

Disclaimer

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

Data obtained through Mini-Sentinel are intended to complement other types of evidence such as preclinical studies, clinical trials, postmarket studies, and adverse event reports, all of which are used by FDA to inform regulatory decisions regarding medical product safety. The information contained in this report is provided as part of FDA's commitment to place knowledge acquired from the Mini-Sentinel pilot in the public domain as soon as possible. Any public health actions taken by FDA regarding products involved in Mini-Sentinel queries will continue to be communicated through existing channels.

FDA wants to emphasize that the fact that FDA has initiated a query involving a medical product and is reporting findings related to that query does not mean that FDA is suggesting health care practitioners should change their prescribing practices for the medical product or that patients taking the medical product should stop using it. Patients who have questions about the use of an identified medical product should contact their health care practitioners.

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

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Overview of Request to16_cap_mpl2r_wp005_nsdp_v02, Report 7 of 8

Request ID: to16_cap_mpl2r_wp005_nsdp_v02

Report Description: An evaluation of the association between dabigatran and ischemic stroke, with warfarin as the comparison exposure among individuals 65 years of age and older. This is report 7 of 8. The additional seven reports evaluate intracranial hemorrhage, gastrointestinal hemorrhage, and acute myocardial infarction among individuals 21 years of age and older and among individuals 65 years of age and older, as well as ischemic stroke among individuals 21 years of age and older.

Sentinel Modular Program Tool Used: Cohort Identification and Descriptive Analysis (CIDA) tool with Propensity Score Matching (PSM), version 2.0.6

Data Source: This request was distributed to Data Partners on July 8, 2015. This report contains data between November 1, 2010 and December 31, 2013 from four Data Partners contributing to the Mini-Sentinel Distributed Database (MSDD).

Study Design: Retrospective, new-user cohort design.

Cohort of Interest: New dabigatran (exposure) users and new warfarin (comparator) users, defined using National Drug Codes (NDCs).

Cohort Eligibility Criteria: All patients 65 years of age or older with a diagnosis of atrial fibrillation in the six months prior to drug initiation (dabigatran or warfarin) were included in this cohort. Cohort members were required to have maintained continuous enrollment in plans providing both medical and drug coverage for at least six months (183 days) before dabigatran or warfarin initiation, during which gaps in medical and drug coverage of up to 45 days were allowed. New use of dabigatran or warfarin was defined as no use of any anticoagulant (apixaban, dabigatran, rivaroxaban, or warfarin) in the previous six months (183 days).

Moreover, patients in the cohort were not eligible if they had evidence of the following conditions/procedures in the six months prior to drug initiation: valvular disease, dialysis, kidney transplant, deep vein thrombosis, pulmonary embolism, and joint replacement. Inclusions and exclusions in this request were defined using International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) discharge diagnosis codes and Current Procedural Terminology, Fourth Edition (CPT-4) codes (see Appendix B).

Follow-up: Follow-up began on the first day any of the study drugs was dispensed and continued until the first occurrence of any of the following: 1) outcome diagnosis; 2) a dispensing of a different anticoagulant; 3) disenrollment; 4) cessation of study drug use (defined as when the days' supply was exhausted for longer than 14 days without a subsequent dispensing; 5) December 31, 2013.

Outcome: Ischemic stroke operationally defined by the ICD-9-CM discharge diagnosis codes (see Appendix C) flagged as a primary diagnosis in an inpatient encounter.

Analysis: The predefined covariates for the propensity score model included age, sex, comorbidity score, health service utilization, advanced kidney disease, advanced liver disease, alcoholism, anemia, cane use, central venous thrombosis, chronic heart failure, coagulation defects, commode chair use, coronary artery bypass grafting, diabetes mellitus, falls, hospitalized gastrointestinal bleed, hospitalized intracranial bleed, hyperlipidemia, hypertension, ischemic stroke, myocardial infarction, major surgery, metastatic cancer, non-specific cerebrovascular symptoms, osteoporotic fracture, other arterial embolism, other gastrointestinal ulcer disease, other hospitalized bleed, other ischemic cerebrovascular disease, other ischemic heart disease, smoking/tobacco use, percutaneous coronary intervention, peripheral vascular disease, transient ischemic attack, trauma with likely immobilization, use of home oxygen, venous thromboembolism, venous thromboembolism risk not otherwise specified, walker use, wheelchair use, and use of angiotensin-converting-enzyme inhibitors, aldosterone antagonists, anti-anginal agents, anti-arrhythmic medications, angiotensin receptor blockers, aspirin, beta-blockers, calcium channel blockers, cyclooxygenase-2 inhibitors, diuretics, estrogen, H2 antagonists, helicobacter pylori combinations, heparins and related medications, inducers of cytochrome P450 3A4, inhibitors of cytochrome P450 3A4, insulin cytochrome P450 3A4, non-statin lipid-lowering medications, non-steroidal anti-inflammatory drugs, oral anti-diabetic medications, other anti-hypertensive medications, platelet inhibitors, proton pump inhibitors, progestin, selective serotonin reuptake inhibitors/serotonin-norepinephrine reuptake inhibitors, and statins (see Appendices C and D).

The matching ratio for the propensity score was 1:1, and the matching calipers were 0.025 and 0.050. Patients in the exposed and comparator cohorts were nearest neighbor matched without replacement, meaning that each comparator patient was matched one time, at most, to an exposed patient. A Cox regression model stratified on Data Partner site and matched set was used to estimate the adjusted hazard ratio and 95% confidence interval.

See Appendix E for complete specifications for this request.

Limitations: 1) As with all observational studies, this evaluation is limited in its ability to perfectly control for all sources of potential bias; 2) The exposure, outcome, and covariates may have been misclassified due to imperfect algorithms used to identify them; 3) This assessment was one-time, and did not examine the performance of the tools in a sequential testing setting.

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

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

- Amount Supplied** - number of units (pills, tablets, vials) dispensed. Net amount per NDC per dispensing. This is equivalent to the "RxAmt"
- 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
- Cohort Definition (drug/exposure)**- Indicates how the cohort will be defined: (1): Cohort includes only the first valid incident treatment episode during the query period; (2): Cohort includes all valid incident treatment episodes during the query period; (3): Cohort includes all valid incident treatment episodes during the query period until an event occurs
- Days Supplied** - number of days supplied for all dispensings in qualifying treatment episodes
- Episodes** - treatment episodes; length of episode is determined by days supplied in one dispensing (or consecutive dispensings bridged by the
- Enrollment Gap** - number of days allowed between two consecutive enrollment periods without breaking a "continuously enrolled"
- Episode Gap** - number of days allowed between two (or more) consecutive exposures (dispensings/procedures) to be considered the same
- Event Deduplication** - specifies how events are counted by the MP algorithm: (0) Counts all occurrences of and HOI during an exposure episode; (1) de-duplicates occurrences of the same HOI code and code type on the same day; (3) de-duplicates occurrences of the same HOI group on the same day (eg. de-duplicates at the group level)
- Exposure Extension Period** - number of days post treatment period in which the outcomes/events are counted for a treatment episode
- Exposure Episode Length** - number of days after exposure initiation that is considered "exposed time"
- Induction Period** - number of days at the beginning of a treatment episode that events are to be ignored. If an event occurs during the blackout period, the episode is excluded
- Lookback Period (pre-existing condition)** - number of days wherein a member is required to have evidence of pre-existing condition (diagnosis/procedure/drug dispensing)
- Minimum Days Supplied** - specifies a minimum number of days in length of the days supplied for the episode to be considered
- Minimum Episode Duration** - specifies a minimum number of days in length of the episode for it to be considered
- Query Period** - period in which the modular program looks for exposures and outcomes of interest
- Treatment Episode Truncation Indicator** - indicates whether observation of the incident query code during follow-up requires truncation of valid treatment episodes. A value of Y indicates that the treatment episodes should be truncated at the first occurrence of an incident query code. A value of N indicates that the treatment episodes should not be truncated at the occurrence of the incident query code
- 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.
- Washout Period (drug/exposure)**** - number of days a user is required to have no evidence of prior exposure (drug dispensing/procedure) and continuous drug and medical coverage prior to an incident treatment episode
- Washout Period (event/outcome)**** - number of days a user is required to have no evidence of a prior event (procedure/diagnosis) and continuous drug and medical coverage prior to an incident treatment episode
- Years at Risk** - number of days supplied plus any episode gaps and exposure extension periods all divided by 365.25

*all terms may not be used in this report

**incident treatment episodes must be incident to both the exposure and the event

Glossary of Terms for Analyses Using Propensity Score Match (PSM) Tool*

Bias Ranking - method for ranking/prioritizing covariates for inclusion in the hdPS model. This method yields a variable list in which variables are selected as ranked by the Bross bias formula.

Covariate Evaluation Window - number of days before the index date to evaluate the occurrence of covariates of interest. Note: members are required to have continuous enrollment during the covariate evaluation window, regardless of the value included in the "Continuous

Covariate Grouping Indicator - a requester-defined name used to indicate how codes should be grouped to identify a single covariate.

Exposure association ranking- default method for ranking/prioritizing covariates for inclusion in the hdPS model. This method yields a variable list in which the variables are selected as ranked by the strength of the relationship between confounder and exposure. This is most suitable for cases where there are fewer than 150 exposed outcomes.

High dimensional Propensity Score (hdPS) - allows for selection of empirically identified covariates in addition to and/or without predefined covariates based on the potential for confounding the exposure/outcome association under investigation.

Mahalanobis Distance- provides a measure of balance across all variables while accounting for their correlation.

Matching Caliper- maximum allowed difference in propensity scores between treatment and control patients. Options are 0.01, 0.025, and

Matching Ratio - patients in exposed and comparators are nearest neighbor matched by a 1:1 or 1:100 (up to 100) matching ratio.

Monitoring Period - used to define time periods of interest for both sequential analysis and simple cohort characterization requests.

Number of covariates from pool of considered covariates to keep in hdPS model - The total number of covariates to keep in the hdPS model. Default value is the fewest of 1) 200; or 2) the number of initiators of the exposure of interest.

Number of covariates to consider for each claim type for inclusion in hdPS model - The number of covariates that are considered for inclusion in the hdPS model for each claim type (NDC, ICD9 diagnosis, ICD9 procedure, HCPCS, and CPT). If a value of 100 is specified in this field, then 500 covariates will be considered for inclusion (100 for each of the 5 claim types), Default value is 100.

which the variables are selected as ranked by the strength of the relationship between confounder and the outcome. This is most suitable for disease risk scores.

Predefined Propensity Score Matched Analysis - performed by default using the Propensity Score Match Tool. Requester-defined covariates are included along with 12 other covariates: 1. Age (continuous) 2. Sex 3. Time (monitoring period) 4. Year of Exposure 5. Comorbidity Score (calculated during requester-defined lookback) 6. Medical Utilization- number of inpatient stays (during requester-defined lookback) 7. Medical Utilization- number of institutional stays (during requester-defined lookback) 8. Medical utilization- number of emergency department visits (during requester-defined lookback) 9. Medical utilization- number of outpatient visits (during requester-defined lookback) 10. Health care utilization- number of other ambulatory encounters (e.g telemedicine, email consults during requester-defined lookback) 11. Drug utilization- number of dispensings (during requester-defined lookback) 12. Drug utilization- number of unique generics dispensed (during requester-defined lookback).

Propensity Score Match Tool - performs effect estimation by comparing exposure propensity-score matched parallel new user cohorts. The Propensity Score Match Tool generates tables of patient characteristics, stratified by exposure group, for the unmatched cohort and for the 1:1 matched cohort. Tables include measures of covariate balance and the Mahalanobis distance. The program also generates histograms depicting the propensity score distributions for each exposure group, separately for each Data Partner and each monitoring period, before and after matching. Figures include c-statistics. This program provides hazard ratios and 95% confidence intervals, Mantel-Haenszel rate differences, the number needed to treat/harm, the attributable risk, and the population attributable risk.

Query Level - Mini-Sentinel routine data queries are grouped into three distinct "levels," indicative of the level of complexity, extent of analytic adjustment, and need for repeated execution and alerting tools (i.e., prospective surveillance).

Zero Cell Correction - An indicator for whether to screen variables with a zero correction added to each cell in the confounder/outcome 2x2 table. Recommended when the number of exposed outcomes is fewer than 150.

*all terms may not be used in this report

Table 1. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Ischemic Stroke¹ (Unmatched)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
Patients	18,382	100.0%	64,535	100.0%	0.00	-
Events while on therapy	74	0.4%	387	0.6%	-0.20	0.00
Mean person-days at risk	157	196.7	167	201.6	-9.90	0.00
Patient Characteristics						
Gender (F)	7,935	43.2%	29,092	45.1%	-1.90	0.00
Mean age (std dev)	76	7.0	78	7.1	-1.60	-0.20
65+	18,382	100.0%	64,535	100.0%	0.00	-
Recorded History of³:						
Combined Comorbidity Score	2.3	2.3	2.9	2.6	-0.60	-0.30
Advanced Diagnosed Kidney Dysfunction	2,373	12.9%	13,167	20.4%	-7.50	-0.20
Advanced Liver Disease	31	0.2%	149	0.2%	0.00	0.00
Alcoholism	65	0.4%	239	0.4%	0.00	0.00
Anemia	966	5.3%	4,457	6.9%	-1.60	-0.10
Cane Use	50	0.3%	206	0.3%	0.00	0.00
Chronic Heart Failure	6,574	35.8%	27,636	42.8%	-7.00	-0.10
Coagulation Defects	212	1.2%	2,108	3.3%	-2.10	-0.10
Commode Chair Use	177	1.0%	864	1.3%	-0.30	0.00
Coronary Artery Bypass Surgery	1,369	7.4%	5,877	9.1%	-1.70	-0.10
Diabetes Mellitus	5,642	30.7%	23,157	35.9%	-5.20	-0.10
Falls	453	2.5%	2,266	3.5%	-1.00	-0.10
Hospitalized Gastrointestinal Bleed	233	1.3%	1,488	2.3%	-1.00	-0.10
Hospitalized Intracranial Bleed	71	0.4%	484	0.7%	-0.30	0.00
Hyperlipidemia	6,219	33.8%	19,229	29.8%	4.00	0.10
Hypertension	15,144	82.4%	53,219	82.5%	-0.10	0.00
Ischemic Stroke	1,645	8.9%	7,466	11.6%	-2.70	-0.10
Major Surgery	429	2.3%	1,848	2.9%	-0.60	0.00
Metastatic Cancer	210	1.1%	1,087	1.7%	-0.60	0.00
Myocardial Infarction	748	4.1%	4,139	6.4%	-2.30	-0.10
Non-specific Cerebrovascular Symptoms	364	2.0%	1,807	2.8%	-0.80	-0.10
Osteoporotic Fracture	327	1.8%	1,777	2.8%	-1.00	-0.10
Other Arterial Embolism	131	0.7%	889	1.4%	-0.70	-0.10
Other Gastrointestinal Ulcer Disease	160	0.9%	759	1.2%	-0.30	0.00
Other Hospitalized Bleed	215	1.2%	1,332	2.1%	-0.90	-0.10
Other Ischemic Cerebrovascular events	3,353	18.2%	13,186	20.4%	-2.20	-0.10
Other Ischemic Heart Disease	778	4.2%	3,225	5.0%	-0.80	0.00
Percutaneous Coronary Intervention	1,765	9.6%	6,799	10.5%	-0.90	0.00
Peripheral Vascular Disease	3,183	17.3%	13,665	21.2%	-3.90	-0.10
Central Venous Thrombosis	1	0.0%	13	0.0%	0.00	0.00
Venous Thromboembolism/ Phlebitis	449	2.4%	2,469	3.8%	-1.40	-0.10
Smoking or Tobacco Use	1,910	10.4%	6,517	10.1%	0.30	0.00
Transient Ischemic Attack	1,160	6.3%	4,480	6.9%	-0.60	0.00
Trauma with likely Immobilization	605	3.3%	3,054	4.7%	-1.40	-0.10
Use of Home Oxygen	1,023	5.6%	4,946	7.7%	-2.10	-0.10
Venous Thromboembolism Risk, Not Otherwise Specified	0	0.0%	7	0.0%	0.00	-
Walker Use	394	2.1%	2,024	3.1%	-1.00	-0.10
Wheelchair Use	166	0.9%	899	1.4%	-0.50	0.00

Table 1. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Ischemic Stroke¹ (Unmatched)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
History of Use⁴:						
Angiotensin-Converting-Enzyme Inhibitors	6,738	36.7%	23,485	36.4%	0.30	0.00
Aldosterone Antagonists	702	3.8%	3,036	4.7%	-0.90	0.00
Antianginal Agents	1,536	8.4%	6,418	9.9%	-1.50	-0.10
Antiarrhythmic Medications	3,976	21.6%	11,342	17.6%	4.00	0.10
Angiotensin Receptor Blockers	3,909	21.3%	11,587	18.0%	3.30	0.10
Aspirin	57	0.3%	158	0.2%	0.10	0.00
Beta Blocker	11,222	61.0%	36,955	57.3%	3.70	0.10
Calcium Channel Blockers	6,271	34.1%	20,724	32.1%	2.00	0.00
Cyclooxygenase-2 Inhibitors	365	2.0%	899	1.4%	0.60	0.00
Diuretics	6,506	35.4%	25,710	39.8%	-4.40	-0.10
Estrogen	527	2.9%	1,341	2.1%	0.80	0.10
H2 Antagonists	657	3.6%	2,579	4.0%	-0.40	0.00
Helicobacter Pylori Combinations	8	0.0%	13	0.0%	0.00	0.00
Heparins and Related Medications	100	0.5%	1,073	1.7%	-1.20	-0.10
Inducers of Cytochrome P450 3A4	131	0.7%	490	0.8%	-0.10	0.00
Inhibitors of Cytochrome P450 3A4	24	0.1%	58	0.1%	0.00	0.00
Insulin Cytochrome P450 3A4	959	5.2%	4,204	6.5%	-1.30	-0.10
Non-Statin Lipid-Lowering Medications	2,167	11.8%	6,334	9.8%	2.00	0.10
Non-Steroidal Anti-Inflammatory Drugs	2,455	13.4%	7,440	11.5%	1.90	0.10
Oral Antidiabetic Medications	3,475	18.9%	12,982	20.1%	-1.20	0.00
Other Antihypertensive Medications	1,656	9.0%	6,685	10.4%	-1.40	0.00
Platelet Inhibitors	2,638	14.4%	7,888	12.2%	2.20	0.10
Proton Pump Inhibitors	3,927	21.4%	13,792	21.4%	0.00	0.00
Progestin	105	0.6%	402	0.6%	0.00	0.00
Selective Serotonin Reuptake Inhibitors/Serotonin–Norepinephrine Reuptake Inhibitors	2,515	13.7%	8,642	13.4%	0.30	0.00
Statins	9,486	51.6%	32,156	49.8%	1.80	0.00
Health Service Utilization Intensity:						
Number of generic drugs	8.0	4.7	7.7	4.8	0.20	0.00
Number of filled prescriptions	19.4	14.7	18.5	14.5	0.80	0.10
Number of inpatient hospital encounters (IP)	0.6	0.7	0.7	0.9	-0.10	-0.10
Number of non-acute institutional encounters (IS)	0.3	1.5	0.5	2.0	-0.20	-0.10
Number of emergency room encounters (ED)	0.4	0.8	0.4	0.9	0.00	0.00
Number of ambulatory encounters (AV)	11.1	8.7	12.1	9.9	-1.00	-0.10
Number of other ambulatory encounters (OA)	2.1	3.8	2.7	4.6	-0.60	-0.10

¹See Appendix C for the list of codes used to define events

²Value represents standard deviation where no % follows the value

³See Appendix D for list of codes used to define these covariates

⁴See Appendix E for list of codes used to define these covariates

Table 2. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Ischemic Stroke¹ (Matched 1:1 Predefined Propensity Score, Caliper = .025)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
Patients	18,198	99.0%	18,198	28.2%	0.00	1.50
Events while on therapy	74	0.4%	91	0.5%	-0.10	0.00
Mean person-days at risk	157	196.7	176	210.9	-19.40	-0.10
Patient Characteristics						
Gender (F)	7,883	43.3%	7,882	43.3%	0.00	0.00
Mean age (std dev)	76	7.0	76	6.9	0.00	0.00
65+	18,198	1	18,198	1	0.00	-
Recorded History of³:						
Combined Comorbidity Score	2.3	2.3	2.3	2.3	0.00	0.00
Advanced Diagnosed Kidney Dysfunction	2,372	13.0%	2,365	13.0%	0.00	0.00
Advanced Liver Disease	30	0.2%	36	0.2%	0.00	0.00
Alcoholism	60	0.3%	53	0.3%	0.00	0.00
Anemia	960	5.3%	1,012	5.6%	-0.30	0.00
Cane Use	50	0.3%	51	0.3%	0.00	0.00
Chronic Heart Failure	6,540	35.9%	6,662	36.6%	-0.70	0.00
Coagulation Defects	212	1.2%	230	1.3%	-0.10	0.00
Commode Chair Use	175	1.0%	183	1.0%	0.00	0.00
Coronary Artery Bypass Surgery	1,358	7.5%	1,309	7.2%	0.30	0.00
Diabetes Mellitus	5,613	30.8%	5,631	30.9%	-0.10	0.00
Falls	451	2.5%	451	2.5%	0.00	0.00
Hospitalized Gastrointestinal Bleed	233	1.3%	250	1.4%	-0.10	0.00
Hospitalized Intracranial Bleed	71	0.4%	64	0.4%	0.00	0.00
Hyperlipidemia	6,105	33.5%	6,179	34.0%	-0.50	0.00
Hypertension	14,975	82.3%	14,992	82.4%	-0.10	0.00
Ischemic Stroke	1,639	9.0%	1,654	9.1%	-0.10	0.00
Major Surgery	426	2.3%	416	2.3%	0.00	0.00
Metastatic Cancer	209	1.1%	234	1.3%	-0.20	0.00
Myocardial Infarction	747	4.1%	760	4.2%	-0.10	0.00
Non-specific Cerebrovascular Symptoms	363	2.0%	378	2.1%	-0.10	0.00
Osteoporotic Fracture	325	1.8%	320	1.8%	0.00	0.00
Other Arterial Embolism	131	0.7%	132	0.7%	0.00	0.00
Other Gastrointestinal Ulcer Disease	160	0.9%	162	0.9%	0.00	0.00
Other Hospitalized Bleed	214	1.2%	227	1.2%	0.00	0.00
Other Ischemic Cerebrovascular events	3,319	18.2%	3,385	18.6%	-0.40	0.00
Other Ischemic Heart Disease	774	4.3%	732	4.0%	0.30	0.00
Percutaneous Coronary Intervention	1,748	9.6%	1,734	9.5%	0.10	0.00
Peripheral Vascular Disease	3,161	17.4%	3,120	17.1%	0.30	0.00
Central Venous Thrombosis	1	0.0%	1	0.0%	0.00	0.00
Venous Thromboembolism/ Phlebitis	447	2.5%	432	2.4%	0.10	0.00
Smoking or Tobacco Use	1,885	10.4%	1,858	10.2%	0.20	0.00
Transient Ischemic Attack	1,148	6.3%	1,128	6.2%	0.10	0.00
Trauma with likely Immobilization	603	3.3%	637	3.5%	-0.20	0.00
Use of Home Oxygen	1,018	5.6%	1,034	5.7%	-0.10	0.00
Venous Thromboembolism Risk, Not Otherwise Specified	0	0.0%	0	0.0%	0.00	-
Walker Use	392	2.2%	417	2.3%	-0.10	0.00
Wheelchair Use	166	0.9%	176	1.0%	-0.10	0.00

Table 2. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Ischemic Stroke¹ (Matched 1:1 Predefined Propensity Score, Caliper = .025)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
History of Use⁴:						
Angiotensin-Converting-Enzyme Inhibitors	6,672	36.7%	6,699	36.8%	-0.10	0.00
Aldosterone Antagonists	698	3.8%	700	3.8%	0.00	0.00
Antianginal Agents	1,525	8.4%	1,525	8.4%	0.00	0.00
Antiarrhythmic Medications	3,910	21.5%	3,937	21.6%	-0.10	0.00
Angiotensin Receptor Blockers	3,827	21.0%	3,833	21.1%	-0.10	0.00
Aspirin	54	0.3%	61	0.3%	0.00	0.00
Beta Blocker	11,072	60.8%	11,051	60.7%	0.10	0.00
Calcium Channel Blockers	6,199	34.1%	6,232	34.2%	-0.10	0.00
Cyclooxygenase-2 Inhibitors	349	1.9%	381	2.1%	-0.20	0.00
Diuretics	6,469	35.5%	6,555	36.0%	-0.50	0.00
Estrogen	518	2.8%	546	3.0%	-0.20	0.00
H2 Antagonists	654	3.6%	643	3.5%	0.10	0.00
Helicobacter Pylori Combinations	7	0.0%	7	0.0%	0.00	0.00
Heparins and Related Medications	100	0.5%	134	0.7%	-0.20	0.00
Inducers of Cytochrome P450 3A4	129	0.7%	138	0.8%	-0.10	0.00
Inhibitors of Cytochrome P450 3A4	23	0.1%	17	0.1%	0.00	0.00
Insulin Cytochrome P450 3A4	955	5.2%	1,006	5.5%	-0.30	0.00
Non-Statin Lipid-Lowering Medications	2,122	11.7%	2,135	11.7%	0.00	0.00
Non-Steroidal Anti-Inflammatory Drugs	2,406	13.2%	2,465	13.5%	-0.30	0.00
Oral Antidiabetic Medications	3,455	19.0%	3,477	19.1%	-0.10	0.00
Other Antihypertensive Medications	1,637	9.0%	1,622	8.9%	0.10	0.00
Platelet Inhibitors	2,574	14.1%	2,553	14.0%	0.10	0.00
Proton Pump Inhibitors	3,881	21.3%	3,906	21.5%	-0.20	0.00
Progestin	103	0.6%	117	0.6%	0.00	0.00
Selective Serotonin Reuptake Inhibitors/Serotonin–Norepinephrine Reuptake Inhibitors	2,484	13.6%	2,506	13.8%	-0.20	0.00
Statins	9,373	51.5%	9,380	51.5%	0.00	0.00
Health Service Utilization Intensity:						
Number of generic drugs	7.9	4.7	8.0	4.8	-0.10	0.00
Number of filled prescriptions	19.3	14.7	19.5	15.0	-0.20	0.00
Number of inpatient hospital encounters (IP)	0.6	0.7	0.5	0.8	0.00	0.00
Number of non-acute institutional encounters (IS)	0.3	1.5	0.3	1.6	0.00	0.00
Number of emergency room encounters (ED)	0.4	0.8	0.4	0.9	0.00	0.00
Number of ambulatory encounters (AV)	11.1	8.8	11.2	8.8	-0.10	0.00
Number of other ambulatory encounters (OA)	2.1	3.8	2.2	3.7	-0.10	0.00

¹See Appendix C for the list of codes used to define events

²Value represents standard deviation where no % follows the value

³See Appendix D for list of codes used to define these covariates

⁴See Appendix E for list of codes used to define these covariates

Table 3. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Ischemic Stroke¹ (Matched 1:1 Predefined Propensity Score, Caliper = .050)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
Patients	18,232	99.2%	18,232	28.3%	0.00	1.50
Events while on therapy	74	0.4%	91	0.5%	-0.10	0.00
Mean person-days at risk	157	196.7	176	210.8	-19.30	-0.10
Patient Characteristics						
Gender (F)	7,889	43.3%	7,897	43.3%	0.00	0.00
Mean age (std dev)	76	7.0	76	6.9	0.00	0.00
65+	18,232	1	18,232	1	0.00	-
Recorded History of³:						
Combined Comorbidity Score	2.3	2.3	2.3	2.3	0.00	0.00
Advanced Diagnosed Kidney Dysfunction	2,373	13.0%	2,365	13.0%	0.00	0.00
Advanced Liver Disease	30	0.2%	36	0.2%	0.00	0.00
Alcoholism	60	0.3%	53	0.3%	0.00	0.00
Anemia	960	5.3%	1,012	5.6%	-0.30	0.00
Cane Use	50	0.3%	51	0.3%	0.00	0.00
Chronic Heart Failure	6,546	35.9%	6,677	36.6%	-0.70	0.00
Coagulation Defects	212	1.2%	230	1.3%	-0.10	0.00
Commode Chair Use	175	1.0%	183	1.0%	0.00	0.00
Coronary Artery Bypass Surgery	1,362	7.5%	1,311	7.2%	0.30	0.00
Diabetes Mellitus	5,618	30.8%	5,642	30.9%	-0.10	0.00
Falls	452	2.5%	453	2.5%	0.00	0.00
Hospitalized Gastrointestinal Bleed	233	1.3%	250	1.4%	-0.10	0.00
Hospitalized Intracranial Bleed	71	0.4%	64	0.4%	0.00	0.00
Hyperlipidemia	6,124	33.6%	6,193	34.0%	-0.40	0.00
Hypertension	15,003	82.3%	15,021	82.4%	-0.10	0.00
Ischemic Stroke	1,639	9.0%	1,656	9.1%	-0.10	0.00
Major Surgery	426	2.3%	416	2.3%	0.00	0.00
Metastatic Cancer	209	1.1%	234	1.3%	-0.20	0.00
Myocardial Infarction	747	4.1%	761	4.2%	-0.10	0.00
Non-specific Cerebrovascular Symptoms	363	2.0%	378	2.1%	-0.10	0.00
Osteoporotic Fracture	325	1.8%	320	1.8%	0.00	0.00
Other Arterial Embolism	131	0.7%	132	0.7%	0.00	0.00
Other Gastrointestinal Ulcer Disease	160	0.9%	162	0.9%	0.00	0.00
Other Hospitalized Bleed	214	1.2%	227	1.2%	0.00	0.00
Other Ischemic Cerebrovascular events	3,328	18.3%	3,395	18.6%	-0.30	0.00
Other Ischemic Heart Disease	775	4.3%	734	4.0%	0.30	0.00
Percutaneous Coronary Intervention	1,751	9.6%	1,737	9.5%	0.10	0.00
Peripheral Vascular Disease	3,165	17.4%	3,125	17.1%	0.30	0.00
Central Venous Thrombosis	1	0.0%	1	0.0%	0.00	0.00
Venous Thromboembolism/ Phlebitis	447	2.5%	432	2.4%	0.10	0.00
Smoking or Tobacco Use	1,890	10.4%	1,864	10.2%	0.20	0.00
Transient Ischemic Attack	1,150	6.3%	1,135	6.2%	0.10	0.00
Trauma with likely Immobilization	603	3.3%	637	3.5%	-0.20	0.00
Use of Home Oxygen	1,021	5.6%	1,034	5.7%	-0.10	0.00
Venous Thromboembolism Risk, Not Otherwise Specified	0	0.0%	0	0.0%	0.00	-
Walker Use	393	2.2%	418	2.3%	-0.10	0.00
Wheelchair Use	166	0.9%	176	1.0%	-0.10	0.00

Table 3. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Ischemic Stroke¹ (Matched 1:1 Predefined Propensity Score, Caliper = .050)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
History of Use⁴:						
Angiotensin-Converting-Enzyme Inhibitors	6,689	36.7%	6,713	36.8%	-0.10	0.00
Aldosterone Antagonists	699	3.8%	701	3.8%	0.00	0.00
Antianginal Agents	1,527	8.4%	1,528	8.4%	0.00	0.00
Antiarrhythmic Medications	3,922	21.5%	3,949	21.7%	-0.20	0.00
Angiotensin Receptor Blockers	3,840	21.1%	3,845	21.1%	0.00	0.00
Aspirin	54	0.3%	61	0.3%	0.00	0.00
Beta Blocker	11,100	60.9%	11,071	60.7%	0.20	0.00
Calcium Channel Blockers	6,213	34.1%	6,245	34.3%	-0.20	0.00
Cyclooxygenase-2 Inhibitors	350	1.9%	383	2.1%	-0.20	0.00
Diuretics	6,475	35.5%	6,559	36.0%	-0.50	0.00
Estrogen	518	2.8%	548	3.0%	-0.20	0.00
H2 Antagonists	654	3.6%	645	3.5%	0.10	0.00
Helicobacter Pylori Combinations	7	0.0%	8	0.0%	0.00	0.00
Heparins and Related Medications	100	0.5%	134	0.7%	-0.20	0.00
Inducers of Cytochrome P450 3A4	129	0.7%	138	0.8%	-0.10	0.00
Inhibitors of Cytochrome P450 3A4	23	0.1%	18	0.1%	0.00	0.00
Insulin Cytochrome P450 3A4	955	5.2%	1,007	5.5%	-0.30	0.00
Non-Statin Lipid-Lowering Medications	2,131	11.7%	2,138	11.7%	0.00	0.00
Non-Steroidal Anti-Inflammatory Drugs	2,416	13.3%	2,472	13.6%	-0.30	0.00
Oral Antidiabetic Medications	3,458	19.0%	3,486	19.1%	-0.10	0.00
Other Antihypertensive Medications	1,642	9.0%	1,624	8.9%	0.10	0.00
Platelet Inhibitors	2,584	14.2%	2,565	14.1%	0.10	0.00
Proton Pump Inhibitors	3,887	21.3%	3,913	21.5%	-0.20	0.00
Progestin	103	0.6%	118	0.6%	0.00	0.00
Selective Serotonin Reuptake Inhibitors/Serotonin–Norepinephrine Reuptake Inhibitors	2,486	13.6%	2,507	13.8%	-0.20	0.00
Statins	9,394	51.5%	9,398	51.5%	0.00	0.00
Health Service Utilization Intensity:						
Number of generic drugs	7.9	4.7	8.0	4.8	-0.10	0.00
Number of filled prescriptions	19.3	14.7	19.5	15.0	-0.20	0.00
Number of inpatient hospital encounters (IP)	0.6	0.7	0.5	0.8	0.00	0.00
Number of non-acute institutional encounters (IS)	0.3	1.5	0.3	1.6	0.00	0.00
Number of emergency room encounters (ED)	0.4	0.8	0.4	0.9	0.00	0.00
Number of ambulatory encounters (AV)	11.1	8.8	11.2	8.8	-0.10	0.00
Number of other ambulatory encounters (OA)	2.1	3.8	2.2	3.7	-0.10	0.00

¹See Appendix C for the list of codes used to define events

²Value represents standard deviation where no % follows the value

³See Appendix D for list of codes used to define these covariates

⁴See Appendix E for list of codes used to define these covariates

Table 4. Sequential Estimates for Ischemic Stroke* by Analysis Type

Exposure Definition	New Users	Person-Years at Risk	Average Person-Years at Risk	Number of Events	Incidence Rate per 1000 Person-Years	Risk per 1000 New Users	Incidence Rate Difference per 1000 Person-Years	Difference in Risk per 1000 New Users	Hazard Ratio (95% CI)	Wald P-Value
Unmatched Analysis (Site-adjusted only)										
Dabigatran	18,382	7,913.05	0.43	74	9.352	4.03				
Warfarin	64,535	29,522.58	0.46	387	13.109	6.00	-3.76	-1.97	0.72 (0.56, 0.92)	0.0099
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	18,198	7,815.18	0.43	74	9.469	4.07				
Warfarin	18,198	8,782.78	0.48	91	10.361	5.00	-0.89	-0.93	0.91 (0.62, 1.34)	0.6227
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	18,198	7,815.18	0.43	74	9.469	4.07				
Warfarin	18,198	8,782.78	0.48	91	10.361	5.00	-0.89	-0.93	0.89 (0.65, 1.21)	0.4594
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	18,232	7,832.10	0.43	74	9.448	4.06				
Warfarin	18,232	8,794.89	0.48	91	10.347	4.99	-0.90	-0.93	0.91 (0.62, 1.34)	0.6227
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	18,232	7,832.10	0.43	74	9.448	4.06				
Warfarin	18,232	8,794.89	0.48	91	10.347	4.99	-0.90	-0.93	0.89 (0.65, 1.21)	0.4577

*See Appendix C for the list of codes used to define events

Table 5. Sequential Estimates for Ischemic Stroke* by Analysis Type and Sex

Exposure Definition	New Users	Average Person-		Number of Events	Incidence Rate per 1000 Person-Years	Risk per 1000 New Users	Incidence Rate		Hazard Ratio (95% CI)	Wald P-Value
		Person-Years at Risk	Years at Risk				Difference per 1000 Person-Years	Difference in Risk per 1000 New Users		
Females										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	7,935	3,453.43	0.44	39	11.293	4.91	-4.43	-2.37	0.74 (0.52, 1.04)	0.0803
Warfarin	29,092	13,482.64	0.46	212	15.724	7.29				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	7,648	3,316.58	0.43	38	11.458	4.97	0.45	-0.39	1.00 (0.57, 1.74)	1.0000
Warfarin	7,648	3,724.55	0.49	41	11.008	5.36				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	7,648	3,316.58	0.43	38	11.458	4.97	0.45	-0.39	1.04 (0.67, 1.63)	0.8489
Warfarin	7,648	3,724.55	0.49	41	11.008	5.36				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	7,734	3,353.37	0.43	38	11.332	4.91	0.43	-0.39	1.00 (0.57, 1.74)	1.0000
Warfarin	7,734	3,762.01	0.49	41	10.898	5.30				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	7,734	3,353.37	0.43	38	11.332	4.91	0.43	-0.39	1.04 (0.67, 1.63)	0.8467
Warfarin	7,734	3,762.01	0.49	41	10.898	5.30				
Males										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	10,447	4,459.62	0.43	35	7.848	3.35	-3.06	-1.59	0.70 (0.49, 1.02)	0.0603
Warfarin	35,440	16,038.00	0.45	175	10.912	4.94				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	10,078	4,286.91	0.43	33	7.698	3.27	-2.45	-1.59	0.71 (0.40, 1.27)	0.2504
Warfarin	10,078	4,828.76	0.48	49	10.148	4.86				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	10,078	4,286.91	0.43	33	7.698	3.27	-2.45	-1.59	0.72 (0.46, 1.13)	0.1504
Warfarin	10,078	4,828.76	0.48	49	10.148	4.86				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	10,177	4,329.23	0.43	34	7.854	3.34	-2.19	-1.47	0.75 (0.43, 1.32)	0.3190
Warfarin	10,177	4,876.91	0.48	49	10.047	4.81				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	10,177	4,329.23	0.43	34	7.854	3.34	-2.19	-1.47	0.74 (0.48, 1.15)	0.1854
Warfarin	10,177	4,876.91	0.48	49	10.047	4.81				

*See Appendix C for the list of codes used to define events

Note: Subgroup re-matching was limited to members who were matched in the full analysis.

Appendix A. Dates of Available Data for Each Data Partner as of Request Send Date (July 17, 2015)

DPID	Start Date	End Date
DP001	11/1/2010	12/31/2013
DP002	11/1/2010	12/31/2013
DP003	11/1/2010	12/31/2013
DP004	11/1/2010	12/31/2013

Appendix B. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) and Current Procedural Terminology, Fourth Edition (CPT-4) Codes and Algorithm Used to Define Inclusions and Exclusions in this Request

Inclusions

Code	Code Type	Description	Caresetting
42731	ICD-9-CM Diagnosis	Atrial Fibrillation	Any
42732	ICD-9-CM Diagnosis	Atrial Flutter	Any

Exclusions

Code	Code Type	Description	Caresetting
7925	ICD-9-CM Diagnosis	Dialysis	Any
7925*	ICD-9-CM Diagnosis	Dialysis	Any
3995	ICD-9-CM Procedure	Dialysis	Any
5498	ICD-9-CM Procedure	Dialysis	Any
90935	CPT Procedure	Dialysis	Outpatient
90937	CPT Procedure	Dialysis	Outpatient
90945	CPT Procedure	Dialysis	Outpatient
90947	CPT Procedure	Dialysis	Outpatient
99512	CPT Procedure	Dialysis	Outpatient
99601	CPT Procedure	Dialysis	Outpatient
99602	CPT Procedure	Dialysis	Outpatient
V562	ICD-9-CM Diagnosis	Dialysis	Any
V562*	ICD-9-CM Diagnosis	Dialysis	Any
556	ICD-9-CM Procedure	Kidney replacement	Any
556*	ICD-9-CM Procedure	Kidney replacement	Any
99681	ICD-9-CM Diagnosis	Kidney replacement	Any
V420	ICD-9-CM Diagnosis	Kidney replacement	Any
V420*	ICD-9-CM Diagnosis	Kidney replacement	Any
50340	CPT Procedure	Kidney replacement	Any
50360	CPT Procedure	Kidney replacement	Any
50365	CPT Procedure	Kidney replacement	Any
50370	CPT Procedure	Kidney replacement	Any
50380	CPT Procedure	Kidney replacement	Any
4534	ICD-9-CM Diagnosis	DVT	Any
45340	ICD-9-CM Diagnosis	DVT	Any
45341	ICD-9-CM Diagnosis	DVT	Any
45342	ICD-9-CM Diagnosis	DVT	Any
4511	ICD-9-CM Diagnosis	DVT	Any
45111	ICD-9-CM Diagnosis	DVT	Any
45119	ICD-9-CM Diagnosis	DVT	Any
4512	ICD-9-CM Diagnosis	DVT	Any
45181	ICD-9-CM Diagnosis	DVT	Any
45183	ICD-9-CM Diagnosis	DVT	Any
45384	ICD-9-CM Diagnosis	DVT	Any
4151	ICD-9-CM Diagnosis	PE	Any
41511	ICD-9-CM Diagnosis	PE	Any
41512	ICD-9-CM Diagnosis	PE	Any
41519	ICD-9-CM Diagnosis	PE	Any

Exclusions

Code	Code Type	Description	Caresetting
V436	ICD-9-CM Diagnosis	Joint replacement	Any
V4360	ICD-9-CM Diagnosis	Joint replacement	Any
V4361	ICD-9-CM Diagnosis	Joint replacement	Any
V4362	ICD-9-CM Diagnosis	Joint replacement	Any
V4363	ICD-9-CM Diagnosis	Joint replacement	Any
V4364	ICD-9-CM Diagnosis	Joint replacement	Any
V4365	ICD-9-CM Diagnosis	Joint replacement	Any
V4366	ICD-9-CM Diagnosis	Joint replacement	Any
V4369	ICD-9-CM Diagnosis	Joint replacement	Any
815	ICD-9-CM Procedure	Joint replacement	Any
8151	ICD-9-CM Procedure	Joint replacement	Any
8152	ICD-9-CM Procedure	Joint replacement	Any
8153	ICD-9-CM Procedure	Joint replacement	Any
8154	ICD-9-CM Procedure	Joint replacement	Any
8155	ICD-9-CM Procedure	Joint replacement	Any
8156	ICD-9-CM Procedure	Joint replacement	Any
8157	ICD-9-CM Procedure	Joint replacement	Any
8159	ICD-9-CM Procedure	Joint replacement	Any
818	ICD-9-CM Procedure	Joint replacement	Any
8180	ICD-9-CM Procedure	Joint replacement	Any
8181	ICD-9-CM Procedure	Joint replacement	Any
8182	ICD-9-CM Procedure	Joint replacement	Any
8183	ICD-9-CM Procedure	Joint replacement	Any
8184	ICD-9-CM Procedure	Joint replacement	Any
8185	ICD-9-CM Procedure	Joint replacement	Any
24363	CPT Procedure	Joint replacement	Any
27130	CPT Procedure	Joint replacement	Any
27132	CPT Procedure	Joint replacement	Any
27134	CPT Procedure	Joint replacement	Any
27137	CPT Procedure	Joint replacement	Any
27138	CPT Procedure	Joint replacement	Any
27447	CPT Procedure	Joint replacement	Any
3940	ICD-9-CM Diagnosis	Valvular disease	Any
3940*	ICD-9-CM Diagnosis	Valvular disease	Any
3942	ICD-9-CM Diagnosis	Valvular disease	Any
3942*	ICD-9-CM Diagnosis	Valvular disease	Any
3960	ICD-9-CM Diagnosis	Valvular disease	Any
3960*	ICD-9-CM Diagnosis	Valvular disease	Any
3961	ICD-9-CM Diagnosis	Valvular disease	Any
3961*	ICD-9-CM Diagnosis	Valvular disease	Any
7465	ICD-9-CM Diagnosis	Valvular disease	Any
7465*	ICD-9-CM Diagnosis	Valvular disease	Any
3623	ICD-9-CM Procedure	Valvular disease	Any
3597	ICD-9-CM Procedure	Valvular disease	Any
92987	CPT Procedure	Valvular disease	Any
33427	CPT Procedure	Valvular disease	Any

Exclusions

Code	Code Type	Description	Caresetting
33426	CPT Procedure	Valvular disease	Any
33425	CPT Procedure	Valvular disease	Any
33422	CPT Procedure	Valvular disease	Any
33420	CPT Procedure	Valvular disease	Any
33430	CPT Procedure	Valvular disease	Any
99602	ICD-9-CM Diagnosis	Valvular disease	Any
99671	ICD-9-CM Diagnosis	Valvular disease	Any
3520	ICD-9-CM Procedure	Valvular disease	Any
3522	ICD-9-CM Procedure	Valvular disease	Any
3524	ICD-9-CM Procedure	Valvular disease	Any
33405	CPT Procedure	Valvular disease	Any

Appendix C. International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) Codes and Algorithm Used to Define Ischemic Stroke in this Request

Code	Code Type	Description
433*1	ICD-9-CM Diagnosis	Occlusion and stenosis with cerebral infarction
434*1	ICD-9-CM Diagnosis	Occlusion and stenosis with cerebral infarction
436	ICD-9-CM Diagnosis	Acute, but ill-defined, cerebrovascular disease

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Covariate	Code	Code Type
Advanced diagnosed kidney dysfunction	40311	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	40391	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	40412	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	40492	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	585	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	585*	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	586	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	V420	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	V420*	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	V451	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	V451*	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	V560	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	V560*	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	V568	ICD-9-CM Diagnosis
Advanced diagnosed kidney dysfunction	V568*	ICD-9-CM Diagnosis
Advanced liver disease	4560	ICD-9-CM Diagnosis
Advanced liver disease	4560*	ICD-9-CM Diagnosis
Advanced liver disease	4561	ICD-9-CM Diagnosis
Advanced liver disease	4561*	ICD-9-CM Diagnosis
Advanced liver disease	4562	ICD-9-CM Diagnosis
Advanced liver disease	4562*	ICD-9-CM Diagnosis
Advanced liver disease	5722	ICD-9-CM Diagnosis
Advanced liver disease	5722*	ICD-9-CM Diagnosis
Advanced liver disease	5723	ICD-9-CM Diagnosis
Advanced liver disease	5723*	ICD-9-CM Diagnosis
Advanced liver disease	5724	ICD-9-CM Diagnosis
Advanced liver disease	5724*	ICD-9-CM Diagnosis
Advanced liver disease	5728	ICD-9-CM Diagnosis
Advanced liver disease	5728*	ICD-9-CM Diagnosis
Alcoholism	291	ICD-9-CM Diagnosis
Alcoholism	291*	ICD-9-CM Diagnosis
Alcoholism	291**	ICD-9-CM Diagnosis
Alcoholism	30393	ICD-9-CM Diagnosis
Alcoholism	V113	ICD-9-CM Diagnosis
Alcoholism	V113*	ICD-9-CM Diagnosis
Anemia	2801	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Anemia	2801*	ICD-9-CM Diagnosis
Anemia	2808	ICD-9-CM Diagnosis
Anemia	2808*	ICD-9-CM Diagnosis
Anemia	2809	ICD-9-CM Diagnosis
Anemia	2809*	ICD-9-CM Diagnosis
Anemia	281	ICD-9-CM Diagnosis
Anemia	281*	ICD-9-CM Diagnosis
Cane Use	E0100	HCPCS Procedure
Cane Use	E0105	HCPCS Procedure
Chronic heart failure	40201	ICD-9-CM Diagnosis
Chronic heart failure	40211	ICD-9-CM Diagnosis
Chronic heart failure	40291	ICD-9-CM Diagnosis
Chronic heart failure	425	ICD-9-CM Diagnosis
Chronic heart failure	425*	ICD-9-CM Diagnosis
Chronic heart failure	425**	ICD-9-CM Diagnosis
Chronic heart failure	428	ICD-9-CM Diagnosis
Chronic heart failure	428*	ICD-9-CM Diagnosis
Chronic heart failure	428**	ICD-9-CM Diagnosis
Chronic heart failure	4293	ICD-9-CM Diagnosis
Chronic heart failure	4293*	ICD-9-CM Diagnosis
Coagulation defects	286	ICD-9-CM Diagnosis
Coagulation defects	286*	ICD-9-CM Diagnosis
Coagulation defects	286**	ICD-9-CM Diagnosis
Commode chair use	E0163	HCPCS Procedure
Commode chair use	E0165	HCPCS Procedure
Commode chair use	E0167	HCPCS Procedure
Commode chair use	E0168	HCPCS Procedure
Commode chair use	E0170	HCPCS Procedure
Commode chair use	E0171	HCPCS Procedure
Commode chair use	E0175	HCPCS Procedure
Coronary artery bypass surgery (CABG)	99603	ICD-9-CM Diagnosis
Coronary artery bypass surgery (CABG)	V4581	ICD-9-CM Diagnosis
Coronary artery bypass surgery (CABG)	361	ICD-9-CM Procedure
Coronary artery bypass surgery (CABG)	361*	ICD-9-CM Procedure
Coronary artery bypass surgery (CABG)	362	ICD-9-CM Procedure
Coronary artery bypass surgery (CABG)	362*	ICD-9-CM Procedure
Coronary artery bypass surgery (CABG)	33510	CPT Procedure
Coronary artery bypass surgery (CABG)	33511	CPT Procedure

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Covariate	Code	Code Type
Coronary artery bypass surgery (CABG)	33512	CPT Procedure
Coronary artery bypass surgery (CABG)	33513	CPT Procedure
Coronary artery bypass surgery (CABG)	33514	CPT Procedure
Coronary artery bypass surgery (CABG)	33516	CPT Procedure
Coronary artery bypass surgery (CABG)	33517	CPT Procedure
Coronary artery bypass surgery (CABG)	33518	CPT Procedure
Coronary artery bypass surgery (CABG)	33519	CPT Procedure
Coronary artery bypass surgery (CABG)	33520	CPT Procedure
Coronary artery bypass surgery (CABG)	33521	CPT Procedure
Coronary artery bypass surgery (CABG)	33522	CPT Procedure
Coronary artery bypass surgery (CABG)	33523	CPT Procedure
Coronary artery bypass surgery (CABG)	33525	CPT Procedure
Coronary artery bypass surgery (CABG)	S2205	HCPCS Procedure
Coronary artery bypass surgery (CABG)	S2206	HCPCS Procedure
Coronary artery bypass surgery (CABG)	S2207	HCPCS Procedure
Coronary artery bypass surgery (CABG)	S2208	HCPCS Procedure
Coronary artery bypass surgery (CABG)	S2209	HCPCS Procedure
Diabetes mellitus	250	ICD-9-CM Diagnosis
Diabetes mellitus	250*	ICD-9-CM Diagnosis
Diabetes mellitus	250**	ICD-9-CM Diagnosis
Diabetes mellitus	3572	ICD-9-CM Diagnosis
Diabetes mellitus	3572*	ICD-9-CM Diagnosis
Diabetes mellitus	3620	ICD-9-CM Diagnosis
Diabetes mellitus	3620*	ICD-9-CM Diagnosis
Diabetes mellitus	36641	ICD-9-CM Diagnosis
Falls	E880	ICD-9-CM Diagnosis
Falls	E880*	ICD-9-CM Diagnosis
Falls	E881	ICD-9-CM Diagnosis
Falls	E881*	ICD-9-CM Diagnosis
Falls	E882	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Falls	E882*	ICD-9-CM Diagnosis
Falls	E883	ICD-9-CM Diagnosis
Falls	E883*	ICD-9-CM Diagnosis
Falls	E884	ICD-9-CM Diagnosis
Falls	E884*	ICD-9-CM Diagnosis
Falls	E885	ICD-9-CM Diagnosis
Falls	E885*	ICD-9-CM Diagnosis
Falls	E886	ICD-9-CM Diagnosis
Falls	E886*	ICD-9-CM Diagnosis
Falls	E887	ICD-9-CM Diagnosis
Falls	E887*	ICD-9-CM Diagnosis
Falls	E888	ICD-9-CM Diagnosis
Falls	E888*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5310	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5310*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5311	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5311*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5312	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5312*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5313	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5313*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5314	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5314*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5315	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5315*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5316	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5316*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5320	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5320*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5321	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5321*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5322	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5322*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5323	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5323*	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Hospitalized gastrointestinal bleed	5324	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5324*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5325	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5325*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5326	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5326*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5330	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5330*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5331	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5331*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5332	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5332*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5333	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5333*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5334	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5334*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5335	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5335*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5336	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5336*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5340	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5340*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5341	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5341*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5342	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5342*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5343	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5343*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5344	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5344*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5345	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5345*	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Hospitalized gastrointestinal bleed	5346	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5346*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	53501	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	53511	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	53521	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	53531	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	53541	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	53561	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	53783	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	56202	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	56203	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	56212	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	56213	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	56881	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5693	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	5693*	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	56985	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	578	ICD-9-CM Diagnosis
Hospitalized gastrointestinal bleed	578*	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	430	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	431	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	432	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	432*	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	8520	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	8520*	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	8522	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	8522*	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	8524	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	8524*	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	8530	ICD-9-CM Diagnosis
Hospitalized intracranial bleed	8530*	ICD-9-CM Diagnosis
Hyperlipidemia	2720	ICD-9-CM Diagnosis
Hyperlipidemia	2720*	ICD-9-CM Diagnosis
Hyperlipidemia	2721	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Hyperlipidemia	2721*	ICD-9-CM Diagnosis
Hyperlipidemia	2722	ICD-9-CM Diagnosis
Hyperlipidemia	2722*	ICD-9-CM Diagnosis
Hyperlipidemia	2723	ICD-9-CM Diagnosis
Hyperlipidemia	2723*	ICD-9-CM Diagnosis
Hypertension	401	ICD-9-CM Diagnosis
Hypertension	401*	ICD-9-CM Diagnosis
Hypertension	402	ICD-9-CM Diagnosis
Hypertension	402*	ICD-9-CM Diagnosis
Hypertension	402**	ICD-9-CM Diagnosis
Hypertension	403	ICD-9-CM Diagnosis
Hypertension	403*	ICD-9-CM Diagnosis
Hypertension	403**	ICD-9-CM Diagnosis
Hypertension	404	ICD-9-CM Diagnosis
Hypertension	404*	ICD-9-CM Diagnosis
Hypertension	404**	ICD-9-CM Diagnosis
Hypertension	405	ICD-9-CM Diagnosis
Hypertension	405*	ICD-9-CM Diagnosis
Hypertension	405**	ICD-9-CM Diagnosis
Hypertension	4050F	CPT Procedure
Ischemic stroke	433*1	ICD-9-CM Diagnosis
Ischemic stroke	434*1	ICD-9-CM Diagnosis
Ischemic stroke	436	ICD-9-CM Diagnosis
Major Surgery	V670	ICD-9-CM Diagnosis
Major Surgery	V670*	ICD-9-CM Diagnosis
Major Surgery	50010	CPT Procedure
Major Surgery	50011	CPT Procedure
Major Surgery	50012	CPT Procedure
Major Surgery	50013	CPT Procedure
Major Surgery	50014	CPT Procedure
Major Surgery	50015	CPT Procedure
Major Surgery	50016	CPT Procedure
Major Surgery	50017	CPT Procedure
Major Surgery	50018	CPT Procedure
Major Surgery	50019	CPT Procedure
Major Surgery	50020	CPT Procedure
Major Surgery	50021	CPT Procedure
Major Surgery	50022	CPT Procedure
Major Surgery	50023	CPT Procedure
Major Surgery	50024	CPT Procedure
Major Surgery	50025	CPT Procedure
Major Surgery	50026	CPT Procedure
Major Surgery	50027	CPT Procedure
Major Surgery	50028	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	50029	CPT Procedure
Major Surgery	50030	CPT Procedure
Major Surgery	50031	CPT Procedure
Major Surgery	50032	CPT Procedure
Major Surgery	50033	CPT Procedure
Major Surgery	50034	CPT Procedure
Major Surgery	50035	CPT Procedure
Major Surgery	50036	CPT Procedure
Major Surgery	50037	CPT Procedure
Major Surgery	50038	CPT Procedure
Major Surgery	50039	CPT Procedure
Major Surgery	50040	CPT Procedure
Major Surgery	50041	CPT Procedure
Major Surgery	50042	CPT Procedure
Major Surgery	50043	CPT Procedure
Major Surgery	50044	CPT Procedure
Major Surgery	50045	CPT Procedure
Major Surgery	50070	CPT Procedure
Major Surgery	50100	CPT Procedure
Major Surgery	50101	CPT Procedure
Major Surgery	50102	CPT Procedure
Major Surgery	50103	CPT Procedure
Major Surgery	50104	CPT Procedure
Major Surgery	50105	CPT Procedure
Major Surgery	50106	CPT Procedure
Major Surgery	50107	CPT Procedure
Major Surgery	50108	CPT Procedure
Major Surgery	50109	CPT Procedure
Major Surgery	50110	CPT Procedure
Major Surgery	50111	CPT Procedure
Major Surgery	50112	CPT Procedure
Major Surgery	50113	CPT Procedure
Major Surgery	50114	CPT Procedure
Major Surgery	50115	CPT Procedure
Major Surgery	50116	CPT Procedure
Major Surgery	50117	CPT Procedure
Major Surgery	50118	CPT Procedure
Major Surgery	50119	CPT Procedure
Major Surgery	50120	CPT Procedure
Major Surgery	50121	CPT Procedure
Major Surgery	50122	CPT Procedure
Major Surgery	50123	CPT Procedure
Major Surgery	50124	CPT Procedure
Major Surgery	50125	CPT Procedure
Major Surgery	50126	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	50127	CPT Procedure
Major Surgery	50128	CPT Procedure
Major Surgery	50129	CPT Procedure
Major Surgery	50130	CPT Procedure
Major Surgery	50131	CPT Procedure
Major Surgery	50132	CPT Procedure
Major Surgery	50133	CPT Procedure
Major Surgery	50134	CPT Procedure
Major Surgery	50135	CPT Procedure
Major Surgery	50205	CPT Procedure
Major Surgery	50206	CPT Procedure
Major Surgery	50207	CPT Procedure
Major Surgery	50208	CPT Procedure
Major Surgery	50209	CPT Procedure
Major Surgery	50210	CPT Procedure
Major Surgery	50211	CPT Procedure
Major Surgery	50212	CPT Procedure
Major Surgery	50213	CPT Procedure
Major Surgery	50214	CPT Procedure
Major Surgery	50215	CPT Procedure
Major Surgery	50216	CPT Procedure
Major Surgery	50217	CPT Procedure
Major Surgery	50218	CPT Procedure
Major Surgery	50219	CPT Procedure
Major Surgery	50220	CPT Procedure
Major Surgery	50221	CPT Procedure
Major Surgery	50222	CPT Procedure
Major Surgery	50223	CPT Procedure
Major Surgery	50224	CPT Procedure
Major Surgery	50225	CPT Procedure
Major Surgery	50226	CPT Procedure
Major Surgery	50227	CPT Procedure
Major Surgery	50228	CPT Procedure
Major Surgery	50229	CPT Procedure
Major Surgery	50230	CPT Procedure
Major Surgery	50231	CPT Procedure
Major Surgery	50232	CPT Procedure
Major Surgery	50233	CPT Procedure
Major Surgery	50234	CPT Procedure
Major Surgery	50235	CPT Procedure
Major Surgery	50236	CPT Procedure
Major Surgery	50237	CPT Procedure
Major Surgery	50238	CPT Procedure
Major Surgery	50239	CPT Procedure
Major Surgery	50240	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	50241	CPT Procedure
Major Surgery	50242	CPT Procedure
Major Surgery	50243	CPT Procedure
Major Surgery	50244	CPT Procedure
Major Surgery	50245	CPT Procedure
Major Surgery	50246	CPT Procedure
Major Surgery	50247	CPT Procedure
Major Surgery	50248	CPT Procedure
Major Surgery	50249	CPT Procedure
Major Surgery	50250	CPT Procedure
Major Surgery	50251	CPT Procedure
Major Surgery	50252	CPT Procedure
Major Surgery	50253	CPT Procedure
Major Surgery	50254	CPT Procedure
Major Surgery	50255	CPT Procedure
Major Surgery	50256	CPT Procedure
Major Surgery	50257	CPT Procedure
Major Surgery	50258	CPT Procedure
Major Surgery	50259	CPT Procedure
Major Surgery	50260	CPT Procedure
Major Surgery	50261	CPT Procedure
Major Surgery	50262	CPT Procedure
Major Surgery	50263	CPT Procedure
Major Surgery	50264	CPT Procedure
Major Surgery	50265	CPT Procedure
Major Surgery	50266	CPT Procedure
Major Surgery	50267	CPT Procedure
Major Surgery	50268	CPT Procedure
Major Surgery	50269	CPT Procedure
Major Surgery	50270	CPT Procedure
Major Surgery	50271	CPT Procedure
Major Surgery	50272	CPT Procedure
Major Surgery	50273	CPT Procedure
Major Surgery	50274	CPT Procedure
Major Surgery	50275	CPT Procedure
Major Surgery	50276	CPT Procedure
Major Surgery	50277	CPT Procedure
Major Surgery	50278	CPT Procedure
Major Surgery	50279	CPT Procedure
Major Surgery	50280	CPT Procedure
Major Surgery	50281	CPT Procedure
Major Surgery	50282	CPT Procedure
Major Surgery	50283	CPT Procedure
Major Surgery	50284	CPT Procedure
Major Surgery	50285	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	50286	CPT Procedure
Major Surgery	50287	CPT Procedure
Major Surgery	50288	CPT Procedure
Major Surgery	50289	CPT Procedure
Major Surgery	50290	CPT Procedure
Major Surgery	50320	CPT Procedure
Major Surgery	50321	CPT Procedure
Major Surgery	50322	CPT Procedure
Major Surgery	50323	CPT Procedure
Major Surgery	50324	CPT Procedure
Major Surgery	50325	CPT Procedure
Major Surgery	50326	CPT Procedure
Major Surgery	50327	CPT Procedure
Major Surgery	50328	CPT Procedure
Major Surgery	50329	CPT Procedure
Major Surgery	50330	CPT Procedure
Major Surgery	50331	CPT Procedure
Major Surgery	50332	CPT Procedure
Major Surgery	50333	CPT Procedure
Major Surgery	50334	CPT Procedure
Major Surgery	50335	CPT Procedure
Major Surgery	50336	CPT Procedure
Major Surgery	50337	CPT Procedure
Major Surgery	50338	CPT Procedure
Major Surgery	50339	CPT Procedure
Major Surgery	50340	CPT Procedure
Major Surgery	50370	CPT Procedure
Major Surgery	50382	CPT Procedure
Major Surgery	50383	CPT Procedure
Major Surgery	50384	CPT Procedure
Major Surgery	50400	CPT Procedure
Major Surgery	50401	CPT Procedure
Major Surgery	50402	CPT Procedure
Major Surgery	50403	CPT Procedure
Major Surgery	50404	CPT Procedure
Major Surgery	50405	CPT Procedure
Major Surgery	50406	CPT Procedure
Major Surgery	50407	CPT Procedure
Major Surgery	50408	CPT Procedure
Major Surgery	50409	CPT Procedure
Major Surgery	50410	CPT Procedure
Major Surgery	50411	CPT Procedure
Major Surgery	50412	CPT Procedure
Major Surgery	50413	CPT Procedure
Major Surgery	50414	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	50415	CPT Procedure
Major Surgery	50416	CPT Procedure
Major Surgery	50417	CPT Procedure
Major Surgery	50418	CPT Procedure
Major Surgery	50419	CPT Procedure
Major Surgery	50420	CPT Procedure
Major Surgery	50421	CPT Procedure
Major Surgery	50422	CPT Procedure
Major Surgery	50423	CPT Procedure
Major Surgery	50424	CPT Procedure
Major Surgery	50425	CPT Procedure
Major Surgery	50426	CPT Procedure
Major Surgery	50427	CPT Procedure
Major Surgery	50428	CPT Procedure
Major Surgery	50429	CPT Procedure
Major Surgery	50430	CPT Procedure
Major Surgery	50431	CPT Procedure
Major Surgery	50432	CPT Procedure
Major Surgery	50433	CPT Procedure
Major Surgery	50434	CPT Procedure
Major Surgery	50435	CPT Procedure
Major Surgery	50436	CPT Procedure
Major Surgery	50437	CPT Procedure
Major Surgery	50438	CPT Procedure
Major Surgery	50439	CPT Procedure
Major Surgery	50440	CPT Procedure
Major Surgery	50441	CPT Procedure
Major Surgery	50442	CPT Procedure
Major Surgery	50443	CPT Procedure
Major Surgery	50444	CPT Procedure
Major Surgery	50445	CPT Procedure
Major Surgery	50446	CPT Procedure
Major Surgery	50447	CPT Procedure
Major Surgery	50448	CPT Procedure
Major Surgery	50449	CPT Procedure
Major Surgery	50450	CPT Procedure
Major Surgery	50451	CPT Procedure
Major Surgery	50452	CPT Procedure
Major Surgery	50453	CPT Procedure
Major Surgery	50454	CPT Procedure
Major Surgery	50455	CPT Procedure
Major Surgery	50456	CPT Procedure
Major Surgery	50457	CPT Procedure
Major Surgery	50458	CPT Procedure
Major Surgery	50459	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	50460	CPT Procedure
Major Surgery	50461	CPT Procedure
Major Surgery	50462	CPT Procedure
Major Surgery	50463	CPT Procedure
Major Surgery	50464	CPT Procedure
Major Surgery	50465	CPT Procedure
Major Surgery	50466	CPT Procedure
Major Surgery	50467	CPT Procedure
Major Surgery	50468	CPT Procedure
Major Surgery	50469	CPT Procedure
Major Surgery	50470	CPT Procedure
Major Surgery	50471	CPT Procedure
Major Surgery	50472	CPT Procedure
Major Surgery	50473	CPT Procedure
Major Surgery	50474	CPT Procedure
Major Surgery	50475	CPT Procedure
Major Surgery	50476	CPT Procedure
Major Surgery	50477	CPT Procedure
Major Surgery	50478	CPT Procedure
Major Surgery	50479	CPT Procedure
Major Surgery	50480	CPT Procedure
Major Surgery	50481	CPT Procedure
Major Surgery	50482	CPT Procedure
Major Surgery	50483	CPT Procedure
Major Surgery	50484	CPT Procedure
Major Surgery	50485	CPT Procedure
Major Surgery	50486	CPT Procedure
Major Surgery	50487	CPT Procedure
Major Surgery	50488	CPT Procedure
Major Surgery	50489	CPT Procedure
Major Surgery	50490	CPT Procedure
Major Surgery	50491	CPT Procedure
Major Surgery	50492	CPT Procedure
Major Surgery	50493	CPT Procedure
Major Surgery	50494	CPT Procedure
Major Surgery	50495	CPT Procedure
Major Surgery	50496	CPT Procedure
Major Surgery	50497	CPT Procedure
Major Surgery	50498	CPT Procedure
Major Surgery	50499	CPT Procedure
Major Surgery	50500	CPT Procedure
Major Surgery	50501	CPT Procedure
Major Surgery	50502	CPT Procedure
Major Surgery	50503	CPT Procedure
Major Surgery	50504	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	50505	CPT Procedure
Major Surgery	50506	CPT Procedure
Major Surgery	50507	CPT Procedure
Major Surgery	50508	CPT Procedure
Major Surgery	50509	CPT Procedure
Major Surgery	50510	CPT Procedure
Major Surgery	50511	CPT Procedure
Major Surgery	50512	CPT Procedure
Major Surgery	50513	CPT Procedure
Major Surgery	50514	CPT Procedure
Major Surgery	50515	CPT Procedure
Major Surgery	50516	CPT Procedure
Major Surgery	50517	CPT Procedure
Major Surgery	50518	CPT Procedure
Major Surgery	50519	CPT Procedure
Major Surgery	50520	CPT Procedure
Major Surgery	50521	CPT Procedure
Major Surgery	50522	CPT Procedure
Major Surgery	50523	CPT Procedure
Major Surgery	50524	CPT Procedure
Major Surgery	50525	CPT Procedure
Major Surgery	50526	CPT Procedure
Major Surgery	50527	CPT Procedure
Major Surgery	50528	CPT Procedure
Major Surgery	50529	CPT Procedure
Major Surgery	50530	CPT Procedure
Major Surgery	50531	CPT Procedure
Major Surgery	50532	CPT Procedure
Major Surgery	50533	CPT Procedure
Major Surgery	50534	CPT Procedure
Major Surgery	50535	CPT Procedure
Major Surgery	50536	CPT Procedure
Major Surgery	50537	CPT Procedure
Major Surgery	50538	CPT Procedure
Major Surgery	50539	CPT Procedure
Major Surgery	50540	CPT Procedure
Major Surgery	50593	CPT Procedure
Major Surgery	50600	CPT Procedure
Major Surgery	50601	CPT Procedure
Major Surgery	50602	CPT Procedure
Major Surgery	50603	CPT Procedure
Major Surgery	50604	CPT Procedure
Major Surgery	50605	CPT Procedure
Major Surgery	50606	CPT Procedure
Major Surgery	50607	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	50608	CPT Procedure
Major Surgery	50609	CPT Procedure
Major Surgery	50610	CPT Procedure
Major Surgery	50611	CPT Procedure
Major Surgery	50612	CPT Procedure
Major Surgery	50613	CPT Procedure
Major Surgery	50614	CPT Procedure
Major Surgery	50615	CPT Procedure
Major Surgery	50616	CPT Procedure
Major Surgery	50617	CPT Procedure
Major Surgery	50618	CPT Procedure
Major Surgery	50619	CPT Procedure
Major Surgery	50620	CPT Procedure
Major Surgery	50621	CPT Procedure
Major Surgery	50622	CPT Procedure
Major Surgery	50623	CPT Procedure
Major Surgery	50624	CPT Procedure
Major Surgery	50625	CPT Procedure
Major Surgery	50626	CPT Procedure
Major Surgery	50627	CPT Procedure
Major Surgery	50628	CPT Procedure
Major Surgery	50629	CPT Procedure
Major Surgery	50630	CPT Procedure
Major Surgery	50650	CPT Procedure
Major Surgery	50651	CPT Procedure
Major Surgery	50652	CPT Procedure
Major Surgery	50653	CPT Procedure
Major Surgery	50654	CPT Procedure
Major Surgery	50655	CPT Procedure
Major Surgery	50656	CPT Procedure
Major Surgery	50657	CPT Procedure
Major Surgery	50658	CPT Procedure
Major Surgery	50659	CPT Procedure
Major Surgery	50660	CPT Procedure
Major Surgery	50700	CPT Procedure
Major Surgery	50701	CPT Procedure
Major Surgery	50702	CPT Procedure
Major Surgery	50703	CPT Procedure
Major Surgery	50704	CPT Procedure
Major Surgery	50705	CPT Procedure
Major Surgery	50706	CPT Procedure
Major Surgery	50707	CPT Procedure
Major Surgery	50708	CPT Procedure
Major Surgery	50709	CPT Procedure
Major Surgery	50710	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	50711	CPT Procedure
Major Surgery	50712	CPT Procedure
Major Surgery	50713	CPT Procedure
Major Surgery	50714	CPT Procedure
Major Surgery	50715	CPT Procedure
Major Surgery	50716	CPT Procedure
Major Surgery	50717	CPT Procedure
Major Surgery	50718	CPT Procedure
Major Surgery	50719	CPT Procedure
Major Surgery	50720	CPT Procedure
Major Surgery	50721	CPT Procedure
Major Surgery	50722	CPT Procedure
Major Surgery	50723	CPT Procedure
Major Surgery	50724	CPT Procedure
Major Surgery	50725	CPT Procedure
Major Surgery	50726	CPT Procedure
Major Surgery	50727	CPT Procedure
Major Surgery	50728	CPT Procedure
Major Surgery	50729	CPT Procedure
Major Surgery	50730	CPT Procedure
Major Surgery	50731	CPT Procedure
Major Surgery	50732	CPT Procedure
Major Surgery	50733	CPT Procedure
Major Surgery	50734	CPT Procedure
Major Surgery	50735	CPT Procedure
Major Surgery	50736	CPT Procedure
Major Surgery	50737	CPT Procedure
Major Surgery	50738	CPT Procedure
Major Surgery	50739	CPT Procedure
Major Surgery	50740	CPT Procedure
Major Surgery	50741	CPT Procedure
Major Surgery	50742	CPT Procedure
Major Surgery	50743	CPT Procedure
Major Surgery	50744	CPT Procedure
Major Surgery	50745	CPT Procedure
Major Surgery	50746	CPT Procedure
Major Surgery	50747	CPT Procedure
Major Surgery	50748	CPT Procedure
Major Surgery	50749	CPT Procedure
Major Surgery	50750	CPT Procedure
Major Surgery	50751	CPT Procedure
Major Surgery	50752	CPT Procedure
Major Surgery	50753	CPT Procedure
Major Surgery	50754	CPT Procedure
Major Surgery	50755	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	50756	CPT Procedure
Major Surgery	50757	CPT Procedure
Major Surgery	50758	CPT Procedure
Major Surgery	50759	CPT Procedure
Major Surgery	50760	CPT Procedure
Major Surgery	50761	CPT Procedure
Major Surgery	50762	CPT Procedure
Major Surgery	50763	CPT Procedure
Major Surgery	50764	CPT Procedure
Major Surgery	50765	CPT Procedure
Major Surgery	50766	CPT Procedure
Major Surgery	50767	CPT Procedure
Major Surgery	50768	CPT Procedure
Major Surgery	50769	CPT Procedure
Major Surgery	50770	CPT Procedure
Major Surgery	50771	CPT Procedure
Major Surgery	50772	CPT Procedure
Major Surgery	50773	CPT Procedure
Major Surgery	50774	CPT Procedure
Major Surgery	50775	CPT Procedure
Major Surgery	50776	CPT Procedure
Major Surgery	50777	CPT Procedure
Major Surgery	50778	CPT Procedure
Major Surgery	50779	CPT Procedure
Major Surgery	50780	CPT Procedure
Major Surgery	50781	CPT Procedure
Major Surgery	50782	CPT Procedure
Major Surgery	50783	CPT Procedure
Major Surgery	50784	CPT Procedure
Major Surgery	50785	CPT Procedure
Major Surgery	50786	CPT Procedure
Major Surgery	50787	CPT Procedure
Major Surgery	50788	CPT Procedure
Major Surgery	50789	CPT Procedure
Major Surgery	50790	CPT Procedure
Major Surgery	50791	CPT Procedure
Major Surgery	50792	CPT Procedure
Major Surgery	50793	CPT Procedure
Major Surgery	50794	CPT Procedure
Major Surgery	50795	CPT Procedure
Major Surgery	50796	CPT Procedure
Major Surgery	50797	CPT Procedure
Major Surgery	50798	CPT Procedure
Major Surgery	50799	CPT Procedure
Major Surgery	50800	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	50801	CPT Procedure
Major Surgery	50802	CPT Procedure
Major Surgery	50803	CPT Procedure
Major Surgery	50804	CPT Procedure
Major Surgery	50805	CPT Procedure
Major Surgery	50806	CPT Procedure
Major Surgery	50807	CPT Procedure
Major Surgery	50808	CPT Procedure
Major Surgery	50809	CPT Procedure
Major Surgery	50810	CPT Procedure
Major Surgery	50811	CPT Procedure
Major Surgery	50812	CPT Procedure
Major Surgery	50813	CPT Procedure
Major Surgery	50814	CPT Procedure
Major Surgery	50815	CPT Procedure
Major Surgery	50816	CPT Procedure
Major Surgery	50817	CPT Procedure
Major Surgery	50818	CPT Procedure
Major Surgery	50819	CPT Procedure
Major Surgery	50820	CPT Procedure
Major Surgery	50821	CPT Procedure
Major Surgery	50822	CPT Procedure
Major Surgery	50823	CPT Procedure
Major Surgery	50824	CPT Procedure
Major Surgery	50825	CPT Procedure
Major Surgery	50826	CPT Procedure
Major Surgery	50827	CPT Procedure
Major Surgery	50828	CPT Procedure
Major Surgery	50829	CPT Procedure
Major Surgery	50830	CPT Procedure
Major Surgery	50831	CPT Procedure
Major Surgery	50832	CPT Procedure
Major Surgery	50833	CPT Procedure
Major Surgery	50834	CPT Procedure
Major Surgery	50835	CPT Procedure
Major Surgery	50836	CPT Procedure
Major Surgery	50837	CPT Procedure
Major Surgery	50838	CPT Procedure
Major Surgery	50839	CPT Procedure
Major Surgery	50840	CPT Procedure
Major Surgery	50841	CPT Procedure
Major Surgery	50842	CPT Procedure
Major Surgery	50843	CPT Procedure
Major Surgery	50844	CPT Procedure
Major Surgery	50845	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	50846	CPT Procedure
Major Surgery	50847	CPT Procedure
Major Surgery	50848	CPT Procedure
Major Surgery	50849	CPT Procedure
Major Surgery	50850	CPT Procedure
Major Surgery	50851	CPT Procedure
Major Surgery	50852	CPT Procedure
Major Surgery	50853	CPT Procedure
Major Surgery	50854	CPT Procedure
Major Surgery	50855	CPT Procedure
Major Surgery	50856	CPT Procedure
Major Surgery	50857	CPT Procedure
Major Surgery	50858	CPT Procedure
Major Surgery	50859	CPT Procedure
Major Surgery	50860	CPT Procedure
Major Surgery	50861	CPT Procedure
Major Surgery	50862	CPT Procedure
Major Surgery	50863	CPT Procedure
Major Surgery	50864	CPT Procedure
Major Surgery	50865	CPT Procedure
Major Surgery	50866	CPT Procedure
Major Surgery	50867	CPT Procedure
Major Surgery	50868	CPT Procedure
Major Surgery	50869	CPT Procedure
Major Surgery	50870	CPT Procedure
Major Surgery	50871	CPT Procedure
Major Surgery	50872	CPT Procedure
Major Surgery	50873	CPT Procedure
Major Surgery	50874	CPT Procedure
Major Surgery	50875	CPT Procedure
Major Surgery	50876	CPT Procedure
Major Surgery	50877	CPT Procedure
Major Surgery	50878	CPT Procedure
Major Surgery	50879	CPT Procedure
Major Surgery	50880	CPT Procedure
Major Surgery	50881	CPT Procedure
Major Surgery	50882	CPT Procedure
Major Surgery	50883	CPT Procedure
Major Surgery	50884	CPT Procedure
Major Surgery	50885	CPT Procedure
Major Surgery	50886	CPT Procedure
Major Surgery	50887	CPT Procedure
Major Surgery	50888	CPT Procedure
Major Surgery	50889	CPT Procedure
Major Surgery	50890	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	50891	CPT Procedure
Major Surgery	50892	CPT Procedure
Major Surgery	50893	CPT Procedure
Major Surgery	50894	CPT Procedure
Major Surgery	50895	CPT Procedure
Major Surgery	50896	CPT Procedure
Major Surgery	50897	CPT Procedure
Major Surgery	50898	CPT Procedure
Major Surgery	50899	CPT Procedure
Major Surgery	50900	CPT Procedure
Major Surgery	50901	CPT Procedure
Major Surgery	50902	CPT Procedure
Major Surgery	50903	CPT Procedure
Major Surgery	50904	CPT Procedure
Major Surgery	50905	CPT Procedure
Major Surgery	50906	CPT Procedure
Major Surgery	50907	CPT Procedure
Major Surgery	50908	CPT Procedure
Major Surgery	50909	CPT Procedure
Major Surgery	50910	CPT Procedure
Major Surgery	50911	CPT Procedure
Major Surgery	50912	CPT Procedure
Major Surgery	50913	CPT Procedure
Major Surgery	50914	CPT Procedure
Major Surgery	50915	CPT Procedure
Major Surgery	50916	CPT Procedure
Major Surgery	50917	CPT Procedure
Major Surgery	50918	CPT Procedure
Major Surgery	50919	CPT Procedure
Major Surgery	50920	CPT Procedure
Major Surgery	50921	CPT Procedure
Major Surgery	50922	CPT Procedure
Major Surgery	50923	CPT Procedure
Major Surgery	50924	CPT Procedure
Major Surgery	50925	CPT Procedure
Major Surgery	50926	CPT Procedure
Major Surgery	50927	CPT Procedure
Major Surgery	50928	CPT Procedure
Major Surgery	50929	CPT Procedure
Major Surgery	50930	CPT Procedure
Major Surgery	50931	CPT Procedure
Major Surgery	50932	CPT Procedure
Major Surgery	50933	CPT Procedure
Major Surgery	50934	CPT Procedure
Major Surgery	50935	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	50936	CPT Procedure
Major Surgery	50937	CPT Procedure
Major Surgery	50938	CPT Procedure
Major Surgery	50939	CPT Procedure
Major Surgery	50940	CPT Procedure
Major Surgery	51020	CPT Procedure
Major Surgery	51021	CPT Procedure
Major Surgery	51022	CPT Procedure
Major Surgery	51023	CPT Procedure
Major Surgery	51024	CPT Procedure
Major Surgery	51025	CPT Procedure
Major Surgery	51026	CPT Procedure
Major Surgery	51027	CPT Procedure
Major Surgery	51028	CPT Procedure
Major Surgery	51029	CPT Procedure
Major Surgery	51030	CPT Procedure
Major Surgery	51031	CPT Procedure
Major Surgery	51032	CPT Procedure
Major Surgery	51033	CPT Procedure
Major Surgery	51034	CPT Procedure
Major Surgery	51035	CPT Procedure
Major Surgery	51036	CPT Procedure
Major Surgery	51037	CPT Procedure
Major Surgery	51038	CPT Procedure
Major Surgery	51039	CPT Procedure
Major Surgery	51040	CPT Procedure
Major Surgery	51080	CPT Procedure
Major Surgery	53000	CPT Procedure
Major Surgery	53001	CPT Procedure
Major Surgery	53002	CPT Procedure
Major Surgery	53003	CPT Procedure
Major Surgery	53004	CPT Procedure
Major Surgery	53005	CPT Procedure
Major Surgery	53006	CPT Procedure
Major Surgery	53007	CPT Procedure
Major Surgery	53008	CPT Procedure
Major Surgery	53009	CPT Procedure
Major Surgery	53010	CPT Procedure
Major Surgery	53011	CPT Procedure
Major Surgery	53012	CPT Procedure
Major Surgery	53013	CPT Procedure
Major Surgery	53014	CPT Procedure
Major Surgery	53015	CPT Procedure
Major Surgery	53016	CPT Procedure
Major Surgery	53017	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	53018	CPT Procedure
Major Surgery	53019	CPT Procedure
Major Surgery	53020	CPT Procedure
Major Surgery	53021	CPT Procedure
Major Surgery	53022	CPT Procedure
Major Surgery	53023	CPT Procedure
Major Surgery	53024	CPT Procedure
Major Surgery	53025	CPT Procedure
Major Surgery	53026	CPT Procedure
Major Surgery	53027	CPT Procedure
Major Surgery	53028	CPT Procedure
Major Surgery	53029	CPT Procedure
Major Surgery	53030	CPT Procedure
Major Surgery	53031	CPT Procedure
Major Surgery	53032	CPT Procedure
Major Surgery	53033	CPT Procedure
Major Surgery	53034	CPT Procedure
Major Surgery	53035	CPT Procedure
Major Surgery	53036	CPT Procedure
Major Surgery	53037	CPT Procedure
Major Surgery	53038	CPT Procedure
Major Surgery	53039	CPT Procedure
Major Surgery	53040	CPT Procedure
Major Surgery	53041	CPT Procedure
Major Surgery	53042	CPT Procedure
Major Surgery	53043	CPT Procedure
Major Surgery	53044	CPT Procedure
Major Surgery	53045	CPT Procedure
Major Surgery	53046	CPT Procedure
Major Surgery	53047	CPT Procedure
Major Surgery	53048	CPT Procedure
Major Surgery	53049	CPT Procedure
Major Surgery	53050	CPT Procedure
Major Surgery	53051	CPT Procedure
Major Surgery	53052	CPT Procedure
Major Surgery	53053	CPT Procedure
Major Surgery	53054	CPT Procedure
Major Surgery	53055	CPT Procedure
Major Surgery	53056	CPT Procedure
Major Surgery	53057	CPT Procedure
Major Surgery	53058	CPT Procedure
Major Surgery	53059	CPT Procedure
Major Surgery	53060	CPT Procedure
Major Surgery	53061	CPT Procedure
Major Surgery	53062	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	53063	CPT Procedure
Major Surgery	53064	CPT Procedure
Major Surgery	53065	CPT Procedure
Major Surgery	53066	CPT Procedure
Major Surgery	53067	CPT Procedure
Major Surgery	53068	CPT Procedure
Major Surgery	53069	CPT Procedure
Major Surgery	53070	CPT Procedure
Major Surgery	53071	CPT Procedure
Major Surgery	53072	CPT Procedure
Major Surgery	53073	CPT Procedure
Major Surgery	53074	CPT Procedure
Major Surgery	53075	CPT Procedure
Major Surgery	53076	CPT Procedure
Major Surgery	53077	CPT Procedure
Major Surgery	53078	CPT Procedure
Major Surgery	53079	CPT Procedure
Major Surgery	53080	CPT Procedure
Major Surgery	53081	CPT Procedure
Major Surgery	53082	CPT Procedure
Major Surgery	53083	CPT Procedure
Major Surgery	53084	CPT Procedure
Major Surgery	53085	CPT Procedure
Major Surgery	53210	CPT Procedure
Major Surgery	53211	CPT Procedure
Major Surgery	53212	CPT Procedure
Major Surgery	53213	CPT Procedure
Major Surgery	53214	CPT Procedure
Major Surgery	53215	CPT Procedure
Major Surgery	53216	CPT Procedure
Major Surgery	53217	CPT Procedure
Major Surgery	53218	CPT Procedure
Major Surgery	53219	CPT Procedure
Major Surgery	53220	CPT Procedure
Major Surgery	53221	CPT Procedure
Major Surgery	53222	CPT Procedure
Major Surgery	53223	CPT Procedure
Major Surgery	53224	CPT Procedure
Major Surgery	53225	CPT Procedure
Major Surgery	53226	CPT Procedure
Major Surgery	53227	CPT Procedure
Major Surgery	53228	CPT Procedure
Major Surgery	53229	CPT Procedure
Major Surgery	53230	CPT Procedure
Major Surgery	53231	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	53232	CPT Procedure
Major Surgery	53233	CPT Procedure
Major Surgery	53234	CPT Procedure
Major Surgery	53235	CPT Procedure
Major Surgery	53236	CPT Procedure
Major Surgery	53237	CPT Procedure
Major Surgery	53238	CPT Procedure
Major Surgery	53239	CPT Procedure
Major Surgery	53240	CPT Procedure
Major Surgery	53241	CPT Procedure
Major Surgery	53242	CPT Procedure
Major Surgery	53243	CPT Procedure
Major Surgery	53244	CPT Procedure
Major Surgery	53245	CPT Procedure
Major Surgery	53246	CPT Procedure
Major Surgery	53247	CPT Procedure
Major Surgery	53248	CPT Procedure
Major Surgery	53249	CPT Procedure
Major Surgery	53250	CPT Procedure
Major Surgery	53251	CPT Procedure
Major Surgery	53252	CPT Procedure
Major Surgery	53253	CPT Procedure
Major Surgery	53254	CPT Procedure
Major Surgery	53255	CPT Procedure
Major Surgery	53256	CPT Procedure
Major Surgery	53257	CPT Procedure
Major Surgery	53258	CPT Procedure
Major Surgery	53259	CPT Procedure
Major Surgery	53260	CPT Procedure
Major Surgery	53261	CPT Procedure
Major Surgery	53262	CPT Procedure
Major Surgery	53263	CPT Procedure
Major Surgery	53264	CPT Procedure
Major Surgery	53265	CPT Procedure
Major Surgery	53266	CPT Procedure
Major Surgery	53267	CPT Procedure
Major Surgery	53268	CPT Procedure
Major Surgery	53269	CPT Procedure
Major Surgery	53270	CPT Procedure
Major Surgery	53271	CPT Procedure
Major Surgery	53272	CPT Procedure
Major Surgery	53273	CPT Procedure
Major Surgery	53274	CPT Procedure
Major Surgery	53275	CPT Procedure
Major Surgery	53400	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	53401	CPT Procedure
Major Surgery	53402	CPT Procedure
Major Surgery	53403	CPT Procedure
Major Surgery	53404	CPT Procedure
Major Surgery	53405	CPT Procedure
Major Surgery	53406	CPT Procedure
Major Surgery	53407	CPT Procedure
Major Surgery	53408	CPT Procedure
Major Surgery	53409	CPT Procedure
Major Surgery	53410	CPT Procedure
Major Surgery	53411	CPT Procedure
Major Surgery	53412	CPT Procedure
Major Surgery	53413	CPT Procedure
Major Surgery	53414	CPT Procedure
Major Surgery	53415	CPT Procedure
Major Surgery	53416	CPT Procedure
Major Surgery	53417	CPT Procedure
Major Surgery	53418	CPT Procedure
Major Surgery	53419	CPT Procedure
Major Surgery	53420	CPT Procedure
Major Surgery	53421	CPT Procedure
Major Surgery	53422	CPT Procedure
Major Surgery	53423	CPT Procedure
Major Surgery	53424	CPT Procedure
Major Surgery	53425	CPT Procedure
Major Surgery	53426	CPT Procedure
Major Surgery	53427	CPT Procedure
Major Surgery	53428	CPT Procedure
Major Surgery	53429	CPT Procedure
Major Surgery	53430	CPT Procedure
Major Surgery	53431	CPT Procedure
Major Surgery	53432	CPT Procedure
Major Surgery	53433	CPT Procedure
Major Surgery	53434	CPT Procedure
Major Surgery	53435	CPT Procedure
Major Surgery	53436	CPT Procedure
Major Surgery	53437	CPT Procedure
Major Surgery	53438	CPT Procedure
Major Surgery	53439	CPT Procedure
Major Surgery	53440	CPT Procedure
Major Surgery	53441	CPT Procedure
Major Surgery	53442	CPT Procedure
Major Surgery	53443	CPT Procedure
Major Surgery	53444	CPT Procedure
Major Surgery	53445	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	53446	CPT Procedure
Major Surgery	53447	CPT Procedure
Major Surgery	53448	CPT Procedure
Major Surgery	53449	CPT Procedure
Major Surgery	53450	CPT Procedure
Major Surgery	53451	CPT Procedure
Major Surgery	53452	CPT Procedure
Major Surgery	53453	CPT Procedure
Major Surgery	53454	CPT Procedure
Major Surgery	53455	CPT Procedure
Major Surgery	53456	CPT Procedure
Major Surgery	53457	CPT Procedure
Major Surgery	53458	CPT Procedure
Major Surgery	53459	CPT Procedure
Major Surgery	53460	CPT Procedure
Major Surgery	53461	CPT Procedure
Major Surgery	53462	CPT Procedure
Major Surgery	53463	CPT Procedure
Major Surgery	53464	CPT Procedure
Major Surgery	53465	CPT Procedure
Major Surgery	53466	CPT Procedure
Major Surgery	53467	CPT Procedure
Major Surgery	53468	CPT Procedure
Major Surgery	53469	CPT Procedure
Major Surgery	53470	CPT Procedure
Major Surgery	53471	CPT Procedure
Major Surgery	53472	CPT Procedure
Major Surgery	53473	CPT Procedure
Major Surgery	53474	CPT Procedure
Major Surgery	53475	CPT Procedure
Major Surgery	53476	CPT Procedure
Major Surgery	53477	CPT Procedure
Major Surgery	53478	CPT Procedure
Major Surgery	53479	CPT Procedure
Major Surgery	53480	CPT Procedure
Major Surgery	53481	CPT Procedure
Major Surgery	53482	CPT Procedure
Major Surgery	53483	CPT Procedure
Major Surgery	53484	CPT Procedure
Major Surgery	53485	CPT Procedure
Major Surgery	53486	CPT Procedure
Major Surgery	53487	CPT Procedure
Major Surgery	53488	CPT Procedure
Major Surgery	53489	CPT Procedure
Major Surgery	53490	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	53491	CPT Procedure
Major Surgery	53492	CPT Procedure
Major Surgery	53493	CPT Procedure
Major Surgery	53494	CPT Procedure
Major Surgery	53495	CPT Procedure
Major Surgery	53496	CPT Procedure
Major Surgery	53497	CPT Procedure
Major Surgery	53498	CPT Procedure
Major Surgery	53499	CPT Procedure
Major Surgery	53500	CPT Procedure
Major Surgery	53501	CPT Procedure
Major Surgery	53502	CPT Procedure
Major Surgery	53503	CPT Procedure
Major Surgery	53504	CPT Procedure
Major Surgery	53505	CPT Procedure
Major Surgery	53506	CPT Procedure
Major Surgery	53507	CPT Procedure
Major Surgery	53508	CPT Procedure
Major Surgery	53509	CPT Procedure
Major Surgery	53510	CPT Procedure
Major Surgery	53511	CPT Procedure
Major Surgery	53512	CPT Procedure
Major Surgery	53513	CPT Procedure
Major Surgery	53514	CPT Procedure
Major Surgery	53515	CPT Procedure
Major Surgery	53516	CPT Procedure
Major Surgery	53517	CPT Procedure
Major Surgery	53518	CPT Procedure
Major Surgery	53519	CPT Procedure
Major Surgery	53520	CPT Procedure
Major Surgery	53855	CPT Procedure
Major Surgery	56620	CPT Procedure
Major Surgery	56621	CPT Procedure
Major Surgery	56622	CPT Procedure
Major Surgery	56623	CPT Procedure
Major Surgery	56624	CPT Procedure
Major Surgery	56625	CPT Procedure
Major Surgery	56626	CPT Procedure
Major Surgery	56627	CPT Procedure
Major Surgery	56628	CPT Procedure
Major Surgery	56629	CPT Procedure
Major Surgery	56630	CPT Procedure
Major Surgery	56631	CPT Procedure
Major Surgery	56632	CPT Procedure
Major Surgery	56633	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	56634	CPT Procedure
Major Surgery	56635	CPT Procedure
Major Surgery	56636	CPT Procedure
Major Surgery	56637	CPT Procedure
Major Surgery	56638	CPT Procedure
Major Surgery	56639	CPT Procedure
Major Surgery	56640	CPT Procedure
Major Surgery	56641	CPT Procedure
Major Surgery	56642	CPT Procedure
Major Surgery	56643	CPT Procedure
Major Surgery	56644	CPT Procedure
Major Surgery	56645	CPT Procedure
Major Surgery	56646	CPT Procedure
Major Surgery	56647	CPT Procedure
Major Surgery	56648	CPT Procedure
Major Surgery	56649	CPT Procedure
Major Surgery	56650	CPT Procedure
Major Surgery	56651	CPT Procedure
Major Surgery	56652	CPT Procedure
Major Surgery	56653	CPT Procedure
Major Surgery	56654	CPT Procedure
Major Surgery	56655	CPT Procedure
Major Surgery	56656	CPT Procedure
Major Surgery	56657	CPT Procedure
Major Surgery	56658	CPT Procedure
Major Surgery	56659	CPT Procedure
Major Surgery	56660	CPT Procedure
Major Surgery	56661	CPT Procedure
Major Surgery	56662	CPT Procedure
Major Surgery	56663	CPT Procedure
Major Surgery	56664	CPT Procedure
Major Surgery	56665	CPT Procedure
Major Surgery	56666	CPT Procedure
Major Surgery	56667	CPT Procedure
Major Surgery	56668	CPT Procedure
Major Surgery	56669	CPT Procedure
Major Surgery	56670	CPT Procedure
Major Surgery	56671	CPT Procedure
Major Surgery	56672	CPT Procedure
Major Surgery	56673	CPT Procedure
Major Surgery	56674	CPT Procedure
Major Surgery	56675	CPT Procedure
Major Surgery	56676	CPT Procedure
Major Surgery	56677	CPT Procedure
Major Surgery	56678	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	56679	CPT Procedure
Major Surgery	56680	CPT Procedure
Major Surgery	56681	CPT Procedure
Major Surgery	56682	CPT Procedure
Major Surgery	56683	CPT Procedure
Major Surgery	56684	CPT Procedure
Major Surgery	56685	CPT Procedure
Major Surgery	56686	CPT Procedure
Major Surgery	56687	CPT Procedure
Major Surgery	56688	CPT Procedure
Major Surgery	56689	CPT Procedure
Major Surgery	56690	CPT Procedure
Major Surgery	56691	CPT Procedure
Major Surgery	56692	CPT Procedure
Major Surgery	56693	CPT Procedure
Major Surgery	56694	CPT Procedure
Major Surgery	56695	CPT Procedure
Major Surgery	56696	CPT Procedure
Major Surgery	56697	CPT Procedure
Major Surgery	56698	CPT Procedure
Major Surgery	56699	CPT Procedure
Major Surgery	56700	CPT Procedure
Major Surgery	56701	CPT Procedure
Major Surgery	56702	CPT Procedure
Major Surgery	56703	CPT Procedure
Major Surgery	56704	CPT Procedure
Major Surgery	56705	CPT Procedure
Major Surgery	56706	CPT Procedure
Major Surgery	56707	CPT Procedure
Major Surgery	56708	CPT Procedure
Major Surgery	56709	CPT Procedure
Major Surgery	56710	CPT Procedure
Major Surgery	56711	CPT Procedure
Major Surgery	56712	CPT Procedure
Major Surgery	56713	CPT Procedure
Major Surgery	56714	CPT Procedure
Major Surgery	56715	CPT Procedure
Major Surgery	56716	CPT Procedure
Major Surgery	56717	CPT Procedure
Major Surgery	56718	CPT Procedure
Major Surgery	56719	CPT Procedure
Major Surgery	56720	CPT Procedure
Major Surgery	56721	CPT Procedure
Major Surgery	56722	CPT Procedure
Major Surgery	56723	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	56724	CPT Procedure
Major Surgery	56725	CPT Procedure
Major Surgery	56726	CPT Procedure
Major Surgery	56727	CPT Procedure
Major Surgery	56728	CPT Procedure
Major Surgery	56729	CPT Procedure
Major Surgery	56730	CPT Procedure
Major Surgery	56731	CPT Procedure
Major Surgery	56732	CPT Procedure
Major Surgery	56733	CPT Procedure
Major Surgery	56734	CPT Procedure
Major Surgery	56735	CPT Procedure
Major Surgery	56736	CPT Procedure
Major Surgery	56737	CPT Procedure
Major Surgery	56738	CPT Procedure
Major Surgery	56739	CPT Procedure
Major Surgery	56740	CPT Procedure
Major Surgery	56800	CPT Procedure
Major Surgery	56801	CPT Procedure
Major Surgery	56802	CPT Procedure
Major Surgery	56803	CPT Procedure
Major Surgery	56804	CPT Procedure
Major Surgery	56805	CPT Procedure
Major Surgery	56806	CPT Procedure
Major Surgery	56807	CPT Procedure
Major Surgery	56808	CPT Procedure
Major Surgery	56809	CPT Procedure
Major Surgery	56810	CPT Procedure
Major Surgery	57000	CPT Procedure
Major Surgery	57001	CPT Procedure
Major Surgery	57002	CPT Procedure
Major Surgery	57003	CPT Procedure
Major Surgery	57004	CPT Procedure
Major Surgery	57005	CPT Procedure
Major Surgery	57006	CPT Procedure
Major Surgery	57007	CPT Procedure
Major Surgery	57008	CPT Procedure
Major Surgery	57009	CPT Procedure
Major Surgery	57010	CPT Procedure
Major Surgery	57011	CPT Procedure
Major Surgery	57012	CPT Procedure
Major Surgery	57013	CPT Procedure
Major Surgery	57014	CPT Procedure
Major Surgery	57015	CPT Procedure
Major Surgery	57016	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	57017	CPT Procedure
Major Surgery	57018	CPT Procedure
Major Surgery	57019	CPT Procedure
Major Surgery	57020	CPT Procedure
Major Surgery	57021	CPT Procedure
Major Surgery	57022	CPT Procedure
Major Surgery	57023	CPT Procedure
Major Surgery	57024	CPT Procedure
Major Surgery	57025	CPT Procedure
Major Surgery	57026	CPT Procedure
Major Surgery	57027	CPT Procedure
Major Surgery	57028	CPT Procedure
Major Surgery	57029	CPT Procedure
Major Surgery	57030	CPT Procedure
Major Surgery	57031	CPT Procedure
Major Surgery	57032	CPT Procedure
Major Surgery	57033	CPT Procedure
Major Surgery	57034	CPT Procedure
Major Surgery	57035	CPT Procedure
Major Surgery	57036	CPT Procedure
Major Surgery	57037	CPT Procedure
Major Surgery	57038	CPT Procedure
Major Surgery	57039	CPT Procedure
Major Surgery	57040	CPT Procedure
Major Surgery	57041	CPT Procedure
Major Surgery	57042	CPT Procedure
Major Surgery	57043	CPT Procedure
Major Surgery	57044	CPT Procedure
Major Surgery	57045	CPT Procedure
Major Surgery	57046	CPT Procedure
Major Surgery	57047	CPT Procedure
Major Surgery	57048	CPT Procedure
Major Surgery	57049	CPT Procedure
Major Surgery	57050	CPT Procedure
Major Surgery	57051	CPT Procedure
Major Surgery	57052	CPT Procedure
Major Surgery	57053	CPT Procedure
Major Surgery	57054	CPT Procedure
Major Surgery	57055	CPT Procedure
Major Surgery	57056	CPT Procedure
Major Surgery	57057	CPT Procedure
Major Surgery	57058	CPT Procedure
Major Surgery	57059	CPT Procedure
Major Surgery	57060	CPT Procedure
Major Surgery	57061	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	57062	CPT Procedure
Major Surgery	57063	CPT Procedure
Major Surgery	57064	CPT Procedure
Major Surgery	57065	CPT Procedure
Major Surgery	57066	CPT Procedure
Major Surgery	57067	CPT Procedure
Major Surgery	57068	CPT Procedure
Major Surgery	57069	CPT Procedure
Major Surgery	57070	CPT Procedure
Major Surgery	57071	CPT Procedure
Major Surgery	57072	CPT Procedure
Major Surgery	57073	CPT Procedure
Major Surgery	57074	CPT Procedure
Major Surgery	57075	CPT Procedure
Major Surgery	57076	CPT Procedure
Major Surgery	57077	CPT Procedure
Major Surgery	57078	CPT Procedure
Major Surgery	57079	CPT Procedure
Major Surgery	57080	CPT Procedure
Major Surgery	57081	CPT Procedure
Major Surgery	57082	CPT Procedure
Major Surgery	57083	CPT Procedure
Major Surgery	57084	CPT Procedure
Major Surgery	57085	CPT Procedure
Major Surgery	57086	CPT Procedure
Major Surgery	57087	CPT Procedure
Major Surgery	57088	CPT Procedure
Major Surgery	57089	CPT Procedure
Major Surgery	57090	CPT Procedure
Major Surgery	57091	CPT Procedure
Major Surgery	57092	CPT Procedure
Major Surgery	57093	CPT Procedure
Major Surgery	57094	CPT Procedure
Major Surgery	57095	CPT Procedure
Major Surgery	57096	CPT Procedure
Major Surgery	57097	CPT Procedure
Major Surgery	57098	CPT Procedure
Major Surgery	57099	CPT Procedure
Major Surgery	57100	CPT Procedure
Major Surgery	57101	CPT Procedure
Major Surgery	57102	CPT Procedure
Major Surgery	57103	CPT Procedure
Major Surgery	57104	CPT Procedure
Major Surgery	57105	CPT Procedure
Major Surgery	57106	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	57107	CPT Procedure
Major Surgery	57108	CPT Procedure
Major Surgery	57109	CPT Procedure
Major Surgery	57110	CPT Procedure
Major Surgery	57111	CPT Procedure
Major Surgery	57112	CPT Procedure
Major Surgery	57113	CPT Procedure
Major Surgery	57114	CPT Procedure
Major Surgery	57115	CPT Procedure
Major Surgery	57116	CPT Procedure
Major Surgery	57117	CPT Procedure
Major Surgery	57118	CPT Procedure
Major Surgery	57119	CPT Procedure
Major Surgery	57120	CPT Procedure
Major Surgery	57121	CPT Procedure
Major Surgery	57122	CPT Procedure
Major Surgery	57123	CPT Procedure
Major Surgery	57124	CPT Procedure
Major Surgery	57125	CPT Procedure
Major Surgery	57126	CPT Procedure
Major Surgery	57127	CPT Procedure
Major Surgery	57128	CPT Procedure
Major Surgery	57129	CPT Procedure
Major Surgery	57130	CPT Procedure
Major Surgery	57131	CPT Procedure
Major Surgery	57132	CPT Procedure
Major Surgery	57133	CPT Procedure
Major Surgery	57134	CPT Procedure
Major Surgery	57135	CPT Procedure
Major Surgery	57136	CPT Procedure
Major Surgery	57137	CPT Procedure
Major Surgery	57138	CPT Procedure
Major Surgery	57139	CPT Procedure
Major Surgery	57140	CPT Procedure
Major Surgery	57141	CPT Procedure
Major Surgery	57142	CPT Procedure
Major Surgery	57143	CPT Procedure
Major Surgery	57144	CPT Procedure
Major Surgery	57145	CPT Procedure
Major Surgery	57146	CPT Procedure
Major Surgery	57147	CPT Procedure
Major Surgery	57148	CPT Procedure
Major Surgery	57149	CPT Procedure
Major Surgery	57150	CPT Procedure
Major Surgery	57151	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	57152	CPT Procedure
Major Surgery	57153	CPT Procedure
Major Surgery	57154	CPT Procedure
Major Surgery	57155	CPT Procedure
Major Surgery	57156	CPT Procedure
Major Surgery	57157	CPT Procedure
Major Surgery	57158	CPT Procedure
Major Surgery	57159	CPT Procedure
Major Surgery	57160	CPT Procedure
Major Surgery	57161	CPT Procedure
Major Surgery	57162	CPT Procedure
Major Surgery	57163	CPT Procedure
Major Surgery	57164	CPT Procedure
Major Surgery	57165	CPT Procedure
Major Surgery	57166	CPT Procedure
Major Surgery	57167	CPT Procedure
Major Surgery	57168	CPT Procedure
Major Surgery	57169	CPT Procedure
Major Surgery	57170	CPT Procedure
Major Surgery	57171	CPT Procedure
Major Surgery	57172	CPT Procedure
Major Surgery	57173	CPT Procedure
Major Surgery	57174	CPT Procedure
Major Surgery	57175	CPT Procedure
Major Surgery	57176	CPT Procedure
Major Surgery	57177	CPT Procedure
Major Surgery	57178	CPT Procedure
Major Surgery	57179	CPT Procedure
Major Surgery	57180	CPT Procedure
Major Surgery	57181	CPT Procedure
Major Surgery	57182	CPT Procedure
Major Surgery	57183	CPT Procedure
Major Surgery	57184	CPT Procedure
Major Surgery	57185	CPT Procedure
Major Surgery	57186	CPT Procedure
Major Surgery	57187	CPT Procedure
Major Surgery	57188	CPT Procedure
Major Surgery	57189	CPT Procedure
Major Surgery	57190	CPT Procedure
Major Surgery	57191	CPT Procedure
Major Surgery	57192	CPT Procedure
Major Surgery	57193	CPT Procedure
Major Surgery	57194	CPT Procedure
Major Surgery	57195	CPT Procedure
Major Surgery	57196	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	57197	CPT Procedure
Major Surgery	57198	CPT Procedure
Major Surgery	57199	CPT Procedure
Major Surgery	57200	CPT Procedure
Major Surgery	57201	CPT Procedure
Major Surgery	57202	CPT Procedure
Major Surgery	57203	CPT Procedure
Major Surgery	57204	CPT Procedure
Major Surgery	57205	CPT Procedure
Major Surgery	57206	CPT Procedure
Major Surgery	57207	CPT Procedure
Major Surgery	57208	CPT Procedure
Major Surgery	57209	CPT Procedure
Major Surgery	57210	CPT Procedure
Major Surgery	57211	CPT Procedure
Major Surgery	57212	CPT Procedure
Major Surgery	57213	CPT Procedure
Major Surgery	57214	CPT Procedure
Major Surgery	57215	CPT Procedure
Major Surgery	57216	CPT Procedure
Major Surgery	57217	CPT Procedure
Major Surgery	57218	CPT Procedure
Major Surgery	57219	CPT Procedure
Major Surgery	57220	CPT Procedure
Major Surgery	57221	CPT Procedure
Major Surgery	57222	CPT Procedure
Major Surgery	57223	CPT Procedure
Major Surgery	57224	CPT Procedure
Major Surgery	57225	CPT Procedure
Major Surgery	57226	CPT Procedure
Major Surgery	57227	CPT Procedure
Major Surgery	57228	CPT Procedure
Major Surgery	57229	CPT Procedure
Major Surgery	57230	CPT Procedure
Major Surgery	57231	CPT Procedure
Major Surgery	57232	CPT Procedure
Major Surgery	57233	CPT Procedure
Major Surgery	57234	CPT Procedure
Major Surgery	57235	CPT Procedure
Major Surgery	57236	CPT Procedure
Major Surgery	57237	CPT Procedure
Major Surgery	57238	CPT Procedure
Major Surgery	57239	CPT Procedure
Major Surgery	57240	CPT Procedure
Major Surgery	57241	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	57242	CPT Procedure
Major Surgery	57243	CPT Procedure
Major Surgery	57244	CPT Procedure
Major Surgery	57245	CPT Procedure
Major Surgery	57246	CPT Procedure
Major Surgery	57247	CPT Procedure
Major Surgery	57248	CPT Procedure
Major Surgery	57249	CPT Procedure
Major Surgery	57250	CPT Procedure
Major Surgery	57251	CPT Procedure
Major Surgery	57252	CPT Procedure
Major Surgery	57253	CPT Procedure
Major Surgery	57254	CPT Procedure
Major Surgery	57255	CPT Procedure
Major Surgery	57256	CPT Procedure
Major Surgery	57257	CPT Procedure
Major Surgery	57258	CPT Procedure
Major Surgery	57259	CPT Procedure
Major Surgery	57260	CPT Procedure
Major Surgery	57261	CPT Procedure
Major Surgery	57262	CPT Procedure
Major Surgery	57263	CPT Procedure
Major Surgery	57264	CPT Procedure
Major Surgery	57265	CPT Procedure
Major Surgery	57266	CPT Procedure
Major Surgery	57267	CPT Procedure
Major Surgery	57268	CPT Procedure
Major Surgery	57269	CPT Procedure
Major Surgery	57270	CPT Procedure
Major Surgery	57271	CPT Procedure
Major Surgery	57272	CPT Procedure
Major Surgery	57273	CPT Procedure
Major Surgery	57274	CPT Procedure
Major Surgery	57275	CPT Procedure
Major Surgery	57276	CPT Procedure
Major Surgery	57277	CPT Procedure
Major Surgery	57278	CPT Procedure
Major Surgery	57279	CPT Procedure
Major Surgery	57280	CPT Procedure
Major Surgery	57281	CPT Procedure
Major Surgery	57282	CPT Procedure
Major Surgery	57283	CPT Procedure
Major Surgery	57284	CPT Procedure
Major Surgery	57285	CPT Procedure
Major Surgery	57286	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	57287	CPT Procedure
Major Surgery	57288	CPT Procedure
Major Surgery	57289	CPT Procedure
Major Surgery	57290	CPT Procedure
Major Surgery	57291	CPT Procedure
Major Surgery	57292	CPT Procedure
Major Surgery	57293	CPT Procedure
Major Surgery	57294	CPT Procedure
Major Surgery	57295	CPT Procedure
Major Surgery	57296	CPT Procedure
Major Surgery	57297	CPT Procedure
Major Surgery	57298	CPT Procedure
Major Surgery	57299	CPT Procedure
Major Surgery	57300	CPT Procedure
Major Surgery	57301	CPT Procedure
Major Surgery	57302	CPT Procedure
Major Surgery	57303	CPT Procedure
Major Surgery	57304	CPT Procedure
Major Surgery	57305	CPT Procedure
Major Surgery	57306	CPT Procedure
Major Surgery	57307	CPT Procedure
Major Surgery	57308	CPT Procedure
Major Surgery	57309	CPT Procedure
Major Surgery	57310	CPT Procedure
Major Surgery	57311	CPT Procedure
Major Surgery	57312	CPT Procedure
Major Surgery	57313	CPT Procedure
Major Surgery	57314	CPT Procedure
Major Surgery	57315	CPT Procedure
Major Surgery	57316	CPT Procedure
Major Surgery	57317	CPT Procedure
Major Surgery	57318	CPT Procedure
Major Surgery	57319	CPT Procedure
Major Surgery	57320	CPT Procedure
Major Surgery	57321	CPT Procedure
Major Surgery	57322	CPT Procedure
Major Surgery	57323	CPT Procedure
Major Surgery	57324	CPT Procedure
Major Surgery	57325	CPT Procedure
Major Surgery	57326	CPT Procedure
Major Surgery	57327	CPT Procedure
Major Surgery	57328	CPT Procedure
Major Surgery	57329	CPT Procedure
Major Surgery	57330	CPT Procedure
Major Surgery	57331	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	57332	CPT Procedure
Major Surgery	57333	CPT Procedure
Major Surgery	57334	CPT Procedure
Major Surgery	57335	CPT Procedure
Major Surgery	57530	CPT Procedure
Major Surgery	57531	CPT Procedure
Major Surgery	57532	CPT Procedure
Major Surgery	57533	CPT Procedure
Major Surgery	57534	CPT Procedure
Major Surgery	57535	CPT Procedure
Major Surgery	57536	CPT Procedure
Major Surgery	57537	CPT Procedure
Major Surgery	57538	CPT Procedure
Major Surgery	57539	CPT Procedure
Major Surgery	57540	CPT Procedure
Major Surgery	57541	CPT Procedure
Major Surgery	57542	CPT Procedure
Major Surgery	57543	CPT Procedure
Major Surgery	57544	CPT Procedure
Major Surgery	57545	CPT Procedure
Major Surgery	57546	CPT Procedure
Major Surgery	57547	CPT Procedure
Major Surgery	57548	CPT Procedure
Major Surgery	57549	CPT Procedure
Major Surgery	57550	CPT Procedure
Major Surgery	57551	CPT Procedure
Major Surgery	57552	CPT Procedure
Major Surgery	57553	CPT Procedure
Major Surgery	57554	CPT Procedure
Major Surgery	57555	CPT Procedure
Major Surgery	57556	CPT Procedure
Major Surgery	57720	CPT Procedure
Major Surgery	58140	CPT Procedure
Major Surgery	58141	CPT Procedure
Major Surgery	58142	CPT Procedure
Major Surgery	58143	CPT Procedure
Major Surgery	58144	CPT Procedure
Major Surgery	58145	CPT Procedure
Major Surgery	58146	CPT Procedure
Major Surgery	58150	CPT Procedure
Major Surgery	58151	CPT Procedure
Major Surgery	58152	CPT Procedure
Major Surgery	58153	CPT Procedure
Major Surgery	58154	CPT Procedure
Major Surgery	58155	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58156	CPT Procedure
Major Surgery	58157	CPT Procedure
Major Surgery	58158	CPT Procedure
Major Surgery	58159	CPT Procedure
Major Surgery	58160	CPT Procedure
Major Surgery	58161	CPT Procedure
Major Surgery	58162	CPT Procedure
Major Surgery	58163	CPT Procedure
Major Surgery	58164	CPT Procedure
Major Surgery	58165	CPT Procedure
Major Surgery	58166	CPT Procedure
Major Surgery	58167	CPT Procedure
Major Surgery	58168	CPT Procedure
Major Surgery	58169	CPT Procedure
Major Surgery	58170	CPT Procedure
Major Surgery	58171	CPT Procedure
Major Surgery	58172	CPT Procedure
Major Surgery	58173	CPT Procedure
Major Surgery	58174	CPT Procedure
Major Surgery	58175	CPT Procedure
Major Surgery	58176	CPT Procedure
Major Surgery	58177	CPT Procedure
Major Surgery	58178	CPT Procedure
Major Surgery	58179	CPT Procedure
Major Surgery	58180	CPT Procedure
Major Surgery	58181	CPT Procedure
Major Surgery	58182	CPT Procedure
Major Surgery	58183	CPT Procedure
Major Surgery	58184	CPT Procedure
Major Surgery	58185	CPT Procedure
Major Surgery	58186	CPT Procedure
Major Surgery	58187	CPT Procedure
Major Surgery	58188	CPT Procedure
Major Surgery	58189	CPT Procedure
Major Surgery	58190	CPT Procedure
Major Surgery	58191	CPT Procedure
Major Surgery	58192	CPT Procedure
Major Surgery	58193	CPT Procedure
Major Surgery	58194	CPT Procedure
Major Surgery	58195	CPT Procedure
Major Surgery	58196	CPT Procedure
Major Surgery	58197	CPT Procedure
Major Surgery	58198	CPT Procedure
Major Surgery	58199	CPT Procedure
Major Surgery	58200	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58201	CPT Procedure
Major Surgery	58202	CPT Procedure
Major Surgery	58203	CPT Procedure
Major Surgery	58204	CPT Procedure
Major Surgery	58205	CPT Procedure
Major Surgery	58206	CPT Procedure
Major Surgery	58207	CPT Procedure
Major Surgery	58208	CPT Procedure
Major Surgery	58209	CPT Procedure
Major Surgery	58210	CPT Procedure
Major Surgery	58211	CPT Procedure
Major Surgery	58212	CPT Procedure
Major Surgery	58213	CPT Procedure
Major Surgery	58214	CPT Procedure
Major Surgery	58215	CPT Procedure
Major Surgery	58216	CPT Procedure
Major Surgery	58217	CPT Procedure
Major Surgery	58218	CPT Procedure
Major Surgery	58219	CPT Procedure
Major Surgery	58220	CPT Procedure
Major Surgery	58221	CPT Procedure
Major Surgery	58222	CPT Procedure
Major Surgery	58223	CPT Procedure
Major Surgery	58224	CPT Procedure
Major Surgery	58225	CPT Procedure
Major Surgery	58226	CPT Procedure
Major Surgery	58227	CPT Procedure
Major Surgery	58228	CPT Procedure
Major Surgery	58229	CPT Procedure
Major Surgery	58230	CPT Procedure
Major Surgery	58231	CPT Procedure
Major Surgery	58232	CPT Procedure
Major Surgery	58233	CPT Procedure
Major Surgery	58234	CPT Procedure
Major Surgery	58235	CPT Procedure
Major Surgery	58236	CPT Procedure
Major Surgery	58237	CPT Procedure
Major Surgery	58238	CPT Procedure
Major Surgery	58239	CPT Procedure
Major Surgery	58240	CPT Procedure
Major Surgery	58241	CPT Procedure
Major Surgery	58242	CPT Procedure
Major Surgery	58243	CPT Procedure
Major Surgery	58244	CPT Procedure
Major Surgery	58245	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58246	CPT Procedure
Major Surgery	58247	CPT Procedure
Major Surgery	58248	CPT Procedure
Major Surgery	58249	CPT Procedure
Major Surgery	58250	CPT Procedure
Major Surgery	58251	CPT Procedure
Major Surgery	58252	CPT Procedure
Major Surgery	58253	CPT Procedure
Major Surgery	58254	CPT Procedure
Major Surgery	58255	CPT Procedure
Major Surgery	58256	CPT Procedure
Major Surgery	58257	CPT Procedure
Major Surgery	58258	CPT Procedure
Major Surgery	58259	CPT Procedure
Major Surgery	58260	CPT Procedure
Major Surgery	58261	CPT Procedure
Major Surgery	58262	CPT Procedure
Major Surgery	58263	CPT Procedure
Major Surgery	58264	CPT Procedure
Major Surgery	58265	CPT Procedure
Major Surgery	58266	CPT Procedure
Major Surgery	58267	CPT Procedure
Major Surgery	58268	CPT Procedure
Major Surgery	58269	CPT Procedure
Major Surgery	58270	CPT Procedure
Major Surgery	58271	CPT Procedure
Major Surgery	58272	CPT Procedure
Major Surgery	58273	CPT Procedure
Major Surgery	58274	CPT Procedure
Major Surgery	58275	CPT Procedure
Major Surgery	58276	CPT Procedure
Major Surgery	58277	CPT Procedure
Major Surgery	58278	CPT Procedure
Major Surgery	58279	CPT Procedure
Major Surgery	58280	CPT Procedure
Major Surgery	58281	CPT Procedure
Major Surgery	58282	CPT Procedure
Major Surgery	58283	CPT Procedure
Major Surgery	58284	CPT Procedure
Major Surgery	58285	CPT Procedure
Major Surgery	58286	CPT Procedure
Major Surgery	58287	CPT Procedure
Major Surgery	58288	CPT Procedure
Major Surgery	58289	CPT Procedure
Major Surgery	58290	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58291	CPT Procedure
Major Surgery	58292	CPT Procedure
Major Surgery	58293	CPT Procedure
Major Surgery	58294	CPT Procedure
Major Surgery	58400	CPT Procedure
Major Surgery	58401	CPT Procedure
Major Surgery	58402	CPT Procedure
Major Surgery	58403	CPT Procedure
Major Surgery	58404	CPT Procedure
Major Surgery	58405	CPT Procedure
Major Surgery	58406	CPT Procedure
Major Surgery	58407	CPT Procedure
Major Surgery	58408	CPT Procedure
Major Surgery	58409	CPT Procedure
Major Surgery	58410	CPT Procedure
Major Surgery	58411	CPT Procedure
Major Surgery	58412	CPT Procedure
Major Surgery	58413	CPT Procedure
Major Surgery	58414	CPT Procedure
Major Surgery	58415	CPT Procedure
Major Surgery	58416	CPT Procedure
Major Surgery	58417	CPT Procedure
Major Surgery	58418	CPT Procedure
Major Surgery	58419	CPT Procedure
Major Surgery	58420	CPT Procedure
Major Surgery	58421	CPT Procedure
Major Surgery	58422	CPT Procedure
Major Surgery	58423	CPT Procedure
Major Surgery	58424	CPT Procedure
Major Surgery	58425	CPT Procedure
Major Surgery	58426	CPT Procedure
Major Surgery	58427	CPT Procedure
Major Surgery	58428	CPT Procedure
Major Surgery	58429	CPT Procedure
Major Surgery	58430	CPT Procedure
Major Surgery	58431	CPT Procedure
Major Surgery	58432	CPT Procedure
Major Surgery	58433	CPT Procedure
Major Surgery	58434	CPT Procedure
Major Surgery	58435	CPT Procedure
Major Surgery	58436	CPT Procedure
Major Surgery	58437	CPT Procedure
Major Surgery	58438	CPT Procedure
Major Surgery	58439	CPT Procedure
Major Surgery	58440	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58441	CPT Procedure
Major Surgery	58442	CPT Procedure
Major Surgery	58443	CPT Procedure
Major Surgery	58444	CPT Procedure
Major Surgery	58445	CPT Procedure
Major Surgery	58446	CPT Procedure
Major Surgery	58447	CPT Procedure
Major Surgery	58448	CPT Procedure
Major Surgery	58449	CPT Procedure
Major Surgery	58450	CPT Procedure
Major Surgery	58451	CPT Procedure
Major Surgery	58452	CPT Procedure
Major Surgery	58453	CPT Procedure
Major Surgery	58454	CPT Procedure
Major Surgery	58455	CPT Procedure
Major Surgery	58456	CPT Procedure
Major Surgery	58457	CPT Procedure
Major Surgery	58458	CPT Procedure
Major Surgery	58459	CPT Procedure
Major Surgery	58460	CPT Procedure
Major Surgery	58461	CPT Procedure
Major Surgery	58462	CPT Procedure
Major Surgery	58463	CPT Procedure
Major Surgery	58464	CPT Procedure
Major Surgery	58465	CPT Procedure
Major Surgery	58466	CPT Procedure
Major Surgery	58467	CPT Procedure
Major Surgery	58468	CPT Procedure
Major Surgery	58469	CPT Procedure
Major Surgery	58470	CPT Procedure
Major Surgery	58471	CPT Procedure
Major Surgery	58472	CPT Procedure
Major Surgery	58473	CPT Procedure
Major Surgery	58474	CPT Procedure
Major Surgery	58475	CPT Procedure
Major Surgery	58476	CPT Procedure
Major Surgery	58477	CPT Procedure
Major Surgery	58478	CPT Procedure
Major Surgery	58479	CPT Procedure
Major Surgery	58480	CPT Procedure
Major Surgery	58481	CPT Procedure
Major Surgery	58482	CPT Procedure
Major Surgery	58483	CPT Procedure
Major Surgery	58484	CPT Procedure
Major Surgery	58485	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58486	CPT Procedure
Major Surgery	58487	CPT Procedure
Major Surgery	58488	CPT Procedure
Major Surgery	58489	CPT Procedure
Major Surgery	58490	CPT Procedure
Major Surgery	58491	CPT Procedure
Major Surgery	58492	CPT Procedure
Major Surgery	58493	CPT Procedure
Major Surgery	58494	CPT Procedure
Major Surgery	58495	CPT Procedure
Major Surgery	58496	CPT Procedure
Major Surgery	58497	CPT Procedure
Major Surgery	58498	CPT Procedure
Major Surgery	58499	CPT Procedure
Major Surgery	58500	CPT Procedure
Major Surgery	58501	CPT Procedure
Major Surgery	58502	CPT Procedure
Major Surgery	58503	CPT Procedure
Major Surgery	58504	CPT Procedure
Major Surgery	58505	CPT Procedure
Major Surgery	58506	CPT Procedure
Major Surgery	58507	CPT Procedure
Major Surgery	58508	CPT Procedure
Major Surgery	58509	CPT Procedure
Major Surgery	58510	CPT Procedure
Major Surgery	58511	CPT Procedure
Major Surgery	58512	CPT Procedure
Major Surgery	58513	CPT Procedure
Major Surgery	58514	CPT Procedure
Major Surgery	58515	CPT Procedure
Major Surgery	58516	CPT Procedure
Major Surgery	58517	CPT Procedure
Major Surgery	58518	CPT Procedure
Major Surgery	58519	CPT Procedure
Major Surgery	58520	CPT Procedure
Major Surgery	58521	CPT Procedure
Major Surgery	58522	CPT Procedure
Major Surgery	58523	CPT Procedure
Major Surgery	58524	CPT Procedure
Major Surgery	58525	CPT Procedure
Major Surgery	58526	CPT Procedure
Major Surgery	58527	CPT Procedure
Major Surgery	58528	CPT Procedure
Major Surgery	58529	CPT Procedure
Major Surgery	58530	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58531	CPT Procedure
Major Surgery	58532	CPT Procedure
Major Surgery	58533	CPT Procedure
Major Surgery	58534	CPT Procedure
Major Surgery	58535	CPT Procedure
Major Surgery	58536	CPT Procedure
Major Surgery	58537	CPT Procedure
Major Surgery	58538	CPT Procedure
Major Surgery	58539	CPT Procedure
Major Surgery	58540	CPT Procedure
Major Surgery	58600	CPT Procedure
Major Surgery	58601	CPT Procedure
Major Surgery	58602	CPT Procedure
Major Surgery	58603	CPT Procedure
Major Surgery	58604	CPT Procedure
Major Surgery	58605	CPT Procedure
Major Surgery	58606	CPT Procedure
Major Surgery	58607	CPT Procedure
Major Surgery	58608	CPT Procedure
Major Surgery	58609	CPT Procedure
Major Surgery	58610	CPT Procedure
Major Surgery	58611	CPT Procedure
Major Surgery	58612	CPT Procedure
Major Surgery	58613	CPT Procedure
Major Surgery	58614	CPT Procedure
Major Surgery	58615	CPT Procedure
Major Surgery	58700	CPT Procedure
Major Surgery	58701	CPT Procedure
Major Surgery	58702	CPT Procedure
Major Surgery	58703	CPT Procedure
Major Surgery	58704	CPT Procedure
Major Surgery	58705	CPT Procedure
Major Surgery	58706	CPT Procedure
Major Surgery	58707	CPT Procedure
Major Surgery	58708	CPT Procedure
Major Surgery	58709	CPT Procedure
Major Surgery	58710	CPT Procedure
Major Surgery	58711	CPT Procedure
Major Surgery	58712	CPT Procedure
Major Surgery	58713	CPT Procedure
Major Surgery	58714	CPT Procedure
Major Surgery	58715	CPT Procedure
Major Surgery	58716	CPT Procedure
Major Surgery	58717	CPT Procedure
Major Surgery	58718	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58719	CPT Procedure
Major Surgery	58720	CPT Procedure
Major Surgery	58750	CPT Procedure
Major Surgery	58751	CPT Procedure
Major Surgery	58752	CPT Procedure
Major Surgery	58753	CPT Procedure
Major Surgery	58754	CPT Procedure
Major Surgery	58755	CPT Procedure
Major Surgery	58756	CPT Procedure
Major Surgery	58757	CPT Procedure
Major Surgery	58758	CPT Procedure
Major Surgery	58759	CPT Procedure
Major Surgery	58760	CPT Procedure
Major Surgery	58761	CPT Procedure
Major Surgery	58762	CPT Procedure
Major Surgery	58763	CPT Procedure
Major Surgery	58764	CPT Procedure
Major Surgery	58765	CPT Procedure
Major Surgery	58766	CPT Procedure
Major Surgery	58767	CPT Procedure
Major Surgery	58768	CPT Procedure
Major Surgery	58769	CPT Procedure
Major Surgery	58770	CPT Procedure
Major Surgery	58820	CPT Procedure
Major Surgery	58821	CPT Procedure
Major Surgery	58822	CPT Procedure
Major Surgery	58823	CPT Procedure
Major Surgery	58824	CPT Procedure
Major Surgery	58825	CPT Procedure
Major Surgery	58920	CPT Procedure
Major Surgery	58921	CPT Procedure
Major Surgery	58922	CPT Procedure
Major Surgery	58923	CPT Procedure
Major Surgery	58924	CPT Procedure
Major Surgery	58925	CPT Procedure
Major Surgery	58926	CPT Procedure
Major Surgery	58927	CPT Procedure
Major Surgery	58928	CPT Procedure
Major Surgery	58929	CPT Procedure
Major Surgery	58930	CPT Procedure
Major Surgery	58931	CPT Procedure
Major Surgery	58932	CPT Procedure
Major Surgery	58933	CPT Procedure
Major Surgery	58934	CPT Procedure
Major Surgery	58935	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	58936	CPT Procedure
Major Surgery	58937	CPT Procedure
Major Surgery	58938	CPT Procedure
Major Surgery	58939	CPT Procedure
Major Surgery	58940	CPT Procedure
Major Surgery	58941	CPT Procedure
Major Surgery	58942	CPT Procedure
Major Surgery	58943	CPT Procedure
Major Surgery	58944	CPT Procedure
Major Surgery	58945	CPT Procedure
Major Surgery	58946	CPT Procedure
Major Surgery	58947	CPT Procedure
Major Surgery	58948	CPT Procedure
Major Surgery	58949	CPT Procedure
Major Surgery	58950	CPT Procedure
Major Surgery	58951	CPT Procedure
Major Surgery	58952	CPT Procedure
Major Surgery	58953	CPT Procedure
Major Surgery	58954	CPT Procedure
Major Surgery	58955	CPT Procedure
Major Surgery	58956	CPT Procedure
Major Surgery	58957	CPT Procedure
Major Surgery	58958	CPT Procedure
Major Surgery	58959	CPT Procedure
Major Surgery	58960	CPT Procedure
Major Surgery	58999	CPT Procedure
Major Surgery	43644	CPT Procedure
Major Surgery	43645	CPT Procedure
Major Surgery	43800	CPT Procedure
Major Surgery	43801	CPT Procedure
Major Surgery	43802	CPT Procedure
Major Surgery	43803	CPT Procedure
Major Surgery	43804	CPT Procedure
Major Surgery	43805	CPT Procedure
Major Surgery	43806	CPT Procedure
Major Surgery	43807	CPT Procedure
Major Surgery	43808	CPT Procedure
Major Surgery	43809	CPT Procedure
Major Surgery	43810	CPT Procedure
Major Surgery	43811	CPT Procedure
Major Surgery	43812	CPT Procedure
Major Surgery	43813	CPT Procedure
Major Surgery	43814	CPT Procedure
Major Surgery	43815	CPT Procedure
Major Surgery	43816	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	43817	CPT Procedure
Major Surgery	43818	CPT Procedure
Major Surgery	43819	CPT Procedure
Major Surgery	43820	CPT Procedure
Major Surgery	43821	CPT Procedure
Major Surgery	43822	CPT Procedure
Major Surgery	43823	CPT Procedure
Major Surgery	43824	CPT Procedure
Major Surgery	43825	CPT Procedure
Major Surgery	43826	CPT Procedure
Major Surgery	43827	CPT Procedure
Major Surgery	43828	CPT Procedure
Major Surgery	43829	CPT Procedure
Major Surgery	43830	CPT Procedure
Major Surgery	43831	CPT Procedure
Major Surgery	43832	CPT Procedure
Major Surgery	43833	CPT Procedure
Major Surgery	43834	CPT Procedure
Major Surgery	43835	CPT Procedure
Major Surgery	43836	CPT Procedure
Major Surgery	43837	CPT Procedure
Major Surgery	43838	CPT Procedure
Major Surgery	43839	CPT Procedure
Major Surgery	43840	CPT Procedure
Major Surgery	43841	CPT Procedure
Major Surgery	43842	CPT Procedure
Major Surgery	43843	CPT Procedure
Major Surgery	43844	CPT Procedure
Major Surgery	43845	CPT Procedure
Major Surgery	43846	CPT Procedure
Major Surgery	43847	CPT Procedure
Major Surgery	43848	CPT Procedure
Major Surgery	43849	CPT Procedure
Major Surgery	43850	CPT Procedure
Major Surgery	43851	CPT Procedure
Major Surgery	43852	CPT Procedure
Major Surgery	43853	CPT Procedure
Major Surgery	43854	CPT Procedure
Major Surgery	43855	CPT Procedure
Major Surgery	43856	CPT Procedure
Major Surgery	43857	CPT Procedure
Major Surgery	43858	CPT Procedure
Major Surgery	43859	CPT Procedure
Major Surgery	43860	CPT Procedure
Major Surgery	43861	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	43862	CPT Procedure
Major Surgery	43863	CPT Procedure
Major Surgery	43864	CPT Procedure
Major Surgery	43865	CPT Procedure
Major Surgery	43866	CPT Procedure
Major Surgery	43867	CPT Procedure
Major Surgery	43868	CPT Procedure
Major Surgery	43869	CPT Procedure
Major Surgery	43870	CPT Procedure
Major Surgery	43871	CPT Procedure
Major Surgery	43872	CPT Procedure
Major Surgery	43873	CPT Procedure
Major Surgery	43874	CPT Procedure
Major Surgery	43875	CPT Procedure
Major Surgery	43876	CPT Procedure
Major Surgery	43877	CPT Procedure
Major Surgery	43878	CPT Procedure
Major Surgery	43879	CPT Procedure
Major Surgery	43880	CPT Procedure
Major Surgery	43881	CPT Procedure
Major Surgery	49570	CPT Procedure
Major Surgery	49571	CPT Procedure
Major Surgery	49572	CPT Procedure
Major Surgery	49573	CPT Procedure
Major Surgery	49574	CPT Procedure
Major Surgery	49575	CPT Procedure
Major Surgery	S2083	HCPCS Procedure
Major Surgery	S2213	HCPCS Procedure
Major Surgery	61320	CPT Procedure
Major Surgery	61321	CPT Procedure
Major Surgery	61546	CPT Procedure
Major Surgery	61680	CPT Procedure
Major Surgery	61681	CPT Procedure
Major Surgery	61682	CPT Procedure
Major Surgery	61683	CPT Procedure
Major Surgery	61684	CPT Procedure
Major Surgery	61685	CPT Procedure
Major Surgery	61686	CPT Procedure
Major Surgery	61687	CPT Procedure
Major Surgery	61688	CPT Procedure
Major Surgery	61689	CPT Procedure
Major Surgery	61690	CPT Procedure
Major Surgery	61691	CPT Procedure
Major Surgery	61692	CPT Procedure
Major Surgery	61697	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	61698	CPT Procedure
Major Surgery	61699	CPT Procedure
Major Surgery	61700	CPT Procedure
Major Surgery	61701	CPT Procedure
Major Surgery	61702	CPT Procedure
Major Surgery	61703	CPT Procedure
Major Surgery	61704	CPT Procedure
Major Surgery	61705	CPT Procedure
Major Surgery	61706	CPT Procedure
Major Surgery	61707	CPT Procedure
Major Surgery	61708	CPT Procedure
Major Surgery	61709	CPT Procedure
Major Surgery	61710	CPT Procedure
Major Surgery	62160	CPT Procedure
Major Surgery	62161	CPT Procedure
Major Surgery	62162	CPT Procedure
Major Surgery	62163	CPT Procedure
Major Surgery	62164	CPT Procedure
Major Surgery	62165	CPT Procedure
Major Surgery	01214	CPT Procedure
Major Surgery	01215	CPT Procedure
Major Surgery	01402	CPT Procedure
Major Surgery	27130	CPT Procedure
Major Surgery	27131	CPT Procedure
Major Surgery	27132	CPT Procedure
Major Surgery	27133	CPT Procedure
Major Surgery	27134	CPT Procedure
Major Surgery	27135	CPT Procedure
Major Surgery	27136	CPT Procedure
Major Surgery	27137	CPT Procedure
Major Surgery	27138	CPT Procedure
Major Surgery	27447	CPT Procedure
Major Surgery	27486	CPT Procedure
Major Surgery	27487	CPT Procedure
Major Surgery	27075	CPT Procedure
Major Surgery	27076	CPT Procedure
Major Surgery	27077	CPT Procedure
Major Surgery	27078	CPT Procedure
Major Surgery	27079	CPT Procedure
Major Surgery	27218	CPT Procedure
Major Surgery	27226	CPT Procedure
Major Surgery	27227	CPT Procedure
Major Surgery	27228	CPT Procedure
Major Surgery	27253	CPT Procedure
Major Surgery	27258	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	27259	CPT Procedure
Major Surgery	27299	CPT Procedure
Major Surgery	29861	CPT Procedure
Major Surgery	29862	CPT Procedure
Major Surgery	29863	CPT Procedure
Major Surgery	007	ICD-9-CM Procedure
Major Surgery	007*	ICD-9-CM Procedure
Major Surgery	008	ICD-9-CM Procedure
Major Surgery	008*	ICD-9-CM Procedure
Major Surgery	7985	ICD-9-CM Procedure
Major Surgery	7986	ICD-9-CM Procedure
Major Surgery	8045	ICD-9-CM Procedure
Major Surgery	8046	ICD-9-CM Procedure
Major Surgery	806	ICD-9-CM Procedure
Major Surgery	806*	ICD-9-CM Procedure
Major Surgery	8085	ICD-9-CM Procedure
Major Surgery	8086	ICD-9-CM Procedure
Major Surgery	8095	ICD-9-CM Procedure
Major Surgery	8096	ICD-9-CM Procedure
Major Surgery	8140	ICD-9-CM Procedure
Major Surgery	8142	ICD-9-CM Procedure
Major Surgery	8143	ICD-9-CM Procedure
Major Surgery	8151	ICD-9-CM Procedure
Major Surgery	8152	ICD-9-CM Procedure
Major Surgery	8153	ICD-9-CM Procedure
Major Surgery	8154	ICD-9-CM Procedure
Major Surgery	8155	ICD-9-CM Procedure
Major Surgery	8416	ICD-9-CM Procedure
Major Surgery	8418	ICD-9-CM Procedure
Major Surgery	20930	CPT Procedure
Major Surgery	20931	CPT Procedure
Major Surgery	20932	CPT Procedure
Major Surgery	20933	CPT Procedure
Major Surgery	20934	CPT Procedure
Major Surgery	20935	CPT Procedure
Major Surgery	20936	CPT Procedure
Major Surgery	20937	CPT Procedure
Major Surgery	20938	CPT Procedure
Major Surgery	22010	CPT Procedure
Major Surgery	22011	CPT Procedure
Major Surgery	22012	CPT Procedure
Major Surgery	22013	CPT Procedure
Major Surgery	22014	CPT Procedure
Major Surgery	22015	CPT Procedure
Major Surgery	22100	CPT Procedure

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Covariate	Code	Code Type
Major Surgery	22101	CPT Procedure
Major Surgery	22102	CPT Procedure
Major Surgery	22103	CPT Procedure
Major Surgery	22104	CPT Procedure
Major Surgery	22105	CPT Procedure
Major Surgery	22106	CPT Procedure
Major Surgery	22107	CPT Procedure
Major Surgery	22108	CPT Procedure
Major Surgery	22109	CPT Procedure
Major Surgery	22110	CPT Procedure
Major Surgery	22111	CPT Procedure
Major Surgery	22112	CPT Procedure
Major Surgery	22113	CPT Procedure
Major Surgery	22114	CPT Procedure
Major Surgery	22115	CPT Procedure
Major Surgery	22116	CPT Procedure
Major Surgery	22206	CPT Procedure
Major Surgery	22207	CPT Procedure
Major Surgery	22208	CPT Procedure
Major Surgery	22209	CPT Procedure
Major Surgery	22210	CPT Procedure
Major Surgery	22211	CPT Procedure
Major Surgery	22212	CPT Procedure
Major Surgery	22213	CPT Procedure
Major Surgery	22214	CPT Procedure
Major Surgery	22215	CPT Procedure
Major Surgery	22216	CPT Procedure
Major Surgery	22217	CPT Procedure
Major Surgery	22218	CPT Procedure
Major Surgery	22219	CPT Procedure
Major Surgery	22220	CPT Procedure
Major Surgery	22221	CPT Procedure
Major Surgery	22222	CPT Procedure
Major Surgery	22223	CPT Procedure
Major Surgery	22224	CPT Procedure
Major Surgery	22225	CPT Procedure
Major Surgery	22226	CPT Procedure
Major Surgery	22318	CPT Procedure
Major Surgery	22319	CPT Procedure
Major Surgery	22320	CPT Procedure
Major Surgery	22321	CPT Procedure
Major Surgery	22322	CPT Procedure
Major Surgery	22323	CPT Procedure
Major Surgery	22324	CPT Procedure
Major Surgery	22325	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	22326	CPT Procedure
Major Surgery	22327	CPT Procedure
Major Surgery	22328	CPT Procedure
Major Surgery	22532	CPT Procedure
Major Surgery	22533	CPT Procedure
Major Surgery	22534	CPT Procedure
Major Surgery	22548	CPT Procedure
Major Surgery	22549	CPT Procedure
Major Surgery	22550	CPT Procedure
Major Surgery	22551	CPT Procedure
Major Surgery	22552	CPT Procedure
Major Surgery	22553	CPT Procedure
Major Surgery	22554	CPT Procedure
Major Surgery	22555	CPT Procedure
Major Surgery	22556	CPT Procedure
Major Surgery	22557	CPT Procedure
Major Surgery	22558	CPT Procedure
Major Surgery	22559	CPT Procedure
Major Surgery	22560	CPT Procedure
Major Surgery	22561	CPT Procedure
Major Surgery	22562	CPT Procedure
Major Surgery	22563	CPT Procedure
Major Surgery	22564	CPT Procedure
Major Surgery	22565	CPT Procedure
Major Surgery	22566	CPT Procedure
Major Surgery	22567	CPT Procedure
Major Surgery	22568	CPT Procedure
Major Surgery	22569	CPT Procedure
Major Surgery	22570	CPT Procedure
Major Surgery	22571	CPT Procedure
Major Surgery	22572	CPT Procedure
Major Surgery	22573	CPT Procedure
Major Surgery	22574	CPT Procedure
Major Surgery	22575	CPT Procedure
Major Surgery	22576	CPT Procedure
Major Surgery	22577	CPT Procedure
Major Surgery	22578	CPT Procedure
Major Surgery	22579	CPT Procedure
Major Surgery	22580	CPT Procedure
Major Surgery	22581	CPT Procedure
Major Surgery	22582	CPT Procedure
Major Surgery	22583	CPT Procedure
Major Surgery	22584	CPT Procedure
Major Surgery	22585	CPT Procedure
Major Surgery	22590	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	22591	CPT Procedure
Major Surgery	22592	CPT Procedure
Major Surgery	22593	CPT Procedure
Major Surgery	22594	CPT Procedure
Major Surgery	22595	CPT Procedure
Major Surgery	22596	CPT Procedure
Major Surgery	22597	CPT Procedure
Major Surgery	22598	CPT Procedure
Major Surgery	22599	CPT Procedure
Major Surgery	22600	CPT Procedure
Major Surgery	22601	CPT Procedure
Major Surgery	22602	CPT Procedure
Major Surgery	22603	CPT Procedure
Major Surgery	22604	CPT Procedure
Major Surgery	22605	CPT Procedure
Major Surgery	22606	CPT Procedure
Major Surgery	22607	CPT Procedure
Major Surgery	22608	CPT Procedure
Major Surgery	22609	CPT Procedure
Major Surgery	22610	CPT Procedure
Major Surgery	22611	CPT Procedure
Major Surgery	22612	CPT Procedure
Major Surgery	22613	CPT Procedure
Major Surgery	22614	CPT Procedure
Major Surgery	22615	CPT Procedure
Major Surgery	22616	CPT Procedure
Major Surgery	22617	CPT Procedure
Major Surgery	22618	CPT Procedure
Major Surgery	22619	CPT Procedure
Major Surgery	22620	CPT Procedure
Major Surgery	22621	CPT Procedure
Major Surgery	22622	CPT Procedure
Major Surgery	22623	CPT Procedure
Major Surgery	22624	CPT Procedure
Major Surgery	22625	CPT Procedure
Major Surgery	22626	CPT Procedure
Major Surgery	22627	CPT Procedure
Major Surgery	22628	CPT Procedure
Major Surgery	22629	CPT Procedure
Major Surgery	22630	CPT Procedure
Major Surgery	22631	CPT Procedure
Major Surgery	22632	CPT Procedure
Major Surgery	22800	CPT Procedure
Major Surgery	22801	CPT Procedure
Major Surgery	22802	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	22803	CPT Procedure
Major Surgery	22804	CPT Procedure
Major Surgery	22805	CPT Procedure
Major Surgery	22806	CPT Procedure
Major Surgery	22807	CPT Procedure
Major Surgery	22808	CPT Procedure
Major Surgery	22809	CPT Procedure
Major Surgery	22810	CPT Procedure
Major Surgery	22811	CPT Procedure
Major Surgery	22812	CPT Procedure
Major Surgery	22813	CPT Procedure
Major Surgery	22814	CPT Procedure
Major Surgery	22815	CPT Procedure
Major Surgery	22816	CPT Procedure
Major Surgery	22817	CPT Procedure
Major Surgery	22818	CPT Procedure
Major Surgery	22819	CPT Procedure
Major Surgery	22830	CPT Procedure
Major Surgery	22840	CPT Procedure
Major Surgery	22841	CPT Procedure
Major Surgery	22842	CPT Procedure
Major Surgery	22843	CPT Procedure
Major Surgery	22844	CPT Procedure
Major Surgery	22845	CPT Procedure
Major Surgery	22846	CPT Procedure
Major Surgery	22847	CPT Procedure
Major Surgery	22848	CPT Procedure
Major Surgery	22849	CPT Procedure
Major Surgery	22850	CPT Procedure
Major Surgery	22851	CPT Procedure
Major Surgery	22852	CPT Procedure
Major Surgery	22853	CPT Procedure
Major Surgery	22854	CPT Procedure
Major Surgery	22855	CPT Procedure
Major Surgery	22856	CPT Procedure
Major Surgery	22857	CPT Procedure
Major Surgery	22858	CPT Procedure
Major Surgery	22859	CPT Procedure
Major Surgery	22860	CPT Procedure
Major Surgery	22861	CPT Procedure
Major Surgery	22862	CPT Procedure
Major Surgery	22863	CPT Procedure
Major Surgery	22864	CPT Procedure
Major Surgery	22865	CPT Procedure
Major Surgery	63001	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	63002	CPT Procedure
Major Surgery	63003	CPT Procedure
Major Surgery	63004	CPT Procedure
Major Surgery	63005	CPT Procedure
Major Surgery	63006	CPT Procedure
Major Surgery	63007	CPT Procedure
Major Surgery	63008	CPT Procedure
Major Surgery	63009	CPT Procedure
Major Surgery	63010	CPT Procedure
Major Surgery	63011	CPT Procedure
Major Surgery	63012	CPT Procedure
Major Surgery	63013	CPT Procedure
Major Surgery	63014	CPT Procedure
Major Surgery	63015	CPT Procedure
Major Surgery	63016	CPT Procedure
Major Surgery	63017	CPT Procedure
Major Surgery	63045	CPT Procedure
Major Surgery	63046	CPT Procedure
Major Surgery	63047	CPT Procedure
Major Surgery	63048	CPT Procedure
Major Surgery	63049	CPT Procedure
Major Surgery	63050	CPT Procedure
Major Surgery	63051	CPT Procedure
Major Surgery	63055	CPT Procedure
Major Surgery	63056	CPT Procedure
Major Surgery	63057	CPT Procedure
Major Surgery	63058	CPT Procedure
Major Surgery	63059	CPT Procedure
Major Surgery	63060	CPT Procedure
Major Surgery	63061	CPT Procedure
Major Surgery	63062	CPT Procedure
Major Surgery	63063	CPT Procedure
Major Surgery	63064	CPT Procedure
Major Surgery	63065	CPT Procedure
Major Surgery	63066	CPT Procedure
Major Surgery	63075	CPT Procedure
Major Surgery	63076	CPT Procedure
Major Surgery	63077	CPT Procedure
Major Surgery	63078	CPT Procedure
Major Surgery	63079	CPT Procedure
Major Surgery	63080	CPT Procedure
Major Surgery	63081	CPT Procedure
Major Surgery	63082	CPT Procedure
Major Surgery	63083	CPT Procedure
Major Surgery	63084	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	63085	CPT Procedure
Major Surgery	63086	CPT Procedure
Major Surgery	63087	CPT Procedure
Major Surgery	63088	CPT Procedure
Major Surgery	63089	CPT Procedure
Major Surgery	63090	CPT Procedure
Major Surgery	63091	CPT Procedure
Major Surgery	63101	CPT Procedure
Major Surgery	63102	CPT Procedure
Major Surgery	63103	CPT Procedure
Major Surgery	63170	CPT Procedure
Major Surgery	63171	CPT Procedure
Major Surgery	63172	CPT Procedure
Major Surgery	63173	CPT Procedure
Major Surgery	63174	CPT Procedure
Major Surgery	63175	CPT Procedure
Major Surgery	63176	CPT Procedure
Major Surgery	63177	CPT Procedure
Major Surgery	63178	CPT Procedure
Major Surgery	63179	CPT Procedure
Major Surgery	63180	CPT Procedure
Major Surgery	63181	CPT Procedure
Major Surgery	63182	CPT Procedure
Major Surgery	63183	CPT Procedure
Major Surgery	63184	CPT Procedure
Major Surgery	63185	CPT Procedure
Major Surgery	63186	CPT Procedure
Major Surgery	63187	CPT Procedure
Major Surgery	63188	CPT Procedure
Major Surgery	63189	CPT Procedure
Major Surgery	63190	CPT Procedure
Major Surgery	63191	CPT Procedure
Major Surgery	63192	CPT Procedure
Major Surgery	63193	CPT Procedure
Major Surgery	63194	CPT Procedure
Major Surgery	63195	CPT Procedure
Major Surgery	63196	CPT Procedure
Major Surgery	63197	CPT Procedure
Major Surgery	63198	CPT Procedure
Major Surgery	63199	CPT Procedure
Major Surgery	63200	CPT Procedure
Major Surgery	63250	CPT Procedure
Major Surgery	63251	CPT Procedure
Major Surgery	63252	CPT Procedure
Major Surgery	63253	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	63254	CPT Procedure
Major Surgery	63255	CPT Procedure
Major Surgery	63256	CPT Procedure
Major Surgery	63257	CPT Procedure
Major Surgery	63258	CPT Procedure
Major Surgery	63259	CPT Procedure
Major Surgery	63260	CPT Procedure
Major Surgery	63261	CPT Procedure
Major Surgery	63262	CPT Procedure
Major Surgery	63263	CPT Procedure
Major Surgery	63264	CPT Procedure
Major Surgery	63265	CPT Procedure
Major Surgery	63266	CPT Procedure
Major Surgery	63267	CPT Procedure
Major Surgery	63268	CPT Procedure
Major Surgery	63269	CPT Procedure
Major Surgery	63270	CPT Procedure
Major Surgery	63271	CPT Procedure
Major Surgery	63272	CPT Procedure
Major Surgery	63273	CPT Procedure
Major Surgery	63274	CPT Procedure
Major Surgery	63275	CPT Procedure
Major Surgery	63276	CPT Procedure
Major Surgery	63277	CPT Procedure
Major Surgery	63278	CPT Procedure
Major Surgery	63279	CPT Procedure
Major Surgery	63280	CPT Procedure
Major Surgery	63281	CPT Procedure
Major Surgery	63282	CPT Procedure
Major Surgery	63283	CPT Procedure
Major Surgery	63284	CPT Procedure
Major Surgery	63285	CPT Procedure
Major Surgery	63286	CPT Procedure
Major Surgery	63287	CPT Procedure
Major Surgery	63288	CPT Procedure
Major Surgery	63289	CPT Procedure
Major Surgery	63290	CPT Procedure
Major Surgery	63291	CPT Procedure
Major Surgery	63292	CPT Procedure
Major Surgery	63293	CPT Procedure
Major Surgery	63294	CPT Procedure
Major Surgery	63295	CPT Procedure
Major Surgery	63300	CPT Procedure
Major Surgery	63301	CPT Procedure
Major Surgery	63302	CPT Procedure

Appendix D. International Classification of Diseases, Ninth Revision, Clinical I

Covariate	Code	Code Type
Major Surgery	63303	CPT Procedure
Major Surgery	63304	CPT Procedure
Major Surgery	63305	CPT Procedure
Major Surgery	63306	CPT Procedure
Major Surgery	63307	CPT Procedure
Major Surgery	63308	CPT Procedure
Major Surgery	63650	CPT Procedure
Major Surgery	63651	CPT Procedure
Major Surgery	63652	CPT Procedure
Major Surgery	63653	CPT Procedure
Major Surgery	63654	CPT Procedure
Major Surgery	63655	CPT Procedure
Major Surgery	63656	CPT Procedure
Major Surgery	63657	CPT Procedure
Major Surgery	63658	CPT Procedure
Major Surgery	63659	CPT Procedure
Major Surgery	63660	CPT Procedure
Major Surgery	63661	CPT Procedure
Major Surgery	63662	CPT Procedure
Major Surgery	63663	CPT Procedure
Major Surgery	63664	CPT Procedure
Major Surgery	63665	CPT Procedure
Major Surgery	63666	CPT Procedure
Major Surgery	63667	CPT Procedure
Major Surgery	63668	CPT Procedure
Major Surgery	63669	CPT Procedure
Major Surgery	63670	CPT Procedure
Major Surgery	63671	CPT Procedure
Major Surgery	63672	CPT Procedure
Major Surgery	63673	CPT Procedure
Major Surgery	63674	CPT Procedure
Major Surgery	63675	CPT Procedure
Major Surgery	63676	CPT Procedure
Major Surgery	63677	CPT Procedure
Major Surgery	63678	CPT Procedure
Major Surgery	63679	CPT Procedure
Major Surgery	63680	CPT Procedure
Major Surgery	63681	CPT Procedure
Major Surgery	63682	CPT Procedure
Major Surgery	63683	CPT Procedure
Major Surgery	63684	CPT Procedure
Major Surgery	63685	CPT Procedure
Major Surgery	63686	CPT Procedure
Major Surgery	63687	CPT Procedure
Major Surgery	63688	CPT-4

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Covariate	Code	Code Type
Major Surgery	034	ICD-9-CM Procedure
Major Surgery	034*	ICD-9-CM Procedure
Major Surgery	035	ICD-9-CM Procedure
Major Surgery	035*	ICD-9-CM Procedure
Major Surgery	039	ICD-9-CM Procedure
Major Surgery	039*	ICD-9-CM Procedure
Metastatic cancer	196	ICD-9-CM Diagnosis
Metastatic cancer	196*	ICD-9-CM Diagnosis
Metastatic cancer	196**	ICD-9-CM Diagnosis
Metastatic cancer	197	ICD-9-CM Diagnosis
Metastatic cancer	197*	ICD-9-CM Diagnosis
Metastatic cancer	197**	ICD-9-CM Diagnosis
Metastatic cancer	198	ICD-9-CM Diagnosis
Metastatic cancer	198*	ICD-9-CM Diagnosis
Metastatic cancer	198**	ICD-9-CM Diagnosis
Metastatic cancer	199	ICD-9-CM Diagnosis
Metastatic cancer	199*	ICD-9-CM Diagnosis
Metastatic cancer	199**	ICD-9-CM Diagnosis
MI	410	ICD-9-CM Diagnosis
MI	410*	ICD-9-CM Diagnosis
MI	410**	ICD-9-CM Diagnosis
Non-specific cerebrovascular symptms	7814	ICD-9-CM Diagnosis
Non-specific cerebrovascular symptms	7814*	ICD-9-CM Diagnosis
Non-specific cerebrovascular symptms	7843	ICD-9-CM Diagnosis
Non-specific cerebrovascular symptms	7843*	ICD-9-CM Diagnosis
Non-specific cerebrovascular symptms	9970	ICD-9-CM Diagnosis
Non-specific cerebrovascular symptms	9970*	ICD-9-CM Diagnosis
Non-specific cerebrovascular symptms	40201	ICD-9-CM Diagnosis
Osteoporotic fracture	8050	ICD-9-CM Diagnosis
Osteoporotic fracture	8050*	ICD-9-CM Diagnosis
Osteoporotic fracture	8052	ICD-9-CM Diagnosis
Osteoporotic fracture	8052*	ICD-9-CM Diagnosis
Osteoporotic fracture	8054	ICD-9-CM Diagnosis
Osteoporotic fracture	8054*	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Osteoporotic fracture	8056	ICD-9-CM Diagnosis
Osteoporotic fracture	8056*	ICD-9-CM Diagnosis
Osteoporotic fracture	8058	ICD-9-CM Diagnosis
Osteoporotic fracture	8058*	ICD-9-CM Diagnosis
Osteoporotic fracture	808	ICD-9-CM Diagnosis
Osteoporotic fracture	808*	ICD-9-CM Diagnosis
Osteoporotic fracture	808**	ICD-9-CM Diagnosis
Osteoporotic fracture	8120	ICD-9-CM Diagnosis
Osteoporotic fracture	8120*	ICD-9-CM Diagnosis
Osteoporotic fracture	8122	ICD-9-CM Diagnosis
Osteoporotic fracture	8122*	ICD-9-CM Diagnosis
Osteoporotic fracture	8134	ICD-9-CM Diagnosis
Osteoporotic fracture	8134*	ICD-9-CM Diagnosis
Osteoporotic fracture	8200	ICD-9-CM Diagnosis
Osteoporotic fracture	8200*	ICD-9-CM Diagnosis
Osteoporotic fracture	8202	ICD-9-CM Diagnosis
Osteoporotic fracture	8202*	ICD-9-CM Diagnosis
Osteoporotic fracture	8208	ICD-9-CM Diagnosis
Osteoporotic fracture	8208*	ICD-9-CM Diagnosis
Osteoporotic fracture	821	ICD-9-CM Diagnosis
Osteoporotic fracture	821*	ICD-9-CM Diagnosis
Osteoporotic fracture	821**	ICD-9-CM Diagnosis
Other arterial embolism	444	ICD-9-CM Diagnosis
Other arterial embolism	444*	ICD-9-CM Diagnosis
Other arterial embolism	444**	ICD-9-CM Diagnosis
Other arterial embolism	445	ICD-9-CM Diagnosis
Other arterial embolism	445*	ICD-9-CM Diagnosis
Other arterial embolism	445**	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5317	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5317*	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5319	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5319*	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5327	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5327*	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Other gastrointestinal ulcer disease	5329	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5329*	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5337	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5337*	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5339	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5339*	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5347	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5347*	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5349	ICD-9-CM Diagnosis
Other gastrointestinal ulcer disease	5349*	ICD-9-CM Diagnosis
Other hospitalized bleed	4230	ICD-9-CM Diagnosis
Other hospitalized bleed	4230*	ICD-9-CM Diagnosis
Other hospitalized bleed	4552	ICD-9-CM Diagnosis
Other hospitalized bleed	4552*	ICD-9-CM Diagnosis
Other hospitalized bleed	4555	ICD-9-CM Diagnosis
Other hospitalized bleed	4555*	ICD-9-CM Diagnosis
Other hospitalized bleed	4558	ICD-9-CM Diagnosis
Other hospitalized bleed	4558*	ICD-9-CM Diagnosis
Other hospitalized bleed	4560	ICD-9-CM Diagnosis
Other hospitalized bleed	4560*	ICD-9-CM Diagnosis
Other hospitalized bleed	4562	ICD-9-CM Diagnosis
Other hospitalized bleed	4562*	ICD-9-CM Diagnosis
Other hospitalized bleed	4590	ICD-9-CM Diagnosis
Other hospitalized bleed	4590*	ICD-9-CM Diagnosis
Other hospitalized bleed	5307	ICD-9-CM Diagnosis
Other hospitalized bleed	5307*	ICD-9-CM Diagnosis
Other hospitalized bleed	53082	ICD-9-CM Diagnosis
Other hospitalized bleed	5997	ICD-9-CM Diagnosis
Other hospitalized bleed	5997*	ICD-9-CM Diagnosis
Other hospitalized bleed	71911	ICD-9-CM Diagnosis
Other hospitalized bleed	7847	ICD-9-CM Diagnosis
Other hospitalized bleed	7847*	ICD-9-CM Diagnosis
Other hospitalized bleed	7848	ICD-9-CM Diagnosis
Other hospitalized bleed	7848*	ICD-9-CM Diagnosis
Other hospitalized bleed	7863	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Other hospitalized bleed	7863*	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	36234	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43300	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43310	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43320	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43330	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43380	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43390	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43400	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43410	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	43490	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	435	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	435*	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	4370	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	437.0*	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	4371	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	437.1*	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	4379	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	4379*	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	438	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	438*	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	438**	ICD-9-CM Diagnosis
Other ischemic cerebrovascular events	3811	ICD-9-CM Procedure
Other ischemic cerebrovascular events	3812	ICD-9-CM Procedure
Other ischemic cerebrovascular events	3841	ICD-9-CM Procedure
Other ischemic cerebrovascular events	3842	ICD-9-CM Procedure
Other ischemic heart disease	411	ICD-9-CM Diagnosis
Other ischemic heart disease	411*	ICD-9-CM Diagnosis
Other ischemic heart disease	411**	ICD-9-CM Diagnosis
Percutaneous coronary intervention (PCI)	V4582	ICD-9-CM Diagnosis
Percutaneous coronary intervention (PCI)	0066	ICD-9-CM Procedure
Percutaneous coronary intervention (PCI)	360	ICD-9-CM Procedure
Percutaneous coronary intervention (PCI)	360*	ICD-9-CM Procedure
Percutaneous coronary intervention (PCI)	3722	ICD-9-CM Procedure
Percutaneous coronary intervention (PCI)	3723	ICD-9-CM Procedure

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Covariate	Code	Code Type
Percutaneous coronary intervention (PCI)	885	ICD-9-CM Procedure
Percutaneous coronary intervention (PCI)	885*	ICD-9-CM Procedure
Percutaneous coronary intervention (PCI)	92973	CPT Procedure
Percutaneous coronary intervention (PCI)	92974	CPT Procedure
Percutaneous coronary intervention (PCI)	92977	CPT Procedure
Percutaneous coronary intervention (PCI)	92980	CPT Procedure
Percutaneous coronary intervention (PCI)	92981	CPT Procedure
Percutaneous coronary intervention (PCI)	92982	CPT Procedure
Percutaneous coronary intervention (PCI)	92984	CPT Procedure
Percutaneous coronary intervention (PCI)	92987	CPT Procedure
Percutaneous coronary intervention (PCI)	92995	CPT Procedure
Percutaneous coronary intervention (PCI)	92996	CPT Procedure
Percutaneous coronary intervention (PCI)	G0290	HCPCS Procedure
Percutaneous coronary intervention (PCI)	G0291	HCPCS Procedure
Peripheral vascular disease	440	ICD-9-CM Diagnosis
Peripheral vascular disease	440*	ICD-9-CM Diagnosis
Peripheral vascular disease	440**	ICD-9-CM Diagnosis
Peripheral vascular disease	4412	ICD-9-CM Diagnosis
Peripheral vascular disease	4412*	ICD-9-CM Diagnosis
Peripheral vascular disease	4414	ICD-9-CM Diagnosis
Peripheral vascular disease	4414*	ICD-9-CM Diagnosis
Peripheral vascular disease	4417	ICD-9-CM Diagnosis
Peripheral vascular disease	4417*	ICD-9-CM Diagnosis
Peripheral vascular disease	4419	ICD-9-CM Diagnosis
Peripheral vascular disease	4419*	ICD-9-CM Diagnosis
Peripheral vascular disease	4431	ICD-9-CM Diagnosis
Peripheral vascular disease	4431*	ICD-9-CM Diagnosis
Peripheral vascular disease	4432	ICD-9-CM Diagnosis
Peripheral vascular disease	4432*	ICD-9-CM Diagnosis
Peripheral vascular disease	4438	ICD-9-CM Diagnosis
Peripheral vascular disease	4438*	ICD-9-CM Diagnosis
Peripheral vascular disease	4439	ICD-9-CM Diagnosis
Peripheral vascular disease	4439*	ICD-9-CM Diagnosis
Peripheral vascular disease	4471	ICD-9-CM Diagnosis
Peripheral vascular disease	4471*	ICD-9-CM Diagnosis
Peripheral vascular disease	5571	ICD-9-CM Diagnosis
Peripheral vascular disease	5571*	ICD-9-CM Diagnosis
Peripheral vascular disease	5579	ICD-9-CM Diagnosis
Peripheral vascular disease	5579*	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Peripheral vascular disease	V434	ICD-9-CM Diagnosis
Peripheral vascular disease	V434*	ICD-9-CM Diagnosis
Peripheral vascular disease	3818	ICD-9-CM Procedure
Peripheral vascular disease	35454	CPT Procedure
Peripheral vascular disease	35456	CPT Procedure
Peripheral vascular disease	35459	CPT Procedure
Peripheral vascular disease	35470	CPT Procedure
Peripheral vascular disease	35473	CPT Procedure
Peripheral vascular disease	35474	CPT Procedure
Peripheral vascular disease	35482	CPT Procedure
Peripheral vascular disease	35483	CPT Procedure
Peripheral vascular disease	35492	CPT Procedure
Peripheral vascular disease	35493	CPT Procedure
Peripheral vascular disease	35495	CPT Procedure
Peripheral vascular disease	37207	CPT Procedure
Peripheral vascular disease	37208	CPT Procedure
Peripheral vascular disease	37220	CPT Procedure
Peripheral vascular disease	37221	CPT Procedure
Peripheral vascular disease	37222	CPT Procedure
Peripheral vascular disease	37223	CPT Procedure
Peripheral vascular disease	37224	CPT Procedure
Peripheral vascular disease	37225	CPT Procedure
Peripheral vascular disease	37226	CPT Procedure
Peripheral vascular disease	37227	CPT Procedure
Peripheral vascular disease	37228	CPT Procedure
Peripheral vascular disease	37229	CPT Procedure
Peripheral vascular disease	37230	CPT Procedure
Peripheral vascular disease	37231	CPT Procedure
Peripheral vascular disease	37232	CPT Procedure
Peripheral vascular disease	37233	CPT Procedure
Peripheral vascular disease	37234	CPT Procedure
Peripheral vascular disease	37235	CPT Procedure
Peripheral vascular disease	3925	ICD-9-CM Procedure
Peripheral vascular disease	3929	ICD-9-CM Procedure
Peripheral vascular disease	35351	CPT Procedure
Peripheral vascular disease	35355	CPT Procedure
Peripheral vascular disease	35361	CPT Procedure
Peripheral vascular disease	35363	CPT Procedure
Peripheral vascular disease	35371	CPT Procedure
Peripheral vascular disease	35372	CPT Procedure
Peripheral vascular disease	35521	CPT Procedure
Peripheral vascular disease	35533	CPT Procedure
Peripheral vascular disease	35541	CPT Procedure
Peripheral vascular disease	35546	CPT Procedure
Peripheral vascular disease	35548	CPT Procedure

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Covariate	Code	Code Type
Peripheral vascular disease	35549	CPT Procedure
Peripheral vascular disease	35551	CPT Procedure
Peripheral vascular disease	35556	CPT Procedure
Peripheral vascular disease	35558	CPT Procedure
Peripheral vascular disease	35563	CPT Procedure
Peripheral vascular disease	35565	CPT Procedure
Peripheral vascular disease	35566	CPT Procedure
Peripheral vascular disease	35570	CPT Procedure
Peripheral vascular disease	35571	CPT Procedure
Peripheral vascular disease	35681	CPT Procedure
Peripheral vascular disease	35682	CPT Procedure
Peripheral vascular disease	35683	CPT Procedure
Peripheral vascular disease	35879	CPT Procedure
Peripheral vascular disease	8410	ICD-9-CM Procedure
Peripheral vascular disease	8411	ICD-9-CM Procedure
Peripheral vascular disease	8412	ICD-9-CM Procedure
Peripheral vascular disease	8413	ICD-9-CM Procedure
Peripheral vascular disease	8414	ICD-9-CM Procedure
Peripheral vascular disease	8415	ICD-9-CM Procedure
Peripheral vascular disease	8416	ICD-9-CM Procedure
Peripheral vascular disease	8417	ICD-9-CM Procedure
Peripheral vascular disease	27295	CPT Procedure
Peripheral vascular disease	27590	CPT Procedure
Peripheral vascular disease	27591	CPT Procedure
Peripheral vascular disease	27592	CPT Procedure
Peripheral vascular disease	27598	CPT Procedure
Peripheral vascular disease	27880	CPT Procedure
Peripheral vascular disease	27881	CPT Procedure
Peripheral vascular disease	27882	CPT Procedure
Peripheral vascular disease	27888	CPT Procedure
Peripheral vascular disease	27889	CPT Procedure
Peripheral vascular disease	28800	CPT Procedure
Peripheral vascular disease	28805	CPT Procedure
Peripheral vascular disease	28810	CPT Procedure
Peripheral vascular disease	28820	CPT Procedure
Peripheral vascular disease	28825	CPT Procedure
Prior central venous thrombosis	325	ICD-9-CM Diagnosis
Prior central venous thrombosis	4376	ICD-9-CM Diagnosis
Prior central venous thrombosis	4376*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	45111	ICD-9-CM Diagnosis
Prior VTE/phlebitis	45119	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Prior VTE/phlebitis	4512	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4512*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4519	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4519*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4531	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4531*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4532	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4532*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	45340	ICD-9-CM Diagnosis
Prior VTE/phlebitis	45341	ICD-9-CM Diagnosis
Prior VTE/phlebitis	45342	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4539	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4539*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	V1251	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4510	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4510*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4518	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4518*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4530	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4530*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4533	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4533*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4535	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4535*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4536	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4536*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4537	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4537*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	4538	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Prior VTE/phlebitis	4538*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	449	ICD-9-CM Diagnosis
Prior VTE/phlebitis	452	ICD-9-CM Diagnosis
Prior VTE/phlebitis	3361	ICD-9-CM Diagnosis
Prior VTE/phlebitis	3361*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	3623	ICD-9-CM Diagnosis
Prior VTE/phlebitis	3623*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	5734	ICD-9-CM Diagnosis
Prior VTE/phlebitis	5734*	ICD-9-CM Diagnosis
Prior VTE/phlebitis	59381	ICD-9-CM Diagnosis
Smoking and tobacco use	3051	ICD-9-CM Diagnosis
Smoking and tobacco use	3051*	ICD-9-CM Diagnosis
Smoking and tobacco use	6490	ICD-9-CM Diagnosis
Smoking and tobacco use	6490*	ICD-9-CM Diagnosis
Smoking and tobacco use	98984	ICD-9-CM Diagnosis
Smoking and tobacco use	V1582	ICD-9-CM Diagnosis
Smoking and tobacco use	83887	CPT Procedure
Smoking and tobacco use	99406	CPT Procedure
Smoking and tobacco use	99407	CPT Procedure
Smoking and tobacco use	1034F	CPT Procedure
Smoking and tobacco use	1035F	CPT Procedure
Smoking and tobacco use	4000F	CPT Procedure
Smoking and tobacco use	4001F	CPT Procedure
Smoking and tobacco use	4004F	CPT Procedure
Smoking and tobacco use	C9801	HCPCS Procedure
Smoking and tobacco use	C9802	HCPCS Procedure
Smoking and tobacco use	G0375	HCPCS Procedure
Smoking and tobacco use	G0376	HCPCS Procedure
Smoking and tobacco use	G0436	HCPCS Procedure

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Covariate	Code	Code Type
Smoking and tobacco use	G0437	HCPCS Procedure
Smoking and tobacco use	G8093	HCPCS Procedure
Smoking and tobacco use	G8094	HCPCS Procedure
Smoking and tobacco use	G8402	HCPCS Procedure
Smoking and tobacco use	G8403	HCPCS Procedure
Smoking and tobacco use	G8453	HCPCS Procedure
Smoking and tobacco use	G8454	HCPCS Procedure
Smoking and tobacco use	G8455	HCPCS Procedure
Smoking and tobacco use	G8456	HCPCS Procedure
Smoking and tobacco use	G8688	HCPCS Procedure
Smoking and tobacco use	G9016	HCPCS Procedure
Smoking and tobacco use	S4990	HCPCS Procedure
Smoking and tobacco use	S4991	HCPCS Procedure
Smoking and tobacco use	S4995	HCPCS Procedure
Smoking and tobacco use	S9075	HCPCS Procedure
Smoking and tobacco use	S9453	HCPCS Procedure
Transient ischemic attack	435	ICD-9-CM Diagnosis
Transient ischemic attack	435*	ICD-9-CM Diagnosis
Trauma with likely immobilization	800	ICD-9-CM Diagnosis
Trauma with likely immobilization	800*	ICD-9-CM Diagnosis
Trauma with likely immobilization	800**	ICD-9-CM Diagnosis
Trauma with likely immobilization	801	ICD-9-CM Diagnosis
Trauma with likely immobilization	801*	ICD-9-CM Diagnosis
Trauma with likely immobilization	801**	ICD-9-CM Diagnosis
Trauma with likely immobilization	802	ICD-9-CM Diagnosis
Trauma with likely immobilization	802*	ICD-9-CM Diagnosis
Trauma with likely immobilization	802**	ICD-9-CM Diagnosis
Trauma with likely immobilization	803	ICD-9-CM Diagnosis
Trauma with likely immobilization	803*	ICD-9-CM Diagnosis
Trauma with likely immobilization	803**	ICD-9-CM Diagnosis
Trauma with likely immobilization	804	ICD-9-CM Diagnosis
Trauma with likely immobilization	804*	ICD-9-CM Diagnosis
Trauma with likely immobilization	804**	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Trauma with likely immobilization	8051	ICD-9-CM Diagnosis
Trauma with likely immobilization	8051*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8053	ICD-9-CM Diagnosis
Trauma with likely immobilization	8053*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8055	ICD-9-CM Diagnosis
Trauma with likely immobilization	8055*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8057	ICD-9-CM Diagnosis
Trauma with likely immobilization	8057*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8059	ICD-9-CM Diagnosis
Trauma with likely immobilization	8059*	ICD-9-CM Diagnosis
Trauma with likely immobilization	806	ICD-9-CM Diagnosis
Trauma with likely immobilization	806*	ICD-9-CM Diagnosis
Trauma with likely immobilization	806**	ICD-9-CM Diagnosis
Trauma with likely immobilization	807	ICD-9-CM Diagnosis
Trauma with likely immobilization	807*	ICD-9-CM Diagnosis
Trauma with likely immobilization	807**	ICD-9-CM Diagnosis
Trauma with likely immobilization	809	ICD-9-CM Diagnosis
Trauma with likely immobilization	809*	ICD-9-CM Diagnosis
Trauma with likely immobilization	809**	ICD-9-CM Diagnosis
Trauma with likely immobilization	8201	ICD-9-CM Diagnosis
Trauma with likely immobilization	8201*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8203	ICD-9-CM Diagnosis
Trauma with likely immobilization	8203*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8209	ICD-9-CM Diagnosis
Trauma with likely immobilization	8209*	ICD-9-CM Diagnosis
Trauma with likely immobilization	822	ICD-9-CM Diagnosis
Trauma with likely immobilization	822*	ICD-9-CM Diagnosis
Trauma with likely immobilization	822**	ICD-9-CM Diagnosis
Trauma with likely immobilization	823	ICD-9-CM Diagnosis
Trauma with likely immobilization	823*	ICD-9-CM Diagnosis
Trauma with likely immobilization	823**	ICD-9-CM Diagnosis
Trauma with likely immobilization	824	ICD-9-CM Diagnosis
Trauma with likely immobilization	824*	ICD-9-CM Diagnosis
Trauma with likely immobilization	824**	ICD-9-CM Diagnosis
Trauma with likely immobilization	825	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Trauma with likely immobilization	825*	ICD-9-CM Diagnosis
Trauma with likely immobilization	825**	ICD-9-CM Diagnosis
Trauma with likely immobilization	826	ICD-9-CM Diagnosis
Trauma with likely immobilization	826*	ICD-9-CM Diagnosis
Trauma with likely immobilization	826**	ICD-9-CM Diagnosis
Trauma with likely immobilization	827	ICD-9-CM Diagnosis
Trauma with likely immobilization	827*	ICD-9-CM Diagnosis
Trauma with likely immobilization	827**	ICD-9-CM Diagnosis
Trauma with likely immobilization	828	ICD-9-CM Diagnosis
Trauma with likely immobilization	828*	ICD-9-CM Diagnosis
Trauma with likely immobilization	828**	ICD-9-CM Diagnosis
Trauma with likely immobilization	829	ICD-9-CM Diagnosis
Trauma with likely immobilization	829*	ICD-9-CM Diagnosis
Trauma with likely immobilization	829**	ICD-9-CM Diagnosis
Trauma with likely immobilization	851	ICD-9-CM Diagnosis
Trauma with likely immobilization	851*	ICD-9-CM Diagnosis
Trauma with likely immobilization	851**	ICD-9-CM Diagnosis
Trauma with likely immobilization	8521	ICD-9-CM Diagnosis
Trauma with likely immobilization	8521*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8523	ICD-9-CM Diagnosis
Trauma with likely immobilization	8523*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8525	ICD-9-CM Diagnosis
Trauma with likely immobilization	8525*	ICD-9-CM Diagnosis
Trauma with likely immobilization	8531	ICD-9-CM Diagnosis
Trauma with likely immobilization	8531*	ICD-9-CM Diagnosis
Trauma with likely immobilization	854	ICD-9-CM Diagnosis
Trauma with likely immobilization	854*	ICD-9-CM Diagnosis
Trauma with likely immobilization	854**	ICD-9-CM Diagnosis
Trauma with likely immobilization	861	ICD-9-CM Diagnosis
Trauma with likely immobilization	861*	ICD-9-CM Diagnosis
Trauma with likely immobilization	861**	ICD-9-CM Diagnosis
Trauma with likely immobilization	862	ICD-9-CM Diagnosis
Trauma with likely immobilization	862*	ICD-9-CM Diagnosis
Trauma with likely immobilization	862**	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Trauma with likely immobilization	863	ICD-9-CM Diagnosis
Trauma with likely immobilization	863*	ICD-9-CM Diagnosis
Trauma with likely immobilization	863**	ICD-9-CM Diagnosis
Trauma with likely immobilization	864	ICD-9-CM Diagnosis
Trauma with likely immobilization	864*	ICD-9-CM Diagnosis
Trauma with likely immobilization	864**	ICD-9-CM Diagnosis
Trauma with likely immobilization	865	ICD-9-CM Diagnosis
Trauma with likely immobilization	865*	ICD-9-CM Diagnosis
Trauma with likely immobilization	865**	ICD-9-CM Diagnosis
Trauma with likely immobilization	866	ICD-9-CM Diagnosis
Trauma with likely immobilization	866*	ICD-9-CM Diagnosis
Trauma with likely immobilization	866**	ICD-9-CM Diagnosis
Trauma with likely immobilization	867	ICD-9-CM Diagnosis
Trauma with likely immobilization	867*	ICD-9-CM Diagnosis
Trauma with likely immobilization	867**	ICD-9-CM Diagnosis
Trauma with likely immobilization	868	ICD-9-CM Diagnosis
Trauma with likely immobilization	868*	ICD-9-CM Diagnosis
Trauma with likely immobilization	868**	ICD-9-CM Diagnosis
Trauma with likely immobilization	869	ICD-9-CM Diagnosis
Trauma with likely immobilization	869*	ICD-9-CM Diagnosis
Trauma with likely immobilization	869**	ICD-9-CM Diagnosis
Trauma with likely immobilization	870	ICD-9-CM Diagnosis
Trauma with likely immobilization	870*	ICD-9-CM Diagnosis
Trauma with likely immobilization	870**	ICD-9-CM Diagnosis
Trauma with likely immobilization	890	ICD-9-CM Diagnosis
Trauma with likely immobilization	890*	ICD-9-CM Diagnosis
Trauma with likely immobilization	890**	ICD-9-CM Diagnosis
Trauma with likely immobilization	891	ICD-9-CM Diagnosis
Trauma with likely immobilization	891*	ICD-9-CM Diagnosis
Trauma with likely immobilization	891**	ICD-9-CM Diagnosis
Trauma with likely immobilization	892	ICD-9-CM Diagnosis
Trauma with likely immobilization	892*	ICD-9-CM Diagnosis
Trauma with likely immobilization	892**	ICD-9-CM Diagnosis
Trauma with likely immobilization	893	ICD-9-CM Diagnosis
Trauma with likely immobilization	893*	ICD-9-CM Diagnosis
Trauma with likely immobilization	893**	ICD-9-CM Diagnosis
Trauma with likely immobilization	894	ICD-9-CM Diagnosis
Trauma with likely immobilization	894*	ICD-9-CM Diagnosis
Trauma with likely immobilization	894**	ICD-9-CM Diagnosis
Trauma with likely immobilization	895	ICD-9-CM Diagnosis
Trauma with likely immobilization	895*	ICD-9-CM Diagnosis
Trauma with likely immobilization	895**	ICD-9-CM Diagnosis
Trauma with likely immobilization	896	ICD-9-CM Diagnosis
Trauma with likely immobilization	896*	ICD-9-CM Diagnosis
Trauma with likely immobilization	896**	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Trauma with likely immobilization	897	ICD-9-CM Diagnosis
Trauma with likely immobilization	897*	ICD-9-CM Diagnosis
Trauma with likely immobilization	897**	ICD-9-CM Diagnosis
Trauma with likely immobilization	925	ICD-9-CM Diagnosis
Trauma with likely immobilization	925*	ICD-9-CM Diagnosis
Trauma with likely immobilization	925**	ICD-9-CM Diagnosis
Trauma with likely immobilization	926	ICD-9-CM Diagnosis
Trauma with likely immobilization	926*	ICD-9-CM Diagnosis
Trauma with likely immobilization	926**	ICD-9-CM Diagnosis
Trauma with likely immobilization	927	ICD-9-CM Diagnosis
Trauma with likely immobilization	927*	ICD-9-CM Diagnosis
Trauma with likely immobilization	927**	ICD-9-CM Diagnosis
Trauma with likely immobilization	978	ICD-9-CM Diagnosis
Trauma with likely immobilization	978*	ICD-9-CM Diagnosis
Trauma with likely immobilization	978**	ICD-9-CM Diagnosis
Trauma with likely immobilization	929	ICD-9-CM Diagnosis
Trauma with likely immobilization	929*	ICD-9-CM Diagnosis
Trauma with likely immobilization	929**	ICD-9-CM Diagnosis
Trauma with likely immobilization	9481	ICD-9-CM Diagnosis
Trauma with likely immobilization	9481*	ICD-9-CM Diagnosis
Trauma with likely immobilization	9482	ICD-9-CM Diagnosis
Trauma with likely immobilization	9482*	ICD-9-CM Diagnosis
Trauma with likely immobilization	9483	ICD-9-CM Diagnosis
Trauma with likely immobilization	9483*	ICD-9-CM Diagnosis
Trauma with likely immobilization	9484	ICD-9-CM Diagnosis
Trauma with likely immobilization	9484*	ICD-9-CM Diagnosis
Trauma with likely immobilization	9485	ICD-9-CM Diagnosis
Trauma with likely immobilization	9485*	ICD-9-CM Diagnosis
Trauma with likely immobilization	9486	ICD-9-CM Diagnosis
Trauma with likely immobilization	9486*	ICD-9-CM Diagnosis
Trauma with likely immobilization	9487	ICD-9-CM Diagnosis
Trauma with likely immobilization	9487*	ICD-9-CM Diagnosis
Trauma with likely immobilization	9488	ICD-9-CM Diagnosis
Trauma with likely immobilization	9488*	ICD-9-CM Diagnosis
Trauma with likely immobilization	9489	ICD-9-CM Diagnosis
Trauma with likely immobilization	9489*	ICD-9-CM Diagnosis
Trauma with likely immobilization	952	ICD-9-CM Diagnosis
Trauma with likely immobilization	952*	ICD-9-CM Diagnosis
Trauma with likely immobilization	952**	ICD-9-CM Diagnosis

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Covariate	Code	Code Type
Use of home oxygen	E0424	HCPCS Procedure
Use of home oxygen	E0425	HCPCS Procedure
Use of home oxygen	E0430	HCPCS Procedure
Use of home oxygen	E0431	HCPCS Procedure
Use of home oxygen	E0433	HCPCS Procedure
Use of home oxygen	E0434	HCPCS Procedure
Use of home oxygen	E0435	HCPCS Procedure
Use of home oxygen	E0439	HCPCS Procedure
Use of home oxygen	E0440	HCPCS Procedure
Use of home oxygen	E0441	HCPCS Procedure
Use of home oxygen	E0442	HCPCS Procedure
Use of home oxygen	E0443	HCPCS Procedure
Use of home oxygen	E0444	HCPCS Procedure
Use of home oxygen	E1390	HCPCS Procedure
Use of home oxygen	E1391	HCPCS Procedure
Use of home oxygen	E1392	HCPCS Procedure
Use of home oxygen	E1405	HCPCS Procedure

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Covariate	Code	Code Type
Use of home oxygen	E1406	HCPCS Procedure
VTE risk NOS indicators	3551F	CPT Procedure
VTE risk NOS indicators	3552F	CPT Procedure
VTE risk NOS indicators	4044F	CPT Procedure
Walker use	E0130	HCPCS Procedure
Walker use	E0135	HCPCS Procedure
Walker use	E0140	HCPCS Procedure
Walker use	E0141	HCPCS Procedure
Walker use	E0143	HCPCS Procedure
Walker use	E0144	HCPCS Procedure
Walker use	E0147	HCPCS Procedure
Walker use	E0148	HCPCS Procedure
Walker use	E0149	HCPCS Procedure
Walker use	E0153	HCPCS Procedure
Walker use	E0154	HCPCS Procedure
Walker use	E0155	HCPCS Procedure
Walker use	E0156	HCPCS Procedure
Walker use	E0157	HCPCS Procedure
Walker use	E0158	HCPCS Procedure
Walker use	E0159	HCPCS Procedure
Wheelchair use	E1031	HCPCS Procedure
Wheelchair use	E1035	HCPCS Procedure
Wheelchair use	E1038	HCPCS Procedure
Wheelchair use	E1039	HCPCS Procedure
Wheelchair use	E1050	HCPCS Procedure
Wheelchair use	E1060	HCPCS Procedure
Wheelchair use	E1070	HCPCS Procedure
Wheelchair use	E1083	HCPCS Procedure
Wheelchair use	E1084	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E1085	HCPCS Procedure
Wheelchair use	E1086	HCPCS Procedure
Wheelchair use	E1087	HCPCS Procedure
Wheelchair use	E1088	HCPCS Procedure
Wheelchair use	E1089	HCPCS Procedure
Wheelchair use	E1090	HCPCS Procedure
Wheelchair use	E1092	HCPCS Procedure
Wheelchair use	E1093	HCPCS Procedure
Wheelchair use	E1100	HCPCS Procedure
Wheelchair use	E1110	HCPCS Procedure
Wheelchair use	E1130	HCPCS Procedure
Wheelchair use	E1140	HCPCS Procedure
Wheelchair use	E1150	HCPCS Procedure
Wheelchair use	E1160	HCPCS Procedure
Wheelchair use	E1161	HCPCS Procedure
Wheelchair use	E1170	HCPCS Procedure
Wheelchair use	E1171	HCPCS Procedure
Wheelchair use	E1172	HCPCS Procedure
Wheelchair use	E1180	HCPCS Procedure
Wheelchair use	E1190	HCPCS Procedure
Wheelchair use	E1195	HCPCS Procedure
Wheelchair use	E1200	HCPCS Procedure
Wheelchair use	E1220	HCPCS Procedure
Wheelchair use	E1221	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E1222	HCPCS Procedure
Wheelchair use	E1223	HCPCS Procedure
Wheelchair use	E1224	HCPCS Procedure
Wheelchair use	E1129	HCPCS Procedure
Wheelchair use	E1230	HCPCS Procedure
Wheelchair use	E1231	HCPCS Procedure
Wheelchair use	E1232	HCPCS Procedure
Wheelchair use	E1233	HCPCS Procedure
Wheelchair use	E1234	HCPCS Procedure
Wheelchair use	E1235	HCPCS Procedure
Wheelchair use	E1236	HCPCS Procedure
Wheelchair use	E1237	HCPCS Procedure
Wheelchair use	E1238	HCPCS Procedure
Wheelchair use	E1239	HCPCS Procedure
Wheelchair use	E1240	HCPCS Procedure
Wheelchair use	E1250	HCPCS Procedure
Wheelchair use	E1260	HCPCS Procedure
Wheelchair use	E1270	HCPCS Procedure
Wheelchair use	E1280	HCPCS Procedure
Wheelchair use	E1285	HCPCS Procedure
Wheelchair use	E1290	HCPCS Procedure
Wheelchair use	E1295	HCPCS Procedure
Wheelchair use	E1296	HCPCS Procedure
Wheelchair use	E1297	HCPCS Procedure
Wheelchair use	E1298	HCPCS Procedure
Wheelchair use	E0950	HCPCS Procedure
Wheelchair use	E0951	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E0952	HCPCS Procedure
Wheelchair use	E0955	HCPCS Procedure
Wheelchair use	E0956	HCPCS Procedure
Wheelchair use	E0957	HCPCS Procedure
Wheelchair use	E0958	HCPCS Procedure
Wheelchair use	E0959	HCPCS Procedure
Wheelchair use	E0960	HCPCS Procedure
Wheelchair use	E0961	HCPCS Procedure
Wheelchair use	E0966	HCPCS Procedure
Wheelchair use	E0967	HCPCS Procedure
Wheelchair use	E0968	HCPCS Procedure
Wheelchair use	E0969	HCPCS Procedure
Wheelchair use	E0970	HCPCS Procedure
Wheelchair use	E0971	HCPCS Procedure
Wheelchair use	E0973	HCPCS Procedure
Wheelchair use	E0974	HCPCS Procedure
Wheelchair use	E0978	HCPCS Procedure
Wheelchair use	E0980	HCPCS Procedure
Wheelchair use	E0981	HCPCS Procedure
Wheelchair use	E0982	HCPCS Procedure
Wheelchair use	E0983	HCPCS Procedure
Wheelchair use	E0984	HCPCS Procedure
Wheelchair use	E0985	HCPCS Procedure
Wheelchair use	E0986	HCPCS Procedure
Wheelchair use	E0988	HCPCS Procedure
Wheelchair use	E0990	HCPCS Procedure
Wheelchair use	E0992	HCPCS Procedure
Wheelchair use	E0994	HCPCS Procedure
Wheelchair use	E0995	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E1002	HCPCS Procedure
Wheelchair use	E1003	HCPCS Procedure
Wheelchair use	E1004	HCPCS Procedure
Wheelchair use	E1005	HCPCS Procedure
Wheelchair use	E1006	HCPCS Procedure
Wheelchair use	E1007	HCPCS Procedure
Wheelchair use	E1008	HCPCS Procedure
Wheelchair use	E1009	HCPCS Procedure
Wheelchair use	E1010	HCPCS Procedure
Wheelchair use	E1011	HCPCS Procedure
Wheelchair use	E1014	HCPCS Procedure
Wheelchair use	E1015	HCPCS Procedure
Wheelchair use	E1016	HCPCS Procedure
Wheelchair use	E1017	HCPCS Procedure
Wheelchair use	E1018	HCPCS Procedure
Wheelchair use	E1020	HCPCS Procedure
Wheelchair use	E1028	HCPCS Procedure
Wheelchair use	E1029	HCPCS Procedure
Wheelchair use	E1030	HCPCS Procedure
Wheelchair use	E1225	HCPCS Procedure
Wheelchair use	E1226	HCPCS Procedure
Wheelchair use	E1227	HCPCS Procedure
Wheelchair use	E1228	HCPCS Procedure
Wheelchair use	E2201	HCPCS Procedure
Wheelchair use	E2202	HCPCS Procedure
Wheelchair use	E2203	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E2204	HCPCS Procedure
Wheelchair use	E2205	HCPCS Procedure
Wheelchair use	E2206	HCPCS Procedure
Wheelchair use	E2207	HCPCS Procedure
Wheelchair use	E2208	HCPCS Procedure
Wheelchair use	E2209	HCPCS Procedure
Wheelchair use	E2210	HCPCS Procedure
Wheelchair use	E2211	HCPCS Procedure
Wheelchair use	E2212	HCPCS Procedure
Wheelchair use	E2213	HCPCS Procedure
Wheelchair use	E2214	HCPCS Procedure
Wheelchair use	E2215	HCPCS Procedure
Wheelchair use	E2216	HCPCS Procedure
Wheelchair use	E2217	HCPCS Procedure
Wheelchair use	E2218	HCPCS Procedure
Wheelchair use	E2219	HCPCS Procedure
Wheelchair use	E2220	HCPCS Procedure
Wheelchair use	E2221	HCPCS Procedure
Wheelchair use	E2222	HCPCS Procedure
Wheelchair use	E2223	HCPCS Procedure
Wheelchair use	E2224	HCPCS Procedure
Wheelchair use	E2225	HCPCS Procedure
Wheelchair use	E2226	HCPCS Procedure
Wheelchair use	E2300	HCPCS Procedure
Wheelchair use	E2301	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E2310	HCPCS Procedure
Wheelchair use	E2311	HCPCS Procedure
Wheelchair use	E2312	HCPCS Procedure
Wheelchair use	E2313	HCPCS Procedure
Wheelchair use	E2321	HCPCS Procedure
Wheelchair use	E2322	HCPCS Procedure
Wheelchair use	E2323	HCPCS Procedure
Wheelchair use	E2324	HCPCS Procedure
Wheelchair use	E2325	HCPCS Procedure
Wheelchair use	E2326	HCPCS Procedure
Wheelchair use	E2327	HCPCS Procedure
Wheelchair use	E2328	HCPCS Procedure
Wheelchair use	E2329	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E2330	HCPCS Procedure
Wheelchair use	E2331	HCPCS Procedure
Wheelchair use	E2340	HCPCS Procedure
Wheelchair use	E2341	HCPCS Procedure
Wheelchair use	E2342	HCPCS Procedure
Wheelchair use	E2343	HCPCS Procedure
Wheelchair use	E2351	HCPCS Procedure
Wheelchair use	E2358	HCPCS Procedure
Wheelchair use	E2359	HCPCS Procedure
Wheelchair use	E2360	HCPCS Procedure
Wheelchair use	E2361	HCPCS Procedure
Wheelchair use	E2362	HCPCS Procedure
Wheelchair use	E2363	HCPCS Procedure
Wheelchair use	E2364	HCPCS Procedure
Wheelchair use	E2365	HCPCS Procedure
Wheelchair use	E2366	HCPCS Procedure
Wheelchair use	E2367	HCPCS Procedure
Wheelchair use	E2368	HCPCS Procedure
Wheelchair use	E2369	HCPCS Procedure
Wheelchair use	E2370	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E2371	HCPCS Procedure
Wheelchair use	E2372	HCPCS Procedure
Wheelchair use	E2373	HCPCS Procedure
Wheelchair use	E2374	HCPCS Procedure
Wheelchair use	E2375	HCPCS Procedure
Wheelchair use	E2376	HCPCS Procedure
Wheelchair use	E2377	HCPCS Procedure
Wheelchair use	E2378	HCPCS Procedure
Wheelchair use	E2381	HCPCS Procedure
Wheelchair use	E2382	HCPCS Procedure
Wheelchair use	E2383	HCPCS Procedure
Wheelchair use	E2384	HCPCS Procedure
Wheelchair use	E2385	HCPCS Procedure
Wheelchair use	E2386	HCPCS Procedure
Wheelchair use	E2387	HCPCS Procedure
Wheelchair use	E2388	HCPCS Procedure
Wheelchair use	E2389	HCPCS Procedure
Wheelchair use	E2390	HCPCS Procedure
Wheelchair use	E2391	HCPCS Procedure
Wheelchair use	E2392	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E2393	HCPCS Procedure
Wheelchair use	E2394	HCPCS Procedure
Wheelchair use	E2395	HCPCS Procedure
Wheelchair use	E2396	HCPCS Procedure
Wheelchair use	E2397	HCPCS Procedure
Wheelchair use	E2399	HCPCS Procedure
Wheelchair use	E2402	HCPCS Procedure
Wheelchair use	E2601	HCPCS Procedure
Wheelchair use	E2602	HCPCS Procedure
Wheelchair use	E2603	HCPCS Procedure
Wheelchair use	E2604	HCPCS Procedure
Wheelchair use	E2605	HCPCS Procedure
Wheelchair use	E2606	HCPCS Procedure
Wheelchair use	E2607	HCPCS Procedure
Wheelchair use	E2608	HCPCS Procedure
Wheelchair use	E2609	HCPCS Procedure
Wheelchair use	E2610	HCPCS Procedure
Wheelchair use	E2611	HCPCS Procedure
Wheelchair use	E2612	HCPCS Procedure
Wheelchair use	E2613	HCPCS Procedure
Wheelchair use	E2614	HCPCS Procedure
Wheelchair use	E2615	HCPCS Procedure

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Covariate	Code	Code Type
Wheelchair use	E2616	HCPCS Procedure
Wheelchair use	E2617	HCPCS Procedure
Wheelchair use	E2618	HCPCS Procedure
Wheelchair use	E2619	HCPCS Procedure
Wheelchair use	E2620	HCPCS Procedure
Wheelchair use	E2621	HCPCS Procedure

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease

Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease

Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease

Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease

Chronic kidney disease

Chronic kidney disease

Renal failure, unspecified

Kidney replaced by transplant

Kidney replaced by transplant

Postsurgical renal dialysis status

Postsurgical renal dialysis status

Encounter for extracorporeal dialysis

Encounter for extracorporeal dialysis

Encounter for other dialysis

Encounter for other dialysis

Esophageal varices with bleeding

Esophageal varices with bleeding

Esophageal varices without mention of bleeding

Esophageal varices without mention of bleeding

Esophageal varices in diseases classified elsewhere

Esophageal varices in diseases classified elsewhere

Hepatic encephalopathy

Hepatic encephalopathy

Portal hypertension

Portal hypertension

Hepatorenal syndrome

Hepatorenal syndrome

Other sequelae of chronic liver disease

Other sequelae of chronic liver disease

Alcohol-induced mental disorders

Alcohol-induced mental disorders

Alcohol-induced mental disorders

Alcohol dependence syndrome

Personal history of alcoholism

Personal history of alcoholism

Iron deficiency anemia secondary to inadequate dietary iron intake

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Iron deficiency anemia secondary to inadequate dietary iron intake

Other specified iron deficiency anemias

Other specified iron deficiency anemias

Iron deficiency anemia, unspecified

Iron deficiency anemia, unspecified

Other deficiency anemias

Other deficiency anemias

Cane, includes canes of all materials, adjustable or fixed, with tip

Cane, quad or three prong, includes canes of all materials, adjustable or fixed, with tips

Malignant hypertensive heart disease with heart failure

Benign hypertensive heart disease with heart failure

Unspecified hypertensive heart disease with heart failure

Cardiomyopathy

Cardiomyopathy

Cardiomyopathy

Heart failure

Heart failure

Heart failure

Cardiomegaly

Cardiomegaly

Coagulation defects

Coagulation defects

Coagulation defects

Commode chair, mobile or stationary, with fixed arms

Commode chair, mobile or stationary, with detachable arms

Pail or pan for use with commode chair, replacement only

Commode chair, extra wide and/or heavy duty, stationary or mobile, with or without arms, any type, each

Commode chair with integrated seat lift mechanism, electric, any type

Commode chair with integrated seat lift mechanism, non-electric, any type

Foot rest, for use with commode chair, each

Mechanical complication due to coronary bypass graft

Aortocoronary bypass status

Bypass Anastomosis For Heart Revascularization

Bypass Anastomosis For Heart Revascularization

Heart Revascularization By Arterial Implant

Heart Revascularization By Arterial Implant

CABG VEIN SINGLE

CABG VEIN TWO

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

CABG VEIN THREE

CABG VEIN FOUR

CABG VEIN FIVE

CABG VEIN SIX OR MORE

CABG ARTERY-VEIN SINGLE

CABG ARTERY-VEIN TWO

CABG ARTERY-VEIN THREE

CABG ARTERY-VEIN FOUR

CABG ARTERY-VEIN FIVE

CABG ART-VEIN SIX OR MORE

Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using arterial graft(s), single coronary arterial graft

Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using arterial graft(s), two coronary arterial grafts

Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using venous graft only, single coronary venous graft

Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using single arterial and venous graft(s), single venous graft

Minimally invasive direct coronary artery bypass surgery involving mini-thoracotomy or mini-sternotomy surgery, performed under direct vision; using two arterial grafts and single venous graft

Diabetes mellitus

Diabetes mellitus

Diabetes mellitus

Polyneuropathy in diabetes

Polyneuropathy in diabetes

Diabetic retinopathy

Diabetic retinopathy

Diabetic cataract

Fall on or from stairs or steps

Fall on or from stairs or steps

Fall on or from ladders or scaffolding

Fall on or from ladders or scaffolding

Fall from or out of building or other structure

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Fall from or out of building or other structure
Fall into hole or other opening in surface
Fall into hole or other opening in surface
Other accidental falls from one level to another
Other accidental falls from one level to another
Accidental fall on same level from slipping tripping or stumbling

Accidental fall on same level from slipping tripping or stumbling

Fall on same level from collision, pushing, or shoving, by or with other person
Fall on same level from collision, pushing, or shoving, by or with other person
Fracture, cause unspecified
Fracture, cause unspecified
Other and unspecified fall
Other and unspecified fall
Acute gastric ulcer with hemorrhage
Acute gastric ulcer with hemorrhage
Acute gastric ulcer with perforation
Acute gastric ulcer with perforation
Acute gastric ulcer with hemorrhage and perforation
Acute gastric ulcer with hemorrhage and perforation
Acute gastric ulcer without mention of hemorrhage or perforation
Acute gastric ulcer without mention of hemorrhage or perforation
Chronic or unspecified gastric ulcer with hemorrhage
Chronic or unspecified gastric ulcer with hemorrhage
Chronic or unspecified gastric ulcer with perforation
Chronic or unspecified gastric ulcer with perforation
Chronic or unspecified gastric ulcer with hemorrhage and perforation
Chronic or unspecified gastric ulcer with hemorrhage and perforation
Acute duodenal ulcer with hemorrhage
Acute duodenal ulcer with hemorrhage
Acute duodenal ulcer with perforation
Acute duodenal ulcer with perforation
Acute duodenal ulcer with hemorrhage and perforation
Acute duodenal ulcer with hemorrhage and perforation
Acute duodenal ulcer without mention of hemorrhage or perforation
Acute duodenal ulcer without mention of hemorrhage or perforation

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Chronic or unspecified duodenal ulcer with hemorrhage
Chronic or unspecified duodenal ulcer with hemorrhage
Chronic or unspecified duodenal ulcer with perforation
Chronic or unspecified duodenal ulcer with perforation
Chronic or unspecified duodenal ulcer with hemorrhage and perforation
Chronic or unspecified duodenal ulcer with hemorrhage and perforation
Acute peptic ulcer of unspecified site with hemorrhage
Acute peptic ulcer of unspecified site with hemorrhage
Acute peptic ulcer of unspecified site with perforation
Acute peptic ulcer of unspecified site with perforation
Acute peptic ulcer of unspecified site with hemorrhage and perforation
Acute peptic ulcer of unspecified site with hemorrhage and perforation
Acute peptic ulcer of unspecified site without mention of hemorrhage and perforation
Acute peptic ulcer of unspecified site without mention of hemorrhage and perforation
Chronic or unspecified peptic ulcer of unspecified site with hemorrhage
Chronic or unspecified peptic ulcer of unspecified site with hemorrhage
Chronic or unspecified peptic ulcer of unspecified site with perforation
Chronic or unspecified peptic ulcer of unspecified site with perforation
Chronic or unspecified peptic ulcer of unspecified site with hemorrhage and perforation
Chronic or unspecified peptic ulcer of unspecified site with hemorrhage and perforation
Acute gastrojejunal ulcer with hemorrhage
Acute gastrojejunal ulcer with hemorrhage
Acute gastrojejunal ulcer with perforation
Acute gastrojejunal ulcer with perforation
Acute gastrojejunal ulcer with hemorrhage and perforation
Acute gastrojejunal ulcer with hemorrhage and perforation
Acute gastrojejunal ulcer without mention of hemorrhage or perforation
Acute gastrojejunal ulcer without mention of hemorrhage or perforation
Chronic or unspecified gastrojejunal ulcer with hemorrhage
Chronic or unspecified gastrojejunal ulcer with hemorrhage
Chronic or unspecified gastrojejunal ulcer with perforation
Chronic or unspecified gastrojejunal ulcer with perforation

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation

Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation

Acute gastritis with hemorrhage

Atrophic gastritis with hemorrhage

Gastric mucosal hypertrophy with hemorrhage

Alcoholic gastritis with hemorrhage

Other specified gastritis with hemorrhage

Duodenitis with hemorrhage

Angiodysplasia of stomach and duodenum with hemorrhage

Diverticulosis of small intestine with hemorrhage

Diverticulitis of small intestine with hemorrhage

Diverticulosis of colon with hemorrhage

Diverticulitis of colon with hemorrhage

Hemoperitoneum (nontraumatic)

Hemorrhage of rectum and anus

Hemorrhage of rectum and anus

Angiodysplasia of intestine with hemorrhage

Gastrointestinal hemorrhage

Gastrointestinal hemorrhage

Subarachnoid hemorrhage

Intracerebral hemorrhage

Other and unspecified intracranial hemorrhage

Other and unspecified intracranial hemorrhage

Subarachnoid hemorrhage following injury without mention of open intracranial wound

Subarachnoid hemorrhage following injury without mention of open intracranial wound

Subdural hemorrhage following injury without mention of open intracranial wound

Subdural hemorrhage following injury without mention of open intracranial wound

Extradural hemorrhage following injury without mention of open intracranial wound

Extradural hemorrhage following injury without mention of open intracranial wound

Other and unspecified intracranial hemorrhage following injury without mention of open intracranial

Other and unspecified intracranial hemorrhage following injury without mention of open intracranial

Pure hypercholesterolemia

Pure hypercholesterolemia

Pure hyperglyceridemia

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Pure hyperglyceridemia
Mixed hyperlipidemia
Mixed hyperlipidemia
Hyperchylomicronemia
Hyperchylomicronemia
Essential hypertension
Essential hypertension
Hypertensive heart disease
Hypertensive heart disease
Hypertensive heart disease
Hypertensive chronic kidney disease
Hypertensive chronic kidney disease
Hypertensive chronic kidney disease
Hypertensive heart and chronic kidney disease
Hypertensive heart and chronic kidney disease
Hypertensive heart and chronic kidney disease
Secondary hypertension
Secondary hypertension
Secondary hypertension
Hypertension plan of care documented as appropriate
Occlusion and stenosis of precerebral arteries with cerebral infarction
Occlusion of cerebral arteries with cerebral infarction
Acute, but ill-defined, cerebrovascular disease

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Secondary and unspecified malignant neoplasm of lymph nodes

Secondary and unspecified malignant neoplasm of lymph nodes

Secondary and unspecified malignant neoplasm of lymph nodes

Secondary malignant neoplasm of respiratory and digestive systems

Secondary malignant neoplasm of respiratory and digestive systems

Secondary malignant neoplasm of respiratory and digestive systems

Secondary malignant neoplasm of other specified sites

Secondary malignant neoplasm of other specified sites

Secondary malignant neoplasm of other specified sites

Malignant neoplasm without specification of site

Malignant neoplasm without specification of site

Malignant neoplasm without specification of site

Acute myocardial infarction

Acute myocardial infarction

Acute myocardial infarction

Transient paralysis of limb

Transient paralysis of limb

Aphasia

Aphasia

Nervous system complications

Nervous system complications

Malignant hypertensive heart disease with heart failure

Closed fracture of cervical vertebra without mention of spinal cord injury

Closed fracture of cervical vertebra without mention of spinal cord injury

Closed fracture of dorsal [thoracic] vertebra without mention of spinal cord injury

Closed fracture of dorsal [thoracic] vertebra without mention of spinal cord injury

Closed fracture of lumbar vertebra without mention of spinal cord injury

Closed fracture of lumbar vertebra without mention of spinal cord injury

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Closed fracture of sacrum and coccyx without mention of spinal cord injury
Closed fracture of sacrum and coccyx without mention of spinal cord injury
Closed fracture of unspecified vertebral column without mention of spinal cord injury
Closed fracture of unspecified vertebral column without mention of spinal cord injury
Fracture of pelvis
Fracture of pelvis
Fracture of pelvis
Fracture of upper end of humerus closed
Fracture of upper end of humerus closed
Closed fracture of shaft or unspecified part of humerus
Closed fracture of shaft or unspecified part of humerus
Fracture of lower end of radius and ulna closed
Fracture of lower end of radius and ulna closed
Transcervical fracture closed
Transcervical fracture closed
Pertrochanteric fracture of femur closed
Pertrochanteric fracture of femur closed
Closed fracture of unspecified part of neck of femur
Closed fracture of unspecified part of neck of femur
Fracture of other and unspecified parts of femur
Fracture of other and unspecified parts of femur
Fracture of other and unspecified parts of femur
Arterial embolism and thrombosis
Arterial embolism and thrombosis
Arterial embolism and thrombosis
Atheroembolism
Atheroembolism
Atheroembolism
Chronic gastric ulcer without mention of hemorrhage or perforation
Chronic gastric ulcer without mention of hemorrhage or perforation
Gastric ulcer unspecified as acute or chronic without mention of hemorrhage or perforation
Gastric ulcer unspecified as acute or chronic without mention of hemorrhage or perforation
Chronic duodenal ulcer without mention of hemorrhage or perforation
Chronic duodenal ulcer without mention of hemorrhage or perforation

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Duodenal ulcer unspecified as acute or chronic without mention of hemorrhage or perforation

Duodenal ulcer unspecified as acute or chronic without mention of hemorrhage or perforation

Chronic peptic ulcer of unspecified site without mention of hemorrhage or perforation

Chronic peptic ulcer of unspecified site without mention of hemorrhage or perforation

Peptic ulcer of unspecified site unspecified as acute or chronic without mention of hemorrhage or perforation

Peptic ulcer of unspecified site unspecified as acute or chronic without mention of hemorrhage or perforation

Chronic gastrojejunal ulcer without mention of hemorrhage or perforation

Chronic gastrojejunal ulcer without mention of hemorrhage or perforation

Gastrojejunal ulcer unspecified as acute or chronic without mention of hemorrhage or perforation

Gastrojejunal ulcer unspecified as acute or chronic without mention of hemorrhage or perforation

Hemopericardium

Hemopericardium

Internal hemorrhoids with other complication

Internal hemorrhoids with other complication

External hemorrhoids with other complication

External hemorrhoids with other complication

Unspecified hemorrhoids with other complication

Unspecified hemorrhoids with other complication

Esophageal varices with bleeding

Esophageal varices with bleeding

Esophageal varices in diseases classified elsewhere

Esophageal varices in diseases classified elsewhere

Hemorrhage, unspecified

Hemorrhage, unspecified

Gastroesophageal laceration-hemorrhage syndrome

Gastroesophageal laceration-hemorrhage syndrome

Esophageal hemorrhage

Hematuria

Hematuria

Hemarthrosis shoulder region

Epistaxis

Epistaxis

Hemorrhage from throat

Hemorrhage from throat

Hemoptysis

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Hemoptysis

Transient retinal arterial occlusion

Occlusion and stenosis of basilar artery without mention of cerebral infarction

Occlusion and stenosis of carotid artery without mention of cerebral infarction

Occlusion and stenosis of vertebral artery without mention of cerebral infarction

Occlusion and stenosis of multiple and bilateral precerebral arteries without mention of cerebral infarction

Occlusion and stenosis of other specified precerebral artery without mention of cerebral infarction

Occlusion and stenosis of unspecified precerebral artery without mention of cerebral infarction

Cerebral thrombosis without mention of cerebral infarction

Cerebral embolism without mention of cerebral infarction

Cerebral artery occlusion, unspecified, without mention of cerebral infarction

Transient cerebral ischemia

Transient cerebral ischemia

Other and ill-defined cerebrovascular disease

Other and ill-defined cerebrovascular disease

Cerebral atherosclerosis

Cerebral atherosclerosis

Unspecified cerebrovascular disease

Unspecified cerebrovascular disease

Late effects of cerebrovascular disease

Late effects of cerebrovascular disease

Late effects of cerebrovascular disease

Endarterectomy, Intracranial Vessels

Endarterectomy, other vessels of head and neck

Resection Of Vessel With Replacement, Intracranial Vessels

Resection of vessel with replacement, other vessels of head and neck

Other acute and subacute forms of ischemic heart disease

Other acute and subacute forms of ischemic heart disease

Other acute and subacute forms of ischemic heart disease

Percutaneous transluminal coronary angioplasty status

Percutaneous transluminal coronary angioplasty

removal of coronary artery obstruction and insertion of stent

removal of coronary artery obstruction and insertion of stent

Left heart cardiac catheterization

Combined Right And Left Heart Cardiac Catheterization

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Angiocardiology Using Contrast Material
Angiocardiology Using Contrast Material
PRQ CORONARY MECH THROMBECT
CATH PLACE CARDIO BRACHYTX
DISSOLVE CLOT HEART VESSEL
INSERT INTRACORONARY STENT
INSERT INTRACORONARY STENT
CORONARY ARTERY DILATION
CORONARY ARTERY DILATION
REVISION OF MITRAL VALVE
CORONARY ATHERECTOMY
CORONARY ATHERECTOMY ADD-ON
Transcatheter placement of a drug eluting intracoronary stent(s),
percutaneous, with or without other therapeutic intervention,
any method; single vessel
Transcatheter placement of a drug eluting intracoronary stent(s),
percutaneous, with or without other therapeutic intervention,
any method; each additional vessel
Atherosclerosis
Atherosclerosis
Atherosclerosis
Thoracic aneurysm without mention of rupture
Thoracic aneurysm without mention of rupture
Abdominal aneurysm without mention of rupture
Abdominal aneurysm without mention of rupture
Thoracoabdominal aneurysm, without mention of rupture
Thoracoabdominal aneurysm, without mention of rupture
Aortic aneurysm of unspecified site without mention of rupture

Aortic aneurysm of unspecified site without mention of rupture

Thromboangiitis obliterans [Buerger's disease]
Thromboangiitis obliterans [Buerger's disease]
Other arterial dissection
Other arterial dissection
Other specified peripheral vascular diseases
Other specified peripheral vascular diseases
Peripheral vascular disease, unspecified
Peripheral vascular disease, unspecified
Stricture of artery
Stricture of artery
Chronic vascular insufficiency of intestine
Chronic vascular insufficiency of intestine
Unspecified vascular insufficiency of intestine
Unspecified vascular insufficiency of intestine

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Blood vessel replaced by other means

Blood vessel replaced by other means

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Phlebitis and thrombophlebitis of intracranial venous sinuses

Nonpyogenic thrombosis of intracranial venous sinus

Nonpyogenic thrombosis of intracranial venous sinus

Phlebitis and thrombophlebitis of femoral vein (deep)
(superficial)

Phlebitis and thrombophlebitis of deep veins of lower
extremities, other

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Phlebitis and thrombophlebitis of lower extremities, unspecified

Phlebitis and thrombophlebitis of lower extremities, unspecified

Phlebitis and thrombophlebitis of unspecified site

Phlebitis and thrombophlebitis of unspecified site

Thrombophlebitis migrans

Thrombophlebitis migrans

Other venous embolism and thrombosis of inferior vena cava

Other venous embolism and thrombosis of inferior vena cava

Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity

Acute venous embolism and thrombosis of deep vessels of proximal lower extremity

Acute venous embolism and thrombosis of deep vessels of distal lower extremity

Other venous embolism and thrombosis of unspecified site

Other venous embolism and thrombosis of unspecified site

Personal history of venous thrombosis and embolism

Phlebitis and thrombophlebitis of superficial vessels of lower extremities

Phlebitis and thrombophlebitis of superficial vessels of lower extremities

Phlebitis and thrombophlebitis of other sites

Phlebitis and thrombophlebitis of other sites

Budd-chiari syndrome

Budd-chiari syndrome

Other venous embolism and thrombosis of renal vein

Other venous embolism and thrombosis of renal vein

Chronic venous embolism and thrombosis of deep vessels of lower extremity

Chronic venous embolism and thrombosis of deep vessels of lower extremity

Venous embolism and thrombosis of superficial vessels of lower extremity

Venous embolism and thrombosis of superficial vessels of lower extremity

Chronic venous embolism and thrombosis of other specified vessels

Chronic venous embolism and thrombosis of other specified vessels

Acute venous embolism and thrombosis of other specified veins

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Acute venous embolism and thrombosis of other specified veins

Septic arterial embolism

Portal vein thrombosis

Vascular myelopathies

Vascular myelopathies

Retinal vascular occlusion

Retinal vascular occlusion

Hepatic infarction

Hepatic infarction

Vascular disorders of kidney

Tobacco use disorder

Tobacco use disorder

Tobacco use disorder complicating pregnancy, childbirth, or the puerperium

Tobacco use disorder complicating pregnancy, childbirth, or the puerperium

Toxic effect of tobacco

Personal history of tobacco use

Nicotine

Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes

Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes

Current tobacco smoker (CAD, CAP, COPD, PV) (DM)

Current smokeless tobacco user (eg, chew, snuff) (PV)

Tobacco use cessation intervention, counseling (COPD, CAP, CAD, Asthma)(DM)(PV)

Tobacco use cessation intervention, pharmacologic therapy (COPD, CAD, CAP, PV, Asthma) (DM)(PV)

Patient screened for tobacco use and received tobacco cessation intervention (counseling, pharmacotherapy, or both), if identified as a tobacco user (PV, CAD)

Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes

Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes

Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes

Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes

Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes
Newly diagnosed chronic obstructive pulmonary disease (copd) patient documented to have received smoking cessation intervention, within 3 months of diagnosis
Newly diagnosed chronic obstructive pulmonary disease (copd) patient not documented to have received smoking cessation intervention, within 3 months of diagnosis
Tobacco (smoke) use cessation intervention, counseling
Tobacco (smoke) use cessation intervention not counseled
Tobacco use cessation intervention, counseling
Tobacco use cessation intervention not counseled, reason not specified
Current tobacco smoker
Current smokeless tobacco user
Currently a smokeless tobacco user (eg, chew, snuff) and no exposure to secondhand smoke
Smoking cessation counseling, individual, in the absence of or in addition to any other evaluation and management service, per session (6-10 minutes) [demo project code only]

Nicotine patches, legend
Nicotine patches, non-legend
Smoking cessation gum
Smoking cessation treatment
Smoking cessation classes, non-physician provider, per session

Transient cerebral ischemia
Transient cerebral ischemia
Fracture of vault of skull
Fracture of vault of skull
Fracture of vault of skull
Fracture of base of skull
Fracture of face bones
Fracture of face bones
Fracture of face bones
Other and unqualified skull fractures
Other and unqualified skull fractures
Other and unqualified skull fractures
Multiple fractures involving skull or face with other bones
Multiple fractures involving skull or face with other bones
Multiple fractures involving skull or face with other bones

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Open fracture of cervical vertebra without mention of spinal cord injury

Open fracture of cervical vertebra without mention of spinal cord injury

Open fracture of dorsal [thoracic] vertebra without mention of spinal cord injury

Open fracture of dorsal [thoracic] vertebra without mention of spinal cord injury

Open fracture of lumbar vertebra without mention of spinal cord injury

Open fracture of lumbar vertebra without mention of spinal cord injury

Open fracture of sacrum and coccyx without mention of spinal cord injury

Open fracture of sacrum and coccyx without mention of spinal cord injury

Open fracture of unspecified vertebral column without mention of spinal cord injury

Open fracture of unspecified vertebral column without mention of spinal cord injury

Fracture of vertebral column with spinal cord injury

Fracture of vertebral column with spinal cord injury

Fracture of vertebral column with spinal cord injury

Fracture of rib(s) sternum larynx and trachea

Fracture of rib(s) sternum larynx and trachea

Fracture of rib(s) sternum larynx and trachea

Ill-defined fractures of bones of trunk

Ill-defined fractures of bones of trunk

Ill-defined fractures of bones of trunk

Transcervical fracture open

Transcervical fracture open

Pertrochanteric fracture of femur open

Pertrochanteric fracture of femur open

Open fracture of unspecified part of neck of femur

Open fracture of unspecified part of neck of femur

Fracture of patella

Fracture of patella

Fracture of patella

Fracture of tibia and fibula

Fracture of tibia and fibula

Fracture of tibia and fibula

Fracture of ankle

Fracture of ankle

Fracture of ankle

Fracture of one or more tarsal and metatarsal bones

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Fracture of one or more tarsal and metatarsal bones
Fracture of one or more tarsal and metatarsal bones
Fracture of one or more phalanges of foot
Fracture of one or more phalanges of foot
Fracture of one or more phalanges of foot
Other multiple and ill-defined fractures of lower limb
Other multiple and ill-defined fractures of lower limb
Other multiple and ill-defined fractures of lower limb
Multiple fractures involving both lower limbs lower with upper limb and lower limb(s) with rib(s) and sternum
Multiple fractures involving both lower limbs lower with upper limb and lower limb(s) with rib(s) and sternum
Multiple fractures involving both lower limbs lower with upper limb and lower limb(s) with rib(s) and sternum
Fracture of unspecified bones
Fracture of unspecified bones
Fracture of unspecified bones
Cerebral laceration and contusion
Cerebral laceration and contusion
Cerebral laceration and contusion
Subarachnoid hemorrhage following injury with open intracranial wound
Subarachnoid hemorrhage following injury with open intracranial wound
Subdural hemorrhage following injury with open intracranial wound
Subdural hemorrhage following injury with open intracranial wound
Extradural hemorrhage following injury with open intracranial wound
Extradural hemorrhage following injury with open intracranial wound
Other and unspecified intracranial hemorrhage following injury with open intracranial wound
Other and unspecified intracranial hemorrhage following injury with open intracranial wound
Intracranial injury of other and unspecified nature
Intracranial injury of other and unspecified nature
Intracranial injury of other and unspecified nature
Injury to heart and lung
Injury to heart and lung
Injury to heart and lung
Injury to other and unspecified intrathoracic organs
Injury to other and unspecified intrathoracic organs
Injury to other and unspecified intrathoracic organs

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Injury to gastrointestinal tract
Injury to gastrointestinal tract
Injury to gastrointestinal tract
Injury to liver
Injury to liver
Injury to liver
Injury to spleen
Injury to spleen
Injury to spleen
Injury to kidney
Injury to kidney
Injury to kidney
Injury to pelvic organs
Injury to pelvic organs
Injury to pelvic organs
Injury to other intra-abdominal organs
Injury to other intra-abdominal organs
Injury to other intra-abdominal organs
Internal injury to unspecified or ill-defined organs
Internal injury to unspecified or ill-defined organs
Internal injury to unspecified or ill-defined organs
Open wound of ocular adnexa
Open wound of ocular adnexa
Open wound of ocular adnexa
Open wound of hip and thigh
Open wound of hip and thigh
Open wound of hip and thigh
Open wound of knee leg (except thigh) and ankle
Open wound of knee leg (except thigh) and ankle
Open wound of knee leg (except thigh) and ankle
Open wound of foot except toe(s) alone
Open wound of foot except toe(s) alone
Open wound of foot except toe(s) alone
Open wound of toe(s)
Open wound of toe(s)
Open wound of toe(s)
Multiple and unspecified open wound of lower limb
Multiple and unspecified open wound of lower limb
Multiple and unspecified open wound of lower limb
Traumatic amputation of toe(s) (complete) (partial)
Traumatic amputation of toe(s) (complete) (partial)
Traumatic amputation of toe(s) (complete) (partial)
Traumatic amputation of foot (complete) (partial)
Traumatic amputation of foot (complete) (partial)
Traumatic amputation of foot (complete) (partial)

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Traumatic amputation of leg(s) (complete) (partial)
Traumatic amputation of leg(s) (complete) (partial)
Traumatic amputation of leg(s) (complete) (partial)
Crushing injury of face scalp and neck
Crushing injury of face scalp and neck
Crushing injury of face scalp and neck
Crushing injury of trunk
Crushing injury of trunk
Crushing injury of trunk
Crushing injury of upper limb
Crushing injury of upper limb
Crushing injury of upper limb
Crushing injury of lower limb
Crushing injury of lower limb
Crushing injury of lower limb
Crushing injury of multiple and unspecified sites
Crushing injury of multiple and unspecified sites
Crushing injury of multiple and unspecified sites
Burn (any degree) involving 10-19 percent of body surface
Burn (any degree) involving 10-19 percent of body surface
Burn [any degree] involving 20-29 percent of body surface with
third degree burn, less than 10 percent or unspecified
Burn [any degree] involving 20-29 percent of body surface with
third degree burn, less than 10 percent or unspecified
Burn (any degree) involving 30-39 percent of body surface
Burn (any degree) involving 30-39 percent of body surface
Burn [any degree] involving 40-49 percent of body surface with
third degree burn, less than 10 percent or unspecified
Burn [any degree] involving 40-49 percent of body surface with
third degree burn, less than 10 percent or unspecified
Burn (any degree) involving 50-59 percent of body surface
Burn (any degree) involving 50-59 percent of body surface
Burn (any degree) involving 60-69 percent of body surface
Burn (any degree) involving 60-69 percent of body surface
Burn (any degree) involving 70-79 percent of body surface
Burn (any degree) involving 70-79 percent of body surface
Burn (any degree) involving 80-89 percent of body surface
Burn (any degree) involving 80-89 percent of body surface
Burn (any degree) involving 90 percent or more of body surface

Burn (any degree) involving 90 percent or more of body surface

Spinal cord injury without evidence of spinal bone injury
Spinal cord injury without evidence of spinal bone injury
Spinal cord injury without evidence of spinal bone injury

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Stationary compressed gaseous oxygen system, rental; includes container, contents, regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing

Stationary compressed gas system, purchase; includes regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing

Portable gaseous oxygen system, purchase; includes regulator, flowmeter, humidifier, cannula or mask, and tubing

Portable gaseous oxygen system, rental; includes portable container, regulator, flowmeter, humidifier, cannula or mask, and tubing

Portable liquid oxygen system, rental; home liquefier used to fill portable liquid oxygen containers, includes portable containers, regulator, flowmeter, humidifier, cannula or mask and tubing, with or without supply reservoir and contents gauge

Portable liquid oxygen system, rental; includes portable container, supply reservoir, humidifier, flowmeter, refill adaptor, contents gauge, cannula or mask, and tubing

Portable liquid oxygen system, purchase; includes portable container, supply reservoir, flowmeter, humidifier, contents gauge, cannula or mask, tubing and refill adaptor

Stationary liquid oxygen system, rental; includes container, contents, regulator, flowmeter, humidifier, nebulizer, cannula or mask, & tubing

Stationary liquid oxygen system, purchase; includes use of reservoir, contents indicator, regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing

Stationary oxygen contents, gaseous, 1 month's supply = 1 unit

Stationary oxygen contents, liquid, 1 month's supply = 1 unit

Portable oxygen contents, gaseous, 1 month's supply = 1 unit

Portable oxygen contents, liquid, 1 month's supply = 1 unit

Oxygen concentrator, single delivery port, capable of delivering 85 percent or greater oxygen concentration at the prescribed flow rate

Oxygen concentrator, dual delivery port, capable of delivering 85 percent or greater oxygen concentration at the prescribed flow rate, each

Portable oxygen concentrator, rental

Oxygen and water vapor enriching system with heated delivery

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Oxygen and water vapor enriching system without heated delivery

Intermediate risk for thromboembolism (AFIB)

High risk for thromboembolism (AFIB)

Documentation that an order was given for venous thromboembolism (VTE) prophylaxis to be given within 24 hours prior to incision time or 24 hours after surgery end time (PERI 2)

Walker, rigid (pickup), adjustable or fixed height

Walker, folding (pickup), adjustable or fixed height

Walker, with trunk support, adjustable or fixed height, any type

Walker, rigid, wheeled, adjustable or fixed height

Walker, folding, wheeled, adjustable or fixed height

Walker, enclosed, four sided framed, rigid or folding, wheeled with posterior seat

Walker, heavy duty, multiple braking system, variable wheel resistance

Walker, heavy duty, without wheels, rigid or folding, any type, each

Walker, heavy duty, wheeled, rigid or folding, any type

Platform attachment, forearm crutch, each

Platform attachment, walker, each

Wheel attachment, rigid pick-up walker, per pair

Seat attachment, walker

Crutch attachment, walker, each

Leg extensions for walker, per set of four (4)

Brake attachment for wheeled walker, replacement, each

Rollabout chair, any and all types with castors 5" or greater

Multi-positional patient transfer system, with integrated seat, operated by care giver, patient weight capacity up to and including 300 lbs

Transport chair, adult size, patient weight capacity up to and including 300 pounds

Transport chair, adult size, heavy duty, patient weight capacity greater than 300 pounds

Fully-reclining wheelchair, fixed full length arms, swing away detachable elevating leg rests

Fully-reclining wheelchair, detachable arms, desk or full length, swing away detachable elevating legrests

Fully-reclining wheelchair, detachable arms (desk or full length) swing away detachable footrest

Hemi-wheelchair, fixed full length arms, swing away detachable elevating leg rest

Hemi-wheelchair, detachable arms desk or full length arms, swing away detachable elevating leg rests

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Hemi-wheelchair, fixed full length arms, swing away detachable foot rests

Hemi-wheelchair detachable arms desk or full length, swing away detachable footrests

High strength lightweight wheelchair, fixed full length arms, swing away detachable elevating leg rests

High strength lightweight wheelchair, detachable arms desk or full length, swing away detachable elevating leg rests

High strength lightweight wheelchair, fixed length arms, swing away detachable footrest

High strength lightweight wheelchair, detachable arms desk or full length, swing away detachable foot rests

Wide heavy duty wheel chair, detachable arms (desk or full length), swing away detachable elevating leg rests

Wide heavy duty wheelchair, detachable arms desk or full length arms, swing away detachable footrests

Semi-reclining wheelchair, fixed full length arms, swing away detachable elevating leg rests

Semi-reclining wheelchair, detachable arms (desk or full length) elevating leg rest

Standard wheelchair, fixed full length arms, fixed or swing away detachable footrests

Wheelchair, detachable arms, desk or full length, swing away detachable footrests

Wheelchair, detachable arms, desk or full length swing away detachable elevating legrests

Wheelchair, fixed full length arms, swing away detachable elevating legrests

Manual adult size wheelchair, includes tilt in space

Amputee wheelchair, fixed full length arms, swing away detachable elevating legrests

Amputee wheelchair, fixed full length arms, without footrests or legrest

Amputee wheelchair, detachable arms (desk or full length) without footrests or legrest

Amputee wheelchair, detachable arms (desk or full length) swing away detachable footrests

Amputee wheelchair, detachable arms (desk or full length) swing away detachable elevating legrests

Heavy duty wheelchair, fixed full length arms, swing away detachable elevating legrests

Amputee wheelchair, fixed full length arms, swing away detachable footrest

Wheelchair; specially sized or constructed, (indicate brand name, model number, if any) and justification

Wheelchair with fixed arm, footrests

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Wheelchair with fixed arm, elevating legrests
Wheelchair with detachable arms, footrests
Wheelchair with detachable arms, elevating legrests
Wheelchair, pediatric size, not otherwise specified
Power operated vehicle (three or four wheel nonhighway)
specify brand name and model number
Wheelchair, pediatric size, tilt-in-space, rigid, adjustable, with
seating system
Wheelchair, pediatric size, tilt-in-space, folding, adjustable, with
seating system
Wheelchair, pediatric size, tilt-in-space, rigid, adjustable, without
seating system
Wheelchair, pediatric size, tilt-in-space, folding, adjustable,
without seating system
Wheelchair, pediatric size, rigid, adjustable, with seating system

Wheelchair, pediatric size, folding, adjustable, with seating
system
Wheelchair, pediatric size, rigid, adjustable, without seating
system
Wheelchair, pediatric size, folding, adjustable, without seating
system
Power wheelchair, pediatric size, not otherwise specified
Lightweight wheelchair, detachable arms, (desk or full length)
swing away detachable, elevating legrest
Lightweight wheelchair, fixed full length arms, swing away
detachable footrest
Lightweight wheelchair, detachable arms (desk or full length)
swing away detachable footrest
Lightweight wheelchair, fixed full length arms, swing away
detachable elevating legrests
Heavy duty wheelchair, detachable arms (desk or full length)
elevating legrests
Heavy duty wheelchair, fixed full length arms, swing away
detachable footrest
Heavy duty wheelchair, detachable arms (desk or full length)
swing away detachable footrest
Heavy duty wheelchair, fixed full length arms, elevating legrest

Special wheelchair seat height from floor
Special wheelchair seat depth, by upholstery
Special wheelchair seat depth and/or width, by construction

Wheelchair accessory, tray, each
Heel loop/holder, any type, with or without ankle strap, each

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Toe loop/holder, any type, each

Wheelchair accessory, headrest, cushioned, any type, including fixed mounting hardware, each

Wheelchair accessory, lateral trunk or hip support, any type, including fixed mounting hardware, each

Wheelchair accessory, medial thigh support, any type, including fixed mounting hardware, each

Manual wheelchair accessory, one-arm drive attachment, each

Manual wheelchair accessory, adapter for amputee, each

Wheelchair accessory, shoulder harness/straps or chest strap, including any type mounting hardware

Manual wheelchair accessory, wheel lock brake extension (handle), each

Manual wheelchair accessory, headrest extension, each

Manual wheelchair accessory, hand rim with projections, any type, each

Commode seat, wheelchair

Narrowing device, wheelchair

No. 2 footplates, except for elevating leg rest

Manual wheelchair accessory, anti-tipping device, each

Wheelchair accessory, adjustable height, detachable armrest, complete assembly, each

Manual wheelchair accessory, anti-rollback device, each

Wheelchair accessory, positioning belt/safety belt/pelvic strap, each

Safety vest, wheelchair

Wheelchair accessory, seat upholstery, replacement only, each

Wheelchair accessory, back upholstery, replacement only, each

Manual wheelchair accessory, power add-on to convert manual wheelchair to motorized wheelchair, joystick control

Manual wheelchair accessory, power add-on to convert manual wheelchair to motorized wheelchair, tiller control

Wheelchair accessory, seat lift mechanism

Manual wheelchair accessory, push activated power assist, each

Manual wheelchair accessory, lever-activated, wheel drive, pair

Wheelchair accessory, elevating leg rest, complete assembly, each

Manual wheelchair accessory, solid seat insert

Arm rest, each

Wheelchair accessory, calf rest/pad, each

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

- Wheelchair accessory, power seating system, tilt only
- Wheelchair accessory, power seating system, recline only, without shear reduction
- Wheelchair accessory, power seating system, recline only, with mechanical shear reduction
- Wheelchair accessory, power seating system, recline only, with power shear reduction
- Wheelchair accessory, power seating system, combination tilt and recline, without shear reduction
- Wheelchair accessory, power seating system, combination tilt and recline, with mechanical shear reduction
- Wheelchair accessory, power seating system, combination tilt and recline, with power shear reduction
- Wheelchair accessory, addition to power seating system, mechanically linked leg elevation system, including pushrod and leg rest, each
- Wheelchair accessory, addition to power seating system, power leg elevation system, including leg rest, pair
- Modification to pediatric size wheelchair, width adjustment package (not to be dispensed with initial chair)
- Reclining back, addition to pediatric size wheelchair
- Shock absorber for manual wheelchair, each
- Shock absorber for power wheelchair, each
- Heavy duty shock absorber for heavy duty or extra heavy duty manual wheelchair, each
- Heavy duty shock absorber for heavy duty or extra heavy duty power wheelchair, each
- Residual limb support system for wheelchair, any type
- Wheelchair accessory, manual swingaway, retractable or removable mounting hardware for joystick, other control interface or positioning accessory
- Wheelchair accessory, ventilator tray, fixed
- Wheelchair accessory, ventilator tray, gimbaled
- Wheelchair accessory, manual semi-reclining back, (recline greater than 15 degrees, but less than 80 degrees), each
- Wheelchair accessory, manual fully reclining back, (recline greater than 80 degrees), each
- Special height arms for wheelchair
- Special back height for wheelchair
- Manual wheelchair accessory, nonstandard seat frame, width greater than or equal to 20 inches and less than 24 inches

- Manual wheelchair accessory, nonstandard seat frame width, 24-27 inches
- Manual wheelchair accessory, nonstandard seat frame depth, 20 to less than 22 inches

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Manual wheelchair accessory, nonstandard seat frame depth, 22 to 25 inches

Manual wheelchair accessory, handrim without projections (includes ergonomic or contoured), any type, replacement only, each

Manual wheelchair accessory, wheel lock assembly, complete, each

Wheelchair accessory, crutch and cane holder, each

Wheelchair accessory, cylinder tank carrier, each

Accessory, arm trough, with or without hand support, each

Wheelchair accessory, bearings, any type, replacement only, each

Manual wheelchair accessory, pneumatic propulsion tire, any size, each

Manual wheelchair accessory, tube for pneumatic propulsion tire, any size, each

Manual wheelchair accessory, insert for pneumatic propulsion tire (removable), any type, any size, each

Manual wheelchair accessory, pneumatic caster tire, any size, each

Manual wheelchair accessory, tube for pneumatic caster tire, any size, each

Manual wheelchair accessory, foam filled propulsion tire, any size, each

Manual wheelchair accessory, foam filled caster tire, any size, each

Manual wheelchair accessory, foam propulsion tire, any size, each

Manual wheelchair accessory, foam caster tire, any size, each

Manual wheelchair accessory, solid (rubber/plastic) propulsion tire, any size, each

Manual wheelchair accessory, solid (rubber/plastic) caster tire (removable), any size, each

Manual wheelchair accessory, solid (rubber/plastic) caster tire with integrated wheel, any size, each

Manual wheelchair accessory, valve, any type, replacement only, each

Manual wheelchair accessory, propulsion wheel excludes tire, any size, each

Manual wheelchair accessory, caster wheel excludes tire, any size, replacement only, each

Manual wheelchair accessory, caster fork, any size, replacement only, each

Power wheelchair accessory, power seat elevation system

Power wheelchair accessory, power standing system

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Power wheelchair accessory, electronic connection between wheelchair controller and one power seating system motor, including all related electronics, indicator feature, mechanical function selection switch, and fixed mounting hardware

Power wheelchair accessory, electronic connection between wheelchair controller and two or more power seating system motors, including all related electronics, indicator feature, mechanical function selection switch, and fixed mounting hardware

Power wheelchair accessory, hand or chin control interface, mini-proportional remote joystick, proportional, including fixed mounting hardware

Power wheelchair accessory, harness for upgrade to expandable controller, including all fasteners, connectors and mounting hardware, each

Power wheelchair accessory, hand control interface, remote joystick, nonproportional, including all related electronics, mechanical stop switch, and fixed mounting hardware

Power wheelchair accessory, hand control interface, multiple mechanical switches, nonproportional, including all related electronics, mechanical stop switch, and fixed mounting hardware

Power wheelchair accessory, specialty joystick handle for hand control interface, prefabricated

Power wheelchair accessory, chin cup for chin control interface

Power wheelchair accessory, sip and puff interface, nonproportional, including all related electronics, mechanical stop switch, and manual swingaway mounting hardware

Power wheelchair accessory, breath tube kit for sip and puff interface

Power wheelchair accessory, head control interface, mechanical, proportional, including all related electronics, mechanical direction change switch, and fixed mounting hardware

Power wheelchair accessory, head control or extremity control interface, electronic, proportional, including all related electronics and fixed mounting hardware

Power wheelchair accessory, head control interface, contact switch mechanism, nonproportional, including all related electronics, mechanical stop switch, mechanical direction change switch, head array, and fixed mounting hardware

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Power wheelchair accessory, head control interface, proximity switch mechanism, nonproportional, including all related electronics, mechanical stop switch, mechanical direction change switch, head array, and fixed mounting hardware

Power wheelchair accessory, attendant control, proportional, including all related electronics and fixed mounting hardware

Power wheelchair accessory, nonstandard seat frame width, 20-23 inches

Power wheelchair accessory, nonstandard seat frame width, 24-27 inches

Power wheelchair accessory, nonstandard seat frame depth, 20 or 21 inches

Power wheelchair accessory, nonstandard seat frame depth, 22-25 inches

Power wheelchair accessory, electronic interface to operate speech generating device using power wheelchair control interface

Power wheelchair accessory, group 34 non-sealed lead acid battery, each

Power wheelchair accessory, group 34 sealed lead acid battery, each (e. g. gel cell, absorbed glassmat)

Power wheelchair accessory, 22 nf non-sealed lead acid battery, each

Power wheelchair accessory, 22nf sealed lead acid battery, each, (e. g. gel cell, absorbed glassmat)

Power wheelchair accessory, group 24 non-sealed lead acid battery, each

Power wheelchair accessory, group 24 sealed lead acid battery, each (e. g. gel cell, absorbed glassmat)

Power wheelchair accessory, u-1 non-sealed lead acid battery, each

Power wheelchair accessory, u-1 sealed lead acid battery, each (e. g. gel cell, absorbed glassmat)

Power wheelchair accessory, battery charger, single mode, for use with only one battery type, sealed or non-sealed, each

Power wheelchair accessory, battery charger, dual mode, for use with either battery type, sealed or non-sealed, each

Power wheelchair component, drive wheel motor, replacement only

Power wheelchair component, drive wheel gear box, replacement only

Power wheelchair component, integrated drive wheel motor and gear box combination, replacement only

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Power wheelchair accessory, group 27 sealed lead acid battery, (e. g. gel cell, absorbed glassmat), each

Power wheelchair accessory, group 27 non-sealed lead acid battery, each

Power wheelchair accessory, hand or chin control interface, compact remote joystick, proportional, including fixed mounting hardware

Power wheelchair accessory, hand or chin control interface, standard remote joystick (not including controller), proportional, including all related electronics and fixed mounting hardware, replacement only

Power wheelchair accessory, non-expandable controller, including all related electronics and mounting hardware, replacement only

Power wheelchair accessory, expandable controller, including all related electronics and mounting hardware, replacement only

Power wheelchair accessory, expandable controller, including all related electronics and mounting hardware, upgrade provided at initial issue

Power wheelchair component, actuator, replacement only

Power wheelchair accessory, pneumatic drive wheel tire, any size, replacement only, each

Power wheelchair accessory, tube for pneumatic drive wheel tire, any size, replacement only, each

Power wheelchair accessory, insert for pneumatic drive wheel tire (removable), any type, any size, replacement only, each

Power wheelchair accessory, pneumatic caster tire, any size, replacement only, each

Power wheelchair accessory, tube for pneumatic caster tire, any size, replacement only, each

Power wheelchair accessory, foam filled drive wheel tire, any size, replacement only, each

Power wheelchair accessory, foam filled caster tire, any size, replacement only, each

Power wheelchair accessory, foam drive wheel tire, any size, replacement only, each

Power wheelchair accessory, foam caster tire, any size, replacement only, each

Power wheelchair accessory, solid (rubber/plastic) drive wheel tire, any size, replacement only, each

Power wheelchair accessory, solid (rubber/plastic) caster tire (removable), any size, replacement only, each

Power wheelchair accessory, solid (rubber/plastic) caster tire with integrated wheel, any size, replacement only, each

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Power wheelchair accessory, valve for pneumatic tire tube, any type, replacement only, each

Power wheelchair accessory, drive wheel excludes tire, any size, replacement only, each

Power wheelchair accessory, caster wheel excludes tire, any size, replacement only, each

Power wheelchair accessory, caster fork, any size, replacement only, each

Power wheelchair accessory, lithium-based battery, each

Power wheelchair accessory, not otherwise classified interface, including all related electronics and any type mounting hardware

Negative pressure wound therapy electrical pump, stationary or portable

General use wheelchair seat cushion, width less than 22 inches, any depth

General use wheelchair seat cushion, width 22 inches or greater, any depth

Skin protection wheelchair seat cushion, width less than 22 inches, any depth

Skin protection wheelchair seat cushion, width 22 inches or greater, any depth

Positioning wheelchair seat cushion, width less than 22 inches, any depth

Positioning wheelchair seat cushion, width 22 inches or greater, any depth

Skin protection and positioning wheelchair seat cushion, width less than 22 inches, any depth

Skin protection and positioning wheelchair seat cushion, width 22 inches or greater, any depth

Custom fabricated wheelchair seat cushion, any size

Wheelchair seat cushion, powered

General use wheelchair back cushion, width less than 22 inches, any height, including any type mounting hardware

General use wheelchair back cushion, width 22 inches or greater, any height, including any type mounting hardware

Positioning wheelchair back cushion, posterior, width less than 22 inches, any height, including any type mounting hardware

Positioning wheelchair back cushion, posterior, width 22 inches or greater, any height, including any type mounting hardware

Positioning wheelchair back cushion, posterior-lateral, width less than 22 inches, any height, including any type mounting hardware

Modification (ICD-9-CM), Healthcare Common Procedure Coding

Description

Positioning wheelchair back cushion, posterior-lateral, width 22 inches or greater, any height, including any type mounting hardware

Custom fabricated wheelchair back cushion, any size, including any type mounting hardware

Wheelchair accessory, solid seat support base (replaces sling seat), for use with manual wheelchair or lightweight power wheelchair, includes any type mounting hardware

Replacement cover for wheelchair seat cushion or back cushion, each

Positioning wheelchair back cushion, planar back with lateral supports, width less than 22 inches, any height, including any type mounting hardware

Positioning wheelchair back cushion, planar back with lateral supports, width 22 inches or greater, any height, including any type mounting hardware

Appendix E. Specifications for to16_cap_mpl2r_wp005_nsdp_v01, Report 7 of 8

FDA requested use of the Cohort Identification and Descriptive Analysis (CIDA) Tool with Propensity Score Matching (PSM) to investigate ischemic stroke events following new use of dabigatran versus warfarin.

Enrollment Gap:	45 days
Age Groups:	65+ years
Query Period:	November 1, 2010 to December 31, 2013
Coverage Requirement:	Medical and Drug Coverage
Enrollment Requirement:	183 days

		Exposure of Interest Dabigatran	Comparator of Interest Warfarin
Drug/ Exposure:	Incident w/ respect to:	Apixaban, Dabigatran, Rivaroxaban, and Warfarin	Apixaban, Dabigatran, Rivaroxaban, and Warfarin
	Washout (days)	183	183
	Cohort Definition	01	01
	Episode Gap	7	7
	Exposure Extension Period	7	7
	Minimum Episode Duration	0	0
	Minimum Days Supplied	0	7
	Truncation by Death	No	No
	Episode Truncation by Incident Exposure	Yes	Yes
Inclusion/ Exclusion:	Criterion	Atrial Fibrillation/Flutter	Atrial Fibrillation/Flutter
	Include or Exclude	Include	Include
	Lookback Start	-183	-183
	Lookback End	0	0
	Care Setting/ PDX	Any	Any
Inclusion/ Exclusion:	Criterion	Valvular Disease, Dialysis, Kidney Transplant, DVT/PE, and Joint Replacement	Valvular Disease, Dialysis, Kidney Transplant, DVT/PE, and Joint Replacement
	Include or Exclude	Exclude	Exclude
	Lookback Start	-183	-183
	Lookback End	0	0
	Care Setting/ PDX	See Appendix B	See Appendix B
Event/ Outcome:	Event/ Outcome	Ischemic Stroke	Ischemic Stroke
	Care Setting/PDX	IPP	IPP
	Incident w/ respect to:	Ischemic Stroke	Ischemic Stroke
	Washout (days)	0	0
Propensity Score Match (PSM) Analysis:	PSM Ratio	1:1	
	PSM Caliper	0.025, 0.050	
	Covariate evaluation window (days)	183	
	Covariate selection method	Exposure association-based selection	

National Drug Codes (NDCs) checked against First Data Bank's "National Drug Data File (NDDF®) Plus"

International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) diagnosis and procedure codes checked against "Ingenix 2012 ICD-9-CM Data File" provided by OptumInsight

Healthcare Common Procedure Coding System (HCPCS) codes checked against "Optum 2012 HCPCS Level II Data File" provided by OptumInsight

Current Procedural Terminology, Fourth Edition (CPT-4) codes checked against "Optum 2012 Current Procedure Codes & Relative Values Data File" provided by OptumInsight