week -7	43	39	18	18
Week -6	53	48	24	22
Week -5	52	49	26	23
Week -4	52	47	22	19
Week -3	58	52	29	28
Week -2	52	46	27	26
Week -1	35	31	31	29
Week 1	60	51	22	20
Week 2	45	39	24	24
Week 3	50	43	31	29
Week 4	52	48	20	19
Week 5	38	33	42	38
Week 6	41	36	32	32
Week 7	53	50	23	22
Week 8	64	51	30	25
Week 9	59	50	26	23
Week 10	54	50	26	26
Week 11	39	34	26	24

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Neck, continued</b>				
Week 12	55	48	28	28
Week 13	47	44	40	40
Week 14	55	50	27	26
Week 15	45	41	33	32
Week 16	53	48	22	19
Week 17	66	58	28	26
Week 18	43	40	18	17
Week 19	47	42	32	30
Week 20	66	62	34	31
Week 21	38	36	25	24
Week 22	50	44	14	14
Week 23	51	46	18	17
Week 24	43	42	26	25
Week 25	52	50	20	19
Week 26	39	37	29	28
Week 27	30	27	24	23
Week 28	57	49	36	34
Week 29	61	57	28	28
Week 30	50	42	19	17
Week 31	40	37	27	24
Week 32	51	46	16	15
Week 33	56	51	34	31
Week 34	44	39	32	30
Week 35	41	36	26	26
Week 36	56	51	34	30
Week 37	52	45	30	28
Week 38	45	38	28	27
Week 39	65	56	20	18
Week 40	15	15	12	10
Week 41	9	6	10	10
Week 42	2	2	1	1
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Breast</b>				
Week -13	137	132	-	-
Week -12	152	142	-	-
Week -11	144	138	-	-
Week -10	131	122	-	-
Week -9	154	144	-	-

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

MRI Procedures, by Body Location and Time Corresponding to Gestational Week <sup>3</sup>	Contrast MRI Codes	Contrast MRI Episodes	Non-Contrast MRI Codes	Non-Contrast MRI Episodes
<b>Breast, continued</b>				
Week -8	143	138	-	-
Week -7	121	115	-	-
Week -6	133	130	-	-
Week -5	137	128	-	-
Week -4	146	141	-	-
Week -3	135	126	-	-
Week -2	139	134	-	-
Week -1	160	152	-	-
Week 1	146	140	-	-
Week 2	147	140	-	-
Week 3	139	129	-	-
Week 4	127	123	-	-
Week 5	145	137	-	-
Week 6	143	137	-	-
Week 7	147	142	-	-
Week 8	139	134	-	-
Week 9	162	151	-	-
Week 10	159	152	-	-
Week 11	127	121	-	-
Week 12	140	135	-	-
Week 13	134	127	-	-
Week 14	152	149	-	-
Week 15	155	147	-	-
Week 16	131	127	-	-
Week 17	139	133	-	-
Week 18	167	160	-	-
Week 19	177	165	-	-
Week 20	157	154	-	-
Week 21	189	176	-	-
Week 22	158	151	-	-
Week 23	159	151	-	-
Week 24	166	159	-	-
Week 25	159	150	-	-
Week 26	152	145	-	-
Week 27	148	138	-	-
Week 28	154	148	-	-
Week 29	154	146	-	-
Week 30	187	174	-	-
Week 31	170	157	-	-

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

MRI Procedures, by Body Location and Time Corresponding to Gestational Week <sup>3</sup>	Contrast MRI Codes	Contrast MRI Episodes	Non-Contrast MRI Codes	Non-Contrast MRI Episodes
<b>Breast, continued</b>				
Week 32	168	160	-	-
Week 33	141	134	-	-
Week 34	154	146	-	-
Week 35	161	155	-	-
Week 36	151	146	-	-
Week 37	149	141	-	-
Week 38	130	129	-	-
Week 39	145	140	-	-
Week 40	56	52	-	-
Week 41	24	24	-	-
Week 42	0	0	-	-
Week 43	0	0	-	-
Week 44	0	0	-	-
<b>Fetal</b>				
Week -13	-	-	-	-
Week -12	-	-	-	-
Week -11	-	-	1	1
Week -10	-	-	-	-
Week -9	-	-	-	-
Week -8	-	-	-	-
Week -7	-	-	-	-
Week -6	-	-	-	-
Week -5	-	-	-	-
Week -4	-	-	-	-
Week -3	-	-	-	-
Week -2	-	-	-	-
Week -1	-	-	-	-
Week 1	-	-	-	-
Week 2	-	-	-	-
Week 3	-	-	-	-
Week 4	-	-	-	-
Week 5	-	-	2	1
Week 6	-	-	-	-
Week 7	-	-	-	-
Week 8	-	-	-	-
Week 9	-	-	-	-
Week 10	-	-	-	-
Week 11	-	-	-	-
Week 12	-	-	-	-

**Table 5b. Counts of Contrast and Non-Contrast Magnetic Resonance Imaging (MRI) Procedures among Matched Comparator Cohort<sup>1</sup>, by Time Corresponding to Comparator's Gestational Week<sup>2</sup>**

<b>MRI Procedures, by Body Location and Time Corresponding to Gestational Week<sup>3</sup></b>	<b>Contrast MRI Codes</b>	<b>Contrast MRI Episodes</b>	<b>Non-Contrast MRI Codes</b>	<b>Non-Contrast MRI Episodes</b>
<b>Fetal, continued</b>				
Week 13	-	-	-	-
Week 14	-	-	1	1
Week 15	-	-	-	-
Week 16	-	-	2	1
Week 17	-	-	-	-
Week 18	-	-	2	2
Week 19	-	-	-	-
Week 20	-	-	3	2
Week 21	-	-	-	-
Week 22	-	-	-	-
Week 23	-	-	-	-
Week 24	-	-	-	-
Week 25	-	-	-	-
Week 26	-	-	-	-
Week 27	-	-	-	-
Week 28	-	-	-	-
Week 29	-	-	1	1
Week 30	-	-	-	-
Week 31	-	-	1	1
Week 32	-	-	-	-
Week 33	-	-	-	-
Week 34	-	-	2	1
Week 35	-	-	1	1
Week 36	-	-	-	-
Week 37	-	-	1	1
Week 38	-	-	-	-
Week 39	-	-	-	-
Week 40	-	-	1	1
Week 41	-	-	1	1
Week 42	-	-	-	-
Week 43	-	-	-	-
Week 44	-	-	-	-

<sup>1</sup>Women in non-pregnant cohort may have been pregnant at some point during the request period. Women were eligible for the non-pregnant cohort if they had no evidence of a live-born delivery during the time period of their matched comparator's pregnancy.

<sup>2</sup>No blackout (MRI procedures occurring on days 0-13 during pregnancy or on delivery date) was assessed in this table.

<sup>3</sup>Negative gestational weeks are pre-conception, and positive weeks are post-conception, pre-delivery.

**Table 6. Counts of Magnetic Resonance Imaging (MRI) Procedure Use Episodes During Any Trimester for Pregnancies with Live-Birth Deliveries, by each Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes, by Contrast Agent and Body Location**

Procedure Code	Code Type	Description	Number of MRI Episodes
<b>Contrast</b>			
<b>Lower Extremity</b>			
73722	CPT-4	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; with contrast material(s)	84
73723	CPT-4	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material(s), followed by contrast material(s) and further sequences	56
73719	CPT-4	Magnetic resonance (eg, proton) imaging, lower extremity other than joint; with contrast material(s)	11
73720	CPT-4	Magnetic resonance (eg, proton) imaging, lower extremity other than joint; without contrast material(s), followed by contrast material(s) and further sequences	94
C8912	HCPCS	Magnetic resonance angiography with contrast, lower extremity	1
C8914	HCPCS	Magnetic resonance angiography without contrast followed by with contrast, lower extremity	
<b>Upper Extremity</b>			
73222	CPT-4	Magnetic resonance (eg, proton) imaging, any joint of upper extremity; with contrast material(s)	124
73223	CPT-4	Magnetic resonance (eg, proton) imaging, any joint of upper extremity; without contrast material(s), followed by contrast material(s) and further sequences	57
73219	CPT-4	Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; with contrast material(s)	5
73220	CPT-4	Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; without contrast material(s), followed by contrast material(s) and further sequences	37
C8934	HCPCS	Magnetic resonance angiography with contrast, upper extremity	
C8917	HCPCS	Magnetic Resonance Angiography Without Contrast Followed By With Contrast, Upper Extremity	
C8936	HCPCS	Magnetic resonance angiography without contrast followed by with contrast, upper extremity	
<b>Head</b>			
70558	CPT-4	Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); with contrast material(s)	
70559	CPT-4	Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material(s), followed by contrast material(s) and further sequences	2
70552	CPT-4	Magnetic resonance (eg, proton) imaging, brain (including brain stem); with contrast material(s)	92
70553	CPT-4	Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material, followed by contrast material(s) and further sequences	2,874

**Table 6. Counts of Magnetic Resonance Imaging (MRI) Procedure Use Episodes During Any Trimester for Pregnancies with Live-Birth Deliveries, by each Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes, by Contrast Agent and Body Location**

<b>Procedure Code</b>	<b>Code Type</b>	<b>Description</b>	<b>Number of MRI Episodes</b>
70542	CPT-4	Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; with contrast material(s)	8
70543	CPT-4	Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; without contrast material(s), followed by contrast material(s) and further sequences	209
70545	CPT-4	Magnetic resonance angiography, head; with contrast material(s)	60
70546	CPT-4	Magnetic resonance angiography, head; without contrast material(s), followed by contrast material(s) and further sequences	90
<b>Cardiac</b>			
75561	CPT-4	Cardiac magnetic resonance imaging for morphology and function without contrast material(s), followed by contrast material(s) and further sequences;	47
75562	CPT-4	Cardiac magnetic resonance imaging for morphology and function without contrast material(s), followed by contrast material(s) and further sequences; with flow/velocity quantification	5
75564	CPT-4	Cardiac magnetic resonance imaging for morphology and function without contrast material(s), followed by contrast material(s) and further sequences; with flow/velocity quantification and stress	
75563	CPT-4	Cardiac magnetic resonance imaging for morphology and function without contrast material(s), followed by contrast material(s) and further sequences; with stress imaging	
75553	CPT-4	Cardiac magnetic resonance imaging for morphology; with contrast material	
<b>Abdomen</b>			
74182	CPT-4	Magnetic resonance (eg, proton) imaging, abdomen; with contrast material(s)	67
74183	CPT-4	Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s), followed by with contrast material(s) and further sequences	593
C8900	HCPCS	Magnetic resonance angiography with contrast, abdomen	
C8902	HCPCS	Magnetic resonance angiography without contrast followed by with contrast, abdomen	
<b>Chest</b>			
71551	CPT-4	Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); with contrast material(s)	3
71552	CPT-4	Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); without contrast material(s), followed by contrast material(s) and further sequences	27
C8909	HCPCS	Magnetic resonance angiography with contrast, chest (excluding myocardium)	3
C8911	HCPCS	Magnetic resonance angiography without contrast followed by with contrast, chest (excluding myocardium)	8
<b>Pelvis</b>			
72196	CPT-4	Magnetic resonance (eg, proton) imaging, pelvis; with contrast material(s)	87
72197	CPT-4	Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s), followed by contrast material(s) and further sequences	730

**Table 6. Counts of Magnetic Resonance Imaging (MRI) Procedure Use Episodes During Any Trimester for Pregnancies with Live-Birth Deliveries, by each Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes, by Contrast Agent and Body Location**

Procedure Code	Code Type	Description	Number of MRI Episodes
C8918	HCPCS	Magnetic resonance angiography with contrast, pelvis	1
C8920	HCPCS	Magnetic resonance angiography without contrast followed by with contrast, pelvis	
<b>Spinal Canal</b>			
72142	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, cervical; with contrast material(s)	20
72156	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; cervical	312
72149	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, lumbar; with contrast material(s)	8
72158	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; lumbar	232
72147	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, thoracic; with contrast material(s)	12
72157	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; thoracic	152
C8931	HCPCS	Magnetic resonance angiography with contrast, spinal canal and contents	
C8933	HCPCS	Magnetic resonance angiography without contrast followed by with contrast, spinal canal and contents	
<b>Neck</b>			
70548	CPT-4	Magnetic resonance angiography, neck; with contrast material(s)	55
70549	CPT-4	Magnetic resonance angiography, neck; without contrast material(s), followed by contrast material(s) and further sequences	115
<b>Breast</b>			
77059	CPT-4	Magnetic resonance imaging, breast, without and/or with contrast material(s); bilateral	270
77058	CPT-4	Magnetic resonance imaging, breast, without and/or with contrast material(s); unilateral	15
<b>Non-Contrast</b>			
<b>Lower Extremity</b>			
73721	CPT-4	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material	3,636
73718	CPT-4	Magnetic resonance (eg, proton) imaging, lower extremity other than joint; without contrast material(s)	744
C8913	HCPCS	Magnetic resonance angiography without contrast, lower extremity	2
<b>Upper Extremity</b>			
73221	CPT-4	Magnetic resonance (eg, proton) imaging, any joint of upper extremity; without contrast material(s)	1,050
73218	CPT-4	Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; without contrast material(s)	196



**Table 6. Counts of Magnetic Resonance Imaging (MRI) Procedure Use Episodes During Any Trimester for Pregnancies with Live-Birth Deliveries, by each Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes, by Contrast Agent and Body Location**

Procedure Code	Code Type	Description	Number of MRI Episodes
C8916	HCPCS	Magnetic Resonance Angiography Without Contrast, Upper Extremity	
C8935	HCPCS	Magnetic resonance angiography without contrast, upper extremity	
<b>Fetal</b>			
74713	CPT-4	Magnetic resonance (eg, proton) imaging, fetal, including placental and maternal pelvic imaging when performed; each additional gestation (List separately in addition to code for primary procedure)	108
74712	CPT-4	Magnetic resonance (eg, proton) imaging, fetal, including placental and maternal pelvic imaging when performed; single or first gestation	1,674
<b>Head</b>			
70557	CPT-4	Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material	3
70551	CPT-4	Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material	16,346
70540	CPT-4	Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; without contrast material(s)	589
70544	CPT-4	Magnetic resonance angiography, head; without contrast material(s)	7,537
70554	CPT-4	Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive body part movement and/or visual stimulation, not requiring physician or psychologist administration	20
70555	CPT-4	Magnetic resonance imaging, brain, functional MRI; requiring physician or psychologist administration of entire neurofunctional testing	1
76390	CPT-4	Magnetic resonance spectroscopy	18
D0369	HCPCS	maxillofacial MRI capture and interpretation	
D0385	HCPCS	maxillofacial MRI image capture	0
70336	CPT-4	Magnetic resonance (eg, proton) imaging, temporomandibular joint(s)	48
<b>Cardiac</b>			
75557	CPT-4	Cardiac magnetic resonance imaging for morphology and function without contrast material;	153
75558	CPT-4	Cardiac magnetic resonance imaging for morphology and function without contrast material; with flow/velocity quantification	7
75560	CPT-4	Cardiac magnetic resonance imaging for morphology and function without contrast material; with flow/velocity quantification and stress	0
75559	CPT-4	Cardiac magnetic resonance imaging for morphology and function without contrast material; with stress imaging	2
75552	CPT-4	Cardiac magnetic resonance imaging for morphology; without contrast material	3
<b>Abdomen</b>			
74181	CPT-4	Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s)	12,052
C8901	HCPCS	Magnetic resonance angiography without contrast, abdomen	7

**Table 6. Counts of Magnetic Resonance Imaging (MRI) Procedure Use Episodes During Any Trimester for Pregnancies with Live-Birth Deliveries, by each Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes, by Contrast Agent and Body Location**

<b>Procedure Code</b>	<b>Code Type</b>	<b>Description</b>	<b>Number of MRI Episodes</b>
<b>Chest</b>			
71550	CPT-4	Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); without contrast material(s)	253
C8910	HCPCS	Magnetic resonance angiography without contrast, chest (excluding myocardium)	11
<b>Pelvis</b>			
72195	CPT-4	Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s)	14,407
C8919	HCPCS	Magnetic resonance angiography without contrast, pelvis	8
<b>Spinal Canal</b>			
72141	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, cervical; without contrast material	2,663
72148	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, lumbar; without contrast material	4,097
72146	CPT-4	Magnetic resonance (eg, proton) imaging, spinal canal and contents, thoracic; without contrast material	917
C8932	HCPCS	Magnetic resonance angiography without contrast, spinal canal and contents	
<b>Neck</b>			
70547	CPT-4	Magnetic resonance angiography, neck; without contrast material(s)	1,355

**Appendix A. Dates of Available Data for Each Data Partner (DP) as of Request Distribution Date (June 28, 2018)**

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<b>Data Partner ID</b>	<b>Start Date<sup>1</sup></b>	<b>End Date<sup>1</sup></b>
DP01	01/01/2000	03/31/2016
DP02	06/01/2007	10/31/2017
DP03	01/01/2000	12/31/2017
DP04	01/01/2008	11/30/2017
DP05	01/01/2006	10/31/2017
DP06	01/01/2000	12/31/2016
DP07	01/01/2008	06/30/2017
DP08	01/01/2000	07/31/2017
DP09	01/01/2000	05/31/2015
DP10	01/01/2000	01/31/2017
DP11	01/01/2000	10/31/2017
DP12	01/01/2005	12/17/2017
DP13	01/01/2004	01/31/2018
DP14	01/01/2000	08/31/2017
DP15	01/01/2000	06/30/2017
DP16	01/01/2012	06/30/2017

<sup>1</sup>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 Current Procedural Terminology, Fourth Edition (CPT-4) and Healthcare Common Procedure Coding System (HCPCS) Procedure Codes Used to Define the Exposures in this Request**

Code	Description	Code Type
73721	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material	CPT-4
73718	Magnetic resonance (eg, proton) imaging, lower extremity other than joint; without contrast material(s)	CPT-4
C8913	Magnetic resonance angiography without contrast, lower extremity	HCPCS
73221	Magnetic resonance (eg, proton) imaging, any joint of upper extremity; without contrast material(s)	CPT-4
73218	Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; without contrast material(s)	CPT-4
C8916	Magnetic Resonance Angiography Without Contrast, Upper Extremity	HCPCS
C8935	Magnetic resonance angiography without contrast, upper extremity	HCPCS
74713	Magnetic resonance (eg, proton) imaging, fetal, including placental and maternal pelvic imaging when performed; each additional gestation (List separately in addition to code for primary procedure)	CPT-4
74712	Magnetic resonance (eg, proton) imaging, fetal, including placental and maternal pelvic imaging when performed; single or first gestation	CPT-4
70557	Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material	CPT-4
70551	Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material	CPT-4
70540	Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; without contrast material(s)	CPT-4
70544	Magnetic resonance angiography, head; without contrast material(s)	CPT-4
70554	Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive body part movement and/or visual stimulation, not requiring physician or psychologist administration	CPT-4
70555	Magnetic resonance imaging, brain, functional MRI; requiring physician or psychologist administration of entire neurofunctional testing	CPT-4
76390	Magnetic resonance spectroscopy	CPT-4
D0369	maxillofacial MRI capture and interpretation	HCPCS
D0385	maxillofacial MRI image capture	HCPCS
70336	Magnetic resonance (eg, proton) imaging, temporomandibular joint(s)	CPT-4
75557	Cardiac magnetic resonance imaging for morphology and function without contrast material;	CPT-4
75558	Cardiac magnetic resonance imaging for morphology and function without contrast material; with flow/velocity quantification	CPT-4
75560	Cardiac magnetic resonance imaging for morphology and function without contrast material; with flow/velocity quantification and stress	CPT-4
75559	Cardiac magnetic resonance imaging for morphology and function without contrast material; with stress imaging	CPT-4
75552	Cardiac magnetic resonance imaging for morphology; without contrast material	CPT-4

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

<b>Code</b>	<b>Description</b>	<b>Code Type</b>
74181	Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s)	CPT-4
C8901	Magnetic resonance angiography without contrast, abdomen	HCPCS
71550	Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); without contrast material(s)	CPT-4
C8910	Magnetic resonance angiography without contrast, chest (excluding myocardium)	HCPCS
72195	Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s)	CPT-4
C8919	Magnetic resonance angiography without contrast, pelvis	HCPCS
72141	Magnetic resonance (eg, proton) imaging, spinal canal and contents, cervical; without contrast material	CPT-4
72148	Magnetic resonance (eg, proton) imaging, spinal canal and contents, lumbar; without contrast material	CPT-4
72146	Magnetic resonance (eg, proton) imaging, spinal canal and contents, thoracic; without contrast material	CPT-4
C8932	Magnetic resonance angiography without contrast, spinal canal and contents	HCPCS
70547	Magnetic resonance angiography, neck; without contrast material(s)	CPT-4
73722	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; with contrast material(s)	CPT-4
73723	Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
73719	Magnetic resonance (eg, proton) imaging, lower extremity other than joint; with contrast material(s)	CPT-4
73720	Magnetic resonance (eg, proton) imaging, lower extremity other than joint; without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
C8912	Magnetic resonance angiography with contrast, lower extremity	HCPCS
C8914	Magnetic resonance angiography without contrast followed by with contrast, lower extremity	HCPCS
73222	Magnetic resonance (eg, proton) imaging, any joint of upper extremity; with contrast material(s)	CPT-4
73223	Magnetic resonance (eg, proton) imaging, any joint of upper extremity; without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
73219	Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; with contrast material(s)	CPT-4
73220	Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
C8934	Magnetic resonance angiography with contrast, upper extremity	HCPCS
C8917	Magnetic Resonance Angiography Without Contrast Followed By With Contrast, Upper Extremity	HCPCS
C8936	Magnetic resonance angiography without contrast followed by with contrast, upper extremity	HCPCS
70558	Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); with contrast material(s)	CPT-4

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

Code	Description	Code Type
70559	Magnetic resonance (eg, proton) imaging, brain (including brain stem and skull base), during open intracranial procedure (eg, to assess for residual tumor or residual vascular malformation); without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
70552	Magnetic resonance (eg, proton) imaging, brain (including brain stem); with contrast material(s)	CPT-4
70553	Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material, followed by contrast material(s) and further sequences	CPT-4
70542	Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; with contrast material(s)	CPT-4
70543	Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
70545	Magnetic resonance angiography, head; with contrast material(s)	CPT-4
70546	Magnetic resonance angiography, head; without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
75561	Cardiac magnetic resonance imaging for morphology and function without contrast material(s), followed by contrast material(s) and further sequences;	CPT-4
75562	Cardiac magnetic resonance imaging for morphology and function without contrast material(s), followed by contrast material(s) and further sequences; with flow/velocity quantification	CPT-4
75564	Cardiac magnetic resonance imaging for morphology and function without contrast material(s), followed by contrast material(s) and further sequences; with flow/velocity quantification and stress	CPT-4
75563	Cardiac magnetic resonance imaging for morphology and function without contrast material(s), followed by contrast material(s) and further sequences; with stress imaging	CPT-4
75553	Cardiac magnetic resonance imaging for morphology; with contrast material	CPT-4
74182	Magnetic resonance (eg, proton) imaging, abdomen; with contrast material(s)	CPT-4
74183	Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s), followed by with contrast material(s) and further sequences	CPT-4
C8900	Magnetic resonance angiography with contrast, abdomen	HCPCS
C8902	Magnetic resonance angiography without contrast followed by with contrast, abdomen	HCPCS
71551	Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); with contrast material(s)	CPT-4
71552	Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
C8909	Magnetic resonance angiography with contrast, chest (excluding myocardium)	HCPCS
C8911	Magnetic resonance angiography without contrast followed by with contrast, chest (excluding myocardium)	HCPCS
72196	Magnetic resonance (eg, proton) imaging, pelvis; with contrast material(s)	CPT-4
72197	Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s), followed by contrast material(s) and further sequences	CPT-4

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

<b>Code</b>	<b>Description</b>	<b>Code Type</b>
C8918	Magnetic resonance angiography with contrast, pelvis	HCPCS
C8920	Magnetic resonance angiography without contrast followed by with contrast, pelvis	HCPCS
72142	Magnetic resonance (eg, proton) imaging, spinal canal and contents, cervical; with contrast material(s)	CPT-4
72156	Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; cervical	CPT-4
72149	Magnetic resonance (eg, proton) imaging, spinal canal and contents, lumbar; with contrast material(s)	CPT-4
72158	Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; lumbar	CPT-4
72147	Magnetic resonance (eg, proton) imaging, spinal canal and contents, thoracic; with contrast material(s)	CPT-4
72157	Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; thoracic	CPT-4
C8931	Magnetic resonance angiography with contrast, spinal canal and contents	HCPCS
C8933	Magnetic resonance angiography without contrast followed by with contrast, spinal canal and contents	HCPCS
70548	Magnetic resonance angiography, neck; with contrast material(s)	CPT-4
70549	Magnetic resonance angiography, neck; without contrast material(s), followed by contrast material(s) and further sequences	CPT-4
77059	Magnetic resonance imaging, breast, without and/or with contrast material(s); bilateral	CPT-4
77058	Magnetic resonance imaging, breast, without and/or with contrast material(s); unilateral	CPT-4

**Appendix C. 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 in this Request**

Code	Code Type	Duration (Days)	Description	Priority Group 1	Priority Group 2	Priority
O48.1	ICD-10-CM	294	Prolonged pregnancy	0	1	1
P08.22	ICD-10-CM	294	Prolonged gestation of newborn	0	1	1
Z3A.49	ICD-10-CM	301	Greater than 42 weeks gestation of pregnancy	1	0	1
O48.0	ICD-10-CM	287	Post-term pregnancy	0	1	2
P08.21	ICD-10-CM	287	Post-term newborn	0	1	2
Z3A.42	ICD-10-CM	298	42 weeks gestation of pregnancy	1	0	2
Z3A.41	ICD-10-CM	291	41 weeks gestation of pregnancy	1	0	3
Z3A.40	ICD-10-CM	284	40 weeks gestation of pregnancy	1	0	4
Z3A.39	ICD-10-CM	277	39 weeks gestation of pregnancy	1	0	5
Z3A.38	ICD-10-CM	270	38 weeks gestation of pregnancy	1	0	6
Z3A.37	ICD-10-CM	263	37 weeks gestation of pregnancy	1	0	7
P07.39	ICD-10-CM	256	Preterm newborn, gestational age 36 completed weeks	1	0	8
Z3A.36	ICD-10-CM	256	36 weeks gestation of pregnancy	1	0	8
P07.38	ICD-10-CM	249	Preterm newborn, gestational age 35 completed weeks	1	0	9
Z3A.35	ICD-10-CM	249	35 weeks gestation of pregnancy	1	0	9
P07.37	ICD-10-CM	242	Preterm newborn, gestational age 34 completed weeks	1	0	10
Z3A.34	ICD-10-CM	242	34 weeks gestation of pregnancy	1	0	10
P07.36	ICD-10-CM	235	Preterm newborn, gestational age 33 completed weeks	1	0	11
Z3A.33	ICD-10-CM	235	33 weeks gestation of pregnancy	1	0	11
P07.35	ICD-10-CM	228	Preterm newborn, gestational age 32 completed weeks	1	0	12
Z3A.32	ICD-10-CM	228	32 weeks gestation of pregnancy	1	0	12
P07.34	ICD-10-CM	221	Preterm newborn, gestational age 31 completed weeks	1	0	13
Z3A.31	ICD-10-CM	221	31 weeks gestation of pregnancy	1	0	13
P07.33	ICD-10-CM	214	Preterm newborn, gestational age 30 completed weeks	1	0	14
Z3A.30	ICD-10-CM	214	30 weeks gestation of pregnancy	1	0	14
P07.32	ICD-10-CM	207	Preterm newborn, gestational age 29 completed weeks	1	0	15
Z3A.29	ICD-10-CM	207	29 weeks gestation of pregnancy	1	0	15
P07.31	ICD-10-CM	200	Preterm newborn, gestational age 28 completed weeks	1	0	16
Z3A.28	ICD-10-CM	200	28 weeks gestation of pregnancy	1	0	16
P07.26	ICD-10-CM	193	Extreme immaturity of newborn, gestational age 27 completed weeks	1	0	17
Z3A.27	ICD-10-CM	193	27 weeks gestation of pregnancy	1	0	17
P07.25	ICD-10-CM	186	Extreme immaturity of newborn, gestational age 26 completed weeks	1	0	18
Z3A.26	ICD-10-CM	186	26 weeks gestation of pregnancy	1	0	18
P07.24	ICD-10-CM	179	Extreme immaturity of newborn, gestational age 25 completed weeks	1	0	19
Z3A.25	ICD-10-CM	179	25 weeks gestation of pregnancy	1	0	19



**Appendix C. 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 in this Request**

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

**Appendix C. 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 in this Request**

Code	Code Type	Duration (Days)	Description	Priority Group 1	Priority Group 2	Priority
O60.14X9	ICD-10-CM	245	Preterm labor third trimester with preterm delivery third trimester	1	0	26
P07.30	ICD-10-CM	245	Preterm newborn, unspecified weeks of gestation	1	0	26
O60.12X0	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X1	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X2	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X3	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X4	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X5	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
O60.12X9	ICD-10-CM	168	Preterm labor second trimester with preterm delivery second trimester	1	0	27
645.2	ICD-9-CM	294	Prolonged pregnancy	0	1	28
645.21	ICD-9-CM	294	Prolonged pregnancy	0	1	28
645.23	ICD-9-CM	294	Prolonged pregnancy	0	1	28
765.28	ICD-9-CM	252	35-36 completed weeks of gestation	1	0	28
766.22	ICD-9-CM	294	Prolonged gestation of infant	0	1	28
645.1	ICD-9-CM	287	Post term pregnancy	0	1	29
645.11	ICD-9-CM	287	Post term pregnancy	0	1	29
645.13	ICD-9-CM	287	Post term pregnancy	0	1	29
765.27	ICD-9-CM	238	33-34 completed weeks of gestation	1	0	29
766.21	ICD-9-CM	287	Post-term infant	0	1	29
765.26	ICD-9-CM	224	31-32 completed weeks of gestation	1	0	30
765.25	ICD-9-CM	210	29-30 completed weeks of gestation	1	0	31
765.24	ICD-9-CM	196	27-28 completed weeks of gestation	1	0	32
765.23	ICD-9-CM	182	25-26 completed weeks of gestation	1	0	33
765.21	ICD-9-CM	168	Less than 24 completed weeks of gestation	1	0	34
765.22	ICD-9-CM	168	24 completed weeks of gestation	1	0	34
765.00	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.01	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.02	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.03	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.04	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.05	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35

**Appendix C. 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 in this Request**

Code	Code Type	Duration (Days)	Description	Priority Group 1	Priority Group 2	Priority
765.06	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.07	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.08	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
765.09	ICD-9-CM	196	Extreme immaturity, by weight	1	0	35
644.21	ICD-9-CM	245	Early onset of delivery, delivered, with or without mention of antepartum condition	1	0	36
765.1	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.11	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.12	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.13	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.14	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.15	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.16	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.17	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.18	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.19	ICD-9-CM	245	Other preterm infants, by weight	1	0	36
765.2	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, 2<sup>nd</sup> 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 D. List of Current Procedural Terminology, Fourth Edition (CPT-4) Procedure Codes, International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Diagnosis Codes, and International Classification of Diseases, Tenth Revision, Clinical Modification/Procedure Coding System (ICD-10-CM/PCS) Diagnosis and Procedure Codes Used to Define Live-Born Deliveries in this Request**

Code	Description	Code Type	Code Category
594	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
5941	Vaginal delivery only (with or without episiotomy and/or forceps); including postpartum	CPT-4	Procedure
5951	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
5961	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 delivery	CPT-4	Procedure
5962	Cesarean delivery only, following attempted vaginal delivery after previous cesarean	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	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	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 complication	ICD-9-CM	Diagnosis
642.11	Hypertension secondary to renal disease, with delivery	ICD-9-CM	Diagnosis

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

Code	Description	Code Type	Code Category
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 complication	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 complication	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 delivery	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
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 condition	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
645.22		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

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

Code	Description	Code Type	Code Category
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 complication	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 complication	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
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

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

<b>Code</b>	<b>Description</b>	<b>Code Type</b>	<b>Code Category</b>
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
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



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Code	Description	Code Type	Code Category
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
652.31	Transverse or oblique fetal presentation, delivered	ICD-9-CM	Diagnosis



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Code	Description	Code Type	Code Category
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 condition	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

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Code	Description	Code Type	Code Category
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 delivery	ICD-9-CM	Diagnosis
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, delivered	ICD-9-CM	Diagnosis
655.61	Suspected damage to fetus from radiation, affecting management of mother, delivered	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, delivered	ICD-9-CM	Diagnosis
656.91	Unspecified fetal and placental problem affecting management of mother, delivered	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

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Code	Description	Code Type	Code Category
658.21	Delayed delivery after spontaneous or unspecified rupture of membranes, delivered	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
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, delivered	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 delivery, delivered	ICD-9-CM	Diagnosis
660.41	Shoulder (girdle) dystocia during labor and delivery, 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

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Code	Description	Code Type	Code Category
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
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

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Code	Description	Code Type	Code Category
667.02	Retained placenta without hemorrhage, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
667.1.2	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
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

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Code	Description	Code Type	Code Category
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 complication	ICD-9-CM	Diagnosis
670.82	Other major puerperal infection, delivered, with mention of postpartum complication	ICD-9-CM	Diagnosis
671.01	Varicose veins of legs, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
671.02	Varicose veins of legs, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
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 complication	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

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<b>Code</b>	<b>Description</b>	<b>Code Type</b>	<b>Code Category</b>
671.52	Other phlebitis and thrombosis with delivery, with mention of postpartum complication	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 complication	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 complication	ICD-9-CM	Diagnosis
674.22	Disruption of perineal wound, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
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



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Code	Description	Code Type	Code Category
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 condition	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 condition	ICD-9-CM	Diagnosis
676.42	Failure of lactation, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis



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Code	Description	Code Type	Code Category
676.51	Suppressed lactation, with delivery, with or without mention of antepartum condition	ICD-9-CM	Diagnosis
676.52	Suppressed lactation, with delivery, with mention of postpartum complication	ICD-9-CM	Diagnosis
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 complication	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
73	Other procedures inducing or assisting delivery	ICD-9-CM	Procedure
720	Low forceps operation	ICD-9-CM	Procedure
721	Low forceps operation with episiotomy	ICD-9-CM	Procedure
722	Mid forceps operation	ICD-9-CM	Procedure
723	High forceps operation	ICD-9-CM	Procedure
724	Forceps rotation of fetal head	ICD-9-CM	Procedure
725	Breech extraction	ICD-9-CM	Procedure
726	Forceps application to aftercoming head	ICD-9-CM	Procedure
727	Vacuum extraction	ICD-9-CM	Procedure
728	Other specified instrumental delivery	ICD-9-CM	Procedure
729	Unspecified instrumental delivery	ICD-9-CM	Procedure
730	Artificial rupture of membranes	ICD-9-CM	Procedure
731	Other surgical induction of labor	ICD-9-CM	Procedure
732	Internal and combined version and extraction	ICD-9-CM	Procedure
733	Failed forceps	ICD-9-CM	Procedure
734	Medical induction of labor	ICD-9-CM	Procedure
735	Manually assisted delivery	ICD-9-CM	Procedure
736	Episiotomy	ICD-9-CM	Procedure
738	Operations on fetus to facilitate delivery	ICD-9-CM	Procedure
739	Other operations assisting delivery	ICD-9-CM	Procedure
740	Classical cesarean section	ICD-9-CM	Procedure
741	Low cervical cesarean section	ICD-9-CM	Procedure
742	Extraperitoneal cesarean section	ICD-9-CM	Procedure
744	Cesarean section of other specified type	ICD-9-CM	Procedure
749	Cesarean section of unspecified type	ICD-9-CM	Procedure
722.1	Mid forceps operation with episiotomy	ICD-9-CM	Procedure
722.9	Other mid forceps operation	ICD-9-CM	Procedure

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Code	Description	Code Type	Code Category
723.1	High forceps operation with episiotomy	ICD-9-CM	Procedure
723.9	Other high forceps operation	ICD-9-CM	Procedure
725.1	Partial breech extraction with forceps to aftercoming head	ICD-9-CM	Procedure
725.2	Other partial breech extraction	ICD-9-CM	Procedure
725.3	Total breech extraction with forceps to aftercoming head	ICD-9-CM	Procedure
725.4	Other total breech extraction	ICD-9-CM	Procedure
727.1	Vacuum extraction with episiotomy	ICD-9-CM	Procedure
727.9	Other vacuum extraction	ICD-9-CM	Procedure
730.1	Induction of labor by artificial rupture of membranes	ICD-9-CM	Procedure
730.9	Other artificial rupture of membranes	ICD-9-CM	Procedure
732.1	Internal and combined version without extraction	ICD-9-CM	Procedure
732.2	Internal and combined version with extraction	ICD-9-CM	Procedure
735.1	Manual rotation of fetal head	ICD-9-CM	Procedure
735.9	Other manually assisted delivery	ICD-9-CM	Procedure
739.1	External version to assist delivery	ICD-9-CM	Procedure
739.2	Replacement of prolapsed umbilical cord	ICD-9-CM	Procedure
739.3	Incision of cervix to assist delivery	ICD-9-CM	Procedure
739.4	Pubiotomy to assist delivery	ICD-9-CM	Procedure
739.9	Other operations to assist delivery	ICD-9-CM	Procedure
749.9	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

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Code	Description	Code Type	Code Category
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
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 delivery	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 delivery	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

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Code	Description	Code Type	Code Category
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
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

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Code	Description	Code Type	Code Category
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 hospital	ICD-9-CM	Diagnosis
V39.2	Liveborn, unspecified whether single, twin or multiple, born outside hospital and not hospitalized	ICD-9-CM	Diagnosis
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
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

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Code	Description	Code Type	Code Category
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 fetus	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
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



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Code	Description	Code Type	Code Category
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 fetus	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, fetus 1	ICD-10-CM	Diagnosis
O69.2XX2	Labor and delivery complicated by other cord entanglement, with compression, fetus 2	ICD-10-CM	Diagnosis
O69.2XX3	Labor and delivery complicated by other cord entanglement, with compression, fetus 3	ICD-10-CM	Diagnosis
O69.2XX4	Labor and delivery complicated by other cord entanglement, with compression, fetus 4	ICD-10-CM	Diagnosis
O69.2XX5	Labor and delivery complicated by other cord entanglement, with compression, fetus 5	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

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Code	Description	Code Type	Code Category
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 unspecified	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 fetus	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



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Code	Description	Code Type	Code Category
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
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 laceration	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

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Code	Description	Code Type	Code Category
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
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

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Code	Description	Code Type	Code Category
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
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

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Code	Description	Code Type	Code Category
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
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

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<b>Code</b>	<b>Description</b>	<b>Code Type</b>	<b>Code Category</b>
Z38.8	Other multiple liveborn infant, unspecified as to place of birth	ICD-10-CM	Diagnosis
0W8NXZZ	Division of Female Perineum, External Approach	ICD-10-PCS	Procedure
10900ZC	Drainage of Amniotic Fluid, Therapeutic from Products of Conception, Open Approach	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 Opening	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 Opening	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 Opening	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

### Appendix E. Specifications for Parameters for this Request

This request used the Cohort Identification and Descriptive Analysis (CIDA) Tool, version 5.4.1, to investigate and characterize the use of gadolinium-based contrast agents (GBCAs) in pregnancy. Exposure to Magnetic Resonance Imaging (MRI), with and without GBCAs, was determined by Current Procedural Terminology (CPT) and Healthcare Common Procedure Coding System (HCPCS) procedure codes.

**Query Period** January 1, 2006 - January 31, 2018

**Coverage Requirement** At least medical

**Enrollment Requirement Prior to Delivery Date** 391 days (301 + 90)

**Enrollment Gap** 45 days

**Stratifications** 90 days prior to pregnancy, by trimester, by year, by maternal age and cumulatively

**Sex** Female

**Age Groups (calculated at age at delivery date)** 15-19, 20-24, 25-29, 30-34, 35-39, 40-45 years

#### Pregnancy Episode Creation

#### Exposure

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)	Incident exposure	Care Setting/Diagnosis Position	Incident with respect to:	Washout (days)
1	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Lower extremity MRI with GBCA	Any	N/A	0
2	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Upper extremity MRI with GBCA	Any	N/A	0
3	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Head MRI with GBCA	Any	N/A	0
4	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Cardiac MRI with GBCA	Any	N/A	0
5	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Abdomen MRI with GBCA	Any	N/A	0
6	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Chest MRI with GBCA	Any	N/A	0
7	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Pelvis MRI with GBCA	Any	N/A	0
8	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Spinal Canal MRI with GBCA	Any	N/A	0
9	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Neck MRI with GBCA	Any	N/A	0
10	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Breast MRI with GBCA	Any	N/A	0

Pregnancy Episode Creation						Exposure			
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)	Incident exposure	Care Setting/Diagnosis Position	Incident with respect to:	Washout (days)
11	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Lower extremity MRI without GBCA	Any	N/A	0
12	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Upper extremity MRI without GBCA	Any	N/A	0
13	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Fetal MRI without GBCA	Any	N/A	0
14	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Head MRI without GBCA	Any	N/A	0
15	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Cardiac MRI without GBCA	Any	N/A	0
16	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Abdomen MRI without GBCA	Any	N/A	0
17	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Chest MRI without GBCA	Any	N/A	0
18	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Pelvis MRI without GBCA	Any	N/A	0
19	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Spinal Canal MRI without GBCA	Any	N/A	0
20	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	Neck MRI without GBCA	Any	N/A	0
21	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	MRI with GBCAs	Any	N/A	0
22	Pregnancy Algorithm	183	Pregnancy Algorithm	273	7	MRI without GBCAs	Any	N/A	0