

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 for Request to16_cap_mpl2r_wp005_nsdv_v02

Request ID: to16_cap_mpl2r_wp005_nsdv_v02

Report Description: An evaluation of the association between dabigatran and gastrointestinal hemorrhage, with warfarin as the comparison exposure among patients 21 years of age or older. This is report 2 of 8. The additional seven reports evaluate intracranial hemorrhage, ischemic stroke, and acute myocardial infarction in all individuals 21 years of age and older and then only in individuals 65 years of age or 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) (See Appendix B for a list of generic and brand names).

Cohort Eligibility Criteria: All patients 21 years of age and older with a diagnosis of atrial fibrillation in the one year 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 one year (365 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 anti-coagulant (apixaban, dabigatran, rivaroxaban, or warfarin) in the previous one year (365 days).

Moreover, patients in the cohort were not eligible if they had evidence of the following conditions/procedures in the one year 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 Revision (CPT-4) codes (see Appendix C).

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 anti-coagulant; 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: Gastrointestinal hemorrhage operationally defined by the International Classification of Diseases, Ninth Revision, Clinical Modification (ICD-9-CM) discharge diagnosis codes (see Appendix D) 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 E and F).

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 G 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
- 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

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

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 Gastrointestinal Hemorrhage¹ (Unmatched)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
Patients	26,171	100.0%	64,403	100.0%	0.00	-
Events while on therapy	212	0.8%	809	1.3%	-0.50	0.00
Mean person-days at risk	147.9	189.6	160.5	196.8	-12.60	-0.10
Patient Characteristics						
Gender (F)	9,093	34.7%	26,422	41.0%	-6.30	-0.10
Mean age (std dev)	68.3	11.2	73	10.7	-4.70	-0.40
21-44 years	842	3.2%	995	1.5%	1.70	0.10
45-64 years	9,627	36.8%	14,044	21.8%	15.00	0.30
65-74 years	7,396	28.3%	18,774	29.2%	-0.90	0.00
75-84 years	6,340	24.2%	22,003	34.2%	-10.00	-0.20
85+ years	1,966	7.5%	8,587	13.3%	-5.80	-0.20
Recorded History of³:						
Combined Comorbidity Score	2.0	2.1	2.7	2.6	-0.80	-0.30
Advanced Diagnosed Kidney Dysfunction	2,784	10.6%	13,340	20.7%	-10.10	-0.30
Advanced Liver Disease	66	0.3%	239	0.4%	-0.10	0.00
Alcoholism	135	0.5%	391	0.6%	-0.10	0.00
Anemia	1,465	5.6%	5,386	8.4%	-2.80	-0.10
Cane Use	72	0.3%	298	0.5%	-0.20	0.00
Chronic Heart Failure	9,386	35.9%	29,629	46.0%	-10.10	-0.20
Coagulation Defects	337	1.3%	2,103	3.3%	-2.00	-0.10
Commode Chair Use	226	0.9%	1,013	1.6%	-0.70	-0.10
Coronary Artery Bypass Surgery	1,758	6.7%	6,648	10.3%	-3.60	-0.10
Diabetes Mellitus	7,789	29.8%	23,933	37.2%	-7.40	-0.20
Falls	755	2.9%	2,887	4.5%	-1.60	-0.10
Hospitalized Gastrointestinal Bleed	337	1.3%	1,797	2.8%	-1.50	-0.10
Hospitalized Intracranial Bleed	112	0.4%	572	0.9%	-0.50	-0.10
Hyperlipidemia	10,347	39.5%	24,164	37.5%	2.00	0.00
Hypertension	20,916	79.9%	54,855	85.2%	-5.30	-0.10
Ischemic Stroke	2,034	7.8%	8,083	12.6%	-4.80	-0.20
Major Surgery	836	3.2%	2,752	4.3%	-1.10	-0.10
Metastatic Cancer	299	1.1%	1,267	2.0%	-0.90	-0.10
Myocardial Infarction	1,189	4.5%	5,038	7.8%	-3.30	-0.10
Non-specific Cerebrovascular Symptoms	466	1.8%	2,005	3.1%	-1.30	-0.10
Osteoporotic Fracture	493	1.9%	2,036	3.2%	-1.30	-0.10
Other Arterial Embolism	199	0.8%	1,068	1.7%	-0.90	-0.10
Other Gastrointestinal Ulcer Disease	273	1.0%	1,003	1.6%	-0.60	0.00
Other Hospitalized Bleed	308	1.2%	1,635	2.5%	-1.30	-0.10
Other Ischemic Cerebrovascular events	4,472	17.1%	14,860	23.1%	-6.00	-0.10
Other Ischemic Heart Disease	1,205	4.6%	4,086	6.3%	-1.70	-0.10
Percutaneous Coronary Intervention	2,819	10.8%	8,826	13.7%	-2.90	-0.10
Peripheral Vascular Disease	4,264	16.3%	15,202	23.6%	-7.30	-0.20
Central Venous Thrombosis	1	0.0%	22	0.0%	0.00	0.00
Venous Thromboembolism/ Phlebitis	739	2.8%	3,004	4.7%	-1.90	-0.10
Smoking or Tobacco Use	3,645	13.9%	9,310	14.5%	-0.60	0.00
Transient Ischemic Attack	1,602	6.1%	5,075	7.9%	-1.80	-0.10

Table 1. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Gastrointestinal Hemorrhage¹ (Unmatched)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
Trauma with likely Immobilization	1,215	4.6%	4,143	6.4%	-1.80	-0.10
Use of Home Oxygen	1,207	4.6%	4,782	7.4%	-2.80	-0.10
Venous Thromboembolism Risk, Not Otherwise Specified	0	0.0%	7	0.0%	0.00	-
Walker Use	551	2.1%	2,512	3.9%	-1.80	-0.10
Wheelchair Use	245	0.9%	1,129	1.8%	-0.90	-0.10
History of Use⁴:						
Angiotensin-Converting-Enzyme Inhibitors	9478	36.2%	25,096	39.0%	-2.80	-0.10
Aldosterone Antagonists	1023	3.9%	3,211	5.0%	-1.10	-0.10
Antianginal Agents	2147	8.2%	7,085	11.0%	-2.80	-0.10
Antiarrhythmic Medications	5922	22.6%	11,065	17.2%	5.40	0.10
Angiotensin Receptor Blockers	5400	20.6%	12,023	18.7%	1.90	0.00
Aspirin	132	0.5%	293	0.5%	0.00	0.00
Beta Blocker	15688	59.9%	37,129	57.7%	2.20	0.00
Calcium Channel Blockers	8542	32.6%	20,966	32.6%	0.00	0.00
Cyclooxygenase-2 Inhibitors	593	2.3%	1,098	1.7%	0.60	0.00
Diuretics	8267	31.6%	25,588	39.7%	-8.10	-0.20
Estrogen	850	3.2%	1,763	2.7%	0.50	0.00
H2 Antagonists	812	3.1%	2,783	4.3%	-1.20	-0.10
Helicobacter Pylori Combinations	21	0.1%	43	0.1%	0.00	0.00
Heparins and Related Medications	198	0.8%	1,401	2.2%	-1.40	-0.10
Inducers of Cytochrome P450 3A4	187	0.7%	529	0.8%	-0.10	0.00
Inhibitors of Cytochrome P450 3A4	64	0.2%	125	0.2%	0.00	0.00
Insulin Cytochrome P450 3A4	1352	5.2%	4,672	7.3%	-2.10	-0.10
Non-Statin Lipid-Lowering Medications	3436	13.1%	7,279	11.3%	1.80	0.10
Non-Steroidal Anti-Inflammatory Drugs	5101	19.5%	11,300	17.5%	2.00	0.10
Oral Antidiabetic Medications	4804	18.4%	13,712	21.3%	-2.90	-0.10
Other Antihypertensive Medications	2087	8.0%	6,786	10.5%	-2.50	-0.10
Platelet Inhibitors	3345	12.8%	8,620	13.4%	-0.60	0.00
Proton Pump Inhibitors	5312	20.3%	14,397	22.4%	-2.10	-0.10
Progestin	152	0.6%	478	0.7%	-0.10	0.00
Selective Serotonin Reuptake Inhibitors/Serotonin-Norepinephrine Reuptake Inhibitors	3771	14.4%	9,518	14.8%	-0.40	0.00
Statins	12672	48.4%	32,232	50.0%	-1.60	0.00

Table 1. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Gastrointestinal Hemorrhage¹ (Unmatched)

Characteristic	Primary Analysis				Covariate Balance	
	Dabigatran		Warfarin		Absolute Difference	Standardized Difference
	N	%/Std Dev ²	N	%/Std Dev ²		
Health Service Utilization Intensity:						
Number of generic drugs	9.1	5.8	9.4	6.0	-0.30	0.00
Number of filled prescriptions	34	28.1	35.2	28.8	-1.20	0.00
Number of inpatient hospital encounters (IP)	0.5	0.7	0.7	0.8	-0.20	-0.20
Number of non-acute institutional encounters (IS)	0.2	1.2	0.4	1.8	-0.20	-0.10
Number of emergency room encounters (ED)	0.4	0.8	0.5	1.1	0.00	0.00
Number of ambulatory encounters (AV)	9.7	8.2	11.1	9.6	-1.40	-0.20
Number of other ambulatory encounters (OA)	1.8	3.3	2.4	4.2	-0.60	-0.20

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

²Value represents standard deviation where no % follows the value

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

⁴See Appendix F for list of generic and brand names used to define these covariates

Table 2. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Gastrointestinal Hemorrhage¹ (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	24,919	95.2%	24,919	38.7%	0.00	1.20
Events while on therapy	208	0.8%	222	0.9%	-0.10	0.00
Mean person-days at risk	148.5	189.8	159.7	197.2	-11.20	-0.10
Patient Characteristics						
Gender (F)	8,864	35.6%	8,940	35.9%	-0.30	0.00
Mean age (std dev)	68.9	11.0	68.9	11.1	0.00	0.00
21-44 years	679	2.7%	775	3.1%	-0.40	0.00
45-64 years	8,777	35.2%	8,372	33.6%	1.60	0.00
65-74 years	7,204	28.9%	7,387	29.6%	-0.70	0.00
75-84 years	6,294	25.3%	6,479	26.0%	-0.70	0.00
85+ years	1,965	7.9%	1,906	7.6%	0.30	0.00
Recorded History of³:						
Combined Comorbidity Score	2.0	2.1	2.0	2.1	0.00	0.00
Advanced Diagnosed Kidney Dysfunction	2,779	11.2%	2,768	11.1%	0.10	0.00
Advanced Liver Disease	64	0.3%	70	0.3%	0.00	0.00
Alcoholism	132	0.5%	132	0.5%	0.00	0.00
Anemia	1,420	5.7%	1,338	5.4%	0.30	0.00
Cane Use	69	0.3%	67	0.3%	0.00	0.00
Chronic Heart Failure	9,198	36.9%	9,177	36.8%	0.10	0.00
Coagulation Defects	335	1.3%	337	1.4%	-0.10	0.00
Commode Chair Use	225	0.9%	221	0.9%	0.00	0.00
Coronary Artery Bypass Surgery	1,734	7.0%	1,721	6.9%	0.10	0.00
Diabetes Mellitus	7,615	30.6%	7,517	30.2%	0.40	0.00
Falls	740	3.0%	737	3.0%	0.00	0.00
Hospitalized Gastrointestinal Bleed	331	1.3%	335	1.3%	0.00	0.00
Hospitalized Intracranial Bleed	110	0.4%	102	0.4%	0.00	0.00
Hyperlipidemia	9,742	39.1%	9,789	39.3%	-0.20	0.00
Hypertension	20,035	80.4%	20,033	80.4%	0.00	0.00
Ischemic Stroke	2,016	8.1%	2,067	8.3%	-0.20	0.00
Major Surgery	819	3.3%	826	3.3%	0.00	0.00
Metastatic Cancer	296	1.2%	279	1.1%	0.10	0.00
Myocardial Infarction	1,179	4.7%	1,171	4.7%	0.00	0.00
Non-specific Cerebrovascular Symptoms	462	1.9%	454	1.8%	0.10	0.00
Osteoporotic Fracture	489	2.0%	461	1.8%	0.20	0.00
Other Arterial Embolism	198	0.8%	200	0.8%	0.00	0.00
Other Gastrointestinal Ulcer Disease	267	1.1%	267	1.1%	0.00	0.00
Other Hospitalized Bleed	307	1.2%	307	1.2%	0.00	0.00
Other Ischemic Cerebrovascular events	4,365	17.5%	4,376	17.6%	-0.10	0.00
Other Ischemic Heart Disease	1,174	4.7%	1,175	4.7%	0.00	0.00
Percutaneous Coronary Intervention	2,746	11.0%	2,722	10.9%	0.10	0.00
Peripheral Vascular Disease	4,196	16.8%	4,173	16.7%	0.10	0.00
Central Venous Thrombosis	1	0.0%	2	0.0%	0.00	0.00
Venous Thromboembolism/ Phlebitis	724	2.9%	716	2.9%	0.00	0.00

Table 2. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Gastrointestinal Hemorrhage¹ (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		
Smoking or Tobacco Use	3,479	14.0%	3,477	14.0%	0.00	0.00
Transient Ischemic Attack	1,558	6.3%	1,578	6.3%	0.00	0.00
Trauma with likely Immobilization	1,174	4.7%	1,142	4.6%	0.10	0.00
Use of Home Oxygen	1,188	4.8%	1,182	4.7%	0.10	0.00
Venous Thromboembolism Risk, Not Otherwise Specified	0	0.0%	0	0.0%	0.00	-
Walker Use	544	2.2%	535	2.1%	0.10	0.00
Wheelchair Use	243	1.0%	239	1.0%	0.00	0.00
History of Use⁴:						
Angiotensin-Converting-Enzyme Inhibitors	9147	36.7%	9,181	36.8%	-0.10	0.00
Aldosterone Antagonists	993	4.0%	971	3.9%	0.10	0.00
Antianginal Agents	2090	8.4%	2,150	8.6%	-0.20	0.00
Antiarrhythmic Medications	5330	21.4%	5,397	21.7%	-0.30	0.00
Angiotensin Receptor Blockers	5056	20.3%	5,013	20.1%	0.20	0.00
Aspirin	123	0.5%	123	0.5%	0.00	0.00
Beta Blocker	14794	59.4%	14,845	59.6%	-0.20	0.00
Calcium Channel Blockers	8097	32.5%	8,082	32.4%	0.10	0.00
Cyclooxygenase-2 Inhibitors	544	2.2%	548	2.2%	0.00	0.00
Diuretics	8094	32.5%	8,186	32.9%	-0.40	0.00
Estrogen	798	3.2%	826	3.3%	-0.10	0.00
H2 Antagonists	800	3.2%	833	3.3%	-0.10	0.00
Helicobacter Pylori Combinations	19	0.1%	21	0.1%	0.00	0.00
Heparins and Related Medications	198	0.8%	207	0.8%	0.00	0.00
Inducers of Cytochrome P450 3A4	182	0.7%	183	0.7%	0.00	0.00
Inhibitors of Cytochrome P450 3A4	60	0.2%	56	0.2%	0.00	0.00
Insulin Cytochrome P450 3A4	1334	5.4%	1,342	5.4%	0.00	0.00
Non-Statin Lipid-Lowering Medications	3185	12.8%	3,203	12.9%	-0.10	0.00
Non-Steroidal Anti-Inflammatory Drugs	4730	19.0%	4,792	19.2%	-0.20	0.00
Oral Antidiabetic Medications	4680	18.8%	4,642	18.6%	0.20	0.00
Other Antihypertensive Medications	2030	8.1%	2,023	8.1%	0.00	0.00
Platelet Inhibitors	3202	12.8%	3,178	12.8%	0.00	0.00
Proton Pump Inhibitors	5085	20.4%	5,021	20.1%	0.30	0.00
Progestin	144	0.6%	157	0.6%	0.00	0.00
Selective Serotonin Reuptake Inhibitors/Serotonin-Norepinephrine Reuptake Inhibitors	3584	14.4%	3,601	14.5%	-0.10	0.00
Statins	12120	48.6%	12,071	48.4%	0.20	0.00
Health Service Utilization Intensity:						
Number of generic drugs	9.1	5.9	9.1	5.9	0.00	0.00
Number of filled prescriptions	34.1	28.2	34.1	28.1	0.10	0.00
Number of inpatient hospital encounters (IP)	0.5	0.7	0.5	0.7	0.00	0.00

Table 2. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Gastrointestinal Hemorrhage¹ (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		
Number of non-acute institutional encounters (IS)	0.2	1.2	0.2	1.3	0.00	0.00
Number of emergency room encounters (ED)	0.5	0.8	0.5	1.0	0.00	0.00
Number of ambulatory encounters (AV)	9.8	8.2	9.7	8.1	0.10	0.00
Number of other ambulatory encounters (OA)	1.9	3.4	1.9	3.4	0.00	0.00

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

²Value represents standard deviation where no % follows the value

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

⁴See Appendix F for list of generic and brand names used to define these covariates

Table 3. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Gastrointestinal Hemorrhage¹ (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	24,961	95.4%	24,961	38.8%	0.00	1.20
Events while on therapy	208	0.8%	222	0.9%	-0.10	0.00
Mean person-days at risk	148.5	189.7	159.8	197.5	-11.30	-0.10
Patient Characteristics						
Gender (F)	8,874	35.6%	8,948	35.8%	-0.20	0.00
Mean age (std dev)	68.9	11.0	68.9	11.1	0.00	0.00
21-44 years	681	2.7%	780	3.1%	-0.40	0.00
45-64 years	8,807	35.3%	8,401	33.7%	1.60	0.00
65-74 years	7,209	28.9%	7,393	29.6%	-0.70	0.00
75-84 years	6,299	25.2%	6,481	26.0%	-0.80	0.00
85+ years	1,965	7.9%	1,906	7.6%	0.30	0.00
Recorded History of³:						
Combined Comorbidity Score	2.0	2.1	2.0	2.1	0.00	0.00
Advanced Diagnosed Kidney Dysfunction	2,779	11.1%	2,769	11.1%	0.00	0.00
Advanced Liver Disease	64	0.3%	70	0.3%	0.00	0.00
Alcoholism	132	0.5%	132	0.5%	0.00	0.00
Anemia	1,422	5.7%	1,339	5.4%	0.30	0.00
Cane Use	69	0.3%	67	0.3%	0.00	0.00
Chronic Heart Failure	9,208	36.9%	9,192	36.8%	0.10	0.00
Coagulation Defects	335	1.3%	337	1.4%	-0.10	0.00
Commode Chair Use	225	0.9%	221	0.9%	0.00	0.00
Coronary Artery Bypass Surgery	1,737	7.0%	1,722	6.9%	0.10	0.00
Diabetes Mellitus	7,621	30.5%	7,526	30.2%	0.30	0.00
Falls	740	3.0%	737	3.0%	0.00	0.00
Hospitalized Gastrointestinal Bleed	331	1.3%	335	1.3%	0.00	0.00
Hospitalized Intracranial Bleed	110	0.4%	102	0.4%	0.00	0.00
Hyperlipidemia	9,761	39.1%	9,801	39.3%	-0.20	0.00
Hypertension	20,062	80.4%	20,055	80.3%	0.10	0.00
Ischemic Stroke	2,016	8.1%	2,070	8.3%	-0.20	0.00
Major Surgery	821	3.3%	826	3.3%	0.00	0.00
Metastatic Cancer	297	1.2%	279	1.1%	0.10	0.00
Myocardial Infarction	1,180	4.7%	1,172	4.7%	0.00	0.00
Non-specific Cerebrovascular Symptoms	463	1.9%	454	1.8%	0.10	0.00
Osteoporotic Fracture	489	2.0%	461	1.8%	0.20	0.00
Other Arterial Embolism	198	0.8%	200	0.8%	0.00	0.00
Other Gastrointestinal Ulcer Disease	267	1.1%	267	1.1%	0.00	0.00
Other Hospitalized Bleed	307	1.2%	307	1.2%	0.00	0.00
Other Ischemic Cerebrovascular events	4,369	17.5%	4,380	17.5%	0.00	0.00
Other Ischemic Heart Disease	1,175	4.7%	1,177	4.7%	0.00	0.00
Percutaneous Coronary Intervention	2,748	11.0%	2,726	10.9%	0.10	0.00
Peripheral Vascular Disease	4,200	16.8%	4,174	16.7%	0.10	0.00
Central Venous Thrombosis	1	0.0%	2	0.0%	0.00	0.00
Venous Thromboembolism/ Phlebitis	726	2.9%	716	2.9%	0.00	0.00
Smoking or Tobacco Use	3,485	14.0%	3,484	14.0%	0.00	0.00

Table 3. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Gastrointestinal Hemorrhage¹ (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		
Transient Ischemic Attack	1,560	6.2%	1,579	6.3%	-0.10	0.00
Trauma with likely Immobilization	1,175	4.7%	1,145	4.6%	0.10	0.00
Use of Home Oxygen	1,190	4.8%	1,184	4.7%	0.10	0.00
Venous Thromboembolism Risk, Not Otherwise Specified	0	0.0%	0	0.0%	0.00	-
Walker Use	544	2.2%	535	2.1%	0.10	0.00
Wheelchair Use	243	1.0%	240	1.0%	0.00	0.00
History of Use⁴:						
Angiotensin-Converting-Enzyme Inhibitors	9157	36.7%	9,191	36.8%	-0.10	0.00
Aldosterone Antagonists	993	4.0%	974	3.9%	0.10	0.00
Antianginal Agents	2094	8.4%	2,153	8.6%	-0.20	0.00
Antiarrhythmic Medications	5348	21.4%	5,416	21.7%	-0.30	0.00
Angiotensin Receptor Blockers	5069	20.3%	5,026	20.1%	0.20	0.00
Aspirin	123	0.5%	123	0.5%	0.00	0.00
Beta Blocker	14817	59.4%	14,868	59.6%	-0.20	0.00
Calcium Channel Blockers	8113	32.5%	8,089	32.4%	0.10	0.00
Cyclooxygenase-2 Inhibitors	546	2.2%	549	2.2%	0.00	0.00
Diuretics	8098	32.4%	8,196	32.8%	-0.40	0.00
Estrogen	801	3.2%	828	3.3%	-0.10	0.00
H2 Antagonists	800	3.2%	833	3.3%	-0.10	0.00
Helicobacter Pylori Combinations	19	0.1%	21	0.1%	0.00	0.00
Heparins and Related Medications	198	0.8%	207	0.8%	0.00	0.00
Inducers of Cytochrome P450 3A4	182	0.7%	183	0.7%	0.00	0.00
Inhibitors of Cytochrome P450 3A4	60	0.2%	56	0.2%	0.00	0.00
Insulin Cytochrome P450 3A4	1335	5.3%	1,344	5.4%	-0.10	0.00
Non-Statin Lipid-Lowering Medications	3192	12.8%	3,211	12.9%	-0.10	0.00
Non-Steroidal Anti-Inflammatory Drugs	4739	19.0%	4,801	19.2%	-0.20	0.00
Oral Antidiabetic Medications	4683	18.8%	4,648	18.6%	0.20	0.00
Other Antihypertensive Medications	2033	8.1%	2,024	8.1%	0.00	0.00
Platelet Inhibitors	3207	12.8%	3,184	12.8%	0.00	0.00
Proton Pump Inhibitors	5091	20.4%	5,028	20.1%	0.30	0.00
Progestin	144	0.6%	157	0.6%	0.00	0.00
Selective Serotonin Reuptake Inhibitors/Serotonin-Norepinephrine Reuptake Inhibitors	3594	14.4%	3,607	14.5%	-0.10	0.00
Statins	12137	48.6%	12,090	48.4%	0.20	0.00

Table 3. Cohort of New Initiators of Dabigatran and Warfarin at Risk for Gastrointestinal Hemorrhage¹ (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		
Health Service Utilization Intensity:						
Number of generic drugs	9.1	5.9	9.1	5.9	0.00	0.00
Number of filled prescriptions	34.1	28.2	34.1	28.1	0.00	0.00
Number of inpatient hospital encounters (IP)	0.5	0.7	0.5	0.7	0.00	0.00
Number of non-acute institutional encounters (IS)	0.2	1.2	0.2	1.3	0.00	0.00
Number of emergency room encounters (ED)	0.5	0.8	0.5	1.0	0.00	0.00
Number of ambulatory encounters (AV)	9.8	8.2	9.7	8.1	0.10	0.00
Number of other ambulatory encounters (OA)	1.9	3.4	1.9	3.4	0.00	0.00

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

²Value represents standard deviation where no % follows the value

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

⁴See Appendix F for list of generic and brand names used to define these covariates

Table 4. Sequential Estimates for Gastrointestinal Hemorrhage * 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	26,171	10,596.51	0.40	212	20.007	8.10				
Warfarin	64,403	28,308.15	0.44	809	28.578	12.56	-8.57	-4.46	0.76 (0.65, 0.89)	0.0005
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	24,919	10,131.86	0.41	208	20.529	8.35				
Warfarin	24,919	10,895.63	0.44	222	20.375	8.91	0.15	-0.56	0.99 (0.76, 1.29)	0.9456
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	24,919	10,131.86	0.41	208	20.529	8.35				
Warfarin	24,919	10,895.63	0.44	222	20.375	8.91	0.15	-0.56	1.03 (0.85, 1.24)	0.7689
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	24,961	10,146.68	0.41	208	20.499	8.33				
Warfarin	24,961	10,920.74	0.44	222	20.328	8.89	0.17	-0.56	0.99 (0.76, 1.29)	0.9456
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	24,961	10,146.68	0.41	208	20.499	8.33				
Warfarin	24,961	10,920.74	0.44	222	20.328	8.89	0.17	-0.56	1.03 (0.85, 1.25)	0.7640

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

Table 5. Sequential Estimates for Gastrointestinal Hemorrhage * by Analysis Type and Age Group

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
Ages 21-44 Years										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	842	177.20	0.21	0	0.000	0.00	-3.42	-1.01	0.00 (0.00, .)	0.9977
Warfarin	995	292.56	0.29	1	3.418	1.01				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	632	135.99	0.22	0	0.000	0.00	-5.36	-1.58	0.00 (0.00, .)	1.0000
Warfarin	632	186.43	0.29	1	5.364	1.58				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	632	135.99	0.22	0	0.000	0.00	-5.36	-1.58	0.00 (0.00, .)	0.9976
Warfarin	632	186.43	0.29	1	5.364	1.58				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	658	142.46	0.22	0	0.000	0.00	-5.23	-1.52	0.00 (0.00, .)	1.0000
Warfarin	658	191.09	0.29	1	5.233	1.52				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	658	142.46	0.22	0	0.000	0.00	-5.23	-1.52	0.00 (0.00, .)	0.9976
Warfarin	658	191.09	0.29	1	5.233	1.52				
Ages 45-64 Years										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	9,627	3,540.24	0.37	20	5.649	2.08	-10.93	-3.69	0.38 (0.23, 0.63)	0.0001
Warfarin	14,044	4,884.44	0.35	81	16.583	5.77				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	8,210	3,000.17	0.37	17	5.666	2.07	-4.03	-1.34	1.00 (0.49, 2.05)	1.0000
Warfarin	8,210	2,889.03	0.35	28	9.692	3.41				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	8,210	3,000.17	0.37	17	5.666	2.07	-4.03	-1.34	0.62 (0.34, 1.14)	0.1222
Warfarin	8,210	2,889.03	0.35	28	9.692	3.41				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	8,287	3,028.85	0.37	17	5.613	2.05	-4.66	-1.57	0.88 (0.44, 1.77)	0.7242
Warfarin	8,287	2,919.83	0.35	30	10.275	3.62				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	8,287	3,028.85	0.37	17	5.613	2.05	-4.66	-1.57	0.58 (0.32, 1.05)	0.0699
Warfarin	8,287	2,919.83	0.35	30	10.275	3.62				

Table 5. Sequential Estimates for Gastrointestinal Hemorrhage * by Analysis Type and Age Group

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
Ages 65-74 Years										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	7,396	3,153.47	0.43	48	15.221	6.49	-10.12	-5.28	0.62 (0.45, 0.85)	0.0029
Warfarin	18,774	8,720.39	0.46	221	25.343	11.77				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	6,989	2,956.96	0.42	45	15.218	6.44	-2.71	-2.29	0.56 (0.33, 0.95)	0.0318
Warfarin	6,989	3,402.38	0.49	61	17.929	8.73				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	6,989	2,956.96	0.42	45	15.218	6.44	-2.71	-2.29	0.83 (0.56, 1.23)	0.3565
Warfarin	6,989	3,402.38	0.49	61	17.929	8.73				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	7,036	2,974.84	0.42	45	15.127	6.40	-2.70	-2.27	0.56 (0.33, 0.95)	0.0318
Warfarin	7,036	3,421.50	0.49	61	17.828	8.67				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	7,036	2,974.84	0.42	45	15.127	6.40	-2.70	-2.27	0.83 (0.57, 1.23)	0.3570
Warfarin	7,036	3,421.50	0.49	61	17.828	8.67				
Ages 75-84 Years										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	6,340	2,890.71	0.46	87	30.096	13.72	-3.79	-2.37	0.91 (0.72, 1.16)	0.4458
Warfarin	22,003	10,446.50	0.47	354	33.887	16.09				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	6,132	2,797.01	0.46	82	29.317	13.37	1.81	-0.49	1.19 (0.79, 1.79)	0.4048
Warfarin	6,132	3,089.97	0.50	85	27.508	13.86				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	6,132	2,797.01	0.46	82	29.317	13.37	1.81	-0.49	1.06 (0.78, 1.44)	0.6965
Warfarin	6,132	3,089.97	0.50	85	27.508	13.86				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	6,179	2,817.28	0.46	82	29.106	13.27	1.86	-0.49	1.19 (0.79, 1.79)	0.4048
Warfarin	6,179	3,119.21	0.50	85	27.251	13.76				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	6,179	2,817.28	0.46	82	29.106	13.27	1.86	-0.49	1.06 (0.78, 1.44)	0.6875
Warfarin	6,179	3,119.21	0.50	85	27.251	13.76				

Table 5. Sequential Estimates for Gastrointestinal Hemorrhage * by Analysis Type and Age Group

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
Ages 85+ Years										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	1,966	834.89	0.42	57	68.272	28.99	29.93	11.29	1.79 (1.32, 2.43)	0.0002
Warfarin	8,587	3,964.27	0.46	152	38.343	17.70				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	1,800	756.50	0.42	53	70.060	29.44	20.63	6.11	1.09 (0.62, 1.91)	0.7730
Warfarin	1,800	849.61	0.47	42	49.435	23.33				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	1,800	756.50	0.42	53	70.060	29.44	20.63	6.11	1.42 (0.95, 2.14)	0.0898
Warfarin	1,800	849.61	0.47	42	49.435	23.33				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	1,837	775.23	0.42	53	68.367	28.85	19.80	5.99	1.09 (0.62, 1.91)	0.7730
Warfarin	1,837	864.81	0.47	42	48.565	22.86				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	1,837	775.23	0.42	53	68.367	28.85	19.80	5.99	1.42 (0.94, 2.13)	0.0923
Warfarin	1,837	864.81	0.47	42	48.565	22.86				

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

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

Table 6. Sequential Estimates for Gastrointestinal Hemorrhage * by Analysis Type and Sex

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 per 1000 Person Years	Difference in Risk per 1000 New Users	Hazard Ratio (95% CI)	Wald P-Value
Females										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	9,093	3,858.32	0.42	105	27.214	11.55	-6.89	-4.01	0.82 (0.66, 1.02)	0.0808
Warfarin	26,422	12,052.31	0.46	411	34.101	15.56				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	8,604	3,668.91	0.21	99	26.983	5.80	-0.40	2.90	0.96 (0.66, 1.40)	0.8488
Warfarin	8,604	4,016.44	0.11	110	27.387	2.90				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	8,604	3,668.91	0.43	99	26.983	11.51	-0.40	-1.28	0.97 (0.74, 1.27)	0.8120
Warfarin	8,604	4,016.44	0.47	110	27.387	12.78				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	8,697	3,711.24	0.43	100	26.945	11.50	-0.42	-1.26	0.98 (0.68, 1.42)	0.9244
Warfarin	8,697	4,056.74	0.47	111	27.362	12.76				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	8,697	3,711.24	0.43	100	26.945	11.50	-0.42	-1.26	0.97 (0.74, 1.27)	0.8153
Warfarin	8,697	4,056.74	0.47	111	27.362	12.76				
Males										
Unmatched Analysis (Site-adjusted only)										
Dabigatran	17,077	6,737.66	0.39	107	15.881	6.27	-8.61	-4.21	0.73 (0.58, 0.90)	0.0037
Warfarin	37,977	16,253.80	0.43	398	24.487	10.48				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model Stratified by Matched Pair)										
Dabigatran	15,720	6,217.79	0.40	104	16.726	6.62	1.05	0.00	1.20 (0.82, 1.73)	0.3453
Warfarin	15,720	6,634.75	0.42	104	15.675	6.62				
1:1 Matched Predefined PS Analysis; Caliper=0.025 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	15,720	6,217.79	0.40	104	16.726	6.62	1.05	0.00	1.13 (0.86, 1.49)	0.3765
Warfarin	15,720	6,634.75	0.42	104	15.675	6.62				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model Stratified by Matched Pair)										
Dabigatran	15,842	6,265.90	0.40	104	16.598	6.56	0.92	-0.06	1.20 (0.82, 1.73)	0.3453
Warfarin	15,842	6,696.28	0.42	105	15.680	6.63				
1:1 Matched Predefined PS Analysis; Caliper=0.050 (Cox Model NOT Stratified by Matched Pair)										
Dabigatran	15,842	6,265.90	0.40	104	16.598	6.56	0.92	-0.06	1.12 (0.85, 1.48)	0.4035
Warfarin	15,842	6,696.28	0.42	105	15.680	6.63				

*See Appendix D 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. Generic and Brand Names Used to Define Exposures and Incidence Criteria in this Request

Generic Name	Brand Name	Form	Route	Strength (MG)
Dabigatran				
DABIGATRAN ETEXILATE MESYLATE	Pradaxa	capsule	ORAL	75
DABIGATRAN ETEXILATE MESYLATE	Pradaxa	capsule	ORAL	150
Warfarin				
WARFARIN SODIUM	Coumadin	tablet	ORAL	4
WARFARIN SODIUM	Coumadin	tablet	ORAL	1
WARFARIN SODIUM	Coumadin	tablet	ORAL	2
WARFARIN SODIUM	Coumadin	tablet	ORAL	5
WARFARIN SODIUM	Coumadin	tablet	ORAL	7.5
WARFARIN SODIUM	Coumadin	tablet	ORAL	10
WARFARIN SODIUM	Coumadin	tablet	ORAL	2.5
WARFARIN SODIUM	Coumadin	tablet	ORAL	3
WARFARIN SODIUM	Coumadin	tablet	ORAL	6
WARFARIN SODIUM	Warfarin	tablet	ORAL	1
WARFARIN SODIUM	Warfarin	tablet	ORAL	2
WARFARIN SODIUM	Warfarin	tablet	ORAL	2.5
WARFARIN SODIUM	Warfarin	tablet	ORAL	3
WARFARIN SODIUM	Warfarin	tablet	ORAL	4
WARFARIN SODIUM	Warfarin	tablet	ORAL	5
WARFARIN SODIUM	Warfarin	tablet	ORAL	6
WARFARIN SODIUM	Warfarin	tablet	ORAL	7.5
WARFARIN SODIUM	Warfarin	tablet	ORAL	10
WARFARIN SODIUM	Jantoven	tablet	ORAL	1
WARFARIN SODIUM	Jantoven	tablet	ORAL	2
WARFARIN SODIUM	Jantoven	tablet	ORAL	2.5
WARFARIN SODIUM	Jantoven	tablet	ORAL	3
WARFARIN SODIUM	Jantoven	tablet	ORAL	4
WARFARIN SODIUM	Jantoven	tablet	ORAL	5
WARFARIN SODIUM	Jantoven	tablet	ORAL	6
WARFARIN SODIUM	Jantoven	tablet	ORAL	7.5
WARFARIN SODIUM	Jantoven	tablet	ORAL	10
WARFARIN SODIUM	Warfarin	tablet		2
Apixaban				
APIXABAN	Eliquis	tablet	oral	2.5
APIXABAN	Eliquis	tablet	oral	5
Rivaroxaban				
RIVAROXABAN	Xarelto	tablet	oral	20
RIVAROXABAN	Xarelto	tablet	oral	15
RIVAROXABAN	Xarelto	tablet	oral	10
RIVAROXABAN	Xarelto	tablets,dose	oral	15 mg (42)-

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

Inclusions

Code	Code Type	Description	Caresetting
427.31	ICD-9-CM Diagnosis	Atrial Fibrillation	Any
427.32	ICD-9-CM Diagnosis	Atrial Flutter	Any

Exclusions

Code	Code Type	Description	Caresetting
792.5	ICD-9-CM Diagnosis	Dialysis	Any
792.5*	ICD-9-CM Diagnosis	Dialysis	Any
399.5	ICD-9-CM Procedure	Dialysis	Any
549.8	ICD-9-CM Procedure	Dialysis	Any
90935	CPT-4 Procedure	Dialysis	Outpatient
90937	CPT-4 Procedure	Dialysis	Outpatient
90945	CPT-4 Procedure	Dialysis	Outpatient
90947	CPT-4 Procedure	Dialysis	Outpatient
99512	CPT-4 Procedure	Dialysis	Outpatient
99601	CPT-4 Procedure	Dialysis	Outpatient
99602	CPT-4 Procedure	Dialysis	Outpatient
V56.2	ICD-9-CM Diagnosis	Dialysis	Any
V56.2*	ICD-9-CM Diagnosis	Dialysis	Any
556	ICD-9-CM Procedure	Kidney replacement	Any
556*	ICD-9-CM Procedure	Kidney replacement	Any
996.81	ICD-9-CM Diagnosis	Kidney replacement	Any
V42.0	ICD-9-CM Diagnosis	Kidney replacement	Any
V42.0*	ICD-9-CM Diagnosis	Kidney replacement	Any
50340	CPT-4 Procedure	Kidney replacement	Any
50360	CPT-4 Procedure	Kidney replacement	Any
50365	CPT-4 Procedure	Kidney replacement	Any
50370	CPT-4 Procedure	Kidney replacement	Any
50380	CPT-4 Procedure	Kidney replacement	Any
453.4	ICD-9-CM Diagnosis	DVT	Any
453.40	ICD-9-CM Diagnosis	DVT	Any
453.41	ICD-9-CM Diagnosis	DVT	Any
453.42	ICD-9-CM Diagnosis	DVT	Any
451.1	ICD-9-CM Diagnosis	DVT	Any
451.11	ICD-9-CM Diagnosis	DVT	Any
451.19	ICD-9-CM Diagnosis	DVT	Any
451.2	ICD-9-CM Diagnosis	DVT	Any
451.81	ICD-9-CM Diagnosis	DVT	Any
451.83	ICD-9-CM Diagnosis	DVT	Any
453.84	ICD-9-CM Diagnosis	DVT	Any
415.1	ICD-9-CM Diagnosis	PE	Any
415.11	ICD-9-CM Diagnosis	PE	Any

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

Code	Code Type	Description	Caresetting
415.12	ICD-9-CM Diagnosis	PE	Any
415.19	ICD-9-CM Diagnosis	PE	Any
V43.6	ICD-9-CM Diagnosis	Joint replacement	Any
V43.60	ICD-9-CM Diagnosis	Joint replacement	Any
V43.61	ICD-9-CM Diagnosis	Joint replacement	Any
V43.62	ICD-9-CM Diagnosis	Joint replacement	Any
V43.63	ICD-9-CM Diagnosis	Joint replacement	Any
V43.64	ICD-9-CM Diagnosis	Joint replacement	Any
V43.65	ICD-9-CM Diagnosis	Joint replacement	Any
V43.66	ICD-9-CM Diagnosis	Joint replacement	Any
V43.69	ICD-9-CM Diagnosis	Joint replacement	Any
815	ICD-9-CM Procedure	Joint replacement	Any
815.1	ICD-9-CM Procedure	Joint replacement	Any
815.2	ICD-9-CM Procedure	Joint replacement	Any
815.3	ICD-9-CM Procedure	Joint replacement	Any
815.4	ICD-9-CM Procedure	Joint replacement	Any
815.5	ICD-9-CM Procedure	Joint replacement	Any
815.6	ICD-9-CM Procedure	Joint replacement	Any
815.7	ICD-9-CM Procedure	Joint replacement	Any
815.9	ICD-9-CM Procedure	Joint replacement	Any
818	ICD-9-CM Procedure	Joint replacement	Any
818.0	ICD-9-CM Procedure	Joint replacement	Any
818.1	ICD-9-CM Procedure	Joint replacement	Any
818.2	ICD-9-CM Procedure	Joint replacement	Any
818.3	ICD-9-CM Procedure	Joint replacement	Any
818.4	ICD-9-CM Procedure	Joint replacement	Any
818.5	ICD-9-CM Procedure	Joint replacement	Any
24363	CPT-4 Procedure	Joint replacement	Any
27130	CPT-4 Procedure	Joint replacement	Any
27132	CPT-4 Procedure	Joint replacement	Any
27134	CPT-4 Procedure	Joint replacement	Any
27137	CPT-4 Procedure	Joint replacement	Any
27138	CPT-4 Procedure	Joint replacement	Any
27447	CPT-4 Procedure	Joint replacement	Any
3940	ICD-9-CM Diagnosis	Valvular disease	Any
394.0*	ICD-9-CM Diagnosis	Valvular disease	Any
394.2	ICD-9-CM Diagnosis	Valvular disease	Any
394.2*	ICD-9-CM Diagnosis	Valvular disease	Any
396.0	ICD-9-CM Diagnosis	Valvular disease	Any
396.0*	ICD-9-CM Diagnosis	Valvular disease	Any
396.1	ICD-9-CM Diagnosis	Valvular disease	Any
396.1*	ICD-9-CM Diagnosis	Valvular disease	Any
746.5	ICD-9-CM Diagnosis	Valvular disease	Any
746.5*	ICD-9-CM Diagnosis	Valvular disease	Any

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

Code	Code Type	Description	Caresetting
362.3	ICD-9-CM Procedure	Valvular disease	Any
359.7	ICD-9-CM Procedure	Valvular disease	Any
92987	CPT-4 Procedure	Valvular disease	Any
33427	CPT-4 Procedure	Valvular disease	Any
33426	CPT-4 Procedure	Valvular disease	Any
33425	CPT-4 Procedure	Valvular disease	Any
33422	CPT-4 Procedure	Valvular disease	Any
33420	CPT-4 Procedure	Valvular disease	Any
33430	CPT-4 Procedure	Valvular disease	Any
996.02	ICD-9-CM Diagnosis	Valvular disease	Any
996.71	ICD-9-CM Diagnosis	Valvular disease	Any
352.0	ICD-9-CM Procedure	Valvular disease	Any
352.2	ICD-9-CM Procedure	Valvular disease	Any
352.4	ICD-9-CM Procedure	Valvular disease	Any
33405	CPT-4 Procedure	Valvular disease	Any

Appendix D. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM) Codes and Algorithm Used to Define Gastrointestinal Hemorrhage in this Request

Code	Code Type	Description
455.2	ICD-9 CM Diagnosis	Internal hemorrhoids with other complication
455.2*	ICD-9 CM Diagnosis	Internal hemorrhoids with other complication
455.5	ICD-9 CM Diagnosis	External hemorrhoids with other complication
455.5*	ICD-9 CM Diagnosis	External hemorrhoids with other complication
456.0	ICD-9 CM Diagnosis	Esophageal varices with bleeding
456.0*	ICD-9 CM Diagnosis	Esophageal varices with bleeding
530.7	ICD-9 CM Diagnosis	Gastroesophageal laceration-hemorrhage syndrome
530.7*	ICD-9 CM Diagnosis	Gastroesophageal laceration-hemorrhage syndrome
530.82	ICD-9 CM Diagnosis	Esophageal hemorrhage
531.0	ICD-9 CM Diagnosis	Acute gastric ulcer with hemorrhage
531.0*	ICD-9 CM Diagnosis	Acute gastric ulcer with hemorrhage
531.1	ICD-9 CM Diagnosis	Acute gastric ulcer with perforation
531.1*	ICD-9 CM Diagnosis	Acute gastric ulcer with perforation
531.2	ICD-9 CM Diagnosis	Acute gastric ulcer with hemorrhage and perforation
531.2*	ICD-9 CM Diagnosis	Acute gastric ulcer with hemorrhage and perforation
531.3	ICD-9 CM Diagnosis	Acute gastric ulcer without mention of hemorrhage or perforation
531.3*	ICD-9 CM Diagnosis	Acute gastric ulcer without mention of hemorrhage or perforation
531.4	ICD-9 CM Diagnosis	Chronic or unspecified gastric ulcer with hemorrhage
531.4*	ICD-9 CM Diagnosis	Chronic or unspecified gastric ulcer with hemorrhage
531.5	ICD-9 CM Diagnosis	Chronic or unspecified gastric ulcer with perforation
531.5*	ICD-9 CM Diagnosis	Chronic or unspecified gastric ulcer with perforation
531.6	ICD-9 CM Diagnosis	Chronic or unspecified gastric ulcer with hemorrhage and perforation
531.6*	ICD-9 CM Diagnosis	Chronic or unspecified gastric ulcer with hemorrhage and perforation
532.0	ICD-9 CM Diagnosis	Acute duodenal ulcer with hemorrhage
532.0*	ICD-9 CM Diagnosis	Acute duodenal ulcer with hemorrhage
532.1	ICD-9 CM Diagnosis	Acute duodenal ulcer with perforation
532.1*	ICD-9 CM Diagnosis	Acute duodenal ulcer with perforation
532.2	ICD-9 CM Diagnosis	Acute duodenal ulcer with hemorrhage and perforation
532.2*	ICD-9 CM Diagnosis	Acute duodenal ulcer with hemorrhage and perforation
532.3	ICD-9 CM Diagnosis	Acute duodenal ulcer without mention of hemorrhage or perforation
532.3*	ICD-9 CM Diagnosis	Acute duodenal ulcer without mention of hemorrhage or perforation
532.4	ICD-9 CM Diagnosis	Chronic or unspecified duodenal ulcer with hemorrhage
532.4*	ICD-9 CM Diagnosis	Chronic or unspecified duodenal ulcer with hemorrhage
532.5	ICD-9 CM Diagnosis	Chronic or unspecified duodenal ulcer with perforation
532.5*	ICD-9 CM Diagnosis	Chronic or unspecified duodenal ulcer with perforation
532.6	ICD-9 CM Diagnosis	Chronic or unspecified duodenal ulcer with hemorrhage and perforation
532.6*	ICD-9 CM Diagnosis	Chronic or unspecified duodenal ulcer with hemorrhage and perforation
533.0	ICD-9 CM Diagnosis	Acute peptic ulcer of unspecified site with hemorrhage
533.0*	ICD-9 CM Diagnosis	Acute peptic ulcer of unspecified site with hemorrhage
533.1	ICD-9 CM Diagnosis	Acute peptic ulcer of unspecified site with perforation
533.1*	ICD-9 CM Diagnosis	Acute peptic ulcer of unspecified site with perforation
533.2	ICD-9 CM Diagnosis	Acute peptic ulcer of unspecified site with hemorrhage and perforation
533.2*	ICD-9 CM Diagnosis	Acute peptic ulcer of unspecified site with hemorrhage and perforation
533.3	ICD-9 CM Diagnosis	Acute peptic ulcer of unspecified site without mention of hemorrhage and perforation

Appendix D. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM) Codes and Algorithm Used to Define Gastrointestinal Hemorrhage in this Request

Code	Code Type	Description
533.3*	ICD-9 CM Diagnosis	Acute peptic ulcer of unspecified site without mention of hemorrhage and perforation
533.4	ICD-9 CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with hemorrhage
533.4*	ICD-9 CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with hemorrhage
533.5	ICD-9 CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with perforation
533.5*	ICD-9 CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with perforation
533.6	ICD-9 CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with hemorrhage and perforation
533.6*	ICD-9 CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with hemorrhage and perforation
534.0	ICD-9 CM Diagnosis	Acute gastrojejunal ulcer with hemorrhage
534.0*	ICD-9 CM Diagnosis	Acute gastrojejunal ulcer with hemorrhage
534.1	ICD-9 CM Diagnosis	Acute gastrojejunal ulcer with perforation
534.1*	ICD-9 CM Diagnosis	Acute gastrojejunal ulcer with perforation
534.2	ICD-9 CM Diagnosis	Acute gastrojejunal ulcer with hemorrhage and perforation
534.2*	ICD-9 CM Diagnosis	Acute gastrojejunal ulcer with hemorrhage and perforation
534.3	ICD-9 CM Diagnosis	Acute gastrojejunal ulcer without mention of hemorrhage or perforation
534.3*	ICD-9 CM Diagnosis	Acute gastrojejunal ulcer without mention of hemorrhage or perforation
534.4	ICD-9 CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with hemorrhage
534.4*	ICD-9 CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with hemorrhage
534.5	ICD-9 CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with perforation
534.5*	ICD-9 CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with perforation
534.6	ICD-9 CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation
534.6*	ICD-9 CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation
535.01	ICD-9 CM Diagnosis	Acute gastritis with hemorrhage
535.11	ICD-9 CM Diagnosis	Atrophic gastritis with hemorrhage
535.21	ICD-9 CM Diagnosis	Gastric mucosal hypertrophy with hemorrhage
535.31	ICD-9 CM Diagnosis	Alcoholic gastritis with hemorrhage
535.41	ICD-9 CM Diagnosis	Other specified gastritis with hemorrhage
535.51	ICD-9 CM Diagnosis	Unspecified gastritis and gastroduodenitis, with hemorrhage
535.61	ICD-9 CM Diagnosis	Duodenitis with hemorrhage
537.83	ICD-9 CM Diagnosis	Angiodysplasia of stomach and duodenum with hemorrhage
562.02	ICD-9 CM Diagnosis	Diverticulosis of small intestine with hemorrhage
562.03	ICD-9 CM Diagnosis	Diverticulitis of small intestine with hemorrhage
562.12	ICD-9 CM Diagnosis	Diverticulosis of colon with hemorrhage
562.13	ICD-9 CM Diagnosis	Diverticulitis of colon with hemorrhage
568.81	ICD-9 CM Diagnosis	Hemoperitoneum (nontraumatic)
569.3	ICD-9 CM Diagnosis	Hemorrhage of rectum and anus
569.3*	ICD-9 CM Diagnosis	Hemorrhage of rectum and anus
569.85	ICD-9 CM Diagnosis	Angiodysplasia of intestine with hemorrhage
578.0	ICD-9 CM Diagnosis	Hematemesis
578.0*	ICD-9 CM Diagnosis	Hematemesis
578.1	ICD-9 CM Diagnosis	Blood in stool
578.1*	ICD-9 CM Diagnosis	Blood in stool
578.9	ICD-9 CM Diagnosis	Hemorrhage of gastrointestinal tract, unspecified
578.9*	ICD-9 CM Diagnosis	Hemorrhage of gastrointestinal tract, unspecified
578	ICD-9 CM Diagnosis	Gastrointestinal Hemorrhage

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Advanced diagnosed kidney dysfunction	403.11	ICD-9-CM Diagnosis	Hypertensive chronic kidney disease, benign, with chronic kidney disease stage V or end stage renal disease
Advanced diagnosed kidney dysfunction	403.91	ICD-9-CM Diagnosis	Hypertensive chronic kidney disease, unspecified, with chronic kidney disease stage V or end stage renal disease
Advanced diagnosed kidney dysfunction	404.12	ICD-9-CM Diagnosis	Hypertensive heart and chronic kidney disease, benign, without heart failure and with chronic kidney disease stage V or end stage renal disease
Advanced diagnosed kidney dysfunction	404.92	ICD-9-CM Diagnosis	Hypertensive heart and chronic kidney disease, unspecified, without heart failure and with chronic kidney disease stage V or end stage renal disease
Advanced diagnosed kidney dysfunction	585	ICD-9-CM Diagnosis	Chronic kidney disease
Advanced diagnosed kidney dysfunction	585*	ICD-9-CM Diagnosis	Chronic kidney disease
Advanced diagnosed kidney dysfunction	586	ICD-9-CM Diagnosis	Renal failure, unspecified
Advanced diagnosed kidney dysfunction	V42.0	ICD-9-CM Diagnosis	Kidney replaced by transplant
Advanced diagnosed kidney dysfunction	V42.0*	ICD-9-CM Diagnosis	Kidney replaced by transplant
Advanced diagnosed kidney dysfunction	V45.1	ICD-9-CM Diagnosis	Postsurgical renal dialysis status
Advanced diagnosed kidney dysfunction	V45.1*	ICD-9-CM Diagnosis	Postsurgical renal dialysis status
Advanced diagnosed kidney dysfunction	V56.0	ICD-9-CM Diagnosis	Encounter for extracorporeal dialysis
Advanced diagnosed kidney dysfunction	V56.0*	ICD-9-CM Diagnosis	Encounter for extracorporeal dialysis
Advanced diagnosed kidney dysfunction	V56.8	ICD-9-CM Diagnosis	Encounter for other dialysis
Advanced diagnosed kidney dysfunction	V56.8*	ICD-9-CM Diagnosis	Encounter for other dialysis
Advanced liver disease	456.0	ICD-9-CM Diagnosis	Esophageal varices with bleeding
Advanced liver disease	456.0*	ICD-9-CM Diagnosis	Esophageal varices with bleeding
Advanced liver disease	456.1	ICD-9-CM Diagnosis	Esophageal varices without mention of bleeding
Advanced liver disease	456.1*	ICD-9-CM Diagnosis	Esophageal varices without mention of bleeding
Advanced liver disease	456.2	ICD-9-CM Diagnosis	Esophageal varices in diseases classified elsewhere
Advanced liver disease	456.2*	ICD-9-CM Diagnosis	Esophageal varices in diseases classified elsewhere
Advanced liver disease	572.2	ICD-9-CM Diagnosis	Hepatic encephalopathy
Advanced liver disease	572.2*	ICD-9-CM Diagnosis	Hepatic encephalopathy
Advanced liver disease	572.3	ICD-9-CM Diagnosis	Portal hypertension
Advanced liver disease	572.3*	ICD-9-CM Diagnosis	Portal hypertension
Advanced liver disease	572.4	ICD-9-CM Diagnosis	Hepatorenal syndrome
Advanced liver disease	572.4*	ICD-9-CM Diagnosis	Hepatorenal syndrome

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Advanced liver disease	572.8	ICD-9-CM Diagnosis	Other sequelae of chronic liver disease
Advanced liver disease	572.8*	ICD-9-CM Diagnosis	Other sequelae of chronic liver disease
Alcoholism	291	ICD-9-CM Diagnosis	Alcohol-induced mental disorders
Alcoholism	291*	ICD-9-CM Diagnosis	Alcohol-induced mental disorders
Alcoholism	291**	ICD-9-CM Diagnosis	Alcohol-induced mental disorders
Alcoholism	303.93	ICD-9-CM Diagnosis	Alcohol dependence syndrome
Alcoholism	V11.3	ICD-9-CM Diagnosis	Personal history of alcoholism
Alcoholism	V11.3*	ICD-9-CM Diagnosis	Personal history of alcoholism
Anemia	280.1	ICD-9-CM Diagnosis	Iron deficiency anemia secondary to inadequate dietary iron intake
Anemia	280.1*	ICD-9-CM Diagnosis	Iron deficiency anemia secondary to inadequate dietary iron intake
Anemia	280.8	ICD-9-CM Diagnosis	Other specified iron deficiency anemias
Anemia	280.8*	ICD-9-CM Diagnosis	Other specified iron deficiency anemias
Anemia	280.9	ICD-9-CM Diagnosis	Iron deficiency anemia, unspecified
Anemia	280.9*	ICD-9-CM Diagnosis	Iron deficiency anemia, unspecified
Anemia	281	ICD-9-CM Diagnosis	Other deficiency anemias
Anemia	281*	ICD-9-CM Diagnosis	Other deficiency anemias
Cane Use	E0100	HCPCS Procedure	Cane, includes canes of all materials, adjustable or fixed, with tip
Cane Use	E0105	HCPCS Procedure	Cane, quad or three prong, includes canes of all materials, adjustable or fixed, with tips
Chronic heart failure	402.01	ICD-9-CM Diagnosis	Malignant hypertensive heart disease with heart failure
Chronic heart failure	402.11	ICD-9-CM Diagnosis	Benign hypertensive heart disease with heart failure
Chronic heart failure	402.91	ICD-9-CM Diagnosis	Unspecified hypertensive heart disease with heart failure
Chronic heart failure	425	ICD-9-CM Diagnosis	Cardiomyopathy
Chronic heart failure	425*	ICD-9-CM Diagnosis	Cardiomyopathy
Chronic heart failure	425**	ICD-9-CM Diagnosis	Cardiomyopathy
Chronic heart failure	428	ICD-9-CM Diagnosis	Heart failure
Chronic heart failure	428*	ICD-9-CM Diagnosis	Heart failure
Chronic heart failure	428**	ICD-9-CM Diagnosis	Heart failure
Chronic heart failure	429.3	ICD-9-CM Diagnosis	Cardiomegaly
Chronic heart failure	429.3*	ICD-9-CM Diagnosis	Cardiomegaly
Coagulation defects	286	ICD-9-CM Diagnosis	Coagulation defects

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Coagulation defects	286*	ICD-9-CM Diagnosis	Coagulation defects
Coagulation defects	286**	ICD-9-CM Diagnosis	Coagulation defects
Commode chair use	E0163	HCPCS Procedure	Commode chair, mobile or stationary, with fixed arms
Commode chair use	E0165	HCPCS Procedure	Commode chair, mobile or stationary, with detachable arms
Commode chair use	E0167	HCPCS Procedure	Pail or pan for use with commode chair, replacement only
Commode chair use	E0168	HCPCS Procedure	Commode chair, extra wide and/or heavy duty, stationary or mobile, with or without arms, any type, each
Commode chair use	E0170	HCPCS Procedure	Commode chair with integrated seat lift mechanism, electric, any type
Commode chair use	E0171	HCPCS Procedure	Commode chair with integrated seat lift mechanism, non-electric, any type
Commode chair use	E0175	HCPCS Procedure	Foot rest, for use with commode chair, each
Coronary artery bypass surgery (CABG)	996.03	ICD-9-CM Diagnosis	Mechanical complication due to coronary bypass graft
Coronary artery bypass surgery (CABG)	V45.81	ICD-9-CM Diagnosis	Aortocoronary bypass status
Coronary artery bypass surgery (CABG)	361	ICD-9-CM Procedure	Bypass Anastomosis For Heart Revascularization
Coronary artery bypass surgery (CABG)	361*	ICD-9-CM Procedure	Bypass Anastomosis For Heart Revascularization
Coronary artery bypass surgery (CABG)	362	ICD-9-CM Procedure	Heart Revascularization By Arterial Implant
Coronary artery bypass surgery (CABG)	362*	ICD-9-CM Procedure	Heart Revascularization By Arterial Implant
Coronary artery bypass surgery (CABG)	33510	CPT-4 Procedure	CABG VEIN SINGLE
Coronary artery bypass surgery (CABG)	33511	CPT-4 Procedure	CABG VEIN TWO
Coronary artery bypass surgery (CABG)	33512	CPT-4 Procedure	CABG VEIN THREE
Coronary artery bypass surgery (CABG)	33513	CPT-4 Procedure	CABG VEIN FOUR
Coronary artery bypass surgery (CABG)	33514	CPT-4 Procedure	CABG VEIN FIVE
Coronary artery bypass surgery (CABG)	33516	CPT-4 Procedure	CABG VEIN SIX OR MORE
Coronary artery bypass surgery (CABG)	33517	CPT-4 Procedure	CABG ARTERY-VEIN SINGLE
Coronary artery bypass surgery (CABG)	33518	CPT-4 Procedure	CABG ARTERY-VEIN TWO
Coronary artery bypass surgery (CABG)	33519	CPT-4 Procedure	CABG ARTERY-VEIN THREE
Coronary artery bypass surgery (CABG)	33520	CPT-4 Procedure	
Coronary artery bypass surgery (CABG)	33521	CPT-4 Procedure	CABG ARTERY-VEIN FOUR
Coronary artery bypass surgery (CABG)	33522	CPT-4 Procedure	CABG ARTERY-VEIN FIVE
Coronary artery bypass surgery (CABG)	33523	CPT-4 Procedure	CABG ART-VEIN SIX OR MORE
Coronary artery bypass surgery (CABG)	33525	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Coronary artery bypass surgery (CABG)	S2205	HCPCS Procedure	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
Coronary artery bypass surgery (CABG)	S2206	HCPCS Procedure	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
Coronary artery bypass surgery (CABG)	S2207	HCPCS Procedure	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
Coronary artery bypass surgery (CABG)	S2208	HCPCS Procedure	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
Coronary artery bypass surgery (CABG)	S2209	HCPCS Procedure	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	250	ICD-9-CM Diagnosis	Diabetes mellitus
Diabetes mellitus	250*	ICD-9-CM Diagnosis	Diabetes mellitus
Diabetes mellitus	250**	ICD-9-CM Diagnosis	Diabetes mellitus
Diabetes mellitus	357.2	ICD-9-CM Diagnosis	Polyneuropathy in diabetes
Diabetes mellitus	357.2*	ICD-9-CM Diagnosis	Polyneuropathy in diabetes
Diabetes mellitus	362.0	ICD-9-CM Diagnosis	Diabetic retinopathy
Diabetes mellitus	362.0*	ICD-9-CM Diagnosis	Diabetic retinopathy
Diabetes mellitus	366.41	ICD-9-CM Diagnosis	Diabetic cataract
Falls	E88.0	ICD-9-CM Diagnosis	Fall on or from stairs or steps
Falls	E88.0*	ICD-9-CM Diagnosis	Fall on or from stairs or steps
Falls	E88.1	ICD-9-CM Diagnosis	Fall on or from ladders or scaffolding
Falls	E88.1*	ICD-9-CM Diagnosis	Fall on or from ladders or scaffolding
Falls	E88.2	ICD-9-CM Diagnosis	Fall from or out of building or other structure
Falls	E88.2*	ICD-9-CM Diagnosis	Fall from or out of building or other structure
Falls	E88.3	ICD-9-CM Diagnosis	Fall into hole or other opening in surface
Falls	E88.3*	ICD-9-CM Diagnosis	Fall into hole or other opening in surface

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Falls	E88.4	ICD-9-CM Diagnosis	Other accidental falls from one level to another
Falls	E88.4*	ICD-9-CM Diagnosis	Other accidental falls from one level to another
Falls	E88.5	ICD-9-CM Diagnosis	Accidental fall on same level from slipping tripping or stumbling
Falls	E88.5*	ICD-9-CM Diagnosis	Accidental fall on same level from slipping tripping or stumbling
Falls	E88.6	ICD-9-CM Diagnosis	Fall on same level from collision, pushing, or shoving, by or with other person
Falls	E88.6*	ICD-9-CM Diagnosis	Fall on same level from collision, pushing, or shoving, by or with other person
Falls	E88.7	ICD-9-CM Diagnosis	Fracture, cause unspecified
Falls	E88.7*	ICD-9-CM Diagnosis	Fracture, cause unspecified
Falls	E88.8	ICD-9-CM Diagnosis	Other and unspecified fall
Falls	E88.8*	ICD-9-CM Diagnosis	Other and unspecified fall
Hospitalized gastrointestinal bleed	531.0	ICD-9-CM Diagnosis	Acute gastric ulcer with hemorrhage
Hospitalized gastrointestinal bleed	531.0*	ICD-9-CM Diagnosis	Acute gastric ulcer with hemorrhage
Hospitalized gastrointestinal bleed	531.1	ICD-9-CM Diagnosis	Acute gastric ulcer with perforation
Hospitalized gastrointestinal bleed	531.1*	ICD-9-CM Diagnosis	Acute gastric ulcer with perforation
Hospitalized gastrointestinal bleed	531.2	ICD-9-CM Diagnosis	Acute gastric ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	531.2*	ICD-9-CM Diagnosis	Acute gastric ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	531.3	ICD-9-CM Diagnosis	Acute gastric ulcer without mention of hemorrhage or perforation
Hospitalized gastrointestinal bleed	531.3*	ICD-9-CM Diagnosis	Acute gastric ulcer without mention of hemorrhage or perforation
Hospitalized gastrointestinal bleed	531.4	ICD-9-CM Diagnosis	Chronic or unspecified gastric ulcer with hemorrhage
Hospitalized gastrointestinal bleed	531.4*	ICD-9-CM Diagnosis	Chronic or unspecified gastric ulcer with hemorrhage
Hospitalized gastrointestinal bleed	531.5	ICD-9-CM Diagnosis	Chronic or unspecified gastric ulcer with perforation
Hospitalized gastrointestinal bleed	531.5*	ICD-9-CM Diagnosis	Chronic or unspecified gastric ulcer with perforation
Hospitalized gastrointestinal bleed	531.6	ICD-9-CM Diagnosis	Chronic or unspecified gastric ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	531.6*	ICD-9-CM Diagnosis	Chronic or unspecified gastric ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	532.0	ICD-9-CM Diagnosis	Acute duodenal ulcer with hemorrhage
Hospitalized gastrointestinal bleed	532.0*	ICD-9-CM Diagnosis	Acute duodenal ulcer with hemorrhage
Hospitalized gastrointestinal bleed	532.1	ICD-9-CM Diagnosis	Acute duodenal ulcer with perforation
Hospitalized gastrointestinal bleed	532.1*	ICD-9-CM Diagnosis	Acute duodenal ulcer with perforation
Hospitalized gastrointestinal bleed	532.2	ICD-9-CM Diagnosis	Acute duodenal ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	532.2*	ICD-9-CM Diagnosis	Acute duodenal ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	532.3	ICD-9-CM Diagnosis	Acute duodenal ulcer without mention of hemorrhage or perforation

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Hospitalized gastrointestinal bleed	532.3*	ICD-9-CM Diagnosis	Acute duodenal ulcer without mention of hemorrhage or perforation
Hospitalized gastrointestinal bleed	532.4	ICD-9-CM Diagnosis	Chronic or unspecified duodenal ulcer with hemorrhage
Hospitalized gastrointestinal bleed	532.4*	ICD-9-CM Diagnosis	Chronic or unspecified duodenal ulcer with hemorrhage
Hospitalized gastrointestinal bleed	532.5	ICD-9-CM Diagnosis	Chronic or unspecified duodenal ulcer with perforation
Hospitalized gastrointestinal bleed	532.5*	ICD-9-CM Diagnosis	Chronic or unspecified duodenal ulcer with perforation
Hospitalized gastrointestinal bleed	532.6	ICD-9-CM Diagnosis	Chronic or unspecified duodenal ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	532.6*	ICD-9-CM Diagnosis	Chronic or unspecified duodenal ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	533.0	ICD-9-CM Diagnosis	Acute peptic ulcer of unspecified site with hemorrhage
Hospitalized gastrointestinal bleed	533.0*	ICD-9-CM Diagnosis	Acute peptic ulcer of unspecified site with hemorrhage
Hospitalized gastrointestinal bleed	533.1	ICD-9-CM Diagnosis	Acute peptic ulcer of unspecified site with perforation
Hospitalized gastrointestinal bleed	533.1*	ICD-9-CM Diagnosis	Acute peptic ulcer of unspecified site with perforation
Hospitalized gastrointestinal bleed	533.2	ICD-9-CM Diagnosis	Acute peptic ulcer of unspecified site with hemorrhage and perforation
Hospitalized gastrointestinal bleed	533.2*	ICD-9-CM Diagnosis	Acute peptic ulcer of unspecified site with hemorrhage and perforation
Hospitalized gastrointestinal bleed	533.3	ICD-9-CM Diagnosis	Acute peptic ulcer of unspecified site without mention of hemorrhage and perforation
Hospitalized gastrointestinal bleed	533.3*	ICD-9-CM Diagnosis	Acute peptic ulcer of unspecified site without mention of hemorrhage and perforation
Hospitalized gastrointestinal bleed	533.4	ICD-9-CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with hemorrhage
Hospitalized gastrointestinal bleed	533.4*	ICD-9-CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with hemorrhage
Hospitalized gastrointestinal bleed	533.5	ICD-9-CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with perforation
Hospitalized gastrointestinal bleed	533.5*	ICD-9-CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with perforation
Hospitalized gastrointestinal bleed	533.6	ICD-9-CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with hemorrhage and perforation
Hospitalized gastrointestinal bleed	533.6*	ICD-9-CM Diagnosis	Chronic or unspecified peptic ulcer of unspecified site with hemorrhage and perforation
Hospitalized gastrointestinal bleed	534.0	ICD-9-CM Diagnosis	Acute gastrojejunal ulcer with hemorrhage
Hospitalized gastrointestinal bleed	534.0*	ICD-9-CM Diagnosis	Acute gastrojejunal ulcer with hemorrhage
Hospitalized gastrointestinal bleed	534.1	ICD-9-CM Diagnosis	Acute gastrojejunal ulcer with perforation
Hospitalized gastrointestinal bleed	534.1*	ICD-9-CM Diagnosis	Acute gastrojejunal ulcer with perforation
Hospitalized gastrointestinal bleed	534.2	ICD-9-CM Diagnosis	Acute gastrojejunal ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	534.2*	ICD-9-CM Diagnosis	Acute gastrojejunal ulcer with hemorrhage and perforation

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Covariate	Code	Code Type	Description
Hospitalized gastrointestinal bleed	534.3	ICD-9-CM Diagnosis	Acute gastrojejunal ulcer without mention of hemorrhage or perforation
Hospitalized gastrointestinal bleed	534.3*	ICD-9-CM Diagnosis	Acute gastrojejunal ulcer without mention of hemorrhage or perforation
Hospitalized gastrointestinal bleed	534.4	ICD-9-CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with hemorrhage
Hospitalized gastrointestinal bleed	534.4*	ICD-9-CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with hemorrhage
Hospitalized gastrointestinal bleed	534.5	ICD-9-CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with perforation
Hospitalized gastrointestinal bleed	534.5*	ICD-9-CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with perforation
Hospitalized gastrointestinal bleed	534.6	ICD-9-CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	534.6*	ICD-9-CM Diagnosis	Chronic or unspecified gastrojejunal ulcer with hemorrhage and perforation
Hospitalized gastrointestinal bleed	535.01	ICD-9-CM Diagnosis	Acute gastritis with hemorrhage
Hospitalized gastrointestinal bleed	535.11	ICD-9-CM Diagnosis	Atrophic gastritis with hemorrhage
Hospitalized gastrointestinal bleed	535.21	ICD-9-CM Diagnosis	Gastric mucosal hypertrophy with hemorrhage
Hospitalized gastrointestinal bleed	535.31	ICD-9-CM Diagnosis	Alcoholic gastritis with hemorrhage
Hospitalized gastrointestinal bleed	535.41	ICD-9-CM Diagnosis	Other specified gastritis with hemorrhage
Hospitalized gastrointestinal bleed	535.61	ICD-9-CM Diagnosis	Duodenitis with hemorrhage
Hospitalized gastrointestinal bleed	537.83	ICD-9-CM Diagnosis	Angiodysplasia of stomach and duodenum with hemorrhage
Hospitalized gastrointestinal bleed	562.02	ICD-9-CM Diagnosis	Diverticulosis of small intestine with hemorrhage
Hospitalized gastrointestinal bleed	562.03	ICD-9-CM Diagnosis	Diverticulitis of small intestine with hemorrhage
Hospitalized gastrointestinal bleed	562.12	ICD-9-CM Diagnosis	Diverticulosis of colon with hemorrhage
Hospitalized gastrointestinal bleed	562.13	ICD-9-CM Diagnosis	Diverticulitis of colon with hemorrhage
Hospitalized gastrointestinal bleed	568.81	ICD-9-CM Diagnosis	Hemoperitoneum (nontraumatic)
Hospitalized gastrointestinal bleed	569.3	ICD-9-CM Diagnosis	Hemorrhage of rectum and anus
Hospitalized gastrointestinal bleed	569.3*	ICD-9-CM Diagnosis	Hemorrhage of rectum and anus
Hospitalized gastrointestinal bleed	569.85	ICD-9-CM Diagnosis	Angiodysplasia of intestine with hemorrhage
Hospitalized gastrointestinal bleed	578	ICD-9-CM Diagnosis	Gastrointestinal hemorrhage
Hospitalized gastrointestinal bleed	578*	ICD-9-CM Diagnosis	Gastrointestinal hemorrhage
Hospitalized intracranial bleed	430	ICD-9-CM Diagnosis	Subarachnoid hemorrhage
Hospitalized intracranial bleed	431	ICD-9-CM Diagnosis	Intracerebral hemorrhage
Hospitalized intracranial bleed	432	ICD-9-CM Diagnosis	Other and unspecified intracranial hemorrhage
Hospitalized intracranial bleed	432*	ICD-9-CM Diagnosis	Other and unspecified intracranial hemorrhage
Hospitalized intracranial bleed	852.0	ICD-9-CM Diagnosis	Subarachnoid hemorrhage following injury without mention of open intracranial wound

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Covariate	Code	Code Type	Description
Hospitalized intracranial bleed	852.0*	ICD-9-CM Diagnosis	Subarachnoid hemorrhage following injury without mention of open intracranial wound
Hospitalized intracranial bleed	852.2	ICD-9-CM Diagnosis	Subdural hemorrhage following injury without mention of open intracranial wound
Hospitalized intracranial bleed	852.2*	ICD-9-CM Diagnosis	Subdural hemorrhage following injury without mention of open intracranial wound
Hospitalized intracranial bleed	852.4	ICD-9-CM Diagnosis	Extradural hemorrhage following injury without mention of open intracranial wound
Hospitalized intracranial bleed	852.4*	ICD-9-CM Diagnosis	Extradural hemorrhage following injury without mention of open intracranial wound
Hospitalized intracranial bleed	853.0	ICD-9-CM Diagnosis	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial
Hospitalized intracranial bleed	853.0*	ICD-9-CM Diagnosis	Other and unspecified intracranial hemorrhage following injury without mention of open intracranial
Hyperlipidemia	272.0	ICD-9-CM Diagnosis	Pure hypercholesterolemia
Hyperlipidemia	272.0*	ICD-9-CM Diagnosis	Pure hypercholesterolemia
Hyperlipidemia	272.1	ICD-9-CM Diagnosis	Pure hyperglyceridemia
Hyperlipidemia	272.1*	ICD-9-CM Diagnosis	Pure hyperglyceridemia
Hyperlipidemia	272.2	ICD-9-CM Diagnosis	Mixed hyperlipidemia
Hyperlipidemia	272.2*	ICD-9-CM Diagnosis	Mixed hyperlipidemia
Hyperlipidemia	272.3	ICD-9-CM Diagnosis	Hyperchylomicronemia
Hyperlipidemia	272.3*	ICD-9-CM Diagnosis	Hyperchylomicronemia
Hypertension	401	ICD-9-CM Diagnosis	Essential hypertension
Hypertension	401*	ICD-9-CM Diagnosis	Essential hypertension
Hypertension	402	ICD-9-CM Diagnosis	Hypertensive heart disease
Hypertension	402*	ICD-9-CM Diagnosis	Hypertensive heart disease
Hypertension	402**	ICD-9-CM Diagnosis	Hypertensive heart disease
Hypertension	403	ICD-9-CM Diagnosis	Hypertensive chronic kidney disease
Hypertension	403*	ICD-9-CM Diagnosis	Hypertensive chronic kidney disease
Hypertension	403**	ICD-9-CM Diagnosis	Hypertensive chronic kidney disease
Hypertension	404	ICD-9-CM Diagnosis	Hypertensive heart and chronic kidney disease

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Covariate	Code	Code Type	Description
Hypertension	404*	ICD-9-CM Diagnosis	Hypertensive heart and chronic kidney disease
Hypertension	404**	ICD-9-CM Diagnosis	Hypertensive heart and chronic kidney disease
Hypertension	405	ICD-9-CM Diagnosis	Secondary hypertension
Hypertension	405*	ICD-9-CM Diagnosis	Secondary hypertension
Hypertension	405**	ICD-9-CM Diagnosis	Secondary hypertension
Hypertension	4050F	CPT-4 Procedure	Hypertension plan of care documented as appropriate
Ischemic stroke	433.*1	ICD-9-CM Diagnosis	Occlusion and stenosis of precerebral arteries with cerebral infarction
Ischemic stroke	434.*1	ICD-9-CM Diagnosis	Occlusion of cerebral arteries with cerebral infarction
Ischemic stroke	436	ICD-9-CM Diagnosis	Acute, but ill-defined, cerebrovascular disease
Major Surgery	V67.0	ICD-9-CM Diagnosis	
Major Surgery	V67.0*	ICD-9-CM Diagnosis	
Major Surgery	50010	CPT-4 Procedure	
Major Surgery	50011	CPT-4 Procedure	
Major Surgery	50012	CPT-4 Procedure	
Major Surgery	50013	CPT-4 Procedure	
Major Surgery	50014	CPT-4 Procedure	
Major Surgery	50015	CPT-4 Procedure	
Major Surgery	50016	CPT-4 Procedure	
Major Surgery	50017	CPT-4 Procedure	
Major Surgery	50018	CPT-4 Procedure	
Major Surgery	50019	CPT-4 Procedure	
Major Surgery	50020	CPT-4 Procedure	
Major Surgery	50021	CPT-4 Procedure	
Major Surgery	50022	CPT-4 Procedure	
Major Surgery	50023	CPT-4 Procedure	
Major Surgery	50024	CPT-4 Procedure	
Major Surgery	50025	CPT-4 Procedure	
Major Surgery	50026	CPT-4 Procedure	
Major Surgery	50027	CPT-4 Procedure	
Major Surgery	50028	CPT-4 Procedure	
Major Surgery	50029	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50030	CPT-4 Procedure	
Major Surgery	50031	CPT-4 Procedure	
Major Surgery	50032	CPT-4 Procedure	
Major Surgery	50033	CPT-4 Procedure	
Major Surgery	50034	CPT-4 Procedure	
Major Surgery	50035	CPT-4 Procedure	
Major Surgery	50036	CPT-4 Procedure	
Major Surgery	50037	CPT-4 Procedure	
Major Surgery	50038	CPT-4 Procedure	
Major Surgery	50039	CPT-4 Procedure	
Major Surgery	50040	CPT-4 Procedure	
Major Surgery	50041	CPT-4 Procedure	
Major Surgery	50042	CPT-4 Procedure	
Major Surgery	50043	CPT-4 Procedure	
Major Surgery	50044	CPT-4 Procedure	
Major Surgery	50045	CPT-4 Procedure	
Major Surgery	50070	CPT-4 Procedure	
Major Surgery	50100	CPT-4 Procedure	
Major Surgery	50101	CPT-4 Procedure	
Major Surgery	50102	CPT-4 Procedure	
Major Surgery	50103	CPT-4 Procedure	
Major Surgery	50104	CPT-4 Procedure	
Major Surgery	50105	CPT-4 Procedure	
Major Surgery	50106	CPT-4 Procedure	
Major Surgery	50107	CPT-4 Procedure	
Major Surgery	50108	CPT-4 Procedure	
Major Surgery	50109	CPT-4 Procedure	
Major Surgery	50110	CPT-4 Procedure	
Major Surgery	50111	CPT-4 Procedure	
Major Surgery	50112	CPT-4 Procedure	
Major Surgery	50113	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50114	CPT-4 Procedure	
Major Surgery	50115	CPT-4 Procedure	
Major Surgery	50116	CPT-4 Procedure	
Major Surgery	50117	CPT-4 Procedure	
Major Surgery	50118	CPT-4 Procedure	
Major Surgery	50119	CPT-4 Procedure	
Major Surgery	50120	CPT-4 Procedure	
Major Surgery	50121	CPT-4 Procedure	
Major Surgery	50122	CPT-4 Procedure	
Major Surgery	50123	CPT-4 Procedure	
Major Surgery	50124	CPT-4 Procedure	
Major Surgery	50125	CPT-4 Procedure	
Major Surgery	50126	CPT-4 Procedure	
Major Surgery	50127	CPT-4 Procedure	
Major Surgery	50128	CPT-4 Procedure	
Major Surgery	50129	CPT-4 Procedure	
Major Surgery	50130	CPT-4 Procedure	
Major Surgery	50131	CPT-4 Procedure	
Major Surgery	50132	CPT-4 Procedure	
Major Surgery	50133	CPT-4 Procedure	
Major Surgery	50134	CPT-4 Procedure	
Major Surgery	50135	CPT-4 Procedure	
Major Surgery	50205	CPT-4 Procedure	
Major Surgery	50206	CPT-4 Procedure	
Major Surgery	50207	CPT-4 Procedure	
Major Surgery	50208	CPT-4 Procedure	
Major Surgery	50209	CPT-4 Procedure	
Major Surgery	50210	CPT-4 Procedure	
Major Surgery	50211	CPT-4 Procedure	
Major Surgery	50212	CPT-4 Procedure	
Major Surgery	50213	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50214	CPT-4 Procedure	
Major Surgery	50215	CPT-4 Procedure	
Major Surgery	50216	CPT-4 Procedure	
Major Surgery	50217	CPT-4 Procedure	
Major Surgery	50218	CPT-4 Procedure	
Major Surgery	50219	CPT-4 Procedure	
Major Surgery	50220	CPT-4 Procedure	
Major Surgery	50221	CPT-4 Procedure	
Major Surgery	50222	CPT-4 Procedure	
Major Surgery	50223	CPT-4 Procedure	
Major Surgery	50224	CPT-4 Procedure	
Major Surgery	50225	CPT-4 Procedure	
Major Surgery	50226	CPT-4 Procedure	
Major Surgery	50227	CPT-4 Procedure	
Major Surgery	50228	CPT-4 Procedure	
Major Surgery	50229	CPT-4 Procedure	
Major Surgery	50230	CPT-4 Procedure	
Major Surgery	50231	CPT-4 Procedure	
Major Surgery	50232	CPT-4 Procedure	
Major Surgery	50233	CPT-4 Procedure	
Major Surgery	50234	CPT-4 Procedure	
Major Surgery	50235	CPT-4 Procedure	
Major Surgery	50236	CPT-4 Procedure	
Major Surgery	50237	CPT-4 Procedure	
Major Surgery	50238	CPT-4 Procedure	
Major Surgery	50239	CPT-4 Procedure	
Major Surgery	50240	CPT-4 Procedure	
Major Surgery	50241	CPT-4 Procedure	
Major Surgery	50242	CPT-4 Procedure	
Major Surgery	50243	CPT-4 Procedure	
Major Surgery	50244	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50245	CPT-4 Procedure	
Major Surgery	50246	CPT-4 Procedure	
Major Surgery	50247	CPT-4 Procedure	
Major Surgery	50248	CPT-4 Procedure	
Major Surgery	50249	CPT-4 Procedure	
Major Surgery	50250	CPT-4 Procedure	
Major Surgery	50251	CPT-4 Procedure	
Major Surgery	50252	CPT-4 Procedure	
Major Surgery	50253	CPT-4 Procedure	
Major Surgery	50254	CPT-4 Procedure	
Major Surgery	50255	CPT-4 Procedure	
Major Surgery	50256	CPT-4 Procedure	
Major Surgery	50257	CPT-4 Procedure	
Major Surgery	50258	CPT-4 Procedure	
Major Surgery	50259	CPT-4 Procedure	
Major Surgery	50260	CPT-4 Procedure	
Major Surgery	50261	CPT-4 Procedure	
Major Surgery	50262	CPT-4 Procedure	
Major Surgery	50263	CPT-4 Procedure	
Major Surgery	50264	CPT-4 Procedure	
Major Surgery	50265	CPT-4 Procedure	
Major Surgery	50266	CPT-4 Procedure	
Major Surgery	50267	CPT-4 Procedure	
Major Surgery	50268	CPT-4 Procedure	
Major Surgery	50269	CPT-4 Procedure	
Major Surgery	50270	CPT-4 Procedure	
Major Surgery	50271	CPT-4 Procedure	
Major Surgery	50272	CPT-4 Procedure	
Major Surgery	50273	CPT-4 Procedure	
Major Surgery	50274	CPT-4 Procedure	
Major Surgery	50275	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Major Surgery	50276	CPT-4 Procedure	
Major Surgery	50277	CPT-4 Procedure	
Major Surgery	50278	CPT-4 Procedure	
Major Surgery	50279	CPT-4 Procedure	
Major Surgery	50280	CPT-4 Procedure	
Major Surgery	50281	CPT-4 Procedure	
Major Surgery	50282	CPT-4 Procedure	
Major Surgery	50283	CPT-4 Procedure	
Major Surgery	50284	CPT-4 Procedure	
Major Surgery	50285	CPT-4 Procedure	
Major Surgery	50286	CPT-4 Procedure	
Major Surgery	50287	CPT-4 Procedure	
Major Surgery	50288	CPT-4 Procedure	
Major Surgery	50289	CPT-4 Procedure	
Major Surgery	50290	CPT-4 Procedure	
Major Surgery	50320	CPT-4 Procedure	
Major Surgery	50321	CPT-4 Procedure	
Major Surgery	50322	CPT-4 Procedure	
Major Surgery	50323	CPT-4 Procedure	
Major Surgery	50324	CPT-4 Procedure	
Major Surgery	50325	CPT-4 Procedure	
Major Surgery	50326	CPT-4 Procedure	
Major Surgery	50327	CPT-4 Procedure	
Major Surgery	50328	CPT-4 Procedure	
Major Surgery	50329	CPT-4 Procedure	
Major Surgery	50330	CPT-4 Procedure	
Major Surgery	50331	CPT-4 Procedure	
Major Surgery	50332	CPT-4 Procedure	
Major Surgery	50333	CPT-4 Procedure	
Major Surgery	50334	CPT-4 Procedure	
Major Surgery	50335	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50336	CPT-4 Procedure	
Major Surgery	50337	CPT-4 Procedure	
Major Surgery	50338	CPT-4 Procedure	
Major Surgery	50339	CPT-4 Procedure	
Major Surgery	50340	CPT-4 Procedure	
Major Surgery	50370	CPT-4 Procedure	
Major Surgery	50382	CPT-4 Procedure	
Major Surgery	50383	CPT-4 Procedure	
Major Surgery	50384	CPT-4 Procedure	
Major Surgery	50400	CPT-4 Procedure	
Major Surgery	50401	CPT-4 Procedure	
Major Surgery	50402	CPT-4 Procedure	
Major Surgery	50403	CPT-4 Procedure	
Major Surgery	50404	CPT-4 Procedure	
Major Surgery	50405	CPT-4 Procedure	
Major Surgery	50406	CPT-4 Procedure	
Major Surgery	50407	CPT-4 Procedure	
Major Surgery	50408	CPT-4 Procedure	
Major Surgery	50409	CPT-4 Procedure	
Major Surgery	50410	CPT-4 Procedure	
Major Surgery	50411	CPT-4 Procedure	
Major Surgery	50412	CPT-4 Procedure	
Major Surgery	50413	CPT-4 Procedure	
Major Surgery	50414	CPT-4 Procedure	
Major Surgery	50415	CPT-4 Procedure	
Major Surgery	50416	CPT-4 Procedure	
Major Surgery	50417	CPT-4 Procedure	
Major Surgery	50418	CPT-4 Procedure	
Major Surgery	50419	CPT-4 Procedure	
Major Surgery	50420	CPT-4 Procedure	
Major Surgery	50421	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50422	CPT-4 Procedure	
Major Surgery	50423	CPT-4 Procedure	
Major Surgery	50424	CPT-4 Procedure	
Major Surgery	50425	CPT-4 Procedure	
Major Surgery	50426	CPT-4 Procedure	
Major Surgery	50427	CPT-4 Procedure	
Major Surgery	50428	CPT-4 Procedure	
Major Surgery	50429	CPT-4 Procedure	
Major Surgery	50430	CPT-4 Procedure	
Major Surgery	50431	CPT-4 Procedure	
Major Surgery	50432	CPT-4 Procedure	
Major Surgery	50433	CPT-4 Procedure	
Major Surgery	50434	CPT-4 Procedure	
Major Surgery	50435	CPT-4 Procedure	
Major Surgery	50436	CPT-4 Procedure	
Major Surgery	50437	CPT-4 Procedure	
Major Surgery	50438	CPT-4 Procedure	
Major Surgery	50439	CPT-4 Procedure	
Major Surgery	50440	CPT-4 Procedure	
Major Surgery	50441	CPT-4 Procedure	
Major Surgery	50442	CPT-4 Procedure	
Major Surgery	50443	CPT-4 Procedure	
Major Surgery	50444	CPT-4 Procedure	
Major Surgery	50445	CPT-4 Procedure	
Major Surgery	50446	CPT-4 Procedure	
Major Surgery	50447	CPT-4 Procedure	
Major Surgery	50448	CPT-4 Procedure	
Major Surgery	50449	CPT-4 Procedure	
Major Surgery	50450	CPT-4 Procedure	
Major Surgery	50451	CPT-4 Procedure	
Major Surgery	50452	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50453	CPT-4 Procedure	
Major Surgery	50454	CPT-4 Procedure	
Major Surgery	50455	CPT-4 Procedure	
Major Surgery	50456	CPT-4 Procedure	
Major Surgery	50457	CPT-4 Procedure	
Major Surgery	50458	CPT-4 Procedure	
Major Surgery	50459	CPT-4 Procedure	
Major Surgery	50460	CPT-4 Procedure	
Major Surgery	50461	CPT-4 Procedure	
Major Surgery	50462	CPT-4 Procedure	
Major Surgery	50463	CPT-4 Procedure	
Major Surgery	50464	CPT-4 Procedure	
Major Surgery	50465	CPT-4 Procedure	
Major Surgery	50466	CPT-4 Procedure	
Major Surgery	50467	CPT-4 Procedure	
Major Surgery	50468	CPT-4 Procedure	
Major Surgery	50469	CPT-4 Procedure	
Major Surgery	50470	CPT-4 Procedure	
Major Surgery	50471	CPT-4 Procedure	
Major Surgery	50472	CPT-4 Procedure	
Major Surgery	50473	CPT-4 Procedure	
Major Surgery	50474	CPT-4 Procedure	
Major Surgery	50475	CPT-4 Procedure	
Major Surgery	50476	CPT-4 Procedure	
Major Surgery	50477	CPT-4 Procedure	
Major Surgery	50478	CPT-4 Procedure	
Major Surgery	50479	CPT-4 Procedure	
Major Surgery	50480	CPT-4 Procedure	
Major Surgery	50481	CPT-4 Procedure	
Major Surgery	50482	CPT-4 Procedure	
Major Surgery	50483	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50484	CPT-4 Procedure	
Major Surgery	50485	CPT-4 Procedure	
Major Surgery	50486	CPT-4 Procedure	
Major Surgery	50487	CPT-4 Procedure	
Major Surgery	50488	CPT-4 Procedure	
Major Surgery	50489	CPT-4 Procedure	
Major Surgery	50490	CPT-4 Procedure	
Major Surgery	50491	CPT-4 Procedure	
Major Surgery	50492	CPT-4 Procedure	
Major Surgery	50493	CPT-4 Procedure	
Major Surgery	50494	CPT-4 Procedure	
Major Surgery	50495	CPT-4 Procedure	
Major Surgery	50496	CPT-4 Procedure	
Major Surgery	50497	CPT-4 Procedure	
Major Surgery	50498	CPT-4 Procedure	
Major Surgery	50499	CPT-4 Procedure	
Major Surgery	50500	CPT-4 Procedure	
Major Surgery	50501	CPT-4 Procedure	
Major Surgery	50502	CPT-4 Procedure	
Major Surgery	50503	CPT-4 Procedure	
Major Surgery	50504	CPT-4 Procedure	
Major Surgery	50505	CPT-4 Procedure	
Major Surgery	50506	CPT-4 Procedure	
Major Surgery	50507	CPT-4 Procedure	
Major Surgery	50508	CPT-4 Procedure	
Major Surgery	50509	CPT-4 Procedure	
Major Surgery	50510	CPT-4 Procedure	
Major Surgery	50511	CPT-4 Procedure	
Major Surgery	50512	CPT-4 Procedure	
Major Surgery	50513	CPT-4 Procedure	
Major Surgery	50514	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50515	CPT-4 Procedure	
Major Surgery	50516	CPT-4 Procedure	
Major Surgery	50517	CPT-4 Procedure	
Major Surgery	50518	CPT-4 Procedure	
Major Surgery	50519	CPT-4 Procedure	
Major Surgery	50520	CPT-4 Procedure	
Major Surgery	50521	CPT-4 Procedure	
Major Surgery	50522	CPT-4 Procedure	
Major Surgery	50523	CPT-4 Procedure	
Major Surgery	50524	CPT-4 Procedure	
Major Surgery	50525	CPT-4 Procedure	
Major Surgery	50526	CPT-4 Procedure	
Major Surgery	50527	CPT-4 Procedure	
Major Surgery	50528	CPT-4 Procedure	
Major Surgery	50529	CPT-4 Procedure	
Major Surgery	50530	CPT-4 Procedure	
Major Surgery	50531	CPT-4 Procedure	
Major Surgery	50532	CPT-4 Procedure	
Major Surgery	50533	CPT-4 Procedure	
Major Surgery	50534	CPT-4 Procedure	
Major Surgery	50535	CPT-4 Procedure	
Major Surgery	50536	CPT-4 Procedure	
Major Surgery	50537	CPT-4 Procedure	
Major Surgery	50538	CPT-4 Procedure	
Major Surgery	50539	CPT-4 Procedure	
Major Surgery	50540	CPT-4 Procedure	
Major Surgery	50593	CPT-4 Procedure	
Major Surgery	50600	CPT-4 Procedure	
Major Surgery	50601	CPT-4 Procedure	
Major Surgery	50602	CPT-4 Procedure	
Major Surgery	50603	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50604	CPT-4 Procedure	
Major Surgery	50605	CPT-4 Procedure	
Major Surgery	50606	CPT-4 Procedure	
Major Surgery	50607	CPT-4 Procedure	
Major Surgery	50608	CPT-4 Procedure	
Major Surgery	50609	CPT-4 Procedure	
Major Surgery	50610	CPT-4 Procedure	
Major Surgery	50611	CPT-4 Procedure	
Major Surgery	50612	CPT-4 Procedure	
Major Surgery	50613	CPT-4 Procedure	
Major Surgery	50614	CPT-4 Procedure	
Major Surgery	50615	CPT-4 Procedure	
Major Surgery	50616	CPT-4 Procedure	
Major Surgery	50617	CPT-4 Procedure	
Major Surgery	50618	CPT-4 Procedure	
Major Surgery	50619	CPT-4 Procedure	
Major Surgery	50620	CPT-4 Procedure	
Major Surgery	50621	CPT-4 Procedure	
Major Surgery	50622	CPT-4 Procedure	
Major Surgery	50623	CPT-4 Procedure	
Major Surgery	50624	CPT-4 Procedure	
Major Surgery	50625	CPT-4 Procedure	
Major Surgery	50626	CPT-4 Procedure	
Major Surgery	50627	CPT-4 Procedure	
Major Surgery	50628	CPT-4 Procedure	
Major Surgery	50629	CPT-4 Procedure	
Major Surgery	50630	CPT-4 Procedure	
Major Surgery	50650	CPT-4 Procedure	
Major Surgery	50651	CPT-4 Procedure	
Major Surgery	50652	CPT-4 Procedure	
Major Surgery	50653	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50654	CPT-4 Procedure	
Major Surgery	50655	CPT-4 Procedure	
Major Surgery	50656	CPT-4 Procedure	
Major Surgery	50657	CPT-4 Procedure	
Major Surgery	50658	CPT-4 Procedure	
Major Surgery	50659	CPT-4 Procedure	
Major Surgery	50660	CPT-4 Procedure	
Major Surgery	50700	CPT-4 Procedure	
Major Surgery	50701	CPT-4 Procedure	
Major Surgery	50702	CPT-4 Procedure	
Major Surgery	50703	CPT-4 Procedure	
Major Surgery	50704	CPT-4 Procedure	
Major Surgery	50705	CPT-4 Procedure	
Major Surgery	50706	CPT-4 Procedure	
Major Surgery	50707	CPT-4 Procedure	
Major Surgery	50708	CPT-4 Procedure	
Major Surgery	50709	CPT-4 Procedure	
Major Surgery	50710	CPT-4 Procedure	
Major Surgery	50711	CPT-4 Procedure	
Major Surgery	50712	CPT-4 Procedure	
Major Surgery	50713	CPT-4 Procedure	
Major Surgery	50714	CPT-4 Procedure	
Major Surgery	50715	CPT-4 Procedure	
Major Surgery	50716	CPT-4 Procedure	
Major Surgery	50717	CPT-4 Procedure	
Major Surgery	50718	CPT-4 Procedure	
Major Surgery	50719	CPT-4 Procedure	
Major Surgery	50720	CPT-4 Procedure	
Major Surgery	50721	CPT-4 Procedure	
Major Surgery	50722	CPT-4 Procedure	
Major Surgery	50723	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50724	CPT-4 Procedure	
Major Surgery	50725	CPT-4 Procedure	
Major Surgery	50726	CPT-4 Procedure	
Major Surgery	50727	CPT-4 Procedure	
Major Surgery	50728	CPT-4 Procedure	
Major Surgery	50729	CPT-4 Procedure	
Major Surgery	50730	CPT-4 Procedure	
Major Surgery	50731	CPT-4 Procedure	
Major Surgery	50732	CPT-4 Procedure	
Major Surgery	50733	CPT-4 Procedure	
Major Surgery	50734	CPT-4 Procedure	
Major Surgery	50735	CPT-4 Procedure	
Major Surgery	50736	CPT-4 Procedure	
Major Surgery	50737	CPT-4 Procedure	
Major Surgery	50738	CPT-4 Procedure	
Major Surgery	50739	CPT-4 Procedure	
Major Surgery	50740	CPT-4 Procedure	
Major Surgery	50741	CPT-4 Procedure	
Major Surgery	50742	CPT-4 Procedure	
Major Surgery	50743	CPT-4 Procedure	
Major Surgery	50744	CPT-4 Procedure	
Major Surgery	50745	CPT-4 Procedure	
Major Surgery	50746	CPT-4 Procedure	
Major Surgery	50747	CPT-4 Procedure	
Major Surgery	50748	CPT-4 Procedure	
Major Surgery	50749	CPT-4 Procedure	
Major Surgery	50750	CPT-4 Procedure	
Major Surgery	50751	CPT-4 Procedure	
Major Surgery	50752	CPT-4 Procedure	
Major Surgery	50753	CPT-4 Procedure	
Major Surgery	50754	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50755	CPT-4 Procedure	
Major Surgery	50756	CPT-4 Procedure	
Major Surgery	50757	CPT-4 Procedure	
Major Surgery	50758	CPT-4 Procedure	
Major Surgery	50759	CPT-4 Procedure	
Major Surgery	50760	CPT-4 Procedure	
Major Surgery	50761	CPT-4 Procedure	
Major Surgery	50762	CPT-4 Procedure	
Major Surgery	50763	CPT-4 Procedure	
Major Surgery	50764	CPT-4 Procedure	
Major Surgery	50765	CPT-4 Procedure	
Major Surgery	50766	CPT-4 Procedure	
Major Surgery	50767	CPT-4 Procedure	
Major Surgery	50768	CPT-4 Procedure	
Major Surgery	50769	CPT-4 Procedure	
Major Surgery	50770	CPT-4 Procedure	
Major Surgery	50771	CPT-4 Procedure	
Major Surgery	50772	CPT-4 Procedure	
Major Surgery	50773	CPT-4 Procedure	
Major Surgery	50774	CPT-4 Procedure	
Major Surgery	50775	CPT-4 Procedure	
Major Surgery	50776	CPT-4 Procedure	
Major Surgery	50777	CPT-4 Procedure	
Major Surgery	50778	CPT-4 Procedure	
Major Surgery	50779	CPT-4 Procedure	
Major Surgery	50780	CPT-4 Procedure	
Major Surgery	50781	CPT-4 Procedure	
Major Surgery	50782	CPT-4 Procedure	
Major Surgery	50783	CPT-4 Procedure	
Major Surgery	50784	CPT-4 Procedure	
Major Surgery	50785	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50786	CPT-4 Procedure	
Major Surgery	50787	CPT-4 Procedure	
Major Surgery	50788	CPT-4 Procedure	
Major Surgery	50789	CPT-4 Procedure	
Major Surgery	50790	CPT-4 Procedure	
Major Surgery	50791	CPT-4 Procedure	
Major Surgery	50792	CPT-4 Procedure	
Major Surgery	50793	CPT-4 Procedure	
Major Surgery	50794	CPT-4 Procedure	
Major Surgery	50795	CPT-4 Procedure	
Major Surgery	50796	CPT-4 Procedure	
Major Surgery	50797	CPT-4 Procedure	
Major Surgery	50798	CPT-4 Procedure	
Major Surgery	50799	CPT-4 Procedure	
Major Surgery	50800	CPT-4 Procedure	
Major Surgery	50801	CPT-4 Procedure	
Major Surgery	50802	CPT-4 Procedure	
Major Surgery	50803	CPT-4 Procedure	
Major Surgery	50804	CPT-4 Procedure	
Major Surgery	50805	CPT-4 Procedure	
Major Surgery	50806	CPT-4 Procedure	
Major Surgery	50807	CPT-4 Procedure	
Major Surgery	50808	CPT-4 Procedure	
Major Surgery	50809	CPT-4 Procedure	
Major Surgery	50810	CPT-4 Procedure	
Major Surgery	50811	CPT-4 Procedure	
Major Surgery	50812	CPT-4 Procedure	
Major Surgery	50813	CPT-4 Procedure	
Major Surgery	50814	CPT-4 Procedure	
Major Surgery	50815	CPT-4 Procedure	
Major Surgery	50816	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50817	CPT-4 Procedure	
Major Surgery	50818	CPT-4 Procedure	
Major Surgery	50819	CPT-4 Procedure	
Major Surgery	50820	CPT-4 Procedure	
Major Surgery	50821	CPT-4 Procedure	
Major Surgery	50822	CPT-4 Procedure	
Major Surgery	50823	CPT-4 Procedure	
Major Surgery	50824	CPT-4 Procedure	
Major Surgery	50825	CPT-4 Procedure	
Major Surgery	50826	CPT-4 Procedure	
Major Surgery	50827	CPT-4 Procedure	
Major Surgery	50828	CPT-4 Procedure	
Major Surgery	50829	CPT-4 Procedure	
Major Surgery	50830	CPT-4 Procedure	
Major Surgery	50831	CPT-4 Procedure	
Major Surgery	50832	CPT-4 Procedure	
Major Surgery	50833	CPT-4 Procedure	
Major Surgery	50834	CPT-4 Procedure	
Major Surgery	50835	CPT-4 Procedure	
Major Surgery	50836	CPT-4 Procedure	
Major Surgery	50837	CPT-4 Procedure	
Major Surgery	50838	CPT-4 Procedure	
Major Surgery	50839	CPT-4 Procedure	
Major Surgery	50840	CPT-4 Procedure	
Major Surgery	50841	CPT-4 Procedure	
Major Surgery	50842	CPT-4 Procedure	
Major Surgery	50843	CPT-4 Procedure	
Major Surgery	50844	CPT-4 Procedure	
Major Surgery	50845	CPT-4 Procedure	
Major Surgery	50846	CPT-4 Procedure	
Major Surgery	50847	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50848	CPT-4 Procedure	
Major Surgery	50849	CPT-4 Procedure	
Major Surgery	50850	CPT-4 Procedure	
Major Surgery	50851	CPT-4 Procedure	
Major Surgery	50852	CPT-4 Procedure	
Major Surgery	50853	CPT-4 Procedure	
Major Surgery	50854	CPT-4 Procedure	
Major Surgery	50855	CPT-4 Procedure	
Major Surgery	50856	CPT-4 Procedure	
Major Surgery	50857	CPT-4 Procedure	
Major Surgery	50858	CPT-4 Procedure	
Major Surgery	50859	CPT-4 Procedure	
Major Surgery	50860	CPT-4 Procedure	
Major Surgery	50861	CPT-4 Procedure	
Major Surgery	50862	CPT-4 Procedure	
Major Surgery	50863	CPT-4 Procedure	
Major Surgery	50864	CPT-4 Procedure	
Major Surgery	50865	CPT-4 Procedure	
Major Surgery	50866	CPT-4 Procedure	
Major Surgery	50867	CPT-4 Procedure	
Major Surgery	50868	CPT-4 Procedure	
Major Surgery	50869	CPT-4 Procedure	
Major Surgery	50870	CPT-4 Procedure	
Major Surgery	50871	CPT-4 Procedure	
Major Surgery	50872	CPT-4 Procedure	
Major Surgery	50873	CPT-4 Procedure	
Major Surgery	50874	CPT-4 Procedure	
Major Surgery	50875	CPT-4 Procedure	
Major Surgery	50876	CPT-4 Procedure	
Major Surgery	50877	CPT-4 Procedure	
Major Surgery	50878	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50879	CPT-4 Procedure	
Major Surgery	50880	CPT-4 Procedure	
Major Surgery	50881	CPT-4 Procedure	
Major Surgery	50882	CPT-4 Procedure	
Major Surgery	50883	CPT-4 Procedure	
Major Surgery	50884	CPT-4 Procedure	
Major Surgery	50885	CPT-4 Procedure	
Major Surgery	50886	CPT-4 Procedure	
Major Surgery	50887	CPT-4 Procedure	
Major Surgery	50888	CPT-4 Procedure	
Major Surgery	50889	CPT-4 Procedure	
Major Surgery	50890	CPT-4 Procedure	
Major Surgery	50891	CPT-4 Procedure	
Major Surgery	50892	CPT-4 Procedure	
Major Surgery	50893	CPT-4 Procedure	
Major Surgery	50894	CPT-4 Procedure	
Major Surgery	50895	CPT-4 Procedure	
Major Surgery	50896	CPT-4 Procedure	
Major Surgery	50897	CPT-4 Procedure	
Major Surgery	50898	CPT-4 Procedure	
Major Surgery	50899	CPT-4 Procedure	
Major Surgery	50900	CPT-4 Procedure	
Major Surgery	50901	CPT-4 Procedure	
Major Surgery	50902	CPT-4 Procedure	
Major Surgery	50903	CPT-4 Procedure	
Major Surgery	50904	CPT-4 Procedure	
Major Surgery	50905	CPT-4 Procedure	
Major Surgery	50906	CPT-4 Procedure	
Major Surgery	50907	CPT-4 Procedure	
Major Surgery	50908	CPT-4 Procedure	
Major Surgery	50909	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	50910	CPT-4 Procedure	
Major Surgery	50911	CPT-4 Procedure	
Major Surgery	50912	CPT-4 Procedure	
Major Surgery	50913	CPT-4 Procedure	
Major Surgery	50914	CPT-4 Procedure	
Major Surgery	50915	CPT-4 Procedure	
Major Surgery	50916	CPT-4 Procedure	
Major Surgery	50917	CPT-4 Procedure	
Major Surgery	50918	CPT-4 Procedure	
Major Surgery	50919	CPT-4 Procedure	
Major Surgery	50920	CPT-4 Procedure	
Major Surgery	50921	CPT-4 Procedure	
Major Surgery	50922	CPT-4 Procedure	
Major Surgery	50923	CPT-4 Procedure	
Major Surgery	50924	CPT-4 Procedure	
Major Surgery	50925	CPT-4 Procedure	
Major Surgery	50926	CPT-4 Procedure	
Major Surgery	50927	CPT-4 Procedure	
Major Surgery	50928	CPT-4 Procedure	
Major Surgery	50929	CPT-4 Procedure	
Major Surgery	50930	CPT-4 Procedure	
Major Surgery	50931	CPT-4 Procedure	
Major Surgery	50932	CPT-4 Procedure	
Major Surgery	50933	CPT-4 Procedure	
Major Surgery	50934	CPT-4 Procedure	
Major Surgery	50935	CPT-4 Procedure	
Major Surgery	50936	CPT-4 Procedure	
Major Surgery	50937	CPT-4 Procedure	
Major Surgery	50938	CPT-4 Procedure	
Major Surgery	50939	CPT-4 Procedure	
Major Surgery	50940	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	51020	CPT-4 Procedure	
Major Surgery	51021	CPT-4 Procedure	
Major Surgery	51022	CPT-4 Procedure	
Major Surgery	51023	CPT-4 Procedure	
Major Surgery	51024	CPT-4 Procedure	
Major Surgery	51025	CPT-4 Procedure	
Major Surgery	51026	CPT-4 Procedure	
Major Surgery	51027	CPT-4 Procedure	
Major Surgery	51028	CPT-4 Procedure	
Major Surgery	51029	CPT-4 Procedure	
Major Surgery	51030	CPT-4 Procedure	
Major Surgery	51031	CPT-4 Procedure	
Major Surgery	51032	CPT-4 Procedure	
Major Surgery	51033	CPT-4 Procedure	
Major Surgery	51034	CPT-4 Procedure	
Major Surgery	51035	CPT-4 Procedure	
Major Surgery	51036	CPT-4 Procedure	
Major Surgery	51037	CPT-4 Procedure	
Major Surgery	51038	CPT-4 Procedure	
Major Surgery	51039	CPT-4 Procedure	
Major Surgery	51040	CPT-4 Procedure	
Major Surgery	51080	CPT-4 Procedure	
Major Surgery	53000	CPT-4 Procedure	
Major Surgery	53001	CPT-4 Procedure	
Major Surgery	53002	CPT-4 Procedure	
Major Surgery	53003	CPT-4 Procedure	
Major Surgery	53004	CPT-4 Procedure	
Major Surgery	53005	CPT-4 Procedure	
Major Surgery	53006	CPT-4 Procedure	
Major Surgery	53007	CPT-4 Procedure	
Major Surgery	53008	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Major Surgery	53009	CPT-4 Procedure	
Major Surgery	53010	CPT-4 Procedure	
Major Surgery	53011	CPT-4 Procedure	
Major Surgery	53012	CPT-4 Procedure	
Major Surgery	53013	CPT-4 Procedure	
Major Surgery	53014	CPT-4 Procedure	
Major Surgery	53015	CPT-4 Procedure	
Major Surgery	53016	CPT-4 Procedure	
Major Surgery	53017	CPT-4 Procedure	
Major Surgery	53018	CPT-4 Procedure	
Major Surgery	53019	CPT-4 Procedure	
Major Surgery	53020	CPT-4 Procedure	
Major Surgery	53021	CPT-4 Procedure	
Major Surgery	53022	CPT-4 Procedure	
Major Surgery	53023	CPT-4 Procedure	
Major Surgery	53024	CPT-4 Procedure	
Major Surgery	53025	CPT-4 Procedure	
Major Surgery	53026	CPT-4 Procedure	
Major Surgery	53027	CPT-4 Procedure	
Major Surgery	53028	CPT-4 Procedure	
Major Surgery	53029	CPT-4 Procedure	
Major Surgery	53030	CPT-4 Procedure	
Major Surgery	53031	CPT-4 Procedure	
Major Surgery	53032	CPT-4 Procedure	
Major Surgery	53033	CPT-4 Procedure	
Major Surgery	53034	CPT-4 Procedure	
Major Surgery	53035	CPT-4 Procedure	
Major Surgery	53036	CPT-4 Procedure	
Major Surgery	53037	CPT-4 Procedure	
Major Surgery	53038	CPT-4 Procedure	
Major Surgery	53039	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	53040	CPT-4 Procedure	
Major Surgery	53041	CPT-4 Procedure	
Major Surgery	53042	CPT-4 Procedure	
Major Surgery	53043	CPT-4 Procedure	
Major Surgery	53044	CPT-4 Procedure	
Major Surgery	53045	CPT-4 Procedure	
Major Surgery	53046	CPT-4 Procedure	
Major Surgery	53047	CPT-4 Procedure	
Major Surgery	53048	CPT-4 Procedure	
Major Surgery	53049	CPT-4 Procedure	
Major Surgery	53050	CPT-4 Procedure	
Major Surgery	53051	CPT-4 Procedure	
Major Surgery	53052	CPT-4 Procedure	
Major Surgery	53053	CPT-4 Procedure	
Major Surgery	53054	CPT-4 Procedure	
Major Surgery	53055	CPT-4 Procedure	
Major Surgery	53056	CPT-4 Procedure	
Major Surgery	53057	CPT-4 Procedure	
Major Surgery	53058	CPT-4 Procedure	
Major Surgery	53059	CPT-4 Procedure	
Major Surgery	53060	CPT-4 Procedure	
Major Surgery	53061	CPT-4 Procedure	
Major Surgery	53062	CPT-4 Procedure	
Major Surgery	53063	CPT-4 Procedure	
Major Surgery	53064	CPT-4 Procedure	
Major Surgery	53065	CPT-4 Procedure	
Major Surgery	53066	CPT-4 Procedure	
Major Surgery	53067	CPT-4 Procedure	
Major Surgery	53068	CPT-4 Procedure	
Major Surgery	53069	CPT-4 Procedure	
Major Surgery	53070	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	53071	CPT-4 Procedure	
Major Surgery	53072	CPT-4 Procedure	
Major Surgery	53073	CPT-4 Procedure	
Major Surgery	53074	CPT-4 Procedure	
Major Surgery	53075	CPT-4 Procedure	
Major Surgery	53076	CPT-4 Procedure	
Major Surgery	53077	CPT-4 Procedure	
Major Surgery	53078	CPT-4 Procedure	
Major Surgery	53079	CPT-4 Procedure	
Major Surgery	53080	CPT-4 Procedure	
Major Surgery	53081	CPT-4 Procedure	
Major Surgery	53082	CPT-4 Procedure	
Major Surgery	53083	CPT-4 Procedure	
Major Surgery	53084	CPT-4 Procedure	
Major Surgery	53085	CPT-4 Procedure	
Major Surgery	53210	CPT-4 Procedure	
Major Surgery	53211	CPT-4 Procedure	
Major Surgery	53212	CPT-4 Procedure	
Major Surgery	53213	CPT-4 Procedure	
Major Surgery	53214	CPT-4 Procedure	
Major Surgery	53215	CPT-4 Procedure	
Major Surgery	53216	CPT-4 Procedure	
Major Surgery	53217	CPT-4 Procedure	
Major Surgery	53218	CPT-4 Procedure	
Major Surgery	53219	CPT-4 Procedure	
Major Surgery	53220	CPT-4 Procedure	
Major Surgery	53221	CPT-4 Procedure	
Major Surgery	53222	CPT-4 Procedure	
Major Surgery	53223	CPT-4 Procedure	
Major Surgery	53224	CPT-4 Procedure	
Major Surgery	53225	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	53226	CPT-4 Procedure	
Major Surgery	53227	CPT-4 Procedure	
Major Surgery	53228	CPT-4 Procedure	
Major Surgery	53229	CPT-4 Procedure	
Major Surgery	53230	CPT-4 Procedure	
Major Surgery	53231	CPT-4 Procedure	
Major Surgery	53232	CPT-4 Procedure	
Major Surgery	53233	CPT-4 Procedure	
Major Surgery	53234	CPT-4 Procedure	
Major Surgery	53235	CPT-4 Procedure	
Major Surgery	53236	CPT-4 Procedure	
Major Surgery	53237	CPT-4 Procedure	
Major Surgery	53238	CPT-4 Procedure	
Major Surgery	53239	CPT-4 Procedure	
Major Surgery	53240	CPT-4 Procedure	
Major Surgery	53241	CPT-4 Procedure	
Major Surgery	53242	CPT-4 Procedure	
Major Surgery	53243	CPT-4 Procedure	
Major Surgery	53244	CPT-4 Procedure	
Major Surgery	53245	CPT-4 Procedure	
Major Surgery	53246	CPT-4 Procedure	
Major Surgery	53247	CPT-4 Procedure	
Major Surgery	53248	CPT-4 Procedure	
Major Surgery	53249	CPT-4 Procedure	
Major Surgery	53250	CPT-4 Procedure	
Major Surgery	53251	CPT-4 Procedure	
Major Surgery	53252	CPT-4 Procedure	
Major Surgery	53253	CPT-4 Procedure	
Major Surgery	53254	CPT-4 Procedure	
Major Surgery	53255	CPT-4 Procedure	
Major Surgery	53256	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	53257	CPT-4 Procedure	
Major Surgery	53258	CPT-4 Procedure	
Major Surgery	53259	CPT-4 Procedure	
Major Surgery	53260	CPT-4 Procedure	
Major Surgery	53261	CPT-4 Procedure	
Major Surgery	53262	CPT-4 Procedure	
Major Surgery	53263	CPT-4 Procedure	
Major Surgery	53264	CPT-4 Procedure	
Major Surgery	53265	CPT-4 Procedure	
Major Surgery	53266	CPT-4 Procedure	
Major Surgery	53267	CPT-4 Procedure	
Major Surgery	53268	CPT-4 Procedure	
Major Surgery	53269	CPT-4 Procedure	
Major Surgery	53270	CPT-4 Procedure	
Major Surgery	53271	CPT-4 Procedure	
Major Surgery	53272	CPT-4 Procedure	
Major Surgery	53273	CPT-4 Procedure	
Major Surgery	53274	CPT-4 Procedure	
Major Surgery	53275	CPT-4 Procedure	
Major Surgery	53400	CPT-4 Procedure	
Major Surgery	53401	CPT-4 Procedure	
Major Surgery	53402	CPT-4 Procedure	
Major Surgery	53403	CPT-4 Procedure	
Major Surgery	53404	CPT-4 Procedure	
Major Surgery	53405	CPT-4 Procedure	
Major Surgery	53406	CPT-4 Procedure	
Major Surgery	53407	CPT-4 Procedure	
Major Surgery	53408	CPT-4 Procedure	
Major Surgery	53409	CPT-4 Procedure	
Major Surgery	53410	CPT-4 Procedure	
Major Surgery	53411	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	53412	CPT-4 Procedure	
Major Surgery	53413	CPT-4 Procedure	
Major Surgery	53414	CPT-4 Procedure	
Major Surgery	53415	CPT-4 Procedure	
Major Surgery	53416	CPT-4 Procedure	
Major Surgery	53417	CPT-4 Procedure	
Major Surgery	53418	CPT-4 Procedure	
Major Surgery	53419	CPT-4 Procedure	
Major Surgery	53420	CPT-4 Procedure	
Major Surgery	53421	CPT-4 Procedure	
Major Surgery	53422	CPT-4 Procedure	
Major Surgery	53423	CPT-4 Procedure	
Major Surgery	53424	CPT-4 Procedure	
Major Surgery	53425	CPT-4 Procedure	
Major Surgery	53426	CPT-4 Procedure	
Major Surgery	53427	CPT-4 Procedure	
Major Surgery	53428	CPT-4 Procedure	
Major Surgery	53429	CPT-4 Procedure	
Major Surgery	53430	CPT-4 Procedure	
Major Surgery	53431	CPT-4 Procedure	
Major Surgery	53432	CPT-4 Procedure	
Major Surgery	53433	CPT-4 Procedure	
Major Surgery	53434	CPT-4 Procedure	
Major Surgery	53435	CPT-4 Procedure	
Major Surgery	53436	CPT-4 Procedure	
Major Surgery	53437	CPT-4 Procedure	
Major Surgery	53438	CPT-4 Procedure	
Major Surgery	53439	CPT-4 Procedure	
Major Surgery	53440	CPT-4 Procedure	
Major Surgery	53441	CPT-4 Procedure	
Major Surgery	53442	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	53443	CPT-4 Procedure	
Major Surgery	53444	CPT-4 Procedure	
Major Surgery	53445	CPT-4 Procedure	
Major Surgery	53446	CPT-4 Procedure	
Major Surgery	53447	CPT-4 Procedure	
Major Surgery	53448	CPT-4 Procedure	
Major Surgery	53449	CPT-4 Procedure	
Major Surgery	53450	CPT-4 Procedure	
Major Surgery	53451	CPT-4 Procedure	
Major Surgery	53452	CPT-4 Procedure	
Major Surgery	53453	CPT-4 Procedure	
Major Surgery	53454	CPT-4 Procedure	
Major Surgery	53455	CPT-4 Procedure	
Major Surgery	53456	CPT-4 Procedure	
Major Surgery	53457	CPT-4 Procedure	
Major Surgery	53458	CPT-4 Procedure	
Major Surgery	53459	CPT-4 Procedure	
Major Surgery	53460	CPT-4 Procedure	
Major Surgery	53461	CPT-4 Procedure	
Major Surgery	53462	CPT-4 Procedure	
Major Surgery	53463	CPT-4 Procedure	
Major Surgery	53464	CPT-4 Procedure	
Major Surgery	53465	CPT-4 Procedure	
Major Surgery	53466	CPT-4 Procedure	
Major Surgery	53467	CPT-4 Procedure	
Major Surgery	53468	CPT-4 Procedure	
Major Surgery	53469	CPT-4 Procedure	
Major Surgery	53470	CPT-4 Procedure	
Major Surgery	53471	CPT-4 Procedure	
Major Surgery	53472	CPT-4 Procedure	
Major Surgery	53473	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	53474	CPT-4 Procedure	
Major Surgery	53475	CPT-4 Procedure	
Major Surgery	53476	CPT-4 Procedure	
Major Surgery	53477	CPT-4 Procedure	
Major Surgery	53478	CPT-4 Procedure	
Major Surgery	53479	CPT-4 Procedure	
Major Surgery	53480	CPT-4 Procedure	
Major Surgery	53481	CPT-4 Procedure	
Major Surgery	53482	CPT-4 Procedure	
Major Surgery	53483	CPT-4 Procedure	
Major Surgery	53484	CPT-4 Procedure	
Major Surgery	53485	CPT-4 Procedure	
Major Surgery	53486	CPT-4 Procedure	
Major Surgery	53487	CPT-4 Procedure	
Major Surgery	53488	CPT-4 Procedure	
Major Surgery	53489	CPT-4 Procedure	
Major Surgery	53490	CPT-4 Procedure	
Major Surgery	53491	CPT-4 Procedure	
Major Surgery	53492	CPT-4 Procedure	
Major Surgery	53493	CPT-4 Procedure	
Major Surgery	53494	CPT-4 Procedure	
Major Surgery	53495	CPT-4 Procedure	
Major Surgery	53496	CPT-4 Procedure	
Major Surgery	53497	CPT-4 Procedure	
Major Surgery	53498	CPT-4 Procedure	
Major Surgery	53499	CPT-4 Procedure	
Major Surgery	53500	CPT-4 Procedure	
Major Surgery	53501	CPT-4 Procedure	
Major Surgery	53502	CPT-4 Procedure	
Major Surgery	53503	CPT-4 Procedure	
Major Surgery	53504	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	53505	CPT-4 Procedure	
Major Surgery	53506	CPT-4 Procedure	
Major Surgery	53507	CPT-4 Procedure	
Major Surgery	53508	CPT-4 Procedure	
Major Surgery	53509	CPT-4 Procedure	
Major Surgery	53510	CPT-4 Procedure	
Major Surgery	53511	CPT-4 Procedure	
Major Surgery	53512	CPT-4 Procedure	
Major Surgery	53513	CPT-4 Procedure	
Major Surgery	53514	CPT-4 Procedure	
Major Surgery	53515	CPT-4 Procedure	
Major Surgery	53516	CPT-4 Procedure	
Major Surgery	53517	CPT-4 Procedure	
Major Surgery	53518	CPT-4 Procedure	
Major Surgery	53519	CPT-4 Procedure	
Major Surgery	53520	CPT-4 Procedure	
Major Surgery	53855	CPT-4 Procedure	
Major Surgery	56620	CPT-4 Procedure	
Major Surgery	56621	CPT-4 Procedure	
Major Surgery	56622	CPT-4 Procedure	
Major Surgery	56623	CPT-4 Procedure	
Major Surgery	56624	CPT-4 Procedure	
Major Surgery	56625	CPT-4 Procedure	
Major Surgery	56626	CPT-4 Procedure	
Major Surgery	56627	CPT-4 Procedure	
Major Surgery	56628	CPT-4 Procedure	
Major Surgery	56629	CPT-4 Procedure	
Major Surgery	56630	CPT-4 Procedure	
Major Surgery	56631	CPT-4 Procedure	
Major Surgery	56632	CPT-4 Procedure	
Major Surgery	56633	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	56634	CPT-4 Procedure	
Major Surgery	56635	CPT-4 Procedure	
Major Surgery	56636	CPT-4 Procedure	
Major Surgery	56637	CPT-4 Procedure	
Major Surgery	56638	CPT-4 Procedure	
Major Surgery	56639	CPT-4 Procedure	
Major Surgery	56640	CPT-4 Procedure	
Major Surgery	56641	CPT-4 Procedure	
Major Surgery	56642	CPT-4 Procedure	
Major Surgery	56643	CPT-4 Procedure	
Major Surgery	56644	CPT-4 Procedure	
Major Surgery	56645	CPT-4 Procedure	
Major Surgery	56646	CPT-4 Procedure	
Major Surgery	56647	CPT-4 Procedure	
Major Surgery	56648	CPT-4 Procedure	
Major Surgery	56649	CPT-4 Procedure	
Major Surgery	56650	CPT-4 Procedure	
Major Surgery	56651	CPT-4 Procedure	
Major Surgery	56652	CPT-4 Procedure	
Major Surgery	56653	CPT-4 Procedure	
Major Surgery	56654	CPT-4 Procedure	
Major Surgery	56655	CPT-4 Procedure	
Major Surgery	56656	CPT-4 Procedure	
Major Surgery	56657	CPT-4 Procedure	
Major Surgery	56658	CPT-4 Procedure	
Major Surgery	56659	CPT-4 Procedure	
Major Surgery	56660	CPT-4 Procedure	
Major Surgery	56661	CPT-4 Procedure	
Major Surgery	56662	CPT-4 Procedure	
Major Surgery	56663	CPT-4 Procedure	
Major Surgery	56664	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	56665	CPT-4 Procedure	
Major Surgery	56666	CPT-4 Procedure	
Major Surgery	56667	CPT-4 Procedure	
Major Surgery	56668	CPT-4 Procedure	
Major Surgery	56669	CPT-4 Procedure	
Major Surgery	56670	CPT-4 Procedure	
Major Surgery	56671	CPT-4 Procedure	
Major Surgery	56672	CPT-4 Procedure	
Major Surgery	56673	CPT-4 Procedure	
Major Surgery	56674	CPT-4 Procedure	
Major Surgery	56675	CPT-4 Procedure	
Major Surgery	56676	CPT-4 Procedure	
Major Surgery	56677	CPT-4 Procedure	
Major Surgery	56678	CPT-4 Procedure	
Major Surgery	56679	CPT-4 Procedure	
Major Surgery	56680	CPT-4 Procedure	
Major Surgery	56681	CPT-4 Procedure	
Major Surgery	56682	CPT-4 Procedure	
Major Surgery	56683	CPT-4 Procedure	
Major Surgery	56684	CPT-4 Procedure	
Major Surgery	56685	CPT-4 Procedure	
Major Surgery	56686	CPT-4 Procedure	
Major Surgery	56687	CPT-4 Procedure	
Major Surgery	56688	CPT-4 Procedure	
Major Surgery	56689	CPT-4 Procedure	
Major Surgery	56690	CPT-4 Procedure	
Major Surgery	56691	CPT-4 Procedure	
Major Surgery	56692	CPT-4 Procedure	
Major Surgery	56693	CPT-4 Procedure	
Major Surgery	56694	CPT-4 Procedure	
Major Surgery	56695	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	56696	CPT-4 Procedure	
Major Surgery	56697	CPT-4 Procedure	
Major Surgery	56698	CPT-4 Procedure	
Major Surgery	56699	CPT-4 Procedure	
Major Surgery	56700	CPT-4 Procedure	
Major Surgery	56701	CPT-4 Procedure	
Major Surgery	56702	CPT-4 Procedure	
Major Surgery	56703	CPT-4 Procedure	
Major Surgery	56704	CPT-4 Procedure	
Major Surgery	56705	CPT-4 Procedure	
Major Surgery	56706	CPT-4 Procedure	
Major Surgery	56707	CPT-4 Procedure	
Major Surgery	56708	CPT-4 Procedure	
Major Surgery	56709	CPT-4 Procedure	
Major Surgery	56710	CPT-4 Procedure	
Major Surgery	56711	CPT-4 Procedure	
Major Surgery	56712	CPT-4 Procedure	
Major Surgery	56713	CPT-4 Procedure	
Major Surgery	56714	CPT-4 Procedure	
Major Surgery	56715	CPT-4 Procedure	
Major Surgery	56716	CPT-4 Procedure	
Major Surgery	56717	CPT-4 Procedure	
Major Surgery	56718	CPT-4 Procedure	
Major Surgery	56719	CPT-4 Procedure	
Major Surgery	56720	CPT-4 Procedure	
Major Surgery	56721	CPT-4 Procedure	
Major Surgery	56722	CPT-4 Procedure	
Major Surgery	56723	CPT-4 Procedure	
Major Surgery	56724	CPT-4 Procedure	
Major Surgery	56725	CPT-4 Procedure	
Major Surgery	56726	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	56727	CPT-4 Procedure	
Major Surgery	56728	CPT-4 Procedure	
Major Surgery	56729	CPT-4 Procedure	
Major Surgery	56730	CPT-4 Procedure	
Major Surgery	56731	CPT-4 Procedure	
Major Surgery	56732	CPT-4 Procedure	
Major Surgery	56733	CPT-4 Procedure	
Major Surgery	56734	CPT-4 Procedure	
Major Surgery	56735	CPT-4 Procedure	
Major Surgery	56736	CPT-4 Procedure	
Major Surgery	56737	CPT-4 Procedure	
Major Surgery	56738	CPT-4 Procedure	
Major Surgery	56739	CPT-4 Procedure	
Major Surgery	56740	CPT-4 Procedure	
Major Surgery	56800	CPT-4 Procedure	
Major Surgery	56801	CPT-4 Procedure	
Major Surgery	56802	CPT-4 Procedure	
Major Surgery	56803	CPT-4 Procedure	
Major Surgery	56804	CPT-4 Procedure	
Major Surgery	56805	CPT-4 Procedure	
Major Surgery	56806	CPT-4 Procedure	
Major Surgery	56807	CPT-4 Procedure	
Major Surgery	56808	CPT-4 Procedure	
Major Surgery	56809	CPT-4 Procedure	
Major Surgery	56810	CPT-4 Procedure	
Major Surgery	57000	CPT-4 Procedure	
Major Surgery	57001	CPT-4 Procedure	
Major Surgery	57002	CPT-4 Procedure	
Major Surgery	57003	CPT-4 Procedure	
Major Surgery	57004	CPT-4 Procedure	
Major Surgery	57005	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57006	CPT-4 Procedure	
Major Surgery	57007	CPT-4 Procedure	
Major Surgery	57008	CPT-4 Procedure	
Major Surgery	57009	CPT-4 Procedure	
Major Surgery	57010	CPT-4 Procedure	
Major Surgery	57011	CPT-4 Procedure	
Major Surgery	57012	CPT-4 Procedure	
Major Surgery	57013	CPT-4 Procedure	
Major Surgery	57014	CPT-4 Procedure	
Major Surgery	57015	CPT-4 Procedure	
Major Surgery	57016	CPT-4 Procedure	
Major Surgery	57017	CPT-4 Procedure	
Major Surgery	57018	CPT-4 Procedure	
Major Surgery	57019	CPT-4 Procedure	
Major Surgery	57020	CPT-4 Procedure	
Major Surgery	57021	CPT-4 Procedure	
Major Surgery	57022	CPT-4 Procedure	
Major Surgery	57023	CPT-4 Procedure	
Major Surgery	57024	CPT-4 Procedure	
Major Surgery	57025	CPT-4 Procedure	
Major Surgery	57026	CPT-4 Procedure	
Major Surgery	57027	CPT-4 Procedure	
Major Surgery	57028	CPT-4 Procedure	
Major Surgery	57029	CPT-4 Procedure	
Major Surgery	57030	CPT-4 Procedure	
Major Surgery	57031	CPT-4 Procedure	
Major Surgery	57032	CPT-4 Procedure	
Major Surgery	57033	CPT-4 Procedure	
Major Surgery	57034	CPT-4 Procedure	
Major Surgery	57035	CPT-4 Procedure	
Major Surgery	57036	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57037	CPT-4 Procedure	
Major Surgery	57038	CPT-4 Procedure	
Major Surgery	57039	CPT-4 Procedure	
Major Surgery	57040	CPT-4 Procedure	
Major Surgery	57041	CPT-4 Procedure	
Major Surgery	57042	CPT-4 Procedure	
Major Surgery	57043	CPT-4 Procedure	
Major Surgery	57044	CPT-4 Procedure	
Major Surgery	57045	CPT-4 Procedure	
Major Surgery	57046	CPT-4 Procedure	
Major Surgery	57047	CPT-4 Procedure	
Major Surgery	57048	CPT-4 Procedure	
Major Surgery	57049	CPT-4 Procedure	
Major Surgery	57050	CPT-4 Procedure	
Major Surgery	57051	CPT-4 Procedure	
Major Surgery	57052	CPT-4 Procedure	
Major Surgery	57053	CPT-4 Procedure	
Major Surgery	57054	CPT-4 Procedure	
Major Surgery	57055	CPT-4 Procedure	
Major Surgery	57056	CPT-4 Procedure	
Major Surgery	57057	CPT-4 Procedure	
Major Surgery	57058	CPT-4 Procedure	
Major Surgery	57059	CPT-4 Procedure	
Major Surgery	57060	CPT-4 Procedure	
Major Surgery	57061	CPT-4 Procedure	
Major Surgery	57062	CPT-4 Procedure	
Major Surgery	57063	CPT-4 Procedure	
Major Surgery	57064	CPT-4 Procedure	
Major Surgery	57065	CPT-4 Procedure	
Major Surgery	57066	CPT-4 Procedure	
Major Surgery	57067	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57068	CPT-4 Procedure	
Major Surgery	57069	CPT-4 Procedure	
Major Surgery	57070	CPT-4 Procedure	
Major Surgery	57071	CPT-4 Procedure	
Major Surgery	57072	CPT-4 Procedure	
Major Surgery	57073	CPT-4 Procedure	
Major Surgery	57074	CPT-4 Procedure	
Major Surgery	57075	CPT-4 Procedure	
Major Surgery	57076	CPT-4 Procedure	
Major Surgery	57077	CPT-4 Procedure	
Major Surgery	57078	CPT-4 Procedure	
Major Surgery	57079	CPT-4 Procedure	
Major Surgery	57080	CPT-4 Procedure	
Major Surgery	57081	CPT-4 Procedure	
Major Surgery	57082	CPT-4 Procedure	
Major Surgery	57083	CPT-4 Procedure	
Major Surgery	57084	CPT-4 Procedure	
Major Surgery	57085	CPT-4 Procedure	
Major Surgery	57086	CPT-4 Procedure	
Major Surgery	57087	CPT-4 Procedure	
Major Surgery	57088	CPT-4 Procedure	
Major Surgery	57089	CPT-4 Procedure	
Major Surgery	57090	CPT-4 Procedure	
Major Surgery	57091	CPT-4 Procedure	
Major Surgery	57092	CPT-4 Procedure	
Major Surgery	57093	CPT-4 Procedure	
Major Surgery	57094	CPT-4 Procedure	
Major Surgery	57095	CPT-4 Procedure	
Major Surgery	57096	CPT-4 Procedure	
Major Surgery	57097	CPT-4 Procedure	
Major Surgery	57098	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Major Surgery	57099	CPT-4 Procedure	
Major Surgery	57100	CPT-4 Procedure	
Major Surgery	57101	CPT-4 Procedure	
Major Surgery	57102	CPT-4 Procedure	
Major Surgery	57103	CPT-4 Procedure	
Major Surgery	57104	CPT-4 Procedure	
Major Surgery	57105	CPT-4 Procedure	
Major Surgery	57106	CPT-4 Procedure	
Major Surgery	57107	CPT-4 Procedure	
Major Surgery	57108	CPT-4 Procedure	
Major Surgery	57109	CPT-4 Procedure	
Major Surgery	57110	CPT-4 Procedure	
Major Surgery	57111	CPT-4 Procedure	
Major Surgery	57112	CPT-4 Procedure	
Major Surgery	57113	CPT-4 Procedure	
Major Surgery	57114	CPT-4 Procedure	
Major Surgery	57115	CPT-4 Procedure	
Major Surgery	57116	CPT-4 Procedure	
Major Surgery	57117	CPT-4 Procedure	
Major Surgery	57118	CPT-4 Procedure	
Major Surgery	57119	CPT-4 Procedure	
Major Surgery	57120	CPT-4 Procedure	
Major Surgery	57121	CPT-4 Procedure	
Major Surgery	57122	CPT-4 Procedure	
Major Surgery	57123	CPT-4 Procedure	
Major Surgery	57124	CPT-4 Procedure	
Major Surgery	57125	CPT-4 Procedure	
Major Surgery	57126	CPT-4 Procedure	
Major Surgery	57127	CPT-4 Procedure	
Major Surgery	57128	CPT-4 Procedure	
Major Surgery	57129	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57130	CPT-4 Procedure	
Major Surgery	57131	CPT-4 Procedure	
Major Surgery	57132	CPT-4 Procedure	
Major Surgery	57133	CPT-4 Procedure	
Major Surgery	57134	CPT-4 Procedure	
Major Surgery	57135	CPT-4 Procedure	
Major Surgery	57136	CPT-4 Procedure	
Major Surgery	57137	CPT-4 Procedure	
Major Surgery	57138	CPT-4 Procedure	
Major Surgery	57139	CPT-4 Procedure	
Major Surgery	57140	CPT-4 Procedure	
Major Surgery	57141	CPT-4 Procedure	
Major Surgery	57142	CPT-4 Procedure	
Major Surgery	57143	CPT-4 Procedure	
Major Surgery	57144	CPT-4 Procedure	
Major Surgery	57145	CPT-4 Procedure	
Major Surgery	57146	CPT-4 Procedure	
Major Surgery	57147	CPT-4 Procedure	
Major Surgery	57148	CPT-4 Procedure	
Major Surgery	57149	CPT-4 Procedure	
Major Surgery	57150	CPT-4 Procedure	
Major Surgery	57151	CPT-4 Procedure	
Major Surgery	57152	CPT-4 Procedure	
Major Surgery	57153	CPT-4 Procedure	
Major Surgery	57154	CPT-4 Procedure	
Major Surgery	57155	CPT-4 Procedure	
Major Surgery	57156	CPT-4 Procedure	
Major Surgery	57157	CPT-4 Procedure	
Major Surgery	57158	CPT-4 Procedure	
Major Surgery	57159	CPT-4 Procedure	
Major Surgery	57160	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57161	CPT-4 Procedure	
Major Surgery	57162	CPT-4 Procedure	
Major Surgery	57163	CPT-4 Procedure	
Major Surgery	57164	CPT-4 Procedure	
Major Surgery	57165	CPT-4 Procedure	
Major Surgery	57166	CPT-4 Procedure	
Major Surgery	57167	CPT-4 Procedure	
Major Surgery	57168	CPT-4 Procedure	
Major Surgery	57169	CPT-4 Procedure	
Major Surgery	57170	CPT-4 Procedure	
Major Surgery	57171	CPT-4 Procedure	
Major Surgery	57172	CPT-4 Procedure	
Major Surgery	57173	CPT-4 Procedure	
Major Surgery	57174	CPT-4 Procedure	
Major Surgery	57175	CPT-4 Procedure	
Major Surgery	57176	CPT-4 Procedure	
Major Surgery	57177	CPT-4 Procedure	
Major Surgery	57178	CPT-4 Procedure	
Major Surgery	57179	CPT-4 Procedure	
Major Surgery	57180	CPT-4 Procedure	
Major Surgery	57181	CPT-4 Procedure	
Major Surgery	57182	CPT-4 Procedure	
Major Surgery	57183	CPT-4 Procedure	
Major Surgery	57184	CPT-4 Procedure	
Major Surgery	57185	CPT-4 Procedure	
Major Surgery	57186	CPT-4 Procedure	
Major Surgery	57187	CPT-4 Procedure	
Major Surgery	57188	CPT-4 Procedure	
Major Surgery	57189	CPT-4 Procedure	
Major Surgery	57190	CPT-4 Procedure	
Major Surgery	57191	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57192	CPT-4 Procedure	
Major Surgery	57193	CPT-4 Procedure	
Major Surgery	57194	CPT-4 Procedure	
Major Surgery	57195	CPT-4 Procedure	
Major Surgery	57196	CPT-4 Procedure	
Major Surgery	57197	CPT-4 Procedure	
Major Surgery	57198	CPT-4 Procedure	
Major Surgery	57199	CPT-4 Procedure	
Major Surgery	57200	CPT-4 Procedure	
Major Surgery	57201	CPT-4 Procedure	
Major Surgery	57202	CPT-4 Procedure	
Major Surgery	57203	CPT-4 Procedure	
Major Surgery	57204	CPT-4 Procedure	
Major Surgery	57205	CPT-4 Procedure	
Major Surgery	57206	CPT-4 Procedure	
Major Surgery	57207	CPT-4 Procedure	
Major Surgery	57208	CPT-4 Procedure	
Major Surgery	57209	CPT-4 Procedure	
Major Surgery	57210	CPT-4 Procedure	
Major Surgery	57211	CPT-4 Procedure	
Major Surgery	57212	CPT-4 Procedure	
Major Surgery	57213	CPT-4 Procedure	
Major Surgery	57214	CPT-4 Procedure	
Major Surgery	57215	CPT-4 Procedure	
Major Surgery	57216	CPT-4 Procedure	
Major Surgery	57217	CPT-4 Procedure	
Major Surgery	57218	CPT-4 Procedure	
Major Surgery	57219	CPT-4 Procedure	
Major Surgery	57220	CPT-4 Procedure	
Major Surgery	57221	CPT-4 Procedure	
Major Surgery	57222	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57223	CPT-4 Procedure	
Major Surgery	57224	CPT-4 Procedure	
Major Surgery	57225	CPT-4 Procedure	
Major Surgery	57226	CPT-4 Procedure	
Major Surgery	57227	CPT-4 Procedure	
Major Surgery	57228	CPT-4 Procedure	
Major Surgery	57229	CPT-4 Procedure	
Major Surgery	57230	CPT-4 Procedure	
Major Surgery	57231	CPT-4 Procedure	
Major Surgery	57232	CPT-4 Procedure	
Major Surgery	57233	CPT-4 Procedure	
Major Surgery	57234	CPT-4 Procedure	
Major Surgery	57235	CPT-4 Procedure	
Major Surgery	57236	CPT-4 Procedure	
Major Surgery	57237	CPT-4 Procedure	
Major Surgery	57238	CPT-4 Procedure	
Major Surgery	57239	CPT-4 Procedure	
Major Surgery	57240	CPT-4 Procedure	
Major Surgery	57241	CPT-4 Procedure	
Major Surgery	57242	CPT-4 Procedure	
Major Surgery	57243	CPT-4 Procedure	
Major Surgery	57244	CPT-4 Procedure	
Major Surgery	57245	CPT-4 Procedure	
Major Surgery	57246	CPT-4 Procedure	
Major Surgery	57247	CPT-4 Procedure	
Major Surgery	57248	CPT-4 Procedure	
Major Surgery	57249	CPT-4 Procedure	
Major Surgery	57250	CPT-4 Procedure	
Major Surgery	57251	CPT-4 Procedure	
Major Surgery	57252	CPT-4 Procedure	
Major Surgery	57253	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57254	CPT-4 Procedure	
Major Surgery	57255	CPT-4 Procedure	
Major Surgery	57256	CPT-4 Procedure	
Major Surgery	57257	CPT-4 Procedure	
Major Surgery	57258	CPT-4 Procedure	
Major Surgery	57259	CPT-4 Procedure	
Major Surgery	57260	CPT-4 Procedure	
Major Surgery	57261	CPT-4 Procedure	
Major Surgery	57262	CPT-4 Procedure	
Major Surgery	57263	CPT-4 Procedure	
Major Surgery	57264	CPT-4 Procedure	
Major Surgery	57265	CPT-4 Procedure	
Major Surgery	57266	CPT-4 Procedure	
Major Surgery	57267	CPT-4 Procedure	
Major Surgery	57268	CPT-4 Procedure	
Major Surgery	57269	CPT-4 Procedure	
Major Surgery	57270	CPT-4 Procedure	
Major Surgery	57271	CPT-4 Procedure	
Major Surgery	57272	CPT-4 Procedure	
Major Surgery	57273	CPT-4 Procedure	
Major Surgery	57274	CPT-4 Procedure	
Major Surgery	57275	CPT-4 Procedure	
Major Surgery	57276	CPT-4 Procedure	
Major Surgery	57277	CPT-4 Procedure	
Major Surgery	57278	CPT-4 Procedure	
Major Surgery	57279	CPT-4 Procedure	
Major Surgery	57280	CPT-4 Procedure	
Major Surgery	57281	CPT-4 Procedure	
Major Surgery	57282	CPT-4 Procedure	
Major Surgery	57283	CPT-4 Procedure	
Major Surgery	57284	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57285	CPT-4 Procedure	
Major Surgery	57286	CPT-4 Procedure	
Major Surgery	57287	CPT-4 Procedure	
Major Surgery	57288	CPT-4 Procedure	
Major Surgery	57289	CPT-4 Procedure	
Major Surgery	57290	CPT-4 Procedure	
Major Surgery	57291	CPT-4 Procedure	
Major Surgery	57292	CPT-4 Procedure	
Major Surgery	57293	CPT-4 Procedure	
Major Surgery	57294	CPT-4 Procedure	
Major Surgery	57295	CPT-4 Procedure	
Major Surgery	57296	CPT-4 Procedure	
Major Surgery	57297	CPT-4 Procedure	
Major Surgery	57298	CPT-4 Procedure	
Major Surgery	57299	CPT-4 Procedure	
Major Surgery	57300	CPT-4 Procedure	
Major Surgery	57301	CPT-4 Procedure	
Major Surgery	57302	CPT-4 Procedure	
Major Surgery	57303	CPT-4 Procedure	
Major Surgery	57304	CPT-4 Procedure	
Major Surgery	57305	CPT-4 Procedure	
Major Surgery	57306	CPT-4 Procedure	
Major Surgery	57307	CPT-4 Procedure	
Major Surgery	57308	CPT-4 Procedure	
Major Surgery	57309	CPT-4 Procedure	
Major Surgery	57310	CPT-4 Procedure	
Major Surgery	57311	CPT-4 Procedure	
Major Surgery	57312	CPT-4 Procedure	
Major Surgery	57313	CPT-4 Procedure	
Major Surgery	57314	CPT-4 Procedure	
Major Surgery	57315	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57316	CPT-4 Procedure	
Major Surgery	57317	CPT-4 Procedure	
Major Surgery	57318	CPT-4 Procedure	
Major Surgery	57319	CPT-4 Procedure	
Major Surgery	57320	CPT-4 Procedure	
Major Surgery	57321	CPT-4 Procedure	
Major Surgery	57322	CPT-4 Procedure	
Major Surgery	57323	CPT-4 Procedure	
Major Surgery	57324	CPT-4 Procedure	
Major Surgery	57325	CPT-4 Procedure	
Major Surgery	57326	CPT-4 Procedure	
Major Surgery	57327	CPT-4 Procedure	
Major Surgery	57328	CPT-4 Procedure	
Major Surgery	57329	CPT-4 Procedure	
Major Surgery	57330	CPT-4 Procedure	
Major Surgery	57331	CPT-4 Procedure	
Major Surgery	57332	CPT-4 Procedure	
Major Surgery	57333	CPT-4 Procedure	
Major Surgery	57334	CPT-4 Procedure	
Major Surgery	57335	CPT-4 Procedure	
Major Surgery	57530	CPT-4 Procedure	
Major Surgery	57531	CPT-4 Procedure	
Major Surgery	57532	CPT-4 Procedure	
Major Surgery	57533	CPT-4 Procedure	
Major Surgery	57534	CPT-4 Procedure	
Major Surgery	57535	CPT-4 Procedure	
Major Surgery	57536	CPT-4 Procedure	
Major Surgery	57537	CPT-4 Procedure	
Major Surgery	57538	CPT-4 Procedure	
Major Surgery	57539	CPT-4 Procedure	
Major Surgery	57540	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	57541	CPT-4 Procedure	
Major Surgery	57542	CPT-4 Procedure	
Major Surgery	57543	CPT-4 Procedure	
Major Surgery	57544	CPT-4 Procedure	
Major Surgery	57545	CPT-4 Procedure	
Major Surgery	57546	CPT-4 Procedure	
Major Surgery	57547	CPT-4 Procedure	
Major Surgery	57548	CPT-4 Procedure	
Major Surgery	57549	CPT-4 Procedure	
Major Surgery	57550	CPT-4 Procedure	
Major Surgery	57551	CPT-4 Procedure	
Major Surgery	57552	CPT-4 Procedure	
Major Surgery	57553	CPT-4 Procedure	
Major Surgery	57554	CPT-4 Procedure	
Major Surgery	57555	CPT-4 Procedure	
Major Surgery	57556	CPT-4 Procedure	
Major Surgery	57720	CPT-4 Procedure	
Major Surgery	58140	CPT-4 Procedure	
Major Surgery	58141	CPT-4 Procedure	
Major Surgery	58142	CPT-4 Procedure	
Major Surgery	58143	CPT-4 Procedure	
Major Surgery	58144	CPT-4 Procedure	
Major Surgery	58145	CPT-4 Procedure	
Major Surgery	58146	CPT-4 Procedure	
Major Surgery	58150	CPT-4 Procedure	
Major Surgery	58151	CPT-4 Procedure	
Major Surgery	58152	CPT-4 Procedure	
Major Surgery	58153	CPT-4 Procedure	
Major Surgery	58154	CPT-4 Procedure	
Major Surgery	58155	CPT-4 Procedure	
Major Surgery	58156	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58157	CPT-4 Procedure	
Major Surgery	58158	CPT-4 Procedure	
Major Surgery	58159	CPT-4 Procedure	
Major Surgery	58160	CPT-4 Procedure	
Major Surgery	58161	CPT-4 Procedure	
Major Surgery	58162	CPT-4 Procedure	
Major Surgery	58163	CPT-4 Procedure	
Major Surgery	58164	CPT-4 Procedure	
Major Surgery	58165	CPT-4 Procedure	
Major Surgery	58166	CPT-4 Procedure	
Major Surgery	58167	CPT-4 Procedure	
Major Surgery	58168	CPT-4 Procedure	
Major Surgery	58169	CPT-4 Procedure	
Major Surgery	58170	CPT-4 Procedure	
Major Surgery	58171	CPT-4 Procedure	
Major Surgery	58172	CPT-4 Procedure	
Major Surgery	58173	CPT-4 Procedure	
Major Surgery	58174	CPT-4 Procedure	
Major Surgery	58175	CPT-4 Procedure	
Major Surgery	58176	CPT-4 Procedure	
Major Surgery	58177	CPT-4 Procedure	
Major Surgery	58178	CPT-4 Procedure	
Major Surgery	58179	CPT-4 Procedure	
Major Surgery	58180	CPT-4 Procedure	
Major Surgery	58181	CPT-4 Procedure	
Major Surgery	58182	CPT-4 Procedure	
Major Surgery	58183	CPT-4 Procedure	
Major Surgery	58184	CPT-4 Procedure	
Major Surgery	58185	CPT-4 Procedure	
Major Surgery	58186	CPT-4 Procedure	
Major Surgery	58187	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58188	CPT-4 Procedure	
Major Surgery	58189	CPT-4 Procedure	
Major Surgery	58190	CPT-4 Procedure	
Major Surgery	58191	CPT-4 Procedure	
Major Surgery	58192	CPT-4 Procedure	
Major Surgery	58193	CPT-4 Procedure	
Major Surgery	58194	CPT-4 Procedure	
Major Surgery	58195	CPT-4 Procedure	
Major Surgery	58196	CPT-4 Procedure	
Major Surgery	58197	CPT-4 Procedure	
Major Surgery	58198	CPT-4 Procedure	
Major Surgery	58199	CPT-4 Procedure	
Major Surgery	58200	CPT-4 Procedure	
Major Surgery	58201	CPT-4 Procedure	
Major Surgery	58202	CPT-4 Procedure	
Major Surgery	58203	CPT-4 Procedure	
Major Surgery	58204	CPT-4 Procedure	
Major Surgery	58205	CPT-4 Procedure	
Major Surgery	58206	CPT-4 Procedure	
Major Surgery	58207	CPT-4 Procedure	
Major Surgery	58208	CPT-4 Procedure	
Major Surgery	58209	CPT-4 Procedure	
Major Surgery	58210	CPT-4 Procedure	
Major Surgery	58211	CPT-4 Procedure	
Major Surgery	58212	CPT-4 Procedure	
Major Surgery	58213	CPT-4 Procedure	
Major Surgery	58214	CPT-4 Procedure	
Major Surgery	58215	CPT-4 Procedure	
Major Surgery	58216	CPT-4 Procedure	
Major Surgery	58217	CPT-4 Procedure	
Major Surgery	58218	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58219	CPT-4 Procedure	
Major Surgery	58220	CPT-4 Procedure	
Major Surgery	58221	CPT-4 Procedure	
Major Surgery	58222	CPT-4 Procedure	
Major Surgery	58223	CPT-4 Procedure	
Major Surgery	58224	CPT-4 Procedure	
Major Surgery	58225	CPT-4 Procedure	
Major Surgery	58226	CPT-4 Procedure	
Major Surgery	58227	CPT-4 Procedure	
Major Surgery	58228	CPT-4 Procedure	
Major Surgery	58229	CPT-4 Procedure	
Major Surgery	58230	CPT-4 Procedure	
Major Surgery	58231	CPT-4 Procedure	
Major Surgery	58232	CPT-4 Procedure	
Major Surgery	58233	CPT-4 Procedure	
Major Surgery	58234	CPT-4 Procedure	
Major Surgery	58235	CPT-4 Procedure	
Major Surgery	58236	CPT-4 Procedure	
Major Surgery	58237	CPT-4 Procedure	
Major Surgery	58238	CPT-4 Procedure	
Major Surgery	58239	CPT-4 Procedure	
Major Surgery	58240	CPT-4 Procedure	
Major Surgery	58241	CPT-4 Procedure	
Major Surgery	58242	CPT-4 Procedure	
Major Surgery	58243	CPT-4 Procedure	
Major Surgery	58244	CPT-4 Procedure	
Major Surgery	58245	CPT-4 Procedure	
Major Surgery	58246	CPT-4 Procedure	
Major Surgery	58247	CPT-4 Procedure	
Major Surgery	58248	CPT-4 Procedure	
Major Surgery	58249	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58250	CPT-4 Procedure	
Major Surgery	58251	CPT-4 Procedure	
Major Surgery	58252	CPT-4 Procedure	
Major Surgery	58253	CPT-4 Procedure	
Major Surgery	58254	CPT-4 Procedure	
Major Surgery	58255	CPT-4 Procedure	
Major Surgery	58256	CPT-4 Procedure	
Major Surgery	58257	CPT-4 Procedure	
Major Surgery	58258	CPT-4 Procedure	
Major Surgery	58259	CPT-4 Procedure	
Major Surgery	58260	CPT-4 Procedure	
Major Surgery	58261	CPT-4 Procedure	
Major Surgery	58262	CPT-4 Procedure	
Major Surgery	58263	CPT-4 Procedure	
Major Surgery	58264	CPT-4 Procedure	
Major Surgery	58265	CPT-4 Procedure	
Major Surgery	58266	CPT-4 Procedure	
Major Surgery	58267	CPT-4 Procedure	
Major Surgery	58268	CPT-4 Procedure	
Major Surgery	58269	CPT-4 Procedure	
Major Surgery	58270	CPT-4 Procedure	
Major Surgery	58271	CPT-4 Procedure	
Major Surgery	58272	CPT-4 Procedure	
Major Surgery	58273	CPT-4 Procedure	
Major Surgery	58274	CPT-4 Procedure	
Major Surgery	58275	CPT-4 Procedure	
Major Surgery	58276	CPT-4 Procedure	
Major Surgery	58277	CPT-4 Procedure	
Major Surgery	58278	CPT-4 Procedure	
Major Surgery	58279	CPT-4 Procedure	
Major Surgery	58280	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58281	CPT-4 Procedure	
Major Surgery	58282	CPT-4 Procedure	
Major Surgery	58283	CPT-4 Procedure	
Major Surgery	58284	CPT-4 Procedure	
Major Surgery	58285	CPT-4 Procedure	
Major Surgery	58286	CPT-4 Procedure	
Major Surgery	58287	CPT-4 Procedure	
Major Surgery	58288	CPT-4 Procedure	
Major Surgery	58289	CPT-4 Procedure	
Major Surgery	58290	CPT-4 Procedure	
Major Surgery	58291	CPT-4 Procedure	
Major Surgery	58292	CPT-4 Procedure	
Major Surgery	58293	CPT-4 Procedure	
Major Surgery	58294	CPT-4 Procedure	
Major Surgery	58400	CPT-4 Procedure	
Major Surgery	58401	CPT-4 Procedure	
Major Surgery	58402	CPT-4 Procedure	
Major Surgery	58403	CPT-4 Procedure	
Major Surgery	58404	CPT-4 Procedure	
Major Surgery	58405	CPT-4 Procedure	
Major Surgery	58406	CPT-4 Procedure	
Major Surgery	58407	CPT-4 Procedure	
Major Surgery	58408	CPT-4 Procedure	
Major Surgery	58409	CPT-4 Procedure	
Major Surgery	58410	CPT-4 Procedure	
Major Surgery	58411	CPT-4 Procedure	
Major Surgery	58412	CPT-4 Procedure	
Major Surgery	58413	CPT-4 Procedure	
Major Surgery	58414	CPT-4 Procedure	
Major Surgery	58415	CPT-4 Procedure	
Major Surgery	58416	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58417	CPT-4 Procedure	
Major Surgery	58418	CPT-4 Procedure	
Major Surgery	58419	CPT-4 Procedure	
Major Surgery	58420	CPT-4 Procedure	
Major Surgery	58421	CPT-4 Procedure	
Major Surgery	58422	CPT-4 Procedure	
Major Surgery	58423	CPT-4 Procedure	
Major Surgery	58424	CPT-4 Procedure	
Major Surgery	58425	CPT-4 Procedure	
Major Surgery	58426	CPT-4 Procedure	
Major Surgery	58427	CPT-4 Procedure	
Major Surgery	58428	CPT-4 Procedure	
Major Surgery	58429	CPT-4 Procedure	
Major Surgery	58430	CPT-4 Procedure	
Major Surgery	58431	CPT-4 Procedure	
Major Surgery	58432	CPT-4 Procedure	
Major Surgery	58433	CPT-4 Procedure	
Major Surgery	58434	CPT-4 Procedure	
Major Surgery	58435	CPT-4 Procedure	
Major Surgery	58436	CPT-4 Procedure	
Major Surgery	58437	CPT-4 Procedure	
Major Surgery	58438	CPT-4 Procedure	
Major Surgery	58439	CPT-4 Procedure	
Major Surgery	58440	CPT-4 Procedure	
Major Surgery	58441	CPT-4 Procedure	
Major Surgery	58442	CPT-4 Procedure	
Major Surgery	58443	CPT-4 Procedure	
Major Surgery	58444	CPT-4 Procedure	
Major Surgery	58445	CPT-4 Procedure	
Major Surgery	58446	CPT-4 Procedure	
Major Surgery	58447	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58448	CPT-4 Procedure	
Major Surgery	58449	CPT-4 Procedure	
Major Surgery	58450	CPT-4 Procedure	
Major Surgery	58451	CPT-4 Procedure	
Major Surgery	58452	CPT-4 Procedure	
Major Surgery	58453	CPT-4 Procedure	
Major Surgery	58454	CPT-4 Procedure	
Major Surgery	58455	CPT-4 Procedure	
Major Surgery	58456	CPT-4 Procedure	
Major Surgery	58457	CPT-4 Procedure	
Major Surgery	58458	CPT-4 Procedure	
Major Surgery	58459	CPT-4 Procedure	
Major Surgery	58460	CPT-4 Procedure	
Major Surgery	58461	CPT-4 Procedure	
Major Surgery	58462	CPT-4 Procedure	
Major Surgery	58463	CPT-4 Procedure	
Major Surgery	58464	CPT-4 Procedure	
Major Surgery	58465	CPT-4 Procedure	
Major Surgery	58466	CPT-4 Procedure	
Major Surgery	58467	CPT-4 Procedure	
Major Surgery	58468	CPT-4 Procedure	
Major Surgery	58469	CPT-4 Procedure	
Major Surgery	58470	CPT-4 Procedure	
Major Surgery	58471	CPT-4 Procedure	
Major Surgery	58472	CPT-4 Procedure	
Major Surgery	58473	CPT-4 Procedure	
Major Surgery	58474	CPT-4 Procedure	
Major Surgery	58475	CPT-4 Procedure	
Major Surgery	58476	CPT-4 Procedure	
Major Surgery	58477	CPT-4 Procedure	
Major Surgery	58478	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58479	CPT-4 Procedure	
Major Surgery	58480	CPT-4 Procedure	
Major Surgery	58481	CPT-4 Procedure	
Major Surgery	58482	CPT-4 Procedure	
Major Surgery	58483	CPT-4 Procedure	
Major Surgery	58484	CPT-4 Procedure	
Major Surgery	58485	CPT-4 Procedure	
Major Surgery	58486	CPT-4 Procedure	
Major Surgery	58487	CPT-4 Procedure	
Major Surgery	58488	CPT-4 Procedure	
Major Surgery	58489	CPT-4 Procedure	
Major Surgery	58490	CPT-4 Procedure	
Major Surgery	58491	CPT-4 Procedure	
Major Surgery	58492	CPT-4 Procedure	
Major Surgery	58493	CPT-4 Procedure	
Major Surgery	58494	CPT-4 Procedure	
Major Surgery	58495	CPT-4 Procedure	
Major Surgery	58496	CPT-4 Procedure	
Major Surgery	58497	CPT-4 Procedure	
Major Surgery	58498	CPT-4 Procedure	
Major Surgery	58499	CPT-4 Procedure	
Major Surgery	58500	CPT-4 Procedure	
Major Surgery	58501	CPT-4 Procedure	
Major Surgery	58502	CPT-4 Procedure	
Major Surgery	58503	CPT-4 Procedure	
Major Surgery	58504	CPT-4 Procedure	
Major Surgery	58505	CPT-4 Procedure	
Major Surgery	58506	CPT-4 Procedure	
Major Surgery	58507	CPT-4 Procedure	
Major Surgery	58508	CPT-4 Procedure	
Major Surgery	58509	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58510	CPT-4 Procedure	
Major Surgery	58511	CPT-4 Procedure	
Major Surgery	58512	CPT-4 Procedure	
Major Surgery	58513	CPT-4 Procedure	
Major Surgery	58514	CPT-4 Procedure	
Major Surgery	58515	CPT-4 Procedure	
Major Surgery	58516	CPT-4 Procedure	
Major Surgery	58517	CPT-4 Procedure	
Major Surgery	58518	CPT-4 Procedure	
Major Surgery	58519	CPT-4 Procedure	
Major Surgery	58520	CPT-4 Procedure	
Major Surgery	58521	CPT-4 Procedure	
Major Surgery	58522	CPT-4 Procedure	
Major Surgery	58523	CPT-4 Procedure	
Major Surgery	58524	CPT-4 Procedure	
Major Surgery	58525	CPT-4 Procedure	
Major Surgery	58526	CPT-4 Procedure	
Major Surgery	58527	CPT-4 Procedure	
Major Surgery	58528	CPT-4 Procedure	
Major Surgery	58529	CPT-4 Procedure	
Major Surgery	58530	CPT-4 Procedure	
Major Surgery	58531	CPT-4 Procedure	
Major Surgery	58532	CPT-4 Procedure	
Major Surgery	58533	CPT-4 Procedure	
Major Surgery	58534	CPT-4 Procedure	
Major Surgery	58535	CPT-4 Procedure	
Major Surgery	58536	CPT-4 Procedure	
Major Surgery	58537	CPT-4 Procedure	
Major Surgery	58538	CPT-4 Procedure	
Major Surgery	58539	CPT-4 Procedure	
Major Surgery	58540	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Major Surgery	58600	CPT-4 Procedure	
Major Surgery	58601	CPT-4 Procedure	
Major Surgery	58602	CPT-4 Procedure	
Major Surgery	58603	CPT-4 Procedure	
Major Surgery	58604	CPT-4 Procedure	
Major Surgery	58605	CPT-4 Procedure	
Major Surgery	58606	CPT-4 Procedure	
Major Surgery	58607	CPT-4 Procedure	
Major Surgery	58608	CPT-4 Procedure	
Major Surgery	58609	CPT-4 Procedure	
Major Surgery	58610	CPT-4 Procedure	
Major Surgery	58611	CPT-4 Procedure	
Major Surgery	58612	CPT-4 Procedure	
Major Surgery	58613	CPT-4 Procedure	
Major Surgery	58614	CPT-4 Procedure	
Major Surgery	58615	CPT-4 Procedure	
Major Surgery	58700	CPT-4 Procedure	
Major Surgery	58701	CPT-4 Procedure	
Major Surgery	58702	CPT-4 Procedure	
Major Surgery	58703	CPT-4 Procedure	
Major Surgery	58704	CPT-4 Procedure	
Major Surgery	58705	CPT-4 Procedure	
Major Surgery	58706	CPT-4 Procedure	
Major Surgery	58707	CPT-4 Procedure	
Major Surgery	58708	CPT-4 Procedure	
Major Surgery	58709	CPT-4 Procedure	
Major Surgery	58710	CPT-4 Procedure	
Major Surgery	58711	CPT-4 Procedure	
Major Surgery	58712	CPT-4 Procedure	
Major Surgery	58713	CPT-4 Procedure	
Major Surgery	58714	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Major Surgery	58715	CPT-4 Procedure	
Major Surgery	58716	CPT-4 Procedure	
Major Surgery	58717	CPT-4 Procedure	
Major Surgery	58718	CPT-4 Procedure	
Major Surgery	58719	CPT-4 Procedure	
Major Surgery	58720	CPT-4 Procedure	
Major Surgery	58750	CPT-4 Procedure	
Major Surgery	58751	CPT-4 Procedure	
Major Surgery	58752	CPT-4 Procedure	
Major Surgery	58753	CPT-4 Procedure	
Major Surgery	58754	CPT-4 Procedure	
Major Surgery	58755	CPT-4 Procedure	
Major Surgery	58756	CPT-4 Procedure	
Major Surgery	58757	CPT-4 Procedure	
Major Surgery	58758	CPT-4 Procedure	
Major Surgery	58759	CPT-4 Procedure	
Major Surgery	58760	CPT-4 Procedure	
Major Surgery	58761	CPT-4 Procedure	
Major Surgery	58762	CPT-4 Procedure	
Major Surgery	58763	CPT-4 Procedure	
Major Surgery	58764	CPT-4 Procedure	
Major Surgery	58765	CPT-4 Procedure	
Major Surgery	58766	CPT-4 Procedure	
Major Surgery	58767	CPT-4 Procedure	
Major Surgery	58768	CPT-4 Procedure	
Major Surgery	58769	CPT-4 Procedure	
Major Surgery	58770	CPT-4 Procedure	
Major Surgery	58820	CPT-4 Procedure	
Major Surgery	58821	CPT-4 Procedure	
Major Surgery	58822	CPT-4 Procedure	
Major Surgery	58823	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Major Surgery	58824	CPT-4 Procedure	
Major Surgery	58825	CPT-4 Procedure	
Major Surgery	58920	CPT-4 Procedure	
Major Surgery	58921	CPT-4 Procedure	
Major Surgery	58922	CPT-4 Procedure	
Major Surgery	58923	CPT-4 Procedure	
Major Surgery	58924	CPT-4 Procedure	
Major Surgery	58925	CPT-4 Procedure	
Major Surgery	58926	CPT-4 Procedure	
Major Surgery	58927	CPT-4 Procedure	
Major Surgery	58928	CPT-4 Procedure	
Major Surgery	58929	CPT-4 Procedure	
Major Surgery	58930	CPT-4 Procedure	
Major Surgery	58931	CPT-4 Procedure	
Major Surgery	58932	CPT-4 Procedure	
Major Surgery	58933	CPT-4 Procedure	
Major Surgery	58934	CPT-4 Procedure	
Major Surgery	58935	CPT-4 Procedure	
Major Surgery	58936	CPT-4 Procedure	
Major Surgery	58937	CPT-4 Procedure	
Major Surgery	58938	CPT-4 Procedure	
Major Surgery	58939	CPT-4 Procedure	
Major Surgery	58940	CPT-4 Procedure	
Major Surgery	58941	CPT-4 Procedure	
Major Surgery	58942	CPT-4 Procedure	
Major Surgery	58943	CPT-4 Procedure	
Major Surgery	58944	CPT-4 Procedure	
Major Surgery	58945	CPT-4 Procedure	
Major Surgery	58946	CPT-4 Procedure	
Major Surgery	58947	CPT-4 Procedure	
Major Surgery	58948	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	58949	CPT-4 Procedure	
Major Surgery	58950	CPT-4 Procedure	
Major Surgery	58951	CPT-4 Procedure	
Major Surgery	58952	CPT-4 Procedure	
Major Surgery	58953	CPT-4 Procedure	
Major Surgery	58954	CPT-4 Procedure	
Major Surgery	58955	CPT-4 Procedure	
Major Surgery	58956	CPT-4 Procedure	
Major Surgery	58957	CPT-4 Procedure	
Major Surgery	58958	CPT-4 Procedure	
Major Surgery	58959	CPT-4 Procedure	
Major Surgery	58960	CPT-4 Procedure	
Major Surgery	58999	CPT-4 Procedure	
Major Surgery	43644	CPT-4 Procedure	
Major Surgery	43645	CPT-4 Procedure	
Major Surgery	43800	CPT-4 Procedure	
Major Surgery	43801	CPT-4 Procedure	
Major Surgery	43802	CPT-4 Procedure	
Major Surgery	43803	CPT-4 Procedure	
Major Surgery	43804	CPT-4 Procedure	
Major Surgery	43805	CPT-4 Procedure	
Major Surgery	43806	CPT-4 Procedure	
Major Surgery	43807	CPT-4 Procedure	
Major Surgery	43808	CPT-4 Procedure	
Major Surgery	43809	CPT-4 Procedure	
Major Surgery	43810	CPT-4 Procedure	
Major Surgery	43811	CPT-4 Procedure	
Major Surgery	43812	CPT-4 Procedure	
Major Surgery	43813	CPT-4 Procedure	
Major Surgery	43814	CPT-4 Procedure	
Major Surgery	43815	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	43816	CPT-4 Procedure	
Major Surgery	43817	CPT-4 Procedure	
Major Surgery	43818	CPT-4 Procedure	
Major Surgery	43819	CPT-4 Procedure	
Major Surgery	43820	CPT-4 Procedure	
Major Surgery	43821	CPT-4 Procedure	
Major Surgery	43822	CPT-4 Procedure	
Major Surgery	43823	CPT-4 Procedure	
Major Surgery	43824	CPT-4 Procedure	
Major Surgery	43825	CPT-4 Procedure	
Major Surgery	43826	CPT-4 Procedure	
Major Surgery	43827	CPT-4 Procedure	
Major Surgery	43828	CPT-4 Procedure	
Major Surgery	43829	CPT-4 Procedure	
Major Surgery	43830	CPT-4 Procedure	
Major Surgery	43831	CPT-4 Procedure	
Major Surgery	43832	CPT-4 Procedure	
Major Surgery	43833	CPT-4 Procedure	
Major Surgery	43834	CPT-4 Procedure	
Major Surgery	43835	CPT-4 Procedure	
Major Surgery	43836	CPT-4 Procedure	
Major Surgery	43837	CPT-4 Procedure	
Major Surgery	43838	CPT-4 Procedure	
Major Surgery	43839	CPT-4 Procedure	
Major Surgery	43840	CPT-4 Procedure	
Major Surgery	43841	CPT-4 Procedure	
Major Surgery	43842	CPT-4 Procedure	
Major Surgery	43843	CPT-4 Procedure	
Major Surgery	43844	CPT-4 Procedure	
Major Surgery	43845	CPT-4 Procedure	
Major Surgery	43846	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	43847	CPT-4 Procedure	
Major Surgery	43848	CPT-4 Procedure	
Major Surgery	43849	CPT-4 Procedure	
Major Surgery	43850	CPT-4 Procedure	
Major Surgery	43851	CPT-4 Procedure	
Major Surgery	43852	CPT-4 Procedure	
Major Surgery	43853	CPT-4 Procedure	
Major Surgery	43854	CPT-4 Procedure	
Major Surgery	43855	CPT-4 Procedure	
Major Surgery	43856	CPT-4 Procedure	
Major Surgery	43857	CPT-4 Procedure	
Major Surgery	43858	CPT-4 Procedure	
Major Surgery	43859	CPT-4 Procedure	
Major Surgery	43860	CPT-4 Procedure	
Major Surgery	43861	CPT-4 Procedure	
Major Surgery	43862	CPT-4 Procedure	
Major Surgery	43863	CPT-4 Procedure	
Major Surgery	43864	CPT-4 Procedure	
Major Surgery	43865	CPT-4 Procedure	
Major Surgery	43866	CPT-4 Procedure	
Major Surgery	43867	CPT-4 Procedure	
Major Surgery	43868	CPT-4 Procedure	
Major Surgery	43869	CPT-4 Procedure	
Major Surgery	43870	CPT-4 Procedure	
Major Surgery	43871	CPT-4 Procedure	
Major Surgery	43872	CPT-4 Procedure	
Major Surgery	43873	CPT-4 Procedure	
Major Surgery	43874	CPT-4 Procedure	
Major Surgery	43875	CPT-4 Procedure	
Major Surgery	43876	CPT-4 Procedure	
Major Surgery	43877	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	43878	CPT-4 Procedure	
Major Surgery	43879	CPT-4 Procedure	
Major Surgery	43880	CPT-4 Procedure	
Major Surgery	43881	CPT-4 Procedure	
Major Surgery	49570	CPT-4 Procedure	
Major Surgery	49571	CPT-4 Procedure	
Major Surgery	49572	CPT-4 Procedure	
Major Surgery	49573	CPT-4 Procedure	
Major Surgery	49574	CPT-4 Procedure	
Major Surgery	49575	CPT-4 Procedure	
Major Surgery	S2083	HCPCS Procedure	
Major Surgery	S2213	HCPCS Procedure	
Major Surgery	61320	CPT-4 Procedure	
Major Surgery	61321	CPT-4 Procedure	
Major Surgery	61546	CPT-4 Procedure	
Major Surgery	61680	CPT-4 Procedure	
Major Surgery	61681	CPT-4 Procedure	
Major Surgery	61682	CPT-4 Procedure	
Major Surgery	61683	CPT-4 Procedure	
Major Surgery	61684	CPT-4 Procedure	
Major Surgery	61685	CPT-4 Procedure	
Major Surgery	61686	CPT-4 Procedure	
Major Surgery	61687	CPT-4 Procedure	
Major Surgery	61688	CPT-4 Procedure	
Major Surgery	61689	CPT-4 Procedure	
Major Surgery	61690	CPT-4 Procedure	
Major Surgery	61691	CPT-4 Procedure	
Major Surgery	61692	CPT-4 Procedure	
Major Surgery	61697	CPT-4 Procedure	
Major Surgery	61698	CPT-4 Procedure	
Major Surgery	61699	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Major Surgery	61700	CPT-4 Procedure	
Major Surgery	61701	CPT-4 Procedure	
Major Surgery	61702	CPT-4 Procedure	
Major Surgery	61703	CPT-4 Procedure	
Major Surgery	61704	CPT-4 Procedure	
Major Surgery	61705	CPT-4 Procedure	
Major Surgery	61706	CPT-4 Procedure	
Major Surgery	61707	CPT-4 Procedure	
Major Surgery	61708	CPT-4 Procedure	
Major Surgery	61709	CPT-4 Procedure	
Major Surgery	61710	CPT-4 Procedure	
Major Surgery	62160	CPT-4 Procedure	
Major Surgery	62161	CPT-4 Procedure	
Major Surgery	62162	CPT-4 Procedure	
Major Surgery	62163	CPT-4 Procedure	
Major Surgery	62164	CPT-4 Procedure	
Major Surgery	62165	CPT-4 Procedure	
Major Surgery	01214	CPT-4 Procedure	
Major Surgery	01215	CPT-4 Procedure	
Major Surgery	01402	CPT-4 Procedure	
Major Surgery	27130	CPT-4 Procedure	
Major Surgery	27131	CPT-4 Procedure	
Major Surgery	27132	CPT-4 Procedure	
Major Surgery	27133	CPT-4 Procedure	
Major Surgery	27134	CPT-4 Procedure	
Major Surgery	27135	CPT-4 Procedure	
Major Surgery	27136	CPT-4 Procedure	
Major Surgery	27137	CPT-4 Procedure	
Major Surgery	27138	CPT-4 Procedure	
Major Surgery	27447	CPT-4 Procedure	
Major Surgery	27486	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	27487	CPT-4 Procedure	
Major Surgery	27075	CPT-4 Procedure	
Major Surgery	27076	CPT-4 Procedure	
Major Surgery	27077	CPT-4 Procedure	
Major Surgery	27078	CPT-4 Procedure	
Major Surgery	27079	CPT-4 Procedure	
Major Surgery	27218	CPT-4 Procedure	
Major Surgery	27226	CPT-4 Procedure	
Major Surgery	27227	CPT-4 Procedure	
Major Surgery	27228	CPT-4 Procedure	
Major Surgery	27253	CPT-4 Procedure	
Major Surgery	27258	CPT-4 Procedure	
Major Surgery	27259	CPT-4 Procedure	
Major Surgery	27299	CPT-4 Procedure	
Major Surgery	29861	CPT-4 Procedure	
Major Surgery	29862	CPT-4 Procedure	
Major Surgery	29863	CPT-4 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	798.5	ICD-9-CM Procedure	
Major Surgery	798.6	ICD-9-CM Procedure	
Major Surgery	804.5	ICD-9-CM Procedure	
Major Surgery	804.6	ICD-9-CM Procedure	
Major Surgery	806	ICD-9-CM Procedure	
Major Surgery	806*	ICD-9-CM Procedure	
Major Surgery	808.5	ICD-9-CM Procedure	
Major Surgery	808.6	ICD-9-CM Procedure	
Major Surgery	809.5	ICD-9-CM Procedure	
Major Surgery	809.6	ICD-9-CM Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	814.0	ICD-9-CM Procedure	
Major Surgery	814.2	ICD-9-CM Procedure	
Major Surgery	814.3	ICD-9-CM Procedure	
Major Surgery	815.1	ICD-9-CM Procedure	
Major Surgery	815.2	ICD-9-CM Procedure	
Major Surgery	815.3	ICD-9-CM Procedure	
Major Surgery	815.4	ICD-9-CM Procedure	
Major Surgery	815.5	ICD-9-CM Procedure	
Major Surgery	841.6	ICD-9-CM Procedure	
Major Surgery	841.8	ICD-9-CM Procedure	
Major Surgery	20930	CPT-4 Procedure	
Major Surgery	20931	CPT-4 Procedure	
Major Surgery	20932	CPT-4 Procedure	
Major Surgery	20933	CPT-4 Procedure	
Major Surgery	20934	CPT-4 Procedure	
Major Surgery	20935	CPT-4 Procedure	
Major Surgery	20936	CPT-4 Procedure	
Major Surgery	20937	CPT-4 Procedure	
Major Surgery	20938	CPT-4 Procedure	
Major Surgery	22010	CPT-4 Procedure	
Major Surgery	22011	CPT-4 Procedure	
Major Surgery	22012	CPT-4 Procedure	
Major Surgery	22013	CPT-4 Procedure	
Major Surgery	22014	CPT-4 Procedure	
Major Surgery	22015	CPT-4 Procedure	
Major Surgery	22100	CPT-4 Procedure	
Major Surgery	22101	CPT-4 Procedure	
Major Surgery	22102	CPT-4 Procedure	
Major Surgery	22103	CPT-4 Procedure	
Major Surgery	22104	CPT-4 Procedure	
Major Surgery	22105	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	22106	CPT-4 Procedure	
Major Surgery	22107	CPT-4 Procedure	
Major Surgery	22108	CPT-4 Procedure	
Major Surgery	22109	CPT-4 Procedure	
Major Surgery	22110	CPT-4 Procedure	
Major Surgery	22111	CPT-4 Procedure	
Major Surgery	22112	CPT-4 Procedure	
Major Surgery	22113	CPT-4 Procedure	
Major Surgery	22114	CPT-4 Procedure	
Major Surgery	22115	CPT-4 Procedure	
Major Surgery	22116	CPT-4 Procedure	
Major Surgery	22206	CPT-4 Procedure	
Major Surgery	22207	CPT-4 Procedure	
Major Surgery	22208	CPT-4 Procedure	
Major Surgery	22209	CPT-4 Procedure	
Major Surgery	22210	CPT-4 Procedure	
Major Surgery	22211	CPT-4 Procedure	
Major Surgery	22212	CPT-4 Procedure	
Major Surgery	22213	CPT-4 Procedure	
Major Surgery	22214	CPT-4 Procedure	
Major Surgery	22215	CPT-4 Procedure	
Major Surgery	22216	CPT-4 Procedure	
Major Surgery	22217	CPT-4 Procedure	
Major Surgery	22218	CPT-4 Procedure	
Major Surgery	22219	CPT-4 Procedure	
Major Surgery	22220	CPT-4 Procedure	
Major Surgery	22221	CPT-4 Procedure	
Major Surgery	22222	CPT-4 Procedure	
Major Surgery	22223	CPT-4 Procedure	
Major Surgery	22224	CPT-4 Procedure	
Major Surgery	22225	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	22226	CPT-4 Procedure	
Major Surgery	22318	CPT-4 Procedure	
Major Surgery	22319	CPT-4 Procedure	
Major Surgery	22320	CPT-4 Procedure	
Major Surgery	22321	CPT-4 Procedure	
Major Surgery	22322	CPT-4 Procedure	
Major Surgery	22323	CPT-4 Procedure	
Major Surgery	22324	CPT-4 Procedure	
Major Surgery	22325	CPT-4 Procedure	
Major Surgery	22326	CPT-4 Procedure	
Major Surgery	22327	CPT-4 Procedure	
Major Surgery	22328	CPT-4 Procedure	
Major Surgery	22532	CPT-4 Procedure	
Major Surgery	22533	CPT-4 Procedure	
Major Surgery	22534	CPT-4 Procedure	
Major Surgery	22548	CPT-4 Procedure	
Major Surgery	22549	CPT-4 Procedure	
Major Surgery	22550	CPT-4 Procedure	
Major Surgery	22551	CPT-4 Procedure	
Major Surgery	22552	CPT-4 Procedure	
Major Surgery	22553	CPT-4 Procedure	
Major Surgery	22554	CPT-4 Procedure	
Major Surgery	22555	CPT-4 Procedure	
Major Surgery	22556	CPT-4 Procedure	
Major Surgery	22557	CPT-4 Procedure	
Major Surgery	22558	CPT-4 Procedure	
Major Surgery	22559	CPT-4 Procedure	
Major Surgery	22560	CPT-4 Procedure	
Major Surgery	22561	CPT-4 Procedure	
Major Surgery	22562	CPT-4 Procedure	
Major Surgery	22563	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	22564	CPT-4 Procedure	
Major Surgery	22565	CPT-4 Procedure	
Major Surgery	22566	CPT-4 Procedure	
Major Surgery	22567	CPT-4 Procedure	
Major Surgery	22568	CPT-4 Procedure	
Major Surgery	22569	CPT-4 Procedure	
Major Surgery	22570	CPT-4 Procedure	
Major Surgery	22571	CPT-4 Procedure	
Major Surgery	22572	CPT-4 Procedure	
Major Surgery	22573	CPT-4 Procedure	
Major Surgery	22574	CPT-4 Procedure	
Major Surgery	22575	CPT-4 Procedure	
Major Surgery	22576	CPT-4 Procedure	
Major Surgery	22577	CPT-4 Procedure	
Major Surgery	22578	CPT-4 Procedure	
Major Surgery	22579	CPT-4 Procedure	
Major Surgery	22580	CPT-4 Procedure	
Major Surgery	22581	CPT-4 Procedure	
Major Surgery	22582	CPT-4 Procedure	
Major Surgery	22583	CPT-4 Procedure	
Major Surgery	22584	CPT-4 Procedure	
Major Surgery	22585	CPT-4 Procedure	
Major Surgery	22590	CPT-4 Procedure	
Major Surgery	22591	CPT-4 Procedure	
Major Surgery	22592	CPT-4 Procedure	
Major Surgery	22593	CPT-4 Procedure	
Major Surgery	22594	CPT-4 Procedure	
Major Surgery	22595	CPT-4 Procedure	
Major Surgery	22596	CPT-4 Procedure	
Major Surgery	22597	CPT-4 Procedure	
Major Surgery	22598	CPT-4 Procedure	

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Major Surgery	22599	CPT-4 Procedure	
Major Surgery	22600	CPT-4 Procedure	
Major Surgery	22601	CPT-4 Procedure	
Major Surgery	22602	CPT-4 Procedure	
Major Surgery	22603	CPT-4 Procedure	
Major Surgery	22604	CPT-4 Procedure	
Major Surgery	22605	CPT-4 Procedure	
Major Surgery	22606	CPT-4 Procedure	
Major Surgery	22607	CPT-4 Procedure	
Major Surgery	22608	CPT-4 Procedure	
Major Surgery	22609	CPT-4 Procedure	
Major Surgery	22610	CPT-4 Procedure	
Major Surgery	22611	CPT-4 Procedure	
Major Surgery	22612	CPT-4 Procedure	
Major Surgery	22613	CPT-4 Procedure	
Major Surgery	22614	CPT-4 Procedure	
Major Surgery	22615	CPT-4 Procedure	
Major Surgery	22616	CPT-4 Procedure	
Major Surgery	22617	CPT-4 Procedure	
Major Surgery	22618	CPT-4 Procedure	
Major Surgery	22619	CPT-4 Procedure	
Major Surgery	22620	CPT-4 Procedure	
Major Surgery	22621	CPT-4 Procedure	
Major Surgery	22622	CPT-4 Procedure	
Major Surgery	22623	CPT-4 Procedure	
Major Surgery	22624	CPT-4 Procedure	
Major Surgery	22625	CPT-4 Procedure	
Major Surgery	22626	CPT-4 Procedure	
Major Surgery	22627	CPT-4 Procedure	
Major Surgery	22628	CPT-4 Procedure	
Major Surgery	22629	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	22630	CPT-4 Procedure	
Major Surgery	22631	CPT-4 Procedure	
Major Surgery	22632	CPT-4 Procedure	
Major Surgery	22800	CPT-4 Procedure	
Major Surgery	22801	CPT-4 Procedure	
Major Surgery	22802	CPT-4 Procedure	
Major Surgery	22803	CPT-4 Procedure	
Major Surgery	22804	CPT-4 Procedure	
Major Surgery	22805	CPT-4 Procedure	
Major Surgery	22806	CPT-4 Procedure	
Major Surgery	22807	CPT-4 Procedure	
Major Surgery	22808	CPT-4 Procedure	
Major Surgery	22809	CPT-4 Procedure	
Major Surgery	22810	CPT-4 Procedure	
Major Surgery	22811	CPT-4 Procedure	
Major Surgery	22812	CPT-4 Procedure	
Major Surgery	22813	CPT-4 Procedure	
Major Surgery	22814	CPT-4 Procedure	
Major Surgery	22815	CPT-4 Procedure	
Major Surgery	22816	CPT-4 Procedure	
Major Surgery	22817	CPT-4 Procedure	
Major Surgery	22818	CPT-4 Procedure	
Major Surgery	22819	CPT-4 Procedure	
Major Surgery	22830	CPT-4 Procedure	
Major Surgery	22840	CPT-4 Procedure	
Major Surgery	22841	CPT-4 Procedure	
Major Surgery	22842	CPT-4 Procedure	
Major Surgery	22843	CPT-4 Procedure	
Major Surgery	22844	CPT-4 Procedure	
Major Surgery	22845	CPT-4 Procedure	
Major Surgery	22846	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	22847	CPT-4 Procedure	
Major Surgery	22848	CPT-4 Procedure	
Major Surgery	22849	CPT-4 Procedure	
Major Surgery	22850	CPT-4 Procedure	
Major Surgery	22851	CPT-4 Procedure	
Major Surgery	22852	CPT-4 Procedure	
Major Surgery	22853	CPT-4 Procedure	
Major Surgery	22854	CPT-4 Procedure	
Major Surgery	22855	CPT-4 Procedure	
Major Surgery	22856	CPT-4 Procedure	
Major Surgery	22857	CPT-4 Procedure	
Major Surgery	22858	CPT-4 Procedure	
Major Surgery	22859	CPT-4 Procedure	
Major Surgery	22860	CPT-4 Procedure	
Major Surgery	22861	CPT-4 Procedure	
Major Surgery	22862	CPT-4 Procedure	
Major Surgery	22863	CPT-4 Procedure	
Major Surgery	22864	CPT-4 Procedure	
Major Surgery	22865	CPT-4 Procedure	
Major Surgery	63001	CPT-4 Procedure	
Major Surgery	63002	CPT-4 Procedure	
Major Surgery	63003	CPT-4 Procedure	
Major Surgery	63004	CPT-4 Procedure	
Major Surgery	63005	CPT-4 Procedure	
Major Surgery	63006	CPT-4 Procedure	
Major Surgery	63007	CPT-4 Procedure	
Major Surgery	63008	CPT-4 Procedure	
Major Surgery	63009	CPT-4 Procedure	
Major Surgery	63010	CPT-4 Procedure	
Major Surgery	63011	CPT-4 Procedure	
Major Surgery	63012	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	63013	CPT-4 Procedure	
Major Surgery	63014	CPT-4 Procedure	
Major Surgery	63015	CPT-4 Procedure	
Major Surgery	63016	CPT-4 Procedure	
Major Surgery	63017	CPT-4 Procedure	
Major Surgery	63045	CPT-4 Procedure	
Major Surgery	63046	CPT-4 Procedure	
Major Surgery	63047	CPT-4 Procedure	
Major Surgery	63048	CPT-4 Procedure	
Major Surgery	63049	CPT-4 Procedure	
Major Surgery	63050	CPT-4 Procedure	
Major Surgery	63051	CPT-4 Procedure	
Major Surgery	63055	CPT-4 Procedure	
Major Surgery	63056	CPT-4 Procedure	
Major Surgery	63057	CPT-4 Procedure	
Major Surgery	63058	CPT-4 Procedure	
Major Surgery	63059	CPT-4 Procedure	
Major Surgery	63060	CPT-4 Procedure	
Major Surgery	63061	CPT-4 Procedure	
Major Surgery	63062	CPT-4 Procedure	
Major Surgery	63063	CPT-4 Procedure	
Major Surgery	63064	CPT-4 Procedure	
Major Surgery	63065	CPT-4 Procedure	
Major Surgery	63066	CPT-4 Procedure	
Major Surgery	63075	CPT-4 Procedure	
Major Surgery	63076	CPT-4 Procedure	
Major Surgery	63077	CPT-4 Procedure	
Major Surgery	63078	CPT-4 Procedure	
Major Surgery	63079	CPT-4 Procedure	
Major Surgery	63080	CPT-4 Procedure	
Major Surgery	63081	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	63082	CPT-4 Procedure	
Major Surgery	63083	CPT-4 Procedure	
Major Surgery	63084	CPT-4 Procedure	
Major Surgery	63085	CPT-4 Procedure	
Major Surgery	63086	CPT-4 Procedure	
Major Surgery	63087	CPT-4 Procedure	
Major Surgery	63088	CPT-4 Procedure	
Major Surgery	63089	CPT-4 Procedure	
Major Surgery	63090	CPT-4 Procedure	
Major Surgery	63091	CPT-4 Procedure	
Major Surgery	63101	CPT-4 Procedure	
Major Surgery	63102	CPT-4 Procedure	
Major Surgery	63103	CPT-4 Procedure	
Major Surgery	63170	CPT-4 Procedure	
Major Surgery	63171	CPT-4 Procedure	
Major Surgery	63172	CPT-4 Procedure	
Major Surgery	63173	CPT-4 Procedure	
Major Surgery	63174	CPT-4 Procedure	
Major Surgery	63175	CPT-4 Procedure	
Major Surgery	63176	CPT-4 Procedure	
Major Surgery	63177	CPT-4 Procedure	
Major Surgery	63178	CPT-4 Procedure	
Major Surgery	63179	CPT-4 Procedure	
Major Surgery	63180	CPT-4 Procedure	
Major Surgery	63181	CPT-4 Procedure	
Major Surgery	63182	CPT-4 Procedure	
Major Surgery	63183	CPT-4 Procedure	
Major Surgery	63184	CPT-4 Procedure	
Major Surgery	63185	CPT-4 Procedure	
Major Surgery	63186	CPT-4 Procedure	
Major Surgery	63187	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	63188	CPT-4 Procedure	
Major Surgery	63189	CPT-4 Procedure	
Major Surgery	63190	CPT-4 Procedure	
Major Surgery	63191	CPT-4 Procedure	
Major Surgery	63192	CPT-4 Procedure	
Major Surgery	63193	CPT-4 Procedure	
Major Surgery	63194	CPT-4 Procedure	
Major Surgery	63195	CPT-4 Procedure	
Major Surgery	63196	CPT-4 Procedure	
Major Surgery	63197	CPT-4 Procedure	
Major Surgery	63198	CPT-4 Procedure	
Major Surgery	63199	CPT-4 Procedure	
Major Surgery	63200	CPT-4 Procedure	
Major Surgery	63250	CPT-4 Procedure	
Major Surgery	63251	CPT-4 Procedure	
Major Surgery	63252	CPT-4 Procedure	
Major Surgery	63253	CPT-4 Procedure	
Major Surgery	63254	CPT-4 Procedure	
Major Surgery	63255	CPT-4 Procedure	
Major Surgery	63256	CPT-4 Procedure	
Major Surgery	63257	CPT-4 Procedure	
Major Surgery	63258	CPT-4 Procedure	
Major Surgery	63259	CPT-4 Procedure	
Major Surgery	63260	CPT-4 Procedure	
Major Surgery	63261	CPT-4 Procedure	
Major Surgery	63262	CPT-4 Procedure	
Major Surgery	63263	CPT-4 Procedure	
Major Surgery	63264	CPT-4 Procedure	
Major Surgery	63265	CPT-4 Procedure	
Major Surgery	63266	CPT-4 Procedure	
Major Surgery	63267	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	63268	CPT-4 Procedure	
Major Surgery	63269	CPT-4 Procedure	
Major Surgery	63270	CPT-4 Procedure	
Major Surgery	63271	CPT-4 Procedure	
Major Surgery	63272	CPT-4 Procedure	
Major Surgery	63273	CPT-4 Procedure	
Major Surgery	63274	CPT-4 Procedure	
Major Surgery	63275	CPT-4 Procedure	
Major Surgery	63276	CPT-4 Procedure	
Major Surgery	63277	CPT-4 Procedure	
Major Surgery	63278	CPT-4 Procedure	
Major Surgery	63279	CPT-4 Procedure	
Major Surgery	63280	CPT-4 Procedure	
Major Surgery	63281	CPT-4 Procedure	
Major Surgery	63282	CPT-4 Procedure	
Major Surgery	63283	CPT-4 Procedure	
Major Surgery	63284	CPT-4 Procedure	
Major Surgery	63285	CPT-4 Procedure	
Major Surgery	63286	CPT-4 Procedure	
Major Surgery	63287	CPT-4 Procedure	
Major Surgery	63288	CPT-4 Procedure	
Major Surgery	63289	CPT-4 Procedure	
Major Surgery	63290	CPT-4 Procedure	
Major Surgery	63291	CPT-4 Procedure	
Major Surgery	63292	CPT-4 Procedure	
Major Surgery	63293	CPT-4 Procedure	
Major Surgery	63294	CPT-4 Procedure	
Major Surgery	63295	CPT-4 Procedure	
Major Surgery	63300	CPT-4 Procedure	
Major Surgery	63301	CPT-4 Procedure	
Major Surgery	63302	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	63303	CPT-4 Procedure	
Major Surgery	63304	CPT-4 Procedure	
Major Surgery	63305	CPT-4 Procedure	
Major Surgery	63306	CPT-4 Procedure	
Major Surgery	63307	CPT-4 Procedure	
Major Surgery	63308	CPT-4 Procedure	
Major Surgery	63650	CPT-4 Procedure	
Major Surgery	63651	CPT-4 Procedure	
Major Surgery	63652	CPT-4 Procedure	
Major Surgery	63653	CPT-4 Procedure	
Major Surgery	63654	CPT-4 Procedure	
Major Surgery	63655	CPT-4 Procedure	
Major Surgery	63656	CPT-4 Procedure	
Major Surgery	63657	CPT-4 Procedure	
Major Surgery	63658	CPT-4 Procedure	
Major Surgery	63659	CPT-4 Procedure	
Major Surgery	63660	CPT-4 Procedure	
Major Surgery	63661	CPT-4 Procedure	
Major Surgery	63662	CPT-4 Procedure	
Major Surgery	63663	CPT-4 Procedure	
Major Surgery	63664	CPT-4 Procedure	
Major Surgery	63665	CPT-4 Procedure	
Major Surgery	63666	CPT-4 Procedure	
Major Surgery	63667	CPT-4 Procedure	
Major Surgery	63668	CPT-4 Procedure	
Major Surgery	63669	CPT-4 Procedure	
Major Surgery	63670	CPT-4 Procedure	
Major Surgery	63671	CPT-4 Procedure	
Major Surgery	63672	CPT-4 Procedure	
Major Surgery	63673	CPT-4 Procedure	
Major Surgery	63674	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Major Surgery	63675	CPT-4 Procedure	
Major Surgery	63676	CPT-4 Procedure	
Major Surgery	63677	CPT-4 Procedure	
Major Surgery	63678	CPT-4 Procedure	
Major Surgery	63679	CPT-4 Procedure	
Major Surgery	63680	CPT-4 Procedure	
Major Surgery	63681	CPT-4 Procedure	
Major Surgery	63682	CPT-4 Procedure	
Major Surgery	63683	CPT-4 Procedure	
Major Surgery	63684	CPT-4 Procedure	
Major Surgery	63685	CPT-4 Procedure	
Major Surgery	63686	CPT-4 Procedure	
Major Surgery	63687	CPT-4 Procedure	
Major Surgery	63688	CPT-4	
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	Secondary and unspecified malignant neoplasm of lymph nodes
Metastatic cancer	196*	ICD-9-CM Diagnosis	Secondary and unspecified malignant neoplasm of lymph nodes
Metastatic cancer	196**	ICD-9-CM Diagnosis	Secondary and unspecified malignant neoplasm of lymph nodes
Metastatic cancer	197	ICD-9-CM Diagnosis	Secondary malignant neoplasm of respiratory and digestive systems
Metastatic cancer	197*	ICD-9-CM Diagnosis	Secondary malignant neoplasm of respiratory and digestive systems
Metastatic cancer	197**	ICD-9-CM Diagnosis	Secondary malignant neoplasm of respiratory and digestive systems
Metastatic cancer	198	ICD-9-CM Diagnosis	Secondary malignant neoplasm of other specified sites
Metastatic cancer	198*	ICD-9-CM Diagnosis	Secondary malignant neoplasm of other specified sites
Metastatic cancer	198**	ICD-9-CM Diagnosis	Secondary malignant neoplasm of other specified sites
Metastatic cancer	199	ICD-9-CM Diagnosis	Malignant neoplasm without specification of site
Metastatic cancer	199*	ICD-9-CM Diagnosis	Malignant neoplasm without specification of site

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Covariate	Code	Code Type	Description
Metastatic cancer	199**	ICD-9-CM Diagnosis	Malignant neoplasm without specification of site
MI	410	ICD-9-CM Diagnosis	Acute myocardial infarction
MI	410*	ICD-9-CM Diagnosis	Acute myocardial infarction
MI	410**	ICD-9-CM Diagnosis	Acute myocardial infarction
Non-specific cerebrovascular symptms	781.4	ICD-9-CM Diagnosis	Transient paralysis of limb
Non-specific cerebrovascular symptms	781.4*	ICD-9-CM Diagnosis	Transient paralysis of limb
Non-specific cerebrovascular symptms	784.3	ICD-9-CM Diagnosis	Aphasia
Non-specific cerebrovascular symptms	784.3*	ICD-9-CM Diagnosis	Aphasia
Non-specific cerebrovascular symptms	997.0	ICD-9-CM Diagnosis	Nervous system complications
Non-specific cerebrovascular symptms	997.0*	ICD-9-CM Diagnosis	Nervous system complications
Non-specific cerebrovascular symptms	402.01	ICD-9-CM Diagnosis	Malignant hypertensive heart disease with heart failure
Osteoporotic fracture	805.0	ICD-9-CM Diagnosis	Closed fracture of cervical vertebra without mention of spinal cord injury
Osteoporotic fracture	805.0*	ICD-9-CM Diagnosis	Closed fracture of cervical vertebra without mention of spinal cord injury
Osteoporotic fracture	805.2	ICD-9-CM Diagnosis	Closed fracture of dorsal [thoracic] vertebra without mention of spinal cord injury
Osteoporotic fracture	805.2*	ICD-9-CM Diagnosis	Closed fracture of dorsal [thoracic] vertebra without mention of spinal cord injury
Osteoporotic fracture	805.4	ICD-9-CM Diagnosis	Closed fracture of lumbar vertebra without mention of spinal cord injury
Osteoporotic fracture	805.4*	ICD-9-CM Diagnosis	Closed fracture of lumbar vertebra without mention of spinal cord injury
Osteoporotic fracture	805.6	ICD-9-CM Diagnosis	Closed fracture of sacrum and coccyx without mention of spinal cord injury
Osteoporotic fracture	805.6*	ICD-9-CM Diagnosis	Closed fracture of sacrum and coccyx without mention of spinal cord injury
Osteoporotic fracture	805.8	ICD-9-CM Diagnosis	Closed fracture of unspecified vertebral column without mention of spinal cord injury
Osteoporotic fracture	805.8*	ICD-9-CM Diagnosis	Closed fracture of unspecified vertebral column without mention of spinal cord injury
Osteoporotic fracture	808	ICD-9-CM Diagnosis	Fracture of pelvis
Osteoporotic fracture	808*	ICD-9-CM Diagnosis	Fracture of pelvis
Osteoporotic fracture	808**	ICD-9-CM Diagnosis	Fracture of pelvis
Osteoporotic fracture	812.0	ICD-9-CM Diagnosis	Fracture of upper end of humerus closed
Osteoporotic fracture	812.0*	ICD-9-CM Diagnosis	Fracture of upper end of humerus closed
Osteoporotic fracture	812.2	ICD-9-CM Diagnosis	Closed fracture of shaft or unspecified part of humerus
Osteoporotic fracture	812.2*	ICD-9-CM Diagnosis	Closed fracture of shaft or unspecified part of humerus
Osteoporotic fracture	813.4	ICD-9-CM Diagnosis	Fracture of lower end of radius and ulna closed

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Covariate	Code	Code Type	Description
Osteoporotic fracture	813.4*	ICD-9-CM Diagnosis	Fracture of lower end of radius and ulna closed
Osteoporotic fracture	820.0	ICD-9-CM Diagnosis	Transcervical fracture closed
Osteoporotic fracture	820.0*	ICD-9-CM Diagnosis	Transcervical fracture closed
Osteoporotic fracture	820.2	ICD-9-CM Diagnosis	Pertrochanteric fracture of femur closed
Osteoporotic fracture	820.2*	ICD-9-CM Diagnosis	Pertrochanteric fracture of femur closed
Osteoporotic fracture	820.8	ICD-9-CM Diagnosis	Closed fracture of unspecified part of neck of femur
Osteoporotic fracture	820.8*	ICD-9-CM Diagnosis	Closed fracture of unspecified part of neck of femur
Osteoporotic fracture	821	ICD-9-CM Diagnosis	Fracture of other and unspecified parts of femur
Osteoporotic fracture	821*	ICD-9-CM Diagnosis	Fracture of other and unspecified parts of femur
Osteoporotic fracture	821**	ICD-9-CM Diagnosis	Fracture of other and unspecified parts of femur
Other arterial embolism	444	ICD-9-CM Diagnosis	Arterial embolism and thrombosis
Other arterial embolism	444*	ICD-9-CM Diagnosis	Arterial embolism and thrombosis
Other arterial embolism	444**	ICD-9-CM Diagnosis	Arterial embolism and thrombosis
Other arterial embolism	445	ICD-9-CM Diagnosis	Atheroembolism
Other arterial embolism	445*	ICD-9-CM Diagnosis	Atheroembolism
Other arterial embolism	445**	ICD-9-CM Diagnosis	Atheroembolism
Other gastrointestinal ulcer disease	531.7	ICD-9-CM Diagnosis	Chronic gastric ulcer without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	531.7*	ICD-9-CM Diagnosis	Chronic gastric ulcer without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	531.9	ICD-9-CM Diagnosis	Gastric ulcer unspecified as acute or chronic without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	531.9*	ICD-9-CM Diagnosis	Gastric ulcer unspecified as acute or chronic without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	532.7	ICD-9-CM Diagnosis	Chronic duodenal ulcer without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	532.7*	ICD-9-CM Diagnosis	Chronic duodenal ulcer without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	532.9	ICD-9-CM Diagnosis	Duodenal ulcer unspecified as acute or chronic without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	532.9*	ICD-9-CM Diagnosis	Duodenal ulcer unspecified as acute or chronic without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	533.7	ICD-9-CM Diagnosis	Chronic peptic ulcer of unspecified site without mention of hemorrhage or perforation

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Covariate	Code	Code Type	Description
Other gastrointestinal ulcer disease	533.7*	ICD-9-CM Diagnosis	Chronic peptic ulcer of unspecified site without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	533.9	ICD-9-CM Diagnosis	Peptic ulcer of unspecified site unspecified as acute or chronic without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	533.9*	ICD-9-CM Diagnosis	Peptic ulcer of unspecified site unspecified as acute or chronic without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	534.7	ICD-9-CM Diagnosis	Chronic gastrojejunal ulcer without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	534.7*	ICD-9-CM Diagnosis	Chronic gastrojejunal ulcer without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	534.9	ICD-9-CM Diagnosis	Gastrojejunal ulcer unspecified as acute or chronic without mention of hemorrhage or perforation
Other gastrointestinal ulcer disease	534.9*	ICD-9-CM Diagnosis	Gastrojejunal ulcer unspecified as acute or chronic without mention of hemorrhage or perforation
Other hospitalized bleed	423.0	ICD-9-CM Diagnosis	Hemopericardium
Other hospitalized bleed	423.0*	ICD-9-CM Diagnosis	Hemopericardium
Other hospitalized bleed	455.2	ICD-9-CM Diagnosis	Internal hemorrhoids with other complication
Other hospitalized bleed	455.2*	ICD-9-CM Diagnosis	Internal hemorrhoids with other complication
Other hospitalized bleed	455.5	ICD-9-CM Diagnosis	External hemorrhoids with other complication
Other hospitalized bleed	455.5*	ICD-9-CM Diagnosis	External hemorrhoids with other complication
Other hospitalized bleed	455.8	ICD-9-CM Diagnosis	Unspecified hemorrhoids with other complication
Other hospitalized bleed	455.8*	ICD-9-CM Diagnosis	Unspecified hemorrhoids with other complication
Other hospitalized bleed	456.0	ICD-9-CM Diagnosis	Esophageal varices with bleeding
Other hospitalized bleed	456.0*	ICD-9-CM Diagnosis	Esophageal varices with bleeding
Other hospitalized bleed	456.2	ICD-9-CM Diagnosis	Esophageal varices in diseases classified elsewhere
Other hospitalized bleed	456.2*	ICD-9-CM Diagnosis	Esophageal varices in diseases classified elsewhere
Other hospitalized bleed	459.0	ICD-9-CM Diagnosis	Hemorrhage, unspecified
Other hospitalized bleed	459.0*	ICD-9-CM Diagnosis	Hemorrhage, unspecified
Other hospitalized bleed	530.7	ICD-9-CM Diagnosis	Gastroesophageal laceration-hemorrhage syndrome
Other hospitalized bleed	530.7*	ICD-9-CM Diagnosis	Gastroesophageal laceration-hemorrhage syndrome
Other hospitalized bleed	530.82	ICD-9-CM Diagnosis	Esophageal hemorrhage
Other hospitalized bleed	599.7	ICD-9-CM Diagnosis	Hematuria
Other hospitalized bleed	599.7*	ICD-9-CM Diagnosis	Hematuria

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Covariate	Code	Code Type	Description
Other hospitalized bleed	719.11	ICD-9-CM Diagnosis	Hemarthrosis shoulder region
Other hospitalized bleed	784.7	ICD-9-CM Diagnosis	Epistaxis
Other hospitalized bleed	784.7*	ICD-9-CM Diagnosis	Epistaxis
Other hospitalized bleed	784.8	ICD-9-CM Diagnosis	Hemorrhage from throat
Other hospitalized bleed	784.8*	ICD-9-CM Diagnosis	Hemorrhage from throat
Other hospitalized bleed	786.3	ICD-9-CM Diagnosis	Hemoptysis
Other hospitalized bleed	786.3*	ICD-9-CM Diagnosis	Hemoptysis
Other ischemic cerebrovascular events	362.34	ICD-9-CM Diagnosis	Transient retinal arterial occlusion
Other ischemic cerebrovascular events	433.00	ICD-9-CM Diagnosis	Occlusion and stenosis of basilar artery without mention of cerebral infarction
Other ischemic cerebrovascular events	433.10	ICD-9-CM Diagnosis	Occlusion and stenosis of carotid artery without mention of cerebral infarction
Other ischemic cerebrovascular events	433.20	ICD-9-CM Diagnosis	Occlusion and stenosis of vertebral artery without mention of cerebral infarction
Other ischemic cerebrovascular events	433.30	ICD-9-CM Diagnosis	Occlusion and stenosis of multiple and bilateral precerebral arteries without mention of cerebral infarction
Other ischemic cerebrovascular events	433.80	ICD-9-CM Diagnosis	Occlusion and stenosis of other specified precerebral artery without mention of cerebral infarction
Other ischemic cerebrovascular events	433.90	ICD-9-CM Diagnosis	Occlusion and stenosis of unspecified precerebral artery without mention of cerebral infarction
Other ischemic cerebrovascular events	434.00	ICD-9-CM Diagnosis	Cerebral thrombosis without mention of cerebral infarction
Other ischemic cerebrovascular events	434.10	ICD-9-CM Diagnosis	Cerebral embolism without mention of cerebral infarction
Other ischemic cerebrovascular events	434.90	ICD-9-CM Diagnosis	Cerebral artery occlusion, unspecified, without mention of cerebral infarction
Other ischemic cerebrovascular events	435	ICD-9-CM Diagnosis	Transient cerebral ischemia
Other ischemic cerebrovascular events	435*	ICD-9-CM Diagnosis	Transient cerebral ischemia
Other ischemic cerebrovascular events	437.0	ICD-9-CM Diagnosis	Other and ill-defined cerebrovascular disease
Other ischemic cerebrovascular events	437.0*	ICD-9-CM Diagnosis	Other and ill-defined cerebrovascular disease
Other ischemic cerebrovascular events	437.1	ICD-9-CM Diagnosis	Cerebral atherosclerosis
Other ischemic cerebrovascular events	437.1*	ICD-9-CM Diagnosis	Cerebral atherosclerosis
Other ischemic cerebrovascular events	437.9	ICD-9-CM Diagnosis	Unspecified cerebrovascular disease
Other ischemic cerebrovascular events	437.9*	ICD-9-CM Diagnosis	Unspecified cerebrovascular disease
Other ischemic cerebrovascular events	438	ICD-9-CM Diagnosis	Late effects of cerebrovascular disease
Other ischemic cerebrovascular events	438*	ICD-9-CM Diagnosis	Late effects of cerebrovascular disease
Other ischemic cerebrovascular events	438**	ICD-9-CM Diagnosis	Late effects of cerebrovascular disease

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Other ischemic cerebrovascular events	381.1	ICD-9-CM Procedure	Endarterectomy, Intracranial Vessels
Other ischemic cerebrovascular events	381.2	ICD-9-CM Procedure	Endarterectomy, other vessels of head and neck
Other ischemic cerebrovascular events	384.1	ICD-9-CM Procedure	Resection Of Vessel With Replacement, Intracranial Vessels
Other ischemic cerebrovascular events	384.2	ICD-9-CM Procedure	Resection of vessel with replacement, other vessels of head and neck
Other ischemic heart disease	411	ICD-9-CM Diagnosis	Other acute and subacute forms of ischemic heart disease
Other ischemic heart disease	411*	ICD-9-CM Diagnosis	Other acute and subacute forms of ischemic heart disease
Other ischemic heart disease	411**	ICD-9-CM Diagnosis	Other acute and subacute forms of ischemic heart disease
Percutaneous coronary intervention (PCI)	V45.82	ICD-9-CM Diagnosis	Percutaneous transluminal coronary angioplasty status
Percutaneous coronary intervention (PCI)	006.6	ICD-9-CM Procedure	Percutaneous transluminal coronary angioplasty
Percutaneous coronary intervention (PCI)	360	ICD-9-CM Procedure	removal of coronary artery obstruction and insertion of stent
Percutaneous coronary intervention (PCI)	360*	ICD-9-CM Procedure	removal of coronary artery obstruction and insertion of stent
Percutaneous coronary intervention (PCI)	372.2	ICD-9-CM Procedure	Left heart cardiac catheterization
Percutaneous coronary intervention (PCI)	372.3	ICD-9-CM Procedure	Combined Right And Left Heart Cardiac Catheterization
Percutaneous coronary intervention (PCI)	885	ICD-9-CM Procedure	Angiocardiology Using Contrast Material
Percutaneous coronary intervention (PCI)	885*	ICD-9-CM Procedure	Angiocardiology Using Contrast Material
Percutaneous coronary intervention (PCI)	92973	CPT-4 Procedure	PRQ CORONARY MECH THROMBECT
Percutaneous coronary intervention (PCI)	92974	CPT-4 Procedure	CATH PLACE CARDIO BRACHYTX
Percutaneous coronary intervention (PCI)	92977	CPT-4 Procedure	DISSOLVE CLOT HEART VESSEL
Percutaneous coronary intervention (PCI)	92980	CPT-4 Procedure	INSERT INTRACORONARY STENT
Percutaneous coronary intervention (PCI)	92981	CPT-4 Procedure	INSERT INTRACORONARY STENT
Percutaneous coronary intervention (PCI)	92982	CPT-4 Procedure	CORONARY ARTERY DILATION
Percutaneous coronary intervention (PCI)	92984	CPT-4 Procedure	CORONARY ARTERY DILATION
Percutaneous coronary intervention (PCI)	92987	CPT-4 Procedure	REVISION OF MITRAL VALVE
Percutaneous coronary intervention (PCI)	92995	CPT-4 Procedure	CORONARY ATHERECTOMY
Percutaneous coronary intervention (PCI)	92996	CPT-4 Procedure	CORONARY ATHERECTOMY ADD-ON
Percutaneous coronary intervention (PCI)	G0290	HCPCS Procedure	Transcatheter placement of a drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; single vessel
Percutaneous coronary intervention (PCI)	G0291	HCPCS Procedure	Transcatheter placement of a drug eluting intracoronary stent(s), percutaneous, with or without other therapeutic intervention, any method; each additional vessel
Peripheral vascular disease	440	ICD-9-CM Diagnosis	Atherosclerosis

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Peripheral vascular disease	440*	ICD-9-CM Diagnosis	Atherosclerosis
Peripheral vascular disease	440**	ICD-9-CM Diagnosis	Atherosclerosis
Peripheral vascular disease	441.2	ICD-9-CM Diagnosis	Thoracic aneurysm without mention of rupture
Peripheral vascular disease	441.2*	ICD-9-CM Diagnosis	Thoracic aneurysm without mention of rupture
Peripheral vascular disease	441.4	ICD-9-CM Diagnosis	Abdominal aneurysm without mention of rupture
Peripheral vascular disease	441.4*	ICD-9-CM Diagnosis	Abdominal aneurysm without mention of rupture
Peripheral vascular disease	441.7	ICD-9-CM Diagnosis	Thoracoabdominal aneurysm, without mention of rupture
Peripheral vascular disease	441.7*	ICD-9-CM Diagnosis	Thoracoabdominal aneurysm, without mention of rupture
Peripheral vascular disease	441.9	ICD-9-CM Diagnosis	Aortic aneurysm of unspecified site without mention of rupture
Peripheral vascular disease	441.9*	ICD-9-CM Diagnosis	Aortic aneurysm of unspecified site without mention of rupture
Peripheral vascular disease	443.1	ICD-9-CM Diagnosis	Thromboangiitis obliterans [Buerger's disease]
Peripheral vascular disease	443.1*	ICD-9-CM Diagnosis	Thromboangiitis obliterans [Buerger's disease]
Peripheral vascular disease	443.2	ICD-9-CM Diagnosis	Other arterial dissection
Peripheral vascular disease	443.2*	ICD-9-CM Diagnosis	Other arterial dissection
Peripheral vascular disease	443.8	ICD-9-CM Diagnosis	Other specified peripheral vascular diseases
Peripheral vascular disease	443.8*	ICD-9-CM Diagnosis	Other specified peripheral vascular diseases
Peripheral vascular disease	443.9	ICD-9-CM Diagnosis	Peripheral vascular disease, unspecified
Peripheral vascular disease	443.9*	ICD-9-CM Diagnosis	Peripheral vascular disease, unspecified
Peripheral vascular disease	447.1	ICD-9-CM Diagnosis	Stricture of artery
Peripheral vascular disease	447.1*	ICD-9-CM Diagnosis	Stricture of artery
Peripheral vascular disease	557.1	ICD-9-CM Diagnosis	Chronic vascular insufficiency of intestine
Peripheral vascular disease	557.1*	ICD-9-CM Diagnosis	Chronic vascular insufficiency of intestine
Peripheral vascular disease	557.9	ICD-9-CM Diagnosis	Unspecified vascular insufficiency of intestine
Peripheral vascular disease	557.9*	ICD-9-CM Diagnosis	Unspecified vascular insufficiency of intestine
Peripheral vascular disease	V43.4	ICD-9-CM Diagnosis	Blood vessel replaced by other means
Peripheral vascular disease	V43.4*	ICD-9-CM Diagnosis	Blood vessel replaced by other means
Peripheral vascular disease	381.8	ICD-9-CM Procedure	
Peripheral vascular disease	35454	CPT-4 Procedure	
Peripheral vascular disease	35456	CPT-4 Procedure	
Peripheral vascular disease	35459	CPT-4 Procedure	
Peripheral vascular disease	35470	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Peripheral vascular disease	35473	CPT-4 Procedure	
Peripheral vascular disease	35474	CPT-4 Procedure	
Peripheral vascular disease	35482	CPT-4 Procedure	
Peripheral vascular disease	35483	CPT-4 Procedure	
Peripheral vascular disease	35492	CPT-4 Procedure	
Peripheral vascular disease	35493	CPT-4 Procedure	
Peripheral vascular disease	35495	CPT-4 Procedure	
Peripheral vascular disease	37207	CPT-4 Procedure	
Peripheral vascular disease	37208	CPT-4 Procedure	
Peripheral vascular disease	37220	CPT-4 Procedure	
Peripheral vascular disease	37221	CPT-4 Procedure	
Peripheral vascular disease	37222	CPT-4 Procedure	
Peripheral vascular disease	37223	CPT-4 Procedure	
Peripheral vascular disease	37224	CPT-4 Procedure	
Peripheral vascular disease	37225	CPT-4 Procedure	
Peripheral vascular disease	37226	CPT-4 Procedure	
Peripheral vascular disease	37227	CPT-4 Procedure	
Peripheral vascular disease	37228	CPT-4 Procedure	
Peripheral vascular disease	37229	CPT-4 Procedure	
Peripheral vascular disease	37230	CPT-4 Procedure	
Peripheral vascular disease	37231	CPT-4 Procedure	
Peripheral vascular disease	37232	CPT-4 Procedure	
Peripheral vascular disease	37233	CPT-4 Procedure	
Peripheral vascular disease	37234	CPT-4 Procedure	
Peripheral vascular disease	37235	CPT-4 Procedure	
Peripheral vascular disease	392.5	ICD-9-CM Procedure	
Peripheral vascular disease	392.9	ICD-9-CM Procedure	
Peripheral vascular disease	35351	CPT-4 Procedure	
Peripheral vascular disease	35355	CPT-4 Procedure	
Peripheral vascular disease	35361	CPT-4 Procedure	
Peripheral vascular disease	35363	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Peripheral vascular disease	35371	CPT-4 Procedure	
Peripheral vascular disease	35372	CPT-4 Procedure	
Peripheral vascular disease	35521	CPT-4 Procedure	
Peripheral vascular disease	35533	CPT-4 Procedure	
Peripheral vascular disease	35541	CPT-4 Procedure	
Peripheral vascular disease	35546	CPT-4 Procedure	
Peripheral vascular disease	35548	CPT-4 Procedure	
Peripheral vascular disease	35549	CPT-4 Procedure	
Peripheral vascular disease	35551	CPT-4 Procedure	
Peripheral vascular disease	35556	CPT-4 Procedure	
Peripheral vascular disease	35558	CPT-4 Procedure	
Peripheral vascular disease	35563	CPT-4 Procedure	
Peripheral vascular disease	35565	CPT-4 Procedure	
Peripheral vascular disease	35566	CPT-4 Procedure	
Peripheral vascular disease	35570	CPT-4 Procedure	
Peripheral vascular disease	35571	CPT-4 Procedure	
Peripheral vascular disease	35681	CPT-4 Procedure	
Peripheral vascular disease	35682	CPT-4 Procedure	
Peripheral vascular disease	35683	CPT-4 Procedure	
Peripheral vascular disease	35879	CPT-4 Procedure	
Peripheral vascular disease	841.0	ICD-9-CM Procedure	
Peripheral vascular disease	841.1	ICD-9-CM Procedure	
Peripheral vascular disease	841.2	ICD-9-CM Procedure	
Peripheral vascular disease	841.3	ICD-9-CM Procedure	
Peripheral vascular disease	841.4	ICD-9-CM Procedure	
Peripheral vascular disease	841.5	ICD-9-CM Procedure	
Peripheral vascular disease	841.6	ICD-9-CM Procedure	
Peripheral vascular disease	841.7	ICD-9-CM Procedure	
Peripheral vascular disease	27295	CPT-4 Procedure	
Peripheral vascular disease	27590	CPT-4 Procedure	
Peripheral vascular disease	27591	CPT-4 Procedure	

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Covariate	Code	Code Type	Description
Peripheral vascular disease	27592	CPT-4 Procedure	
Peripheral vascular disease	27598	CPT-4 Procedure	
Peripheral vascular disease	27880	CPT-4 Procedure	
Peripheral vascular disease	27881	CPT-4 Procedure	
Peripheral vascular disease	27882	CPT-4 Procedure	
Peripheral vascular disease	27888	CPT-4 Procedure	
Peripheral vascular disease	27889	CPT-4 Procedure	
Peripheral vascular disease	28800	CPT-4 Procedure	
Peripheral vascular disease	28805	CPT-4 Procedure	
Peripheral vascular disease	28810	CPT-4 Procedure	
Peripheral vascular disease	28820	CPT-4 Procedure	
Peripheral vascular disease	28825	CPT-4 Procedure	
Prior central venous thrombosis	325	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of intracranial venous sinuses
Prior central venous thrombosis	437.6	ICD-9-CM Diagnosis	Nonpyogenic thrombosis of intracranial venous sinus
Prior central venous thrombosis	437.6*	ICD-9-CM Diagnosis	Nonpyogenic thrombosis of intracranial venous sinus
Prior VTE/phlebitis	451.11	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of femoral vein (deep) (superficial)
Prior VTE/phlebitis	451.19	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of deep veins of lower extremities, other
Prior VTE/phlebitis	451.2	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of lower extremities, unspecified
Prior VTE/phlebitis	451.2*	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of lower extremities, unspecified
Prior VTE/phlebitis	451.9	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of unspecified site
Prior VTE/phlebitis	451.9*	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of unspecified site
Prior VTE/phlebitis	453.1	ICD-9-CM Diagnosis	Thrombophlebitis migrans
Prior VTE/phlebitis	453.1*	ICD-9-CM Diagnosis	Thrombophlebitis migrans
Prior VTE/phlebitis	453.2	ICD-9-CM Diagnosis	Other venous embolism and thrombosis of inferior vena cava
Prior VTE/phlebitis	453.2*	ICD-9-CM Diagnosis	Other venous embolism and thrombosis of inferior vena cava
Prior VTE/phlebitis	453.40	ICD-9-CM Diagnosis	Acute venous embolism and thrombosis of unspecified deep vessels of lower extremity
Prior VTE/phlebitis	453.41	ICD-9-CM Diagnosis	Acute venous embolism and thrombosis of deep vessels of proximal lower extremity
Prior VTE/phlebitis	453.42	ICD-9-CM Diagnosis	Acute venous embolism and thrombosis of deep vessels of distal lower extremity
Prior VTE/phlebitis	453.9	ICD-9-CM Diagnosis	Other venous embolism and thrombosis of unspecified site

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Covariate	Code	Code Type	Description
Prior VTE/phlebitis	453.9*	ICD-9-CM Diagnosis	Other venous embolism and thrombosis of unspecified site
Prior VTE/phlebitis	V12.51	ICD-9-CM Diagnosis	Personal history of venous thrombosis and embolism
Prior VTE/phlebitis	451.0	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of superficial vessels of lower extremities
Prior VTE/phlebitis	451.0*	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of superficial vessels of lower extremities
Prior VTE/phlebitis	451.8	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of other sites
Prior VTE/phlebitis	451.8*	ICD-9-CM Diagnosis	Phlebitis and thrombophlebitis of other sites
Prior VTE/phlebitis	453.0	ICD-9-CM Diagnosis	Budd-chiari syndrome
Prior VTE/phlebitis	453.0*	ICD-9-CM Diagnosis	Budd-chiari syndrome
Prior VTE/phlebitis	453.3	ICD-9-CM Diagnosis	Other venous embolism and thrombosis of renal vein
Prior VTE/phlebitis	453.3*	ICD-9-CM Diagnosis	Other venous embolism and thrombosis of renal vein
Prior VTE/phlebitis	453.5	ICD-9-CM Diagnosis	Chronic venous embolism and thrombosis of deep vessels of lower extremity
Prior VTE/phlebitis	453.5*	ICD-9-CM Diagnosis	Chronic venous embolism and thrombosis of deep vessels of lower extremity
Prior VTE/phlebitis	453.6	ICD-9-CM Diagnosis	Venous embolism and thrombosis of superficial vessels of lower extremity
Prior VTE/phlebitis	453.6*	ICD-9-CM Diagnosis	Venous embolism and thrombosis of superficial vessels of lower extremity
Prior VTE/phlebitis	453.7	ICD-9-CM Diagnosis	Chronic venous embolism and thrombosis of other specified vessels
Prior VTE/phlebitis	453.7*	ICD-9-CM Diagnosis	Chronic venous embolism and thrombosis of other specified vessels
Prior VTE/phlebitis	453.8	ICD-9-CM Diagnosis	Acute venous embolism and thrombosis of other specified veins
Prior VTE/phlebitis	453.8*	ICD-9-CM Diagnosis	Acute venous embolism and thrombosis of other specified veins
Prior VTE/phlebitis	449	ICD-9-CM Diagnosis	Septic arterial embolism
Prior VTE/phlebitis	452	ICD-9-CM Diagnosis	Portal vein thrombosis
Prior VTE/phlebitis	336.1	ICD-9-CM Diagnosis	Vascular myelopathies
Prior VTE/phlebitis	336.1*	ICD-9-CM Diagnosis	Vascular myelopathies
Prior VTE/phlebitis	362.3	ICD-9-CM Diagnosis	Retinal vascular occlusion
Prior VTE/phlebitis	362.3*	ICD-9-CM Diagnosis	Retinal vascular occlusion
Prior VTE/phlebitis	573.4	ICD-9-CM Diagnosis	Hepatic infarction
Prior VTE/phlebitis	573.4*	ICD-9-CM Diagnosis	Hepatic infarction
Prior VTE/phlebitis	593.81	ICD-9-CM Diagnosis	Vascular disorders of kidney
Smoking and tobacco use	305.1	ICD-9-CM Diagnosis	Tobacco use disorder
Smoking and tobacco use	305.1*	ICD-9-CM Diagnosis	Tobacco use disorder
Smoking and tobacco use	649.0	ICD-9-CM Diagnosis	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium
Smoking and tobacco use	649.0*	ICD-9-CM Diagnosis	Tobacco use disorder complicating pregnancy, childbirth, or the puerperium

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Covariate	Code	Code Type	Description
Smoking and tobacco use	989.84	ICD-9-CM Diagnosis	Toxic effect of tobacco
Smoking and tobacco use	V15.82	ICD-9-CM Diagnosis	Personal history of tobacco use
Smoking and tobacco use	83887	CPT-4 Procedure	Nicotine
Smoking and tobacco use	99406	CPT-4 Procedure	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes
Smoking and tobacco use	99407	CPT-4 Procedure	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes
Smoking and tobacco use	1034F	CPT-4 Procedure	Current tobacco smoker (CAD, CAP, COPD, PV) (DM)
Smoking and tobacco use	1035F	CPT-4 Procedure	Current smokeless tobacco user (eg, chew, snuff) (PV)
Smoking and tobacco use	4000F	CPT-4 Procedure	Tobacco use cessation intervention, counseling (COPD, CAP, CAD, Asthma)(DM)(PV)
Smoking and tobacco use	4001F	CPT-4 Procedure	Tobacco use cessation intervention, pharmacologic therapy (COPD, CAD, CAP, PV, Asthma) (DM)(PV)
Smoking and tobacco use	4004F	CPT-4 Procedure	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 use	C9801	HCPCS Procedure	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes
Smoking and tobacco use	C9802	HCPCS Procedure	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes
Smoking and tobacco use	G0375	HCPCS Procedure	Smoking and tobacco use cessation counseling visit; intermediate, greater than 3 minutes up to 10 minutes
Smoking and tobacco use	G0376	HCPCS Procedure	Smoking and tobacco use cessation counseling visit; intensive, greater than 10 minutes
Smoking and tobacco use	G0436	HCPCS Procedure	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intermediate, greater than 3 minutes, up to 10 minutes
Smoking and tobacco use	G0437	HCPCS Procedure	Smoking and tobacco cessation counseling visit for the asymptomatic patient; intensive, greater than 10 minutes
Smoking and tobacco use	G8093	HCPCS Procedure	Newly diagnosed chronic obstructive pulmonary disease (copd) patient documented to have received smoking cessation intervention, within 3 months of diagnosis

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Covariate	Code	Code Type	Description
Smoking and tobacco use	G8094	HCPCS Procedure	Newly diagnosed chronic obstructive pulmonary disease (copd) patient not documented to have received smoking cessation intervention, within 3 months of diagnosis
Smoking and tobacco use	G8402	HCPCS Procedure	Tobacco (smoke) use cessation intervention, counseling
Smoking and tobacco use	G8403	HCPCS Procedure	Tobacco (smoke) use cessation intervention not counseled
Smoking and tobacco use	G8453	HCPCS Procedure	Tobacco use cessation intervention, counseling
Smoking and tobacco use	G8454	HCPCS Procedure	Tobacco use cessation intervention not counseled, reason not specified
Smoking and tobacco use	G8455	HCPCS Procedure	Current tobacco smoker
Smoking and tobacco use	G8456	HCPCS Procedure	Current smokeless tobacco user
Smoking and tobacco use	G8688	HCPCS Procedure	Currently a smokeless tobacco user (eg, chew, snuff) and no exposure to secondhand smoke
Smoking and tobacco use	G9016	HCPCS Procedure	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]
Smoking and tobacco use	S4990	HCPCS Procedure	Nicotine patches, legend
Smoking and tobacco use	S4991	HCPCS Procedure	Nicotine patches, non-legend
Smoking and tobacco use	S4995	HCPCS Procedure	Smoking cessation gum
Smoking and tobacco use	S9075	HCPCS Procedure	Smoking cessation treatment
Smoking and tobacco use	S9453	HCPCS Procedure	Smoking cessation classes, non-physician provider, per session
Transient ischemic attack	435	ICD-9-CM Diagnosis	Transient cerebral ischemia
Transient ischemic attack	435*	ICD-9-CM Diagnosis	Transient cerebral ischemia
Trauma with likely immobilization	800	ICD-9-CM Diagnosis	Fracture of vault of skull
Trauma with likely immobilization	800*	ICD-9-CM Diagnosis	Fracture of vault of skull
Trauma with likely immobilization	800**	ICD-9-CM Diagnosis	Fracture of vault of skull
Trauma with likely immobilization	801	ICD-9-CM Diagnosis	Fracture of base of skull
Trauma with likely immobilization	801*	ICD-9-CM Diagnosis	Fracture of base of skull
Trauma with likely immobilization	801**	ICD-9-CM Diagnosis	Fracture of base of skull
Trauma with likely immobilization	802	ICD-9-CM Diagnosis	Fracture of face bones
Trauma with likely immobilization	802*	ICD-9-CM Diagnosis	Fracture of face bones
Trauma with likely immobilization	802**	ICD-9-CM Diagnosis	Fracture of face bones
Trauma with likely immobilization	803	ICD-9-CM Diagnosis	Other and unqualified skull fractures

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Covariate	Code	Code Type	Description
Trauma with likely immobilization	803*	ICD-9-CM Diagnosis	Other and unqualified skull fractures
Trauma with likely immobilization	803**	ICD-9-CM Diagnosis	Other and unqualified skull fractures
Trauma with likely immobilization	804	ICD-9-CM Diagnosis	Multiple fractures involving skull or face with other bones
Trauma with likely immobilization	804*	ICD-9-CM Diagnosis	Multiple fractures involving skull or face with other bones
Trauma with likely immobilization	804**	ICD-9-CM Diagnosis	Multiple fractures involving skull or face with other bones
Trauma with likely immobilization	805.1	ICD-9-CM Diagnosis	Open fracture of cervical vertebra without mention of spinal cord injury
Trauma with likely immobilization	805.1*	ICD-9-CM Diagnosis	Open fracture of cervical vertebra without mention of spinal cord injury
Trauma with likely immobilization	805.3	ICD-9-CM Diagnosis	Open fracture of dorsal [thoracic] vertebra without mention of spinal cord injury
Trauma with likely immobilization	805.3*	ICD-9-CM Diagnosis	Open fracture of dorsal [thoracic] vertebra without mention of spinal cord injury
Trauma with likely immobilization	805.5	ICD-9-CM Diagnosis	Open fracture of lumbar vertebra without mention of spinal cord injury
Trauma with likely immobilization	805.5*	ICD-9-CM Diagnosis	Open fracture of lumbar vertebra without mention of spinal cord injury
Trauma with likely immobilization	805.7	ICD-9-CM Diagnosis	Open fracture of sacrum and coccyx without mention of spinal cord injury
Trauma with likely immobilization	805.7*	ICD-9-CM Diagnosis	Open fracture of sacrum and coccyx without mention of spinal cord injury
Trauma with likely immobilization	805.9	ICD-9-CM Diagnosis	Open fracture of unspecified vertebral column without mention of spinal cord injury
Trauma with likely immobilization	805.9*	ICD-9-CM Diagnosis	Open fracture of unspecified vertebral column without mention of spinal cord injury
Trauma with likely immobilization	806	ICD-9-CM Diagnosis	Fracture of vertebral column with spinal cord injury
Trauma with likely immobilization	806*	ICD-9-CM Diagnosis	Fracture of vertebral column with spinal cord injury
Trauma with likely immobilization	806**	ICD-9-CM Diagnosis	Fracture of vertebral column with spinal cord injury
Trauma with likely immobilization	807	ICD-9-CM Diagnosis	Fracture of rib(s) sternum larynx and trachea
Trauma with likely immobilization	807*	ICD-9-CM Diagnosis	Fracture of rib(s) sternum larynx and trachea
Trauma with likely immobilization	807**	ICD-9-CM Diagnosis	Fracture of rib(s) sternum larynx and trachea
Trauma with likely immobilization	809	ICD-9-CM Diagnosis	Ill-defined fractures of bones of trunk
Trauma with likely immobilization	809*	ICD-9-CM Diagnosis	Ill-defined fractures of bones of trunk
Trauma with likely immobilization	809**	ICD-9-CM Diagnosis	Ill-defined fractures of bones of trunk
Trauma with likely immobilization	820.1	ICD-9-CM Diagnosis	Transcervical fracture open
Trauma with likely immobilization	820.1*	ICD-9-CM Diagnosis	Transcervical fracture open
Trauma with likely immobilization	820.3	ICD-9-CM Diagnosis	Petrochanteric fracture of femur open
Trauma with likely immobilization	820.3*	ICD-9-CM Diagnosis	Petrochanteric fracture of femur open
Trauma with likely immobilization	820.9	ICD-9-CM Diagnosis	Open fracture of unspecified part of neck of femur

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Covariate	Code	Code Type	Description
Trauma with likely immobilization	820.9*	ICD-9-CM Diagnosis	Open fracture of unspecified part of neck of femur
Trauma with likely immobilization	822	ICD-9-CM Diagnosis	Fracture of patella
Trauma with likely immobilization	822*	ICD-9-CM Diagnosis	Fracture of patella
Trauma with likely immobilization	822**	ICD-9-CM Diagnosis	Fracture of patella
Trauma with likely immobilization	823	ICD-9-CM Diagnosis	Fracture of tibia and fibula
Trauma with likely immobilization	823*	ICD-9-CM Diagnosis	Fracture of tibia and fibula
Trauma with likely immobilization	823**	ICD-9-CM Diagnosis	Fracture of tibia and fibula
Trauma with likely immobilization	824	ICD-9-CM Diagnosis	Fracture of ankle
Trauma with likely immobilization	824*	ICD-9-CM Diagnosis	Fracture of ankle
Trauma with likely immobilization	824**	ICD-9-CM Diagnosis	Fracture of ankle
Trauma with likely immobilization	825	ICD-9-CM Diagnosis	Fracture of one or more tarsal and metatarsal bones
Trauma with likely immobilization	825*	ICD-9-CM Diagnosis	Fracture of one or more tarsal and metatarsal bones
Trauma with likely immobilization	825**	ICD-9-CM Diagnosis	Fracture of one or more tarsal and metatarsal bones
Trauma with likely immobilization	826	ICD-9-CM Diagnosis	Fracture of one or more phalanges of foot
Trauma with likely immobilization	826*	ICD-9-CM Diagnosis	Fracture of one or more phalanges of foot
Trauma with likely immobilization	826**	ICD-9-CM Diagnosis	Fracture of one or more phalanges of foot
Trauma with likely immobilization	827	ICD-9-CM Diagnosis	Other multiple and ill-defined fractures of lower limb
Trauma with likely immobilization	827*	ICD-9-CM Diagnosis	Other multiple and ill-defined fractures of lower limb
Trauma with likely immobilization	827**	ICD-9-CM Diagnosis	Other multiple and ill-defined fractures of lower limb
Trauma with likely immobilization	828	ICD-9-CM Diagnosis	Multiple fractures involving both lower limbs lower with upper limb and lower limb(s) with rib(s) and sternum
Trauma with likely immobilization	828*	ICD-9-CM Diagnosis	Multiple fractures involving both lower limbs lower with upper limb and lower limb(s) with rib(s) and sternum
Trauma with likely immobilization	828**	ICD-9-CM Diagnosis	Multiple fractures involving both lower limbs lower with upper limb and lower limb(s) with rib(s) and sternum
Trauma with likely immobilization	829	ICD-9-CM Diagnosis	Fracture of unspecified bones
Trauma with likely immobilization	829*	ICD-9-CM Diagnosis	Fracture of unspecified bones
Trauma with likely immobilization	829**	ICD-9-CM Diagnosis	Fracture of unspecified bones
Trauma with likely immobilization	851	ICD-9-CM Diagnosis	Cerebral laceration and contusion
Trauma with likely immobilization	851*	ICD-9-CM Diagnosis	Cerebral laceration and contusion
Trauma with likely immobilization	851**	ICD-9-CM Diagnosis	Cerebral laceration and contusion

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Trauma with likely immobilization	852.1	ICD-9-CM Diagnosis	Subarachnoid hemorrhage following injury with open intracranial wound
Trauma with likely immobilization	852.1*	ICD-9-CM Diagnosis	Subarachnoid hemorrhage following injury with open intracranial wound
Trauma with likely immobilization	852.3	ICD-9-CM Diagnosis	Subdural hemorrhage following injury with open intracranial wound
Trauma with likely immobilization	852.3*	ICD-9-CM Diagnosis	Subdural hemorrhage following injury with open intracranial wound
Trauma with likely immobilization	852.5	ICD-9-CM Diagnosis	Extradural hemorrhage following injury with open intracranial wound
Trauma with likely immobilization	852.5*	ICD-9-CM Diagnosis	Extradural hemorrhage following injury with open intracranial wound
Trauma with likely immobilization	853.1	ICD-9-CM Diagnosis	Other and unspecified intracranial hemorrhage following injury with open intracranial wound
Trauma with likely immobilization	853.1*	ICD-9-CM Diagnosis	Other and unspecified intracranial hemorrhage following injury with open intracranial wound
Trauma with likely immobilization	854	ICD-9-CM Diagnosis	Intracranial injury of other and unspecified nature
Trauma with likely immobilization	854*	ICD-9-CM Diagnosis	Intracranial injury of other and unspecified nature
Trauma with likely immobilization	854**	ICD-9-CM Diagnosis	Intracranial injury of other and unspecified nature
Trauma with likely immobilization	861	ICD-9-CM Diagnosis	Injury to heart and lung
Trauma with likely immobilization	861*	ICD-9-CM Diagnosis	Injury to heart and lung
Trauma with likely immobilization	861**	ICD-9-CM Diagnosis	Injury to heart and lung
Trauma with likely immobilization	862	ICD-9-CM Diagnosis	Injury to other and unspecified intrathoracic organs
Trauma with likely immobilization	862*	ICD-9-CM Diagnosis	Injury to other and unspecified intrathoracic organs
Trauma with likely immobilization	862**	ICD-9-CM Diagnosis	Injury to other and unspecified intrathoracic organs
Trauma with likely immobilization	863	ICD-9-CM Diagnosis	Injury to gastrointestinal tract
Trauma with likely immobilization	863*	ICD-9-CM Diagnosis	Injury to gastrointestinal tract
Trauma with likely immobilization	863**	ICD-9-CM Diagnosis	Injury to gastrointestinal tract
Trauma with likely immobilization	864	ICD-9-CM Diagnosis	Injury to liver
Trauma with likely immobilization	864*	ICD-9-CM Diagnosis	Injury to liver
Trauma with likely immobilization	864**	ICD-9-CM Diagnosis	Injury to liver
Trauma with likely immobilization	865	ICD-9-CM Diagnosis	Injury to spleen
Trauma with likely immobilization	865*	ICD-9-CM Diagnosis	Injury to spleen
Trauma with likely immobilization	865**	ICD-9-CM Diagnosis	Injury to spleen
Trauma with likely immobilization	866	ICD-9-CM Diagnosis	Injury to kidney
Trauma with likely immobilization	866*	ICD-9-CM Diagnosis	Injury to kidney
Trauma with likely immobilization	866**	ICD-9-CM Diagnosis	Injury to kidney

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Trauma with likely immobilization	867	ICD-9-CM Diagnosis	Injury to pelvic organs
Trauma with likely immobilization	867*	ICD-9-CM Diagnosis	Injury to pelvic organs
Trauma with likely immobilization	867**	ICD-9-CM Diagnosis	Injury to pelvic organs
Trauma with likely immobilization	868	ICD-9-CM Diagnosis	Injury to other intra-abdominal organs
Trauma with likely immobilization	868*	ICD-9-CM Diagnosis	Injury to other intra-abdominal organs
Trauma with likely immobilization	868**	ICD-9-CM Diagnosis	Injury to other intra-abdominal organs
Trauma with likely immobilization	869	ICD-9-CM Diagnosis	Internal injury to unspecified or ill-defined organs
Trauma with likely immobilization	869*	ICD-9-CM Diagnosis	Internal injury to unspecified or ill-defined organs
Trauma with likely immobilization	869**	ICD-9-CM Diagnosis	Internal injury to unspecified or ill-defined organs
Trauma with likely immobilization	870	ICD-9-CM Diagnosis	Open wound of ocular adnexa
Trauma with likely immobilization	870*	ICD-9-CM Diagnosis	Open wound of ocular adnexa
Trauma with likely immobilization	870**	ICD-9-CM Diagnosis	Open wound of ocular adnexa
Trauma with likely immobilization	890	ICD-9-CM Diagnosis	Open wound of hip and thigh
Trauma with likely immobilization	890*	ICD-9-CM Diagnosis	Open wound of hip and thigh
Trauma with likely immobilization	890**	ICD-9-CM Diagnosis	Open wound of hip and thigh
Trauma with likely immobilization	891	ICD-9-CM Diagnosis	Open wound of knee leg (except thigh) and ankle
Trauma with likely immobilization	891*	ICD-9-CM Diagnosis	Open wound of knee leg (except thigh) and ankle
Trauma with likely immobilization	891**	ICD-9-CM Diagnosis	Open wound of knee leg (except thigh) and ankle
Trauma with likely immobilization	892	ICD-9-CM Diagnosis	Open wound of foot except toe(s) alone
Trauma with likely immobilization	892*	ICD-9-CM Diagnosis	Open wound of foot except toe(s) alone
Trauma with likely immobilization	892**	ICD-9-CM Diagnosis	Open wound of foot except toe(s) alone
Trauma with likely immobilization	893	ICD-9-CM Diagnosis	Open wound of toe(s)
Trauma with likely immobilization	893*	ICD-9-CM Diagnosis	Open wound of toe(s)
Trauma with likely immobilization	893**	ICD-9-CM Diagnosis	Open wound of toe(s)
Trauma with likely immobilization	894	ICD-9-CM Diagnosis	Multiple and unspecified open wound of lower limb
Trauma with likely immobilization	894*	ICD-9-CM Diagnosis	Multiple and unspecified open wound of lower limb
Trauma with likely immobilization	894**	ICD-9-CM Diagnosis	Multiple and unspecified open wound of lower limb
Trauma with likely immobilization	895	ICD-9-CM Diagnosis	Traumatic amputation of toe(s) (complete) (partial)
Trauma with likely immobilization	895*	ICD-9-CM Diagnosis	Traumatic amputation of toe(s) (complete) (partial)
Trauma with likely immobilization	895**	ICD-9-CM Diagnosis	Traumatic amputation of toe(s) (complete) (partial)
Trauma with likely immobilization	896	ICD-9-CM Diagnosis	Traumatic amputation of foot (complete) (partial)

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Trauma with likely immobilization	896*	ICD-9-CM Diagnosis	Traumatic amputation of foot (complete) (partial)
Trauma with likely immobilization	896**	ICD-9-CM Diagnosis	Traumatic amputation of foot (complete) (partial)
Trauma with likely immobilization	897	ICD-9-CM Diagnosis	Traumatic amputation of leg(s) (complete) (partial)
Trauma with likely immobilization	897*	ICD-9-CM Diagnosis	Traumatic amputation of leg(s) (complete) (partial)
Trauma with likely immobilization	897**	ICD-9-CM Diagnosis	Traumatic amputation of leg(s) (complete) (partial)
Trauma with likely immobilization	925	ICD-9-CM Diagnosis	Crushing injury of face scalp and neck
Trauma with likely immobilization	925*	ICD-9-CM Diagnosis	Crushing injury of face scalp and neck
Trauma with likely immobilization	925**	ICD-9-CM Diagnosis	Crushing injury of face scalp and neck
Trauma with likely immobilization	926	ICD-9-CM Diagnosis	Crushing injury of trunk
Trauma with likely immobilization	926*	ICD-9-CM Diagnosis	Crushing injury of trunk
Trauma with likely immobilization	926**	ICD-9-CM Diagnosis	Crushing injury of trunk
Trauma with likely immobilization	927	ICD-9-CM Diagnosis	Crushing injury of upper limb
Trauma with likely immobilization	927*	ICD-9-CM Diagnosis	Crushing injury of upper limb
Trauma with likely immobilization	927**	ICD-9-CM Diagnosis	Crushing injury of upper limb
Trauma with likely immobilization	978	ICD-9-CM Diagnosis	Crushing injury of lower limb
Trauma with likely immobilization	978*	ICD-9-CM Diagnosis	Crushing injury of lower limb
Trauma with likely immobilization	978**	ICD-9-CM Diagnosis	Crushing injury of lower limb
Trauma with likely immobilization	929	ICD-9-CM Diagnosis	Crushing injury of multiple and unspecified sites
Trauma with likely immobilization	929*	ICD-9-CM Diagnosis	Crushing injury of multiple and unspecified sites
Trauma with likely immobilization	929**	ICD-9-CM Diagnosis	Crushing injury of multiple and unspecified sites
Trauma with likely immobilization	948.1	ICD-9-CM Diagnosis	Burn (any degree) involving 10-19 percent of body surface
Trauma with likely immobilization	948.1*	ICD-9-CM Diagnosis	Burn (any degree) involving 10-19 percent of body surface
Trauma with likely immobilization	948.2	ICD-9-CM Diagnosis	Burn [any degree] involving 20-29 percent of body surface with third degree burn, less than 10 percent or unspecified
Trauma with likely immobilization	948.2*	ICD-9-CM Diagnosis	Burn [any degree] involving 20-29 percent of body surface with third degree burn, less than 10 percent or unspecified
Trauma with likely immobilization	948.3	ICD-9-CM Diagnosis	Burn (any degree) involving 30-39 percent of body surface
Trauma with likely immobilization	948.3*	ICD-9-CM Diagnosis	Burn (any degree) involving 30-39 percent of body surface
Trauma with likely immobilization	948.4	ICD-9-CM Diagnosis	Burn [any degree] involving 40-49 percent of body surface with third degree burn, less than 10 percent or unspecified

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Covariate	Code	Code Type	Description
Trauma with likely immobilization	948.4*	ICD-9-CM Diagnosis	Burn [any degree] involving 40-49 percent of body surface with third degree burn, less than 10 percent or unspecified
Trauma with likely immobilization	948.5	ICD-9-CM Diagnosis	Burn (any degree) involving 50-59 percent of body surface
Trauma with likely immobilization	948.5*	ICD-9-CM Diagnosis	Burn (any degree) involving 50-59 percent of body surface
Trauma with likely immobilization	948.6	ICD-9-CM Diagnosis	Burn (any degree) involving 60-69 percent of body surface
Trauma with likely immobilization	948.6*	ICD-9-CM Diagnosis	Burn (any degree) involving 60-69 percent of body surface
Trauma with likely immobilization	948.7	ICD-9-CM Diagnosis	Burn (any degree) involving 70-79 percent of body surface
Trauma with likely immobilization	948.7*	ICD-9-CM Diagnosis	Burn (any degree) involving 70-79 percent of body surface
Trauma with likely immobilization	948.8	ICD-9-CM Diagnosis	Burn (any degree) involving 80-89 percent of body surface
Trauma with likely immobilization	948.8*	ICD-9-CM Diagnosis	Burn (any degree) involving 80-89 percent of body surface
Trauma with likely immobilization	948.9	ICD-9-CM Diagnosis	Burn (any degree) involving 90 percent or more of body surface
Trauma with likely immobilization	948.9*	ICD-9-CM Diagnosis	Burn (any degree) involving 90 percent or more of body surface
Trauma with likely immobilization	952	ICD-9-CM Diagnosis	Spinal cord injury without evidence of spinal bone injury
Trauma with likely immobilization	952*	ICD-9-CM Diagnosis	Spinal cord injury without evidence of spinal bone injury
Trauma with likely immobilization	952**	ICD-9-CM Diagnosis	Spinal cord injury without evidence of spinal bone injury
Use of home oxygen	E0424	HCPCS Procedure	Stationary compressed gaseous oxygen system, rental; includes container, contents, regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing
Use of home oxygen	E0425	HCPCS Procedure	Stationary compressed gas system, purchase; includes regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing
Use of home oxygen	E0430	HCPCS Procedure	Portable gaseous oxygen system, purchase; includes regulator, flowmeter, humidifier, cannula or mask, and tubing
Use of home oxygen	E0431	HCPCS Procedure	Portable gaseous oxygen system, rental; includes portable container, regulator, flowmeter, humidifier, cannula or mask, and tubing
Use of home oxygen	E0433	HCPCS Procedure	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
Use of home oxygen	E0434	HCPCS Procedure	Portable liquid oxygen system, rental; includes portable container, supply reservoir, humidifier, flowmeter, refill adaptor, contents gauge, cannula or mask, and tubing

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Use of home oxygen	E0435	HCPCS Procedure	Portable liquid oxygen system, purchase; includes portable container, supply reservoir, flowmeter, humidifier, contents gauge, cannula or mask, tubing and refill adaptor
Use of home oxygen	E0439	HCPCS Procedure	Stationary liquid oxygen system, rental; includes container, contents, regulator, flowmeter, humidifier, nebulizer, cannula or mask, & tubing
Use of home oxygen	E0440	HCPCS Procedure	Stationary liquid oxygen system, purchase; includes use of reservoir, contents indicator, regulator, flowmeter, humidifier, nebulizer, cannula or mask, and tubing
Use of home oxygen	E0441	HCPCS Procedure	Stationary oxygen contents, gaseous, 1 month's supply = 1 unit
Use of home oxygen	E0442	HCPCS Procedure	Stationary oxygen contents, liquid, 1 month's supply = 1 unit
Use of home oxygen	E0443	HCPCS Procedure	Portable oxygen contents, gaseous, 1 month's supply = 1 unit
Use of home oxygen	E0444	HCPCS Procedure	Portable oxygen contents, liquid, 1 month's supply = 1 unit
Use of home oxygen	E1390	HCPCS Procedure	Oxygen concentrator, single delivery port, capable of delivering 85 percent or greater oxygen concentration at the prescribed flow rate
Use of home oxygen	E1391	HCPCS Procedure	Oxygen concentrator, dual delivery port, capable of delivering 85 percent or greater oxygen concentration at the prescribed flow rate, each
Use of home oxygen	E1392	HCPCS Procedure	Portable oxygen concentrator, rental
Use of home oxygen	E1405	HCPCS Procedure	Oxygen and water vapor enriching system with heated delivery
Use of home oxygen	E1406	HCPCS Procedure	Oxygen and water vapor enriching system without heated delivery
VTE risk NOS indicators	3551F	CPT-4 Procedure	Intermediate risk for thromboembolism (AFIB)
VTE risk NOS indicators	3552F	CPT-4 Procedure	High risk for thromboembolism (AFIB)
VTE risk NOS indicators	4044F	CPT-4 Procedure	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 use	E0130	HCPCS Procedure	Walker, rigid (pickup), adjustable or fixed height
Walker use	E0135	HCPCS Procedure	Walker, folding (pickup), adjustable or fixed height
Walker use	E0140	HCPCS Procedure	Walker, with trunk support, adjustable or fixed height, any type
Walker use	E0141	HCPCS Procedure	Walker, rigid, wheeled, adjustable or fixed height
Walker use	E0143	HCPCS Procedure	Walker, folding, wheeled, adjustable or fixed height
Walker use	E0144	HCPCS Procedure	Walker, enclosed, four sided framed, rigid or folding, wheeled with posterior seat
Walker use	E0147	HCPCS Procedure	Walker, heavy duty, multiple braking system, variable wheel resistance
Walker use	E0148	HCPCS Procedure	Walker, heavy duty, without wheels, rigid or folding, any type, each

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Walker use	E0149	HCPCS Procedure	Walker, heavy duty, wheeled, rigid or folding, any type
Walker use	E0153	HCPCS Procedure	Platform attachment, forearm crutch, each
Walker use	E0154	HCPCS Procedure	Platform attachment, walker, each
Walker use	E0155	HCPCS Procedure	Wheel attachment, rigid pick-up walker, per pair
Walker use	E0156	HCPCS Procedure	Seat attachment, walker
Walker use	E0157	HCPCS Procedure	Crutch attachment, walker, each
Walker use	E0158	HCPCS Procedure	Leg extensions for walker, per set of four (4)
Walker use	E0159	HCPCS Procedure	Brake attachment for wheeled walker, replacement, each
Wheelchair use	E1031	HCPCS Procedure	Rollabout chair, any and all types with castors 5" or greater
Wheelchair use	E1035	HCPCS Procedure	Multi-positional patient transfer system, with integrated seat, operated by care giver, patient weight capacity up to and including 300 lbs
Wheelchair use	E1038	HCPCS Procedure	Transport chair, adult size, patient weight capacity up to and including 300 pounds
Wheelchair use	E1039	HCPCS Procedure	Transport chair, adult size, heavy duty, patient weight capacity greater than 300 pounds
Wheelchair use	E1050	HCPCS Procedure	Fully-reclining wheelchair, fixed full length arms, swing away detachable elevating leg rests
Wheelchair use	E1060	HCPCS Procedure	Fully-reclining wheelchair, detachable arms, desk or full length, swing away detachable elevating legrests
Wheelchair use	E1070	HCPCS Procedure	Fully-reclining wheelchair, detachable arms (desk or full length) swing away detachable footrest
Wheelchair use	E1083	HCPCS Procedure	Hemi-wheelchair, fixed full length arms, swing away detachable elevating leg rest
Wheelchair use	E1084	HCPCS Procedure	Hemi-wheelchair, detachable arms desk or full length arms, swing away detachable elevating leg rests
Wheelchair use	E1085	HCPCS Procedure	Hemi-wheelchair, fixed full length arms, swing away detachable foot rests
Wheelchair use	E1086	HCPCS Procedure	Hemi-wheelchair detachable arms desk or full length, swing away detachable footrests
Wheelchair use	E1087	HCPCS Procedure	High strength lightweight wheelchair, fixed full length arms, swing away detachable elevating leg rests
Wheelchair use	E1088	HCPCS Procedure	High strength lightweight wheelchair, detachable arms desk or full length, swing away detachable elevating leg rests

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E1089	HCPCS Procedure	High strength lightweight wheelchair, fixed length arms, swing away detachable footrest
Wheelchair use	E1090	HCPCS Procedure	High strength lightweight wheelchair, detachable arms desk or full length, swing away detachable foot rests
Wheelchair use	E1092	HCPCS Procedure	Wide heavy duty wheel chair, detachable arms (desk or full length), swing away detachable elevating leg rests
Wheelchair use	E1093	HCPCS Procedure	Wide heavy duty wheelchair, detachable arms desk or full length arms, swing away detachable footrests
Wheelchair use	E1100	HCPCS Procedure	Semi-reclining wheelchair, fixed full length arms, swing away detachable elevating leg rests
Wheelchair use	E1110	HCPCS Procedure	Semi-reclining wheelchair, detachable arms (desk or full length) elevating leg rest
Wheelchair use	E1130	HCPCS Procedure	Standard wheelchair, fixed full length arms, fixed or swing away detachable footrests
Wheelchair use	E1140	HCPCS Procedure	Wheelchair, detachable arms, desk or full length, swing away detachable footrests
Wheelchair use	E1150	HCPCS Procedure	Wheelchair, detachable arms, desk or full length swing away detachable elevating legrests
Wheelchair use	E1160	HCPCS Procedure	Wheelchair, fixed full length arms, swing away detachable elevating legrests
Wheelchair use	E1161	HCPCS Procedure	Manual adult size wheelchair, includes tilt in space
Wheelchair use	E1170	HCPCS Procedure	Amputee wheelchair, fixed full length arms, swing away detachable elevating legrests
Wheelchair use	E1171	HCPCS Procedure	Amputee wheelchair, fixed full length arms, without footrests or legrest
Wheelchair use	E1172	HCPCS Procedure	Amputee wheelchair, detachable arms (desk or full length) without footrests or legrest
Wheelchair use	E1180	HCPCS Procedure	Amputee wheelchair, detachable arms (desk or full length) swing away detachable footrests
Wheelchair use	E1190	HCPCS Procedure	Amputee wheelchair, detachable arms (desk or full length) swing away detachable elevating legrests
Wheelchair use	E1195	HCPCS Procedure	Heavy duty wheelchair, fixed full length arms, swing away detachable elevating legrests
Wheelchair use	E1200	HCPCS Procedure	Amputee wheelchair, fixed full length arms, swing away detachable footrest

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E1220	HCPCS Procedure	Wheelchair; specially sized or constructed, (indicate brand name, model number, if any) and justification
Wheelchair use	E1221	HCPCS Procedure	Wheelchair with fixed arm, footrests
Wheelchair use	E1222	HCPCS Procedure	Wheelchair with fixed arm, elevating legrests
Wheelchair use	E1223	HCPCS Procedure	Wheelchair with detachable arms, footrests
Wheelchair use	E1224	HCPCS Procedure	Wheelchair with detachable arms, elevating legrests
Wheelchair use	E1129	HCPCS Procedure	Wheelchair, pediatric size, not otherwise specified
Wheelchair use	E1230	HCPCS Procedure	Power operated vehicle (three or four wheel nonhighway) specify brand name and model number
Wheelchair use	E1231	HCPCS Procedure	Wheelchair, pediatric size, tilt-in-space, rigid, adjustable, with seating system
Wheelchair use	E1232	HCPCS Procedure	Wheelchair, pediatric size, tilt-in-space, folding, adjustable, with seating system
Wheelchair use	E1233	HCPCS Procedure	Wheelchair, pediatric size, tilt-in-space, rigid, adjustable, without seating system
Wheelchair use	E1234	HCPCS Procedure	Wheelchair, pediatric size, tilt-in-space, folding, adjustable, without seating system
Wheelchair use	E1235	HCPCS Procedure	Wheelchair, pediatric size, rigid, adjustable, with seating system
Wheelchair use	E1236	HCPCS Procedure	Wheelchair, pediatric size, folding, adjustable, with seating system
Wheelchair use	E1237	HCPCS Procedure	Wheelchair, pediatric size, rigid, adjustable, without seating system
Wheelchair use	E1238	HCPCS Procedure	Wheelchair, pediatric size, folding, adjustable, without seating system
Wheelchair use	E1239	HCPCS Procedure	Power wheelchair, pediatric size, not otherwise specified
Wheelchair use	E1240	HCPCS Procedure	Lightweight wheelchair, detachable arms, (desk or full length) swing away detachable, elevating legrest
Wheelchair use	E1250	HCPCS Procedure	Lightweight wheelchair, fixed full length arms, swing away detachable footrest
Wheelchair use	E1260	HCPCS Procedure	Lightweight wheelchair, detachable arms (desk or full length) swing away detachable footrest
Wheelchair use	E1270	HCPCS Procedure	Lightweight wheelchair, fixed full length arms, swing away detachable elevating legrests
Wheelchair use	E1280	HCPCS Procedure	Heavy duty wheelchair, detachable arms (desk or full length) elevating legrests
Wheelchair use	E1285	HCPCS Procedure	Heavy duty wheelchair, fixed full length arms, swing away detachable footrest
Wheelchair use	E1290	HCPCS Procedure	Heavy duty wheelchair, detachable arms (desk or full length) swing away detachable footrest
Wheelchair use	E1295	HCPCS Procedure	Heavy duty wheelchair, fixed full length arms, elevating legrest
Wheelchair use	E1296	HCPCS Procedure	Special wheelchair seat height from floor

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Covariate	Code	Code Type	Description
Wheelchair use	E1297	HCPCS Procedure	Special wheelchair seat depth, by upholstery
Wheelchair use	E1298	HCPCS Procedure	Special wheelchair seat depth and/or width, by construction
Wheelchair use	E0950	HCPCS Procedure	Wheelchair accessory, tray, each
Wheelchair use	E0951	HCPCS Procedure	Heel loop/holder, any type, with or without ankle strap, each
Wheelchair use	E0952	HCPCS Procedure	Toe loop/holder, any type, each
Wheelchair use	E0955	HCPCS Procedure	Wheelchair accessory, headrest, cushioned, any type, including fixed mounting hardware, each
Wheelchair use	E0956	HCPCS Procedure	Wheelchair accessory, lateral trunk or hip support, any type, including fixed mounting hardware, each
Wheelchair use	E0957	HCPCS Procedure	Wheelchair accessory, medial thigh support, any type, including fixed mounting hardware, each
Wheelchair use	E0958	HCPCS Procedure	Manual wheelchair accessory, one-arm drive attachment, each
Wheelchair use	E0959	HCPCS Procedure	Manual wheelchair accessory, adapter for amputee, each
Wheelchair use	E0960	HCPCS Procedure	Wheelchair accessory, shoulder harness/straps or chest strap, including any type mounting hardware
Wheelchair use	E0961	HCPCS Procedure	Manual wheelchair accessory, wheel lock brake extension (handle), each
Wheelchair use	E0966	HCPCS Procedure	Manual wheelchair accessory, headrest extension, each
Wheelchair use	E0967	HCPCS Procedure	Manual wheelchair accessory, hand rim with projections, any type, each
Wheelchair use	E0968	HCPCS Procedure	Commode seat, wheelchair
Wheelchair use	E0969	HCPCS Procedure	Narrowing device, wheelchair
Wheelchair use	E0970	HCPCS Procedure	No. 2 footplates, except for elevating leg rest
Wheelchair use	E0971	HCPCS Procedure	Manual wheelchair accessory, anti-tipping device, each
Wheelchair use	E0973	HCPCS Procedure	Wheelchair accessory, adjustable height, detachable armrest, complete assembly, each
Wheelchair use	E0974	HCPCS Procedure	Manual wheelchair accessory, anti-rollback device, each
Wheelchair use	E0978	HCPCS Procedure	Wheelchair accessory, positioning belt/safety belt/pelvic strap, each
Wheelchair use	E0980	HCPCS Procedure	Safety vest, wheelchair
Wheelchair use	E0981	HCPCS Procedure	Wheelchair accessory, seat upholstery, replacement only, each
Wheelchair use	E0982	HCPCS Procedure	Wheelchair accessory, back upholstery, replacement only, each
Wheelchair use	E0983	HCPCS Procedure	Manual wheelchair accessory, power add-on to convert manual wheelchair to motorized wheelchair, joystick control

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Covariate	Code	Code Type	Description
Wheelchair use	E0984	HCPCS Procedure	Manual wheelchair accessory, power add-on to convert manual wheelchair to motorized wheelchair, tiller control
Wheelchair use	E0985	HCPCS Procedure	Wheelchair accessory, seat lift mechanism
Wheelchair use	E0986	HCPCS Procedure	Manual wheelchair accessory, push activated power assist, each
Wheelchair use	E0988	HCPCS Procedure	Manual wheelchair accessory, lever-activated, wheel drive, pair
Wheelchair use	E0990	HCPCS Procedure	Wheelchair accessory, elevating leg rest, complete assembly, each
Wheelchair use	E0992	HCPCS Procedure	Manual wheelchair accessory, solid seat insert
Wheelchair use	E0994	HCPCS Procedure	Arm rest, each
Wheelchair use	E0995	HCPCS Procedure	Wheelchair accessory, calf rest/pad, each
Wheelchair use	E1002	HCPCS Procedure	Wheelchair accessory, power seating system, tilt only
Wheelchair use	E1003	HCPCS Procedure	Wheelchair accessory, power seating system, recline only, without shear reduction
Wheelchair use	E1004	HCPCS Procedure	Wheelchair accessory, power seating system, recline only, with mechanical shear reduction
Wheelchair use	E1005	HCPCS Procedure	Wheelchair accessory, power seating system, recline only, with power shear reduction
Wheelchair use	E1006	HCPCS Procedure	Wheelchair accessory, power seating system, combination tilt and recline, without shear reduction
Wheelchair use	E1007	HCPCS Procedure	Wheelchair accessory, power seating system, combination tilt and recline, with mechanical shear reduction
Wheelchair use	E1008	HCPCS Procedure	Wheelchair accessory, power seating system, combination tilt and recline, with power shear reduction
Wheelchair use	E1009	HCPCS Procedure	Wheelchair accessory, addition to power seating system, mechanically linked leg elevation system, including pushrod and leg rest, each
Wheelchair use	E1010	HCPCS Procedure	Wheelchair accessory, addition to power seating system, power leg elevation system, including leg rest, pair
Wheelchair use	E1011	HCPCS Procedure	Modification to pediatric size wheelchair, width adjustment package (not to be dispensed with initial chair)
Wheelchair use	E1014	HCPCS Procedure	Reclining back, addition to pediatric size wheelchair
Wheelchair use	E1015	HCPCS Procedure	Shock absorber for manual wheelchair, each
Wheelchair use	E1016	HCPCS Procedure	Shock absorber for power wheelchair, each

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E1017	HCPCS Procedure	Heavy duty shock absorber for heavy duty or extra heavy duty manual wheelchair, each
Wheelchair use	E1018	HCPCS Procedure	Heavy duty shock absorber for heavy duty or extra heavy duty power wheelchair, each
Wheelchair use	E1020	HCPCS Procedure	Residual limb support system for wheelchair, any type
Wheelchair use	E1028	HCPCS Procedure	Wheelchair accessory, manual swingaway, retractable or removable mounting hardware for joystick, other control interface or positioning accessory
Wheelchair use	E1029	HCPCS Procedure	Wheelchair accessory, ventilator tray, fixed
Wheelchair use	E1030	HCPCS Procedure	Wheelchair accessory, ventilator tray, gimbaled
Wheelchair use	E1225	HCPCS Procedure	Wheelchair accessory, manual semi-reclining back, (recline greater than 15 degrees, but less than 80 degrees), each
Wheelchair use	E1226	HCPCS Procedure	Wheelchair accessory, manual fully reclining back, (recline greater than 80 degrees), each
Wheelchair use	E1227	HCPCS Procedure	Special height arms for wheelchair
Wheelchair use	E1228	HCPCS Procedure	Special back height for wheelchair
Wheelchair use	E2201	HCPCS Procedure	Manual wheelchair accessory, nonstandard seat frame, width greater than or equal to 20 inches and less than 24 inches
Wheelchair use	E2202	HCPCS Procedure	Manual wheelchair accessory, nonstandard seat frame width, 24-27 inches
Wheelchair use	E2203	HCPCS Procedure	Manual wheelchair accessory, nonstandard seat frame depth, 20 to less than 22 inches
Wheelchair use	E2204	HCPCS Procedure	Manual wheelchair accessory, nonstandard seat frame depth, 22 to 25 inches
Wheelchair use	E2205	HCPCS Procedure	Manual wheelchair accessory, handrim without projections (includes ergonomic or contoured), any type, replacement only, each
Wheelchair use	E2206	HCPCS Procedure	Manual wheelchair accessory, wheel lock assembly, complete, each
Wheelchair use	E2207	HCPCS Procedure	Wheelchair accessory, crutch and cane holder, each
Wheelchair use	E2208	HCPCS Procedure	Wheelchair accessory, cylinder tank carrier, each
Wheelchair use	E2209	HCPCS Procedure	Accessory, arm trough, with or without hand support, each
Wheelchair use	E2210	HCPCS Procedure	Wheelchair accessory, bearings, any type, replacement only, each
Wheelchair use	E2211	HCPCS Procedure	Manual wheelchair accessory, pneumatic propulsion tire, any size, each
Wheelchair use	E2212	HCPCS Procedure	Manual wheelchair accessory, tube for pneumatic propulsion tire, any size, each

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E2213	HCPCS Procedure	Manual wheelchair accessory, insert for pneumatic propulsion tire (removable), any type, any size, each
Wheelchair use	E2214	HCPCS Procedure	Manual wheelchair accessory, pneumatic caster tire, any size, each
Wheelchair use	E2215	HCPCS Procedure	Manual wheelchair accessory, tube for pneumatic caster tire, any size, each
Wheelchair use	E2216	HCPCS Procedure	Manual wheelchair accessory, foam filled propulsion tire, any size, each
Wheelchair use	E2217	HCPCS Procedure	Manual wheelchair accessory, foam filled caster tire, any size, each
Wheelchair use	E2218	HCPCS Procedure	Manual wheelchair accessory, foam propulsion tire, any size, each
Wheelchair use	E2219	HCPCS Procedure	Manual wheelchair accessory, foam caster tire, any size, each
Wheelchair use	E2220	HCPCS Procedure	Manual wheelchair accessory, solid (rubber/plastic) propulsion tire, any size, each
Wheelchair use	E2221	HCPCS Procedure	Manual wheelchair accessory, solid (rubber/plastic) caster tire (removable), any size, each
Wheelchair use	E2222	HCPCS Procedure	Manual wheelchair accessory, solid (rubber/plastic) caster tire with integrated wheel, any size, each
Wheelchair use	E2223	HCPCS Procedure	Manual wheelchair accessory, valve, any type, replacement only, each
Wheelchair use	E2224	HCPCS Procedure	Manual wheelchair accessory, propulsion wheel excludes tire, any size, each
Wheelchair use	E2225	HCPCS Procedure	Manual wheelchair accessory, caster wheel excludes tire, any size, replacement only, each
Wheelchair use	E2226	HCPCS Procedure	Manual wheelchair accessory, caster fork, any size, replacement only, each
Wheelchair use	E2300	HCPCS Procedure	Power wheelchair accessory, power seat elevation system
Wheelchair use	E2301	HCPCS Procedure	Power wheelchair accessory, power standing system
Wheelchair use	E2310	HCPCS Procedure	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
Wheelchair use	E2311	HCPCS Procedure	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
Wheelchair use	E2312	HCPCS Procedure	Power wheelchair accessory, hand or chin control interface, mini-proportional remote joystick, proportional, including fixed mounting hardware
Wheelchair use	E2313	HCPCS Procedure	Power wheelchair accessory, harness for upgrade to expandable controller, including all fasteners, connectors and mounting hardware, each

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E2321	HCPCS Procedure	Power wheelchair accessory, hand control interface, remote joystick, nonproportional, including all related electronics, mechanical stop switch, and fixed mounting hardware
Wheelchair use	E2322	HCPCS Procedure	Power wheelchair accessory, hand control interface, multiple mechanical switches, nonproportional, including all related electronics, mechanical stop switch, and fixed mounting hardware
Wheelchair use	E2323	HCPCS Procedure	Power wheelchair accessory, specialty joystick handle for hand control interface, prefabricated
Wheelchair use	E2324	HCPCS Procedure	Power wheelchair accessory, chin cup for chin control interface
Wheelchair use	E2325	HCPCS Procedure	Power wheelchair accessory, sip and puff interface, nonproportional, including all related electronics, mechanical stop switch, and manual swingaway mounting hardware
Wheelchair use	E2326	HCPCS Procedure	Power wheelchair accessory, breath tube kit for sip and puff interface
Wheelchair use	E2327	HCPCS Procedure	Power wheelchair accessory, head control interface, mechanical, proportional, including all related electronics, mechanical direction change switch, and fixed mounting hardware
Wheelchair use	E2328	HCPCS Procedure	Power wheelchair accessory, head control or extremity control interface, electronic, proportional, including all related electronics and fixed mounting hardware
Wheelchair use	E2329	HCPCS Procedure	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
Wheelchair use	E2330	HCPCS Procedure	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
Wheelchair use	E2331	HCPCS Procedure	Power wheelchair accessory, attendant control, proportional, including all related electronics and fixed mounting hardware
Wheelchair use	E2340	HCPCS Procedure	Power wheelchair accessory, nonstandard seat frame width, 20-23 inches
Wheelchair use	E2341	HCPCS Procedure	Power wheelchair accessory, nonstandard seat frame width, 24-27 inches
Wheelchair use	E2342	HCPCS Procedure	Power wheelchair accessory, nonstandard seat frame depth, 20 or 21 inches
Wheelchair use	E2343	HCPCS Procedure	Power wheelchair accessory, nonstandard seat frame depth, 22-25 inches

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E2351	HCPCS Procedure	Power wheelchair accessory, electronic interface to operate speech generating device using power wheelchair control interface
Wheelchair use	E2358	HCPCS Procedure	Power wheelchair accessory, group 34 non-sealed lead acid battery, each
Wheelchair use	E2359	HCPCS Procedure	Power wheelchair accessory, group 34 sealed lead acid battery, each (e. g. gel cell, absorbed glassmat)
Wheelchair use	E2360	HCPCS Procedure	Power wheelchair accessory, 22 nf non-sealed lead acid battery, each
Wheelchair use	E2361	HCPCS Procedure	Power wheelchair accessory, 22nf sealed lead acid battery, each, (e. g. gel cell, absorbed glassmat)
Wheelchair use	E2362	HCPCS Procedure	Power wheelchair accessory, group 24 non-sealed lead acid battery, each
Wheelchair use	E2363	HCPCS Procedure	Power wheelchair accessory, group 24 sealed lead acid battery, each (e. g. gel cell, absorbed glassmat)
Wheelchair use	E2364	HCPCS Procedure	Power wheelchair accessory, u-1 non-sealed lead acid battery, each
Wheelchair use	E2365	HCPCS Procedure	Power wheelchair accessory, u-1 sealed lead acid battery, each (e. g. gel cell, absorbed glassmat)
Wheelchair use	E2366	HCPCS Procedure	Power wheelchair accessory, battery charger, single mode, for use with only one battery type, sealed or non-sealed, each
Wheelchair use	E2367	HCPCS Procedure	Power wheelchair accessory, battery charger, dual mode, for use with either battery type, sealed or non-sealed, each
Wheelchair use	E2368	HCPCS Procedure	Power wheelchair component, drive wheel motor, replacement only
Wheelchair use	E2369	HCPCS Procedure	Power wheelchair component, drive wheel gear box, replacement only
Wheelchair use	E2370	HCPCS Procedure	Power wheelchair component, integrated drive wheel motor and gear box combination, replacement only
Wheelchair use	E2371	HCPCS Procedure	Power wheelchair accessory, group 27 sealed lead acid battery, (e. g. gel cell, absorbed glassmat), each
Wheelchair use	E2372	HCPCS Procedure	Power wheelchair accessory, group 27 non-sealed lead acid battery, each
Wheelchair use	E2373	HCPCS Procedure	Power wheelchair accessory, hand or chin control interface, compact remote joystick, proportional, including fixed mounting hardware
Wheelchair use	E2374	HCPCS Procedure	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

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E2375	HCPCS Procedure	Power wheelchair accessory, non-expandable controller, including all related electronics and mounting hardware, replacement only
Wheelchair use	E2376	HCPCS Procedure	Power wheelchair accessory, expandable controller, including all related electronics and mounting hardware, replacement only
Wheelchair use	E2377	HCPCS Procedure	Power wheelchair accessory, expandable controller, including all related electronics and mounting hardware, upgrade provided at initial issue
Wheelchair use	E2378	HCPCS Procedure	Power wheelchair component, actuator, replacement only
Wheelchair use	E2381	HCPCS Procedure	Power wheelchair accessory, pneumatic drive wheel tire, any size, replacement only, each
Wheelchair use	E2382	HCPCS Procedure	Power wheelchair accessory, tube for pneumatic drive wheel tire, any size, replacement only, each
Wheelchair use	E2383	HCPCS Procedure	Power wheelchair accessory, insert for pneumatic drive wheel tire (removable), any type, any size, replacement only, each
Wheelchair use	E2384	HCPCS Procedure	Power wheelchair accessory, pneumatic caster tire, any size, replacement only, each
Wheelchair use	E2385	HCPCS Procedure	Power wheelchair accessory, tube for pneumatic caster tire, any size, replacement only, each
Wheelchair use	E2386	HCPCS Procedure	Power wheelchair accessory, foam filled drive wheel tire, any size, replacement only, each
Wheelchair use	E2387	HCPCS Procedure	Power wheelchair accessory, foam filled caster tire, any size, replacement only, each
Wheelchair use	E2388	HCPCS Procedure	Power wheelchair accessory, foam drive wheel tire, any size, replacement only, each
Wheelchair use	E2389	HCPCS Procedure	Power wheelchair accessory, foam caster tire, any size, replacement only, each
Wheelchair use	E2390	HCPCS Procedure	Power wheelchair accessory, solid (rubber/plastic) drive wheel tire, any size, replacement only, each
Wheelchair use	E2391	HCPCS Procedure	Power wheelchair accessory, solid (rubber/plastic) caster tire (removable), any size, replacement only, each
Wheelchair use	E2392	HCPCS Procedure	Power wheelchair accessory, solid (rubber/plastic) caster tire with integrated wheel, any size, replacement only, each

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E2393	HCPCS Procedure	Power wheelchair accessory, valve for pneumatic tire tube, any type, replacement only, each
Wheelchair use	E2394	HCPCS Procedure	Power wheelchair accessory, drive wheel excludes tire, any size, replacement only, each
Wheelchair use	E2395	HCPCS Procedure	Power wheelchair accessory, caster wheel excludes tire, any size, replacement only, each
Wheelchair use	E2396	HCPCS Procedure	Power wheelchair accessory, caster fork, any size, replacement only, each
Wheelchair use	E2397	HCPCS Procedure	Power wheelchair accessory, lithium-based battery, each
Wheelchair use	E2399	HCPCS Procedure	Power wheelchair accessory, not otherwise classified interface, including all related electronics and any type mounting hardware
Wheelchair use	E2402	HCPCS Procedure	Negative pressure wound therapy electrical pump, stationary or portable
Wheelchair use	E2601	HCPCS Procedure	General use wheelchair seat cushion, width less than 22 inches, any depth
Wheelchair use	E2602	HCPCS Procedure	General use wheelchair seat cushion, width 22 inches or greater, any depth
Wheelchair use	E2603	HCPCS Procedure	Skin protection wheelchair seat cushion, width less than 22 inches, any depth
Wheelchair use	E2604	HCPCS Procedure	Skin protection wheelchair seat cushion, width 22 inches or greater, any depth
Wheelchair use	E2605	HCPCS Procedure	Positioning wheelchair seat cushion, width less than 22 inches, any depth
Wheelchair use	E2606	HCPCS Procedure	Positioning wheelchair seat cushion, width 22 inches or greater, any depth
Wheelchair use	E2607	HCPCS Procedure	Skin protection and positioning wheelchair seat cushion, width less than 22 inches, any depth
Wheelchair use	E2608	HCPCS Procedure	Skin protection and positioning wheelchair seat cushion, width 22 inches or greater, any depth
Wheelchair use	E2609	HCPCS Procedure	Custom fabricated wheelchair seat cushion, any size
Wheelchair use	E2610	HCPCS Procedure	Wheelchair seat cushion, powered
Wheelchair use	E2611	HCPCS Procedure	General use wheelchair back cushion, width less than 22 inches, any height, including any type mounting hardware
Wheelchair use	E2612	HCPCS Procedure	General use wheelchair back cushion, width 22 inches or greater, any height, including any type mounting hardware
Wheelchair use	E2613	HCPCS Procedure	Positioning wheelchair back cushion, posterior, width less than 22 inches, any height, including any type mounting hardware
Wheelchair use	E2614	HCPCS Procedure	Positioning wheelchair back cushion, posterior, width 22 inches or greater, any height, including any type mounting hardware

Appendix E. International Classification of Diseases, Ninth Edition, Clinical Modification (ICD-9-CM), Healthcare Common Procedure Coding System (HCPCS), and Current Procedural Terminology, Fourth Revision (CPT-4) Codes Used to Define Diagnosis and Procedure Covariates in this Request

Covariate	Code	Code Type	Description
Wheelchair use	E2615	HCPCS Procedure	Positioning wheelchair back cushion, posterior-lateral, width less than 22 inches, any height, including any type mounting hardware
Wheelchair use	E2616	HCPCS Procedure	Positioning wheelchair back cushion, posterior-lateral, width 22 inches or greater, any height, including any type mounting hardware
Wheelchair use	E2617	HCPCS Procedure	Custom fabricated wheelchair back cushion, any size, including any type mounting hardware
Wheelchair use	E2618	HCPCS Procedure	Wheelchair accessory, solid seat support base (replaces sling seat), for use with manual wheelchair or lightweight power wheelchair, includes any type mounting hardware
Wheelchair use	E2619	HCPCS Procedure	Replacement cover for wheelchair seat cushion or back cushion, each
Wheelchair use	E2620	HCPCS Procedure	Positioning wheelchair back cushion, planar back with lateral supports, width less than 22 inches, any height, including any type mounting hardware
Wheelchair use	E2621	HCPCS Procedure	Positioning wheelchair back cushion, planar back with lateral supports, width 22 inches or greater, any height, including any type mounting hardware

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ACE Inhibitors	LISINOPRIL	PRINIVIL	TABLET	5 MG	ORAL
ACE Inhibitors	LISINOPRIL	PRINIVIL	TABLET	10 MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	PRINZIDE	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	PRINZIDE	TABLET	10-12.5MG	ORAL
ACE Inhibitors	LISINOPRIL	PRINIVIL	TABLET	20 MG	ORAL
ACE Inhibitors	PERINDOPRIL ERBUMINE	ACEON	TABLET	2 MG	ORAL
ACE Inhibitors	PERINDOPRIL ERBUMINE	ACEON	TABLET	4 MG	ORAL
ACE Inhibitors	PERINDOPRIL ERBUMINE	ACEON	TABLET	8 MG	ORAL
ACE Inhibitors	RAMIPRIL	RAMIPRIL	CAPSULE	1.25 MG	ORAL
ACE Inhibitors	RAMIPRIL	RAMIPRIL	CAPSULE	2.5 MG	ORAL
ACE Inhibitors	RAMIPRIL	RAMIPRIL	CAPSULE	5 MG	ORAL
ACE Inhibitors	RAMIPRIL	RAMIPRIL	CAPSULE	10 MG	ORAL
ACE Inhibitors	PERINDOPRIL ERBUMINE	PERINDOPRIL ERBUMINE	TABLET	2 MG	ORAL
ACE Inhibitors	PERINDOPRIL ERBUMINE	PERINDOPRIL ERBUMINE	TABLET	4 MG	ORAL
ACE Inhibitors	PERINDOPRIL ERBUMINE	PERINDOPRIL ERBUMINE	TABLET	8 MG	ORAL
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	ACCURETIC	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	ACCURETIC	TABLET	10-12.5MG	ORAL
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	ACCURETIC	TABLET	20-25MG	ORAL
ACE Inhibitors	QUINAPRIL HCL	ACCUPRIL	TABLET	5 MG	ORAL
ACE Inhibitors	QUINAPRIL HCL	ACCUPRIL	TABLET	10 MG	ORAL
ACE Inhibitors	QUINAPRIL HCL	ACCUPRIL	TABLET	20 MG	ORAL
ACE Inhibitors	QUINAPRIL HCL	ACCUPRIL	TABLET	40 MG	ORAL
ACE Inhibitors	TRANDOLAPRIL	MAVIK	TABLET	1 MG	ORAL
ACE Inhibitors	TRANDOLAPRIL	MAVIK	TABLET	2 MG	ORAL
ACE Inhibitors	TRANDOLAPRIL	MAVIK	TABLET	4 MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TARKA	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2 MG-180MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TARKA	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1-240MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TARKA	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2-240MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TARKA	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	4-240MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	10 MG-20MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	10 MG-40MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	5 MG-40 MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	2.5MG-10MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	5 MG-10 MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	5 MG-20 MG	ORAL
ACE Inhibitors	BENAZEPRIL HCL	LOTENSIN	TABLET	5 MG	ORAL
ACE Inhibitors	BENAZEPRIL HCL	LOTENSIN	TABLET	10 MG	ORAL
ACE Inhibitors	BENAZEPRIL HCL	LOTENSIN	TABLET	20 MG	ORAL
ACE Inhibitors	BENAZEPRIL HCL	LOTENSIN	TABLET	40 MG	ORAL
ACE Inhibitors	BENAZEPRIL/HYDROCHLOROTHIAZIDE	LOTENSIN HCT	TABLET	5-6.25MG	ORAL
ACE Inhibitors	BENAZEPRIL/HYDROCHLOROTHIAZIDE	LOTENSIN HCT	TABLET	10-12.5MG	ORAL
ACE Inhibitors	BENAZEPRIL/HYDROCHLOROTHIAZIDE	LOTENSIN HCT	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	BENAZEPRIL/HYDROCHLOROTHIAZIDE	LOTENSIN HCT	TABLET	20-25MG	ORAL
ACE Inhibitors	FOSINOPRIL SODIUM	MONOPRIL	TABLET	10 MG	ORAL
ACE Inhibitors	FOSINOPRIL SODIUM	MONOPRIL	TABLET	20 MG	ORAL
ACE Inhibitors	FOSINOPRIL SODIUM	MONOPRIL	TABLET	40 MG	ORAL
ACE Inhibitors	FOSINOPRIL/HYDROCHLOROTHIAZIDE	MONOPRIL HCT	TABLET	10-12.5MG	ORAL
ACE Inhibitors	FOSINOPRIL/HYDROCHLOROTHIAZIDE	MONOPRIL HCT	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	MOEXIPRIL HCL	UNIVASC	TABLET	7.5 MG	ORAL
ACE Inhibitors	MOEXIPRIL/HYDROCHLOROTHIAZIDE	UNIRETIC	TABLET	7.5-12.5MG	ORAL
ACE Inhibitors	MOEXIPRIL HCL	UNIVASC	TABLET	15 MG	ORAL
ACE Inhibitors	MOEXIPRIL/HYDROCHLOROTHIAZIDE	UNIRETIC	TABLET	15-12.5MG	ORAL
ACE Inhibitors	MOEXIPRIL/HYDROCHLOROTHIAZIDE	UNIRETIC	TABLET	15-25MG	ORAL
ACE Inhibitors	MOEXIPRIL HCL	MOEXIPRIL HCL	TABLET	7.5 MG	ORAL
ACE Inhibitors	ENALAPRIL MALEATE	ENALAPRIL MALEATE	TABLET	2.5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ACE Inhibitors	ENALAPRIL MALEATE	ENALAPRIL MALEATE	TABLET	5 MG	ORAL
ACE Inhibitors	ENALAPRIL MALEATE	ENALAPRIL MALEATE	TABLET	10 MG	ORAL
ACE Inhibitors	ENALAPRIL MALEATE	ENALAPRIL MALEATE	TABLET	20 MG	ORAL
ACE Inhibitors	CAPTOPRIL/HYDROCHLOROTHIAZIDE	CAPTOPRIL-HYDROCHLOROTHIAZIDE	TABLET	25 MG-15MG	ORAL
ACE Inhibitors	CAPTOPRIL/HYDROCHLOROTHIAZIDE	CAPTOPRIL-HYDROCHLOROTHIAZIDE	TABLET	25 MG-25MG	ORAL
ACE Inhibitors	CAPTOPRIL/HYDROCHLOROTHIAZIDE	CAPTOPRIL-HYDROCHLOROTHIAZIDE	TABLET	50 MG-15MG	ORAL
ACE Inhibitors	CAPTOPRIL/HYDROCHLOROTHIAZIDE	CAPTOPRIL-HYDROCHLOROTHIAZIDE	TABLET	50 MG-25MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	10-12.5MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HCTZ	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	ENALAPRIL/HYDROCHLOROTHIAZIDE	ENALAPRIL-HYDROCHLOROTHIAZIDE	TABLET	5MG-12.5MG	ORAL
ACE Inhibitors	QUINAPRIL HCL	QUINAPRIL HCL	TABLET	20 MG	ORAL
ACE Inhibitors	QUINAPRIL HCL	QUINAPRIL HCL	TABLET	5 MG	ORAL
ACE Inhibitors	QUINAPRIL HCL	QUINAPRIL HCL	TABLET	10 MG	ORAL
ACE Inhibitors	ENALAPRIL/HYDROCHLOROTHIAZIDE	ENALAPRIL-HYDROCHLOROTHIAZIDE	TABLET	10 MG-25MG	ORAL
ACE Inhibitors	QUINAPRIL HCL	QUINAPRIL HCL	TABLET	40 MG	ORAL
ACE Inhibitors	BENAZEPRIL HCL	BENAZEPRIL HCL	TABLET	5 MG	ORAL
ACE Inhibitors	BENAZEPRIL HCL	BENAZEPRIL HCL	TABLET	10 MG	ORAL
ACE Inhibitors	BENAZEPRIL HCL	BENAZEPRIL HCL	TABLET	20 MG	ORAL
ACE Inhibitors	BENAZEPRIL HCL	BENAZEPRIL HCL	TABLET	40 MG	ORAL
ACE Inhibitors	MOEXIPRIL HCL	MOEXIPRIL HCL	TABLET	15 MG	ORAL
ACE Inhibitors	MOEXIPRIL/HYDROCHLOROTHIAZIDE	MOEXIPRIL-HYDROCHLOROTHIAZIDE	TABLET	7.5-12.5MG	ORAL
ACE Inhibitors	MOEXIPRIL/HYDROCHLOROTHIAZIDE	MOEXIPRIL-HYDROCHLOROTHIAZIDE	TABLET	15-12.5MG	ORAL
ACE Inhibitors	MOEXIPRIL/HYDROCHLOROTHIAZIDE	MOEXIPRIL-HYDROCHLOROTHIAZIDE	TABLET	15-25MG	ORAL
ACE Inhibitors	FOSINOPRIL SODIUM	FOSINOPRIL SODIUM	TABLET	10 MG	ORAL
ACE Inhibitors	FOSINOPRIL SODIUM	FOSINOPRIL SODIUM	TABLET	20 MG	ORAL
ACE Inhibitors	FOSINOPRIL SODIUM	FOSINOPRIL SODIUM	TABLET	40 MG	ORAL
ACE Inhibitors	TRANDOLAPRIL	TRANDOLAPRIL	TABLET	1 MG	ORAL
ACE Inhibitors	TRANDOLAPRIL	TRANDOLAPRIL	TABLET	2 MG	ORAL
ACE Inhibitors	TRANDOLAPRIL	TRANDOLAPRIL	TABLET	4 MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	2.5MG-10MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	5 MG-10 MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	5 MG-20 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	10 MG-20MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	5 MG-40 MG	ORAL
ACE Inhibitors	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	10 MG-40MG	ORAL
ACE Inhibitors	CAPTOPRIL	CAPTOPRIL	TABLET	12.5 MG	ORAL
ACE Inhibitors	CAPTOPRIL	CAPTOPRIL	TABLET	25 MG	ORAL
ACE Inhibitors	CAPTOPRIL	CAPTOPRIL	TABLET	50 MG	ORAL
ACE Inhibitors	CAPTOPRIL	CAPTOPRIL	TABLET	100 MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-25MG	ORAL
ACE Inhibitors	LISINOPRIL	LISINOPRIL	TABLET	2.5 MG	ORAL
ACE Inhibitors	LISINOPRIL	LISINOPRIL	TABLET	5 MG	ORAL
ACE Inhibitors	LISINOPRIL	LISINOPRIL	TABLET	10 MG	ORAL
ACE Inhibitors	LISINOPRIL	LISINOPRIL	TABLET	20 MG	ORAL
ACE Inhibitors	LISINOPRIL	LISINOPRIL	TABLET	40 MG	ORAL
ACE Inhibitors	LISINOPRIL	LISINOPRIL	TABLET	30 MG	ORAL
ACE Inhibitors	ENALAPRILAT DIHYDRATE	ENALAPRILAT	VIAL (ML)	1.25 MG/ML	INTRAVENOUS
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HCTZ	TABLET	20-25MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HCTZ	TABLET	10-12.5MG	ORAL
ACE Inhibitors	BENAZEPRIL/HYDROCHLOROTHIAZIDE	BENAZEPRIL-HYDROCHLOROTHIAZIDE	TABLET	10-12.5MG	ORAL
ACE Inhibitors	BENAZEPRIL/HYDROCHLOROTHIAZIDE	BENAZEPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	BENAZEPRIL/HYDROCHLOROTHIAZIDE	BENAZEPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-25MG	ORAL
ACE Inhibitors	BENAZEPRIL/HYDROCHLOROTHIAZIDE	BENAZEPRIL-HYDROCHLOROTHIAZIDE	TABLET	5-6.25MG	ORAL
ACE Inhibitors	FOSINOPRIL/HYDROCHLOROTHIAZIDE	FOSINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	10-12.5MG	ORAL
ACE Inhibitors	FOSINOPRIL/HYDROCHLOROTHIAZIDE	FOSINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	ENALAPRIL MALEATE	VASOTEC	TABLET	2.5 MG	ORAL
ACE Inhibitors	ENALAPRIL MALEATE	VASOTEC	TABLET	5 MG	ORAL
ACE Inhibitors	ENALAPRIL MALEATE	VASOTEC	TABLET	10 MG	ORAL
ACE Inhibitors	ENALAPRIL MALEATE	VASOTEC	TABLET	20 MG	ORAL
ACE Inhibitors	ENALAPRIL/HYDROCHLOROTHIAZIDE	VASERETIC	TABLET	10 MG-25MG	ORAL
ACE Inhibitors	LISINOPRIL	ZESTRIL	TABLET	20 MG	ORAL
ACE Inhibitors	RAMIPRIL	ALTACE	CAPSULE	10 MG	ORAL
ACE Inhibitors	RAMIPRIL	ALTACE	CAPSULE	5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ACE Inhibitors	LISINOPRIL	ZESTRIL	TABLET	10 MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	ZESTORETIC	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	ZESTORETIC	TABLET	20-25MG	ORAL
ACE Inhibitors	CAPTOPRIL	CAPOTEN	TABLET	50 MG	ORAL
ACE Inhibitors	LISINOPRIL	ZESTRIL	TABLET	2.5 MG	ORAL
ACE Inhibitors	LISINOPRIL	ZESTRIL	TABLET	5 MG	ORAL
ACE Inhibitors	LISINOPRIL	ZESTRIL	TABLET	30 MG	ORAL
ACE Inhibitors	LISINOPRIL	ZESTRIL	TABLET	40 MG	ORAL
ACE Inhibitors	LISINOPRIL/HYDROCHLOROTHIAZIDE	ZESTORETIC	TABLET	10-12.5MG	ORAL
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINAPRIL-HYDROCHLOROTHIAZIDE	TABLET	10-12.5MG	ORAL
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINAPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINAPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-25MG	ORAL
ACE Inhibitors	CAPTOPRIL	CAPTOPRIL	POWDER (GRAM)	100 %	MISCELLANEOUS
ACE Inhibitors	ENALAPRIL MALEATE	ENALAPRIL MALEATE	POWDER (GRAM)	100 %	MISCELLANEOUS
ACE Inhibitors	CAPTOPRIL	CAPOTEN	TABLET	12.5 MG	ORAL
ACE Inhibitors	CAPTOPRIL	CAPOTEN	TABLET	25 MG	ORAL
ACE Inhibitors	CAPTOPRIL	CAPOTEN	TABLET	100 MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1-240MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2 MG-180MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2-240MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	4-240MG	ORAL
ACE Inhibitors	LISINOPRIL	LISINOPRIL	POWDER (GRAM)	100 %	MISCELLANEOUS
ACE Inhibitors	BENAZEPRIL HCL	BENAZEPRIL HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINARETIC	TABLET	10-12.5MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINARETIC	TABLET	20-12.5 MG	ORAL
ACE Inhibitors	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINARETIC	TABLET	20-25MG	ORAL
ACE Inhibitors	ENALAPRIL MALEATE	EPANED	SOLUTION, RECONSTITUTED, ORAL	1 MG/ML	ORAL
ACE Inhibitors	RAMIPRIL	ALTACE	CAPSULE	2.5 MG	ORAL
ACE Inhibitors	RAMIPRIL	ALTACE	CAPSULE	1.25 MG	ORAL
ACE Inhibitors	ENALAPRIL/HYDROCHLOROTHIAZIDE	ENALAPRIL MALEATE-HCTZ	TABLET	5MG-12.5MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL ER	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	4-240MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL ER	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2-240MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL ER	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2 MG-180MG	ORAL
ACE Inhibitors	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL ER	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1-240MG	ORAL
ACE Inhibitors	RAMIPRIL	ALTACE	TABLET	1.25 MG	ORAL
ACE Inhibitors	RAMIPRIL	ALTACE	TABLET	2.5 MG	ORAL
ACE Inhibitors	RAMIPRIL	ALTACE	TABLET	5 MG	ORAL
ACE Inhibitors	RAMIPRIL	ALTACE	TABLET	10 MG	ORAL
ACE Inhibitors	LISINOPRIL/DIETARY SUP.CMB10	LYTENSOPRIL	COMBINATION PACKAGE (EA)	20 MG	ORAL
ACE Inhibitors	LISINOPRIL/DIETARY SUP.CMB10	LYTENSOPRIL-90	COMBINATION PACKAGE (EA)	20 MG	ORAL
Aldosterone Antagonists	SPIRONOLACTONE	ALDACTONE	TABLET	25 MG	ORAL
Aldosterone Antagonists	SPIRONOLACTONE	ALDACTONE	TABLET	100 MG	ORAL
Aldosterone Antagonists	SPIRONOLACTONE	ALDACTONE	TABLET	50 MG	ORAL
Aldosterone Antagonists	EPLERENONE	INSpra	TABLET	25 MG	ORAL
Aldosterone Antagonists	EPLERENONE	INSpra	TABLET	50 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Aldosterone Antagonists	EPLERENONE	EPLERENONE	TABLET	25 MG	ORAL
Aldosterone Antagonists	EPLERENONE	EPLERENONE	TABLET	50 MG	ORAL
Aldosterone Antagonists	SPIRONOLACTONE	SPIRONOLACTONE	TABLET	50 MG	ORAL
Aldosterone Antagonists	SPIRONOLACTONE	SPIRONOLACTONE	TABLET	100 MG	ORAL
Aldosterone Antagonists	SPIRONOLACTONE	SPIRONOLACTONE	TABLET	25 MG	ORAL
Aldosterone Antagonists	SPIRONOLACTONE	SPIRONOLACTONE	POWDER (GRAM)	100 %	MISCELLANEOUS
Antianginal Agents	NITROGLYCERIN	NITROSTAT	TABLET, SUBLINGUAL	0.3 MG	SUBLINGUAL
Antianginal Agents	NITROGLYCERIN	NITROSTAT	TABLET, SUBLINGUAL	0.4 MG	SUBLINGUAL
Antianginal Agents	NITROGLYCERIN	NITROSTAT	TABLET, SUBLINGUAL	0.6 MG	SUBLINGUAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	KIT	5 MG/ML	INTRAVENOUS
Antianginal Agents	ISOSORBIDE MONONITRATE	IMDUR	TABLET, EXTENDED RELEASE 24 HR	120 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITRO-DUR	PATCH, TRANSDERMAL 24 HOURS	0.8MG/HR	TRANSDERMAL
Antianginal Agents	ISOSORBIDE MONONITRATE	IMDUR	TABLET, EXTENDED RELEASE 24 HR	30 MG	ORAL
Antianginal Agents	ISOSORBIDE MONONITRATE	IMDUR	TABLET, EXTENDED RELEASE 24 HR	60 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITRO-DUR	PATCH, TRANSDERMAL 24 HOURS	0.1MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	NITRO-DUR	PATCH, TRANSDERMAL 24 HOURS	0.2MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	NITRO-DUR	PATCH, TRANSDERMAL 24 HOURS	0.3 MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	NITRO-DUR	PATCH, TRANSDERMAL 24 HOURS	0.4MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	NITRO-DUR	PATCH, TRANSDERMAL 24 HOURS	0.6MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN PATCH	PATCH, TRANSDERMAL 24 HOURS	0.1MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN PATCH	PATCH, TRANSDERMAL 24 HOURS	0.2MG/HR	TRANSDERMAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN PATCH	PATCH, TRANSDERMAL 24 HOURS	0.4MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN PATCH	PATCH, TRANSDERMAL 24 HOURS	0.6MG/HR	TRANSDERMAL
Antianginal Agents	ISOSORBIDE DINITRATE	DILATRATE-SR	CAPSULE, EXTENDED RELEASE	40 MG	ORAL
Antianginal Agents	ISOSORBIDE MONONITRATE	MONOKET	TABLET	10 MG	ORAL
Antianginal Agents	ISOSORBIDE MONONITRATE	MONOKET	TABLET	20 MG	ORAL
Antianginal Agents	ISOSORBIDE MONONITRATE	ISOSORBIDE MONONITRATE	TABLET	20 MG	ORAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISOSORBIDE DINITRATE	TABLET, SUBLINGUAL	2.5 MG	SUBLINGUAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISOSORBIDE DINITRATE	TABLET, SUBLINGUAL	5 MG	SUBLINGUAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISOSORBIDE DINITRATE	TABLET	5 MG	ORAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISOSORBIDE DINITRATE	TABLET	10 MG	ORAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISOSORBIDE DINITRATE	TABLET	20 MG	ORAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISOSORBIDE DINITRATE	TABLET	30 MG	ORAL
Antianginal Agents	ISOSORBIDE MONONITRATE	ISOSORBIDE MONONITRATE ER	TABLET, EXTENDED RELEASE 24 HR	30 MG	ORAL
Antianginal Agents	ISOSORBIDE MONONITRATE	ISOSORBIDE MONONITRATE	TABLET, EXTENDED RELEASE 24 HR	30 MG	ORAL
Antianginal Agents	ISOSORBIDE MONONITRATE	ISOSORBIDE MONONITRATE ER	TABLET, EXTENDED RELEASE 24 HR	60 MG	ORAL
Antianginal Agents	ISOSORBIDE MONONITRATE	ISOSORBIDE MONONITRATE	TABLET, EXTENDED RELEASE 24 HR	60 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITRO-BID	OINTMENT (GRAM)	2 %	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	CAPSULE, EXTENDED RELEASE	9 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	CAPSULE, EXTENDED RELEASE	6.5 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	CAPSULE, EXTENDED RELEASE	2.5 MG	ORAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISORDIL TITRADOSE	TABLET	5 MG	ORAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISORDIL	TABLET	40 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Antianginal Agents	ISOSORBIDE MONONITRATE	ISOSORBIDE MONONITRATE	TABLET	10 MG	ORAL
Antianginal Agents	ISOSORBIDE DINITRATE	ISOSORBIDE DINITRATE	TABLET, EXTENDED RELEASE	40 MG	ORAL
Antianginal Agents	NITROGLYCERIN/D5W	NITROGLYCERIN IN D5W	INFUSION BOTTLE (ML)	25MG/250ML	INTRAVENOUS
Antianginal Agents	NITROGLYCERIN/D5W	NITROGLYCERIN IN D5W	INFUSION BOTTLE (ML)	50MG/250ML	INTRAVENOUS
Antianginal Agents	NITROGLYCERIN/D5W	NITROGLYCERIN IN D5W	INFUSION BOTTLE (ML)	100MG/250	INTRAVENOUS
Antianginal Agents	NITROGLYCERIN/D5W	NITROGLYCERIN IN D5W	INFUSION BOTTLE (ML)	50MG/500ML	INTRAVENOUS
Antianginal Agents	NITROGLYCERIN/D5W	NITROGLYCERIN IN D5W	INFUSION BOTTLE (ML)	200MG/500	INTRAVENOUS
Antianginal Agents	ISOSORBIDE DINITRATE	ISOCHRON	TABLET, EXTENDED RELEASE	40 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	VIAL (ML)	50 MG/10ML	INTRAVENOUS
Antianginal Agents	ISOSORBIDE MONONITRATE	ISOSORBIDE MONONITRATE ER	TABLET, EXTENDED RELEASE 24 HR	120 MG	ORAL
Antianginal Agents	ISOSORB DINIT/HYDRALAZINE HCL	BIDIL	TABLET	20-37.5MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	TABLET, SUBLINGUAL	0.4 MG	SUBLINGUAL
Antianginal Agents	NITROGLYCERIN	NITROLINGUAL	SPRAY, NON-AEROSOL (GRAM)	400MCG/SPR	TRANSLINGUAL
Antianginal Agents	NITROGLYCERIN	NITROMIST	AEROSOL, SPRAY (GRAM)	400MCG/SPR	TRANSLINGUAL
Antianginal Agents	NITROGLYCERIN	MINITRAN	PATCH, TRANSDERMAL 24 HOURS	0.1MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	MINITRAN	PATCH, TRANSDERMAL 24 HOURS	0.2MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	MINITRAN	PATCH, TRANSDERMAL 24 HOURS	0.4MG/HR	TRANSDERMAL
Antianginal Agents	NITROGLYCERIN	MINITRAN	PATCH, TRANSDERMAL 24 HOURS	0.6MG/HR	TRANSDERMAL
Antianginal Agents	AMYL NITRITE	AMYL NITRITE	AMPUL (EA)	0.3 ML	INHALATION
Antianginal Agents	NITROGLYCERIN	RECTIV	OINTMENT (GRAM)	0.4% (W/W)	RECTAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	AEROSOL, SPRAY (GRAM)	400MCG/SPR	TRANSLINGUAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	SPRAY, NON-AEROSOL (GRAM)	400MCG/SPR	TRANSLINGUAL
Antianginal Agents	NITROGLYCERIN	NITRO-TIME	CAPSULE, EXTENDED RELEASE	2.5 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITRO-TIME	CAPSULE, EXTENDED RELEASE	6.5 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITRO-TIME	CAPSULE, EXTENDED RELEASE	9 MG	ORAL
Antianginal Agents	ISOSORBIDE	ISOSORBIDE	POWDER (GRAM)	98 %	MISCELLANEOUS
Antianginal Agents	ISOSORBIDE DINITRATE	ISODITRATE	TABLET, EXTENDED RELEASE	40 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITROQUICK	TABLET, SUBLINGUAL	0.4 MG	SUBLINGUAL
Antianginal Agents	ISOSORBIDE MONONITRATE	ISMO	TABLET	20 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITROQUICK	TABLET, SUBLINGUAL	0.6 MG	SUBLINGUAL
Antianginal Agents	NITROGLYCERIN	NITROQUICK	TABLET, SUBLINGUAL	0.3 MG	SUBLINGUAL
Antianginal Agents	ISOSORBIDE MONONITRATE	ISOSORBIDE MONONITRATE	TABLET, EXTENDED RELEASE 24 HR	120 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	OINTMENT (GRAM)	2 %	TRANSDERMAL
Antianginal Agents	RANOLAZINE	RANEXA	TABLET, EXTENDED RELEASE 12 HR	500 MG	ORAL
Antianginal Agents	RANOLAZINE	RANEXA	TABLET, EXTENDED RELEASE 12 HR	1000 MG	ORAL
Antianginal Agents	NITROGLYCERIN	NITRONAL	AMPUL (ML)	25MG/25ML	INTRAVENOUS
Antianginal Agents	NITROGLYCERIN	NITRONAL	VIAL (ML)	50 MG/50ML	INTRAVENOUS
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	TABLET, SUBLINGUAL	0.3 MG	SUBLINGUAL
Antianginal Agents	NITROGLYCERIN	NITROGLYCERIN	TABLET, SUBLINGUAL	0.6 MG	SUBLINGUAL
Antiarrhythmic	QUINIDINE GLUCONATE	QUINIDINE GLUCONATE	VIAL (ML)	80 MG/ML	INJECTION
Antiarrhythmic	AMIODARONE HCL	CORDARONE	TABLET	200 MG	ORAL
Antiarrhythmic	DRONEDARONE HCL	MULTAQ	TABLET	400 MG	ORAL
Antiarrhythmic	DISOPYRAMIDE PHOSPHATE	NORPACE CR	CAPSULE, EXTENDED RELEASE	100 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Antiarrhythmic	DISOPYRAMIDE PHOSPHATE	NORPACE CR	CAPSULE, EXTENDED RELEASE	150 MG	ORAL
Antiarrhythmic	DISOPYRAMIDE PHOSPHATE	NORPACE	CAPSULE	100 MG	ORAL
Antiarrhythmic	DISOPYRAMIDE PHOSPHATE	NORPACE	CAPSULE	150 MG	ORAL
Antiarrhythmic	FLECAINIDE ACETATE	FLECAINIDE ACETATE	TABLET	50 MG	ORAL
Antiarrhythmic	FLECAINIDE ACETATE	FLECAINIDE ACETATE	TABLET	100 MG	ORAL
Antiarrhythmic	FLECAINIDE ACETATE	FLECAINIDE ACETATE	TABLET	150 MG	ORAL
Antiarrhythmic	DIGOXIN	DIGOXIN	SOLUTION, ORAL	0.125/2.5	ORAL
Antiarrhythmic	DIGOXIN	DIGOXIN	SOLUTION, ORAL	50 MCG/ML	ORAL
Antiarrhythmic	FLECAINIDE ACETATE	TAMBOCOR	TABLET	150 MG	ORAL
Antiarrhythmic	DISOPYRAMIDE PHOSPHATE	DISOPYRAMIDE PHOSPHATE	CAPSULE	100 MG	ORAL
Antiarrhythmic	DISOPYRAMIDE PHOSPHATE	DISOPYRAMIDE PHOSPHATE	CAPSULE	150 MG	ORAL
Antiarrhythmic	MEXILETINE HCL	MEXILETINE HCL	CAPSULE	150 MG	ORAL
Antiarrhythmic	MEXILETINE HCL	MEXILETINE HCL	CAPSULE	200 MG	ORAL
Antiarrhythmic	MEXILETINE HCL	MEXILETINE HCL	CAPSULE	250 MG	ORAL
Antiarrhythmic	AMIODARONE HCL	AMIODARONE HCL	TABLET	200 MG	ORAL
Antiarrhythmic	QUINIDINE SULFATE	QUINIDINE SULFATE	TABLET, EXTENDED RELEASE	300 MG	ORAL
Antiarrhythmic	DIGOXIN	DIGOXIN	TABLET	125 MCG	ORAL
Antiarrhythmic	DIGOXIN	DIGOXIN	TABLET	250 MCG	ORAL
Antiarrhythmic	AMIODARONE HCL	AMIODARONE HCL	VIAL (ML)	50 MG/ML	INTRAVENOUS
Antiarrhythmic	DIGOXIN IMMUNE FAB	DIGIBIND	VIAL (EA)	38 MG	INTRAVENOUS
Antiarrhythmic	DIGOXIN	LANOXIN	TABLET	125 MCG	ORAL
Antiarrhythmic	DIGOXIN	LANOXIN	TABLET	250 MCG	ORAL
Antiarrhythmic	DIGOXIN	LANOXIN	AMPUL (ML)	250 MCG/ML	INJECTION
Antiarrhythmic	DIGOXIN	LANOXIN PEDIATRIC	AMPUL (ML)	100 MCG/ML	INJECTION
Antiarrhythmic	QUINIDINE SULFATE	QUINIDINE SULFATE	TABLET	300 MG	ORAL
Antiarrhythmic	QUINIDINE SULFATE	QUINIDINE SULFATE	TABLET	200 MG	ORAL
Antiarrhythmic	AMIODARONE HCL	PACERONE	TABLET	100 MG	ORAL
Antiarrhythmic	AMIODARONE HCL	PACERONE	TABLET	400 MG	ORAL
Antiarrhythmic	AMIODARONE HCL	PACERONE	TABLET	200 MG	ORAL
Antiarrhythmic	MEXILETINE HCL	MEXITIL	CAPSULE	200 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Antiarrhythmic	DIGOXIN IMMUNE FAB	DIGIFAB	VIAL (EA)	40 MG	INTRAVENOUS
Antiarrhythmic	DIGOXIN	DIGITEK	TABLET	125 MCG	ORAL
Antiarrhythmic	DIGOXIN	DIGITEK	TABLET	250 MCG	ORAL
Antiarrhythmic	PROCAINAMIDE HCL	PROCAINAMIDE HCL	VIAL (ML)	100 MG/ML	INJECTION
Antiarrhythmic	PROCAINAMIDE HCL	PROCAINAMIDE HCL	VIAL (ML)	500 MG/ML	INJECTION
Antiarrhythmic	DIGOXIN	DIGOXIN	SYRINGE (ML)	250 MCG/ML	INJECTION
Antiarrhythmic	AMIODARONE HCL	AMIODARONE HCL	AMPUL (ML)	50 MG/ML	INTRAVENOUS
Antiarrhythmic	DIGOXIN	DIGOX	TABLET	125 MCG	ORAL
Antiarrhythmic	DIGOXIN	DIGOX	TABLET	250 MCG	ORAL
Antiarrhythmic	QUINIDINE GLUCONATE	QUINIDINE GLUCONATE	TABLET, EXTENDED RELEASE	324 MG	ORAL
Antiarrhythmic	DIGOXIN	DIGOXIN	AMPUL (ML)	250 MCG/ML	INJECTION
Antiarrhythmic	DIGOXIN	LANOXIN	TABLET	62.5 MCG	ORAL
Antiarrhythmic	DIGOXIN	LANOXIN	TABLET	187.5 MCG	ORAL
Antiarrhythmic	AMIODARONE HCL	AMIODARONE HCL	SYRINGE (ML)	150 MG/3ML	INTRAVENOUS
Antiarrhythmic	FLECAINIDE ACETATE	TAMBOCOR	TABLET	50 MG	ORAL
Antiarrhythmic	FLECAINIDE ACETATE	TAMBOCOR	TABLET	100 MG	ORAL
Antiarrhythmic	MEXILETINE HCL	MEXILETINE HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
Antiarrhythmic	PROCAINAMIDE HCL	PROCAINAMIDE HCL	POWDER (GRAM)		MISCELLANEOUS
Antiarrhythmic	AMIODARONE IN DEXTROSE,ISO-OSM	NEXTERONE	PLASTIC BAG, INJECTION (ML)	150MG/0.1L	INTRAVENOUS
Antiarrhythmic	AMIODARONE IN DEXTROSE,ISO-OSM	NEXTERONE	PLASTIC BAG, INJECTION (ML)	360MG/0.2L	INTRAVENOUS
Antiarrhythmic	AMIODARONE HCL	AMIODARONE HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
Antiarrhythmic	DIGOXIN	DIGOXIN	POWDER (GRAM)	100 %	MISCELLANEOUS
Antiarrhythmic	QUINIDINE SULFATE	QUINIDINE SULFATE	CRYSTALS		MISCELLANEOUS
Antiarrhythmic	AMIODARONE HCL	AMIODARONE HCL	TABLET	100 MG	ORAL
Antiarrhythmic	AMIODARONE HCL	AMIODARONE HCL	TABLET	400 MG	ORAL
Antiarrhythmic	QUINIDINE SULFATE	QUINIDEX	TABLET, EXTENDED RELEASE	300 MG	ORAL
Antiarrhythmic	DISOPYRAMIDE PHOSPHATE	DISOPYRAMIDE PHOSPHATE	CAPSULE, EXTENDED RELEASE	150 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Antiarrhythmic	AMIODARONE HCL/D5W	AMIODARONE HCL-D5W	PLASTIC BAG, INJECTION (ML)	450 MG/250	INTRAVENOUS
Antiarrhythmic	AMIODARONE HCL/D5W	AMIODARONE HCL-D5W	PLASTIC BAG, INJECTION (ML)	150MG/0.1L	INTRAVENOUS
Antiarrhythmic	AMIODARONE HCL/D5W	AMIODARONE HCL-D5W	PLASTIC BAG, INJECTION (ML)	900MG/0.5L	INTRAVENOUS
Antiarrhythmic	AMIODARONE HCL/D5W	AMIODARONE HCL-D5W	PLASTIC BAG, INJECTION (ML)	750MG/0.5L	INTRAVENOUS
Antiarrhythmic	QUINIDINE SULFATE	QUINIDINE SULFATE	POWDER (GRAM)	100 %	MISCELLANEOUS
Antiarrhythmic	DEXTROMETHORPHAN HBR/QUINIDINE	NUDEXTA	CAPSULE	20 MG-10MG	ORAL
Antiarrhythmic	DIGOXIN	DIGOXIN	SOLUTION, ORAL	0.25MG/5ML	ORAL
ARB	LOSARTAN/HYDROCHLOROTHIAZIDE	HYZAAR	TABLET	50-12.5 MG	ORAL
ARB	LOSARTAN/HYDROCHLOROTHIAZIDE	HYZAAR	TABLET	100-12.5MG	ORAL
ARB	LOSARTAN/HYDROCHLOROTHIAZIDE	HYZAAR	TABLET	100MG-25MG	ORAL
ARB	LOSARTAN POTASSIUM	COZAAR	TABLET	25 MG	ORAL
ARB	LOSARTAN POTASSIUM	COZAAR	TABLET	50 MG	ORAL
ARB	LOSARTAN POTASSIUM	COZAAR	TABLET	100 MG	ORAL
ARB	IRBESARTAN	AVAPRO	TABLET	75 MG	ORAL
ARB	IRBESARTAN	AVAPRO	TABLET	150 MG	ORAL
ARB	IRBESARTAN	AVAPRO	TABLET	300 MG	ORAL
ARB	IRBESARTAN/HYDROCHLOROTHIAZIDE	AVALIDE	TABLET	150-12.5MG	ORAL
ARB	IRBESARTAN/HYDROCHLOROTHIAZIDE	AVALIDE	TABLET	300-12.5MG	ORAL
ARB	LOSARTAN POTASSIUM	LOSARTAN POTASSIUM	TABLET	25 MG	ORAL
ARB	LOSARTAN POTASSIUM	LOSARTAN POTASSIUM	TABLET	50 MG	ORAL
ARB	LOSARTAN POTASSIUM	LOSARTAN POTASSIUM	TABLET	100 MG	ORAL
ARB	LOSARTAN/HYDROCHLOROTHIAZIDE	LOSARTAN-HYDROCHLOROTHIAZIDE	TABLET	50-12.5 MG	ORAL
ARB	LOSARTAN/HYDROCHLOROTHIAZIDE	LOSARTAN-HYDROCHLOROTHIAZIDE	TABLET	100MG-25MG	ORAL
ARB	IRBESARTAN	IRBESARTAN	TABLET	75 MG	ORAL
ARB	IRBESARTAN	IRBESARTAN	TABLET	150 MG	ORAL
ARB	IRBESARTAN	IRBESARTAN	TABLET	300 MG	ORAL
ARB	IRBESARTAN/HYDROCHLOROTHIAZIDE	IRBESARTAN-HYDROCHLOROTHIAZIDE	TABLET	150-12.5MG	ORAL
ARB	IRBESARTAN/HYDROCHLOROTHIAZIDE	IRBESARTAN-HYDROCHLOROTHIAZIDE	TABLET	300-12.5MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ARB	LOSARTAN/HYDROCHLOROTHIAZIDE	LOSARTAN-HYDROCHLOROTHIAZIDE	TABLET	100-12.5MG	ORAL
ARB	TELMISARTAN	TELMISARTAN	TABLET	20 MG	ORAL
ARB	TELMISARTAN	TELMISARTAN	TABLET	40 MG	ORAL
ARB	TELMISARTAN	TELMISARTAN	TABLET	80 MG	ORAL
ARB	TELMISARTAN/HYDROCHLOROTHIAZID	TELMISARTAN-HYDROCHLOROTHIAZID	TABLET	40-12.5 MG	ORAL
ARB	TELMISARTAN/HYDROCHLOROTHIAZID	TELMISARTAN-HYDROCHLOROTHIAZID	TABLET	80-12.5MG	ORAL
ARB	TELMISARTAN/HYDROCHLOROTHIAZID	TELMISARTAN-HYDROCHLOROTHIAZID	TABLET	80 MG-25MG	ORAL
ARB	EPROSARTAN/HYDROCHLOROTHIAZIDE	TEVETEN HCT	TABLET	600-12.5MG	ORAL
ARB	EPROSARTAN/HYDROCHLOROTHIAZIDE	TEVETEN HCT	TABLET	600-25MG	ORAL
ARB	EPROSARTAN MESYLATE	TEVETEN	TABLET	400 MG	ORAL
ARB	EPROSARTAN MESYLATE	TEVETEN	TABLET	600 MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	80-12.5MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	160-12.5MG	ORAL
ARB	VALSARTAN	DIOVAN	TABLET	80 MG	ORAL
ARB	VALSARTAN	DIOVAN	TABLET	160 MG	ORAL
ARB	VALSARTAN	DIOVAN	TABLET	320 MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	160-25MG	ORAL
ARB	VALSARTAN	DIOVAN	TABLET	40 MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	320-12.5MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	320MG-25MG	ORAL
ARB	AMLODIPINE/VALSARTAN	EXFORGE	TABLET	5MG-160MG	ORAL
ARB	AMLODIPINE/VALSARTAN	EXFORGE	TABLET	10MG-160MG	ORAL
ARB	AMLODIPINE/VALSARTAN	EXFORGE	TABLET	5MG-320MG	ORAL
ARB	AMLODIPINE/VALSARTAN	EXFORGE	TABLET	10MG-320MG	ORAL
ARB	ALISKIREN/VALSARTAN	VALTURNA	TABLET	150-160 MG	ORAL
ARB	ALISKIREN/VALSARTAN	VALTURNA	TABLET	300-320MG	ORAL
ARB	IRBESARTAN/HYDROCHLOROTHIAZIDE	AVALIDE	TABLET	300MG-25MG	ORAL
ARB	VALSARTAN	VALSARTAN	TABLET	40 MG	ORAL
ARB	VALSARTAN	VALSARTAN	TABLET	80 MG	ORAL
ARB	VALSARTAN	VALSARTAN	TABLET	160 MG	ORAL
ARB	VALSARTAN	VALSARTAN	TABLET	320 MG	ORAL
ARB	CANDESARTAN CILEXETIL	ATACAND	TABLET	4 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ARB	CANDESARTAN CILEXETIL	ATACAND	TABLET	8 MG	ORAL
ARB	CANDESARTAN CILEXETIL	ATACAND	TABLET	16 MG	ORAL
ARB	CANDESARTAN CILEXETIL	ATACAND	TABLET	32 MG	ORAL
ARB	CANDESARTAN/HYDROCHLOROTHIAZID	ATACAND HCT	TABLET	16-12.5MG	ORAL
ARB	CANDESARTAN/HYDROCHLOROTHIAZID	ATACAND HCT	TABLET	32-12.5MG	ORAL
ARB	CANDESARTAN/HYDROCHLOROTHIAZID	ATACAND HCT	TABLET	32MG-25MG	ORAL
ARB	TELMISARTAN/AMLODIPINE	TELMISARTAN-AMLODIPINE	TABLET	40 MG-5 MG	ORAL
ARB	TELMISARTAN/AMLODIPINE	TELMISARTAN-AMLODIPINE	TABLET	40MG-10MG	ORAL
ARB	TELMISARTAN/AMLODIPINE	TELMISARTAN-AMLODIPINE	TABLET	80 MG-5 MG	ORAL
ARB	TELMISARTAN/AMLODIPINE	TELMISARTAN-AMLODIPINE	TABLET	80 MG-10MG	ORAL
ARB	CANDESARTAN/HYDROCHLOROTHIAZID	CANDESARTAN-HYDROCHLOROTHIAZID	TABLET	16-12.5MG	ORAL
ARB	CANDESARTAN/HYDROCHLOROTHIAZID	CANDESARTAN-HYDROCHLOROTHIAZID	TABLET	32-12.5MG	ORAL
ARB	CANDESARTAN/HYDROCHLOROTHIAZID	CANDESARTAN-HYDROCHLOROTHIAZID	TABLET	32MG-25MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	80-12.5MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	160-12.5MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	160-25MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	320-12.5MG	ORAL
ARB	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	320MG-25MG	ORAL
ARB	EPROSARTAN MESYLATE	EPROSARTAN MESYLATE	TABLET	600 MG	ORAL
ARB	TELMISARTAN	MICARDIS	TABLET	20 MG	ORAL
ARB	TELMISARTAN	MICARDIS	TABLET	40 MG	ORAL
ARB	TELMISARTAN	MICARDIS	TABLET	80 MG	ORAL
ARB	TELMISARTAN/HYDROCHLOROTHIAZID	MICARDIS HCT	TABLET	80 MG-25MG	ORAL
ARB	TELMISARTAN/HYDROCHLOROTHIAZID	MICARDIS HCT	TABLET	40-12.5 MG	ORAL
ARB	TELMISARTAN/HYDROCHLOROTHIAZID	MICARDIS HCT	TABLET	80-12.5MG	ORAL
ARB	TELMISARTAN/AMLODIPINE	TWYNSTA	TABLET	40 MG-5 MG	ORAL
ARB	TELMISARTAN/AMLODIPINE	TWYNSTA	TABLET	40MG-10MG	ORAL
ARB	TELMISARTAN/AMLODIPINE	TWYNSTA	TABLET	80 MG-5 MG	ORAL
ARB	TELMISARTAN/AMLODIPINE	TWYNSTA	TABLET	80 MG-10MG	ORAL
ARB	CANDESARTAN CILEXETIL	CANDESARTAN CILEXETIL	TABLET	4 MG	ORAL
ARB	CANDESARTAN CILEXETIL	CANDESARTAN CILEXETIL	TABLET	8 MG	ORAL
ARB	CANDESARTAN CILEXETIL	CANDESARTAN CILEXETIL	TABLET	16 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
ARB	CANDESARTAN CILEXETIL	CANDESARTAN CILEXETIL	TABLET	32 MG	ORAL
ARB	OLMESARTAN MEDOXOMIL	BENICAR	TABLET	40 MG	ORAL
ARB	OLMESARTAN MEDOXOMIL	BENICAR	TABLET	20 MG	ORAL
ARB	OLMESARTAN/HYDROCHLOROTHIAZIDE	BENICAR HCT	TABLET	20-12.5 MG	ORAL
ARB	OLMESARTAN/HYDROCHLOROTHIAZIDE	BENICAR HCT	TABLET	40-12.5 MG	ORAL
ARB	OLMESARTAN/HYDROCHLOROTHIAZIDE	BENICAR HCT	TABLET	40 MG-25MG	ORAL
ARB	OLMESARTAN MEDOXOMIL	BENICAR	TABLET	5 MG	ORAL
ARB	AMLODIPINE/VALSARTAN	AMLODIPINE-VALSARTAN	TABLET	5MG-160MG	ORAL
ARB	AMLODIPINE/VALSARTAN	AMLODIPINE-VALSARTAN	TABLET	10MG-160MG	ORAL
ARB	AMLODIPINE/VALSARTAN	AMLODIPINE-VALSARTAN	TABLET	5MG-320MG	ORAL
ARB	AMLODIPINE/VALSARTAN	AMLODIPINE-VALSARTAN	TABLET	10MG-320MG	ORAL
ARB	AMLODIPINE BES/OLMESARTAN MED	AZOR	TABLET	5 MG-20 MG	ORAL
ARB	AMLODIPINE BES/OLMESARTAN MED	AZOR	TABLET	10 MG-40MG	ORAL
ARB	AZILSARTAN MEDOXOMIL	EDARBI	TABLET	40 MG	ORAL
ARB	AZILSARTAN MEDOXOMIL	EDARBI	TABLET	80 MG	ORAL
ARB	AZILSARTAN MED/CHLORTHALIDONE	EDARBYCLOR	TABLET	40-12.5 MG	ORAL
ARB	AZILSARTAN MED/CHLORTHALIDONE	EDARBYCLOR	TABLET	40 MG-25MG	ORAL
ARB	AMLODIPINE BES/OLMESARTAN MED	AZOR	TABLET	10 MG-20MG	ORAL
ARB	AMLODIPINE BES/OLMESARTAN MED	AZOR	TABLET	5 MG-40 MG	ORAL
Aspirin	ASA/CALCIUM CARB/MAG/AL HYDROX	ASCRIPIN	TABLET	325 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	EXCEDRIN EXTRA STRENGTH	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	EXCEDRIN MIGRAINE	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE/MAG	BUFFERIN	TABLET	325 MG	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE/MAG	BUFFERIN	TABLET	500 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAL CARB	EXCEDRIN BACK & BODY	TABLET	250-250 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	EXCEDRIN MENSTRUAL COMPLETE	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE/MAG	BUFFERIN	TABLET	81 MG	ORAL
Aspirin	ASPIRIN	ASPIRIN	TABLET, CHEWABLE	81 MG	ORAL
Aspirin	ASPIRIN	ASPIRIN EC	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	MIGRAINE FORMULA	TABLET	250-250-65	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Aspirin	ASPIRIN	ASPIRIN	TABLET	325 MG	ORAL
Aspirin	ASPIRIN	ASPIRIN EC	TABLET, DELAYED RELEASE (ENTERIC COATED)	325 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	HEADACHE FORMULA	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN	ECOTRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	325 MG	ORAL
Aspirin	ASPIRIN	ECOTRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	500 MG	ORAL
Aspirin	ASPIRIN	ECOTRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	GOODY'S EXTRA STRENGTH	POWDER IN PACKET (EA)	500-325-65	ORAL
Aspirin	ASPIRIN/CAFFEINE	STANBACK	POWDER IN PACKET (EA)	845MG-65MG	ORAL
Aspirin	ASPIRIN/CAFFEINE	BC	POWDER IN PACKET (EA)	845MG-65MG	ORAL
Aspirin	ASPIRIN/CAFFEINE	BC ARTHRITIS	POWDER IN PACKET (EA)	1000-65 MG	ORAL
Aspirin	BUTALBITAL/ASPIRIN/CAFFEINE	BUTALBITAL-ASPIRIN-CAFFEINE	TABLET	50-325-40	ORAL
Aspirin	ASPIRIN	GENACOTE	TABLET, DELAYED RELEASE (ENTERIC COATED)	325 MG	ORAL
Aspirin	ASPIRIN	CHILDREN'S ASPIRIN	TABLET, CHEWABLE	81 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	GENACED	TABLET	250-250-65	ORAL
Aspirin	BUTALBITAL/ASPIRIN/CAFFEINE	BUTALBITAL COMPOUND	TABLET	50-325-40	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE/MAG	ASPIRIN BUFFERED	TABLET	325 MG	ORAL
Aspirin	ORPHENADRINE/ASPIRIN/CAFFEINE	ORPHENADRINE COMPOUND	TABLET	25-385-30	ORAL
Aspirin	ORPHENADRINE/ASPIRIN/CAFFEINE	ORPHENADRINE COMPOUND FORTE	TABLET	50-770-60	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Aspirin	CARISOPRODOL/ASPIRIN	CARISOPRODOL COMPOUND	TABLET	200-325 MG	ORAL
Aspirin	CODEINE/CARISOPRODOL/ASPIRIN	CARISOPRODOL COMPOUND-CODEINE	TABLET	16-200-325	ORAL
Aspirin	ASPIRIN/CODEINE PHOSPHATE	ASPIRIN WITH CODEINE	TABLET	325MG-30MG	ORAL
Aspirin	CODEINE/BUTALBITAL/ASA/CAFFEIN	FIORINAL WITH CODEINE #3	CAPSULE	30-50-325	ORAL
Aspirin	ASPIRIN/MEPROBAMATE	MEPROBAMATE WITH ASPIRIN	TABLET	325-200MG	ORAL
Aspirin	ASPIRIN	LOW DOSE ASPIRIN EC	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE	WOMEN'S ASPIRIN	TABLET	81MG-777MG	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	ALKA-SELTZER ORIGINAL	TABLET, EFFERVESCENT	325-1916MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	HEADACHE RELIEF	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE/MAG	TRI-BUFFERED ASPIRIN	TABLET	325 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	MIGRAINE RELIEF	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/CAFFEINE	BACK & BODY PAIN RELIEVER	TABLET	500-32.5MG	ORAL
Aspirin	CHLORPHENIR/PHENYLEPH/ASPIRIN	COLD RELIEF PLUS	TABLET, EFFERVESCENT	2-7.8-325	ORAL
Aspirin	OXYCODONE HCL/ASPIRIN	OXYCODONE HCL-ASPIRIN	TABLET	4.8355-325	ORAL
Aspirin	CODEINE/BUTALBITAL/ASA/CAFFEIN	BUTALBITAL COMPOUND-CODEINE	CAPSULE	30-50-325	ORAL
Aspirin	ASPIRIN	ST JOSEPH ASPIRIN	TABLET, CHEWABLE	81 MG	ORAL
Aspirin	BUTALBITAL/ASPIRIN/CAFFEINE	BUTALBITAL-ASPIRIN-CAFFEINE	CAPSULE	50-325-40	ORAL
Aspirin	ASPIRIN/MAG HYDROX/AL HYDROX	ARTHRITIS PAIN FORMULA	TABLET	500 MG	ORAL
Aspirin	ASPIRIN	ASPIRIN	SUPPOSITORY, RECTAL	300 MG	RECTAL
Aspirin	ASPIRIN	ASPIRIN	SUPPOSITORY, RECTAL	600 MG	RECTAL
Aspirin	OXYCODONE HCL/OXYCODON TER/ASA	OXYCODONE-ASPIRIN	TABLET	4.5-325MG	ORAL
Aspirin	ASPIRIN/CODEINE PHOSPHATE	ASPIRIN WITH CODEINE	TABLET	325MG-60MG	ORAL
Aspirin	BUTALBITAL/ASPIRIN/CAFFEINE	BUTALBITAL COMPOUND	CAPSULE	50-325-40	ORAL
Aspirin	ASPIRIN	ASPIRIN EC	TABLET, DELAYED RELEASE (ENTERIC COATED)	500 MG	ORAL
Aspirin	BUTALBITAL/ASPIRIN/CAFFEINE	FARBITAL	CAPSULE	50-325-40	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	PAIN RELIEVER PLUS	TABLET	250-250-65	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Aspirin	ASPIRIN	ASPIR-LOW	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	EFFERVESCENT PAIN RELIEF	TABLET, EFFERVESCENT	325-1916MG	ORAL
Aspirin	ASPIRIN	ASPIRIN EC	TABLET, DELAYED RELEASE (ENTERIC COATED)	650 MG	ORAL
Aspirin	ASPIRIN	ASPIRIN EC	TABLET, DELAYED RELEASE (ENTERIC COATED)	975 MG	ORAL
Aspirin	ASA/ACETAMINOPHN/CAFFEIN/POT	GOODY'S HEADACHE POWDER	PACKET (EA)	520-260 MG	ORAL
Aspirin	ASPIRIN/SALICYLAMIDE/CAFFEINE	ARTHRITIS BC	PACKET (EA)	742-222-36	ORAL
Aspirin	ASPIRIN/SALICYLAMIDE/CAFFEINE	BC	PACKET (EA)	650-195-32	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN	GOODY'S BODY PAIN	PACKET (EA)	500-325MG	ORAL
Aspirin	ASPIRIN/MEPROBAMATE	EQUAGESIC	TABLET	325-200MG	ORAL
Aspirin	DIHYDROCODEINE/ASPIRIN/CAFFEIN	SYNALGOS-DC	CAPSULE	16-356-30	ORAL
Aspirin	ASA/MAG HYDROX/AL HYDROX/CAFF	COPE	TABLET	421-32MG	ORAL
Aspirin	ASPIRIN	EASPRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	975 MG	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	EFFERVESCENT PAIN RELIEF	TABLET, EFFERVESCENT	324 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	ADDED STRENGTH HEADACHE	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE/MAG	BUFFERED ASPIRIN	TABLET	325 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	ADDED STRENGTH PAIN RELIEVER	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/CAFFEINE	ANALGESIC	TABLET	400MG-32MG	ORAL
Aspirin	ASPIRIN	STANBACK ANALGESIC	PACKET (EA)	650 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	PAIN RELIEVER	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN	ASPIRIN	TABLET	500 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Aspirin	ASPIRIN	ASPIR-TRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	325 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	PAIN RELIEF EXTRA STRENGTH	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN	ADULT LOW STRENGTH	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN/DIPHENHYDRAMINE CITRAT	BAYER PM	TABLET	500-38.3MG	ORAL
Aspirin	ASPIRIN	BAYER CHEWABLE ASPIRIN	TABLET, CHEWABLE	81 MG	ORAL
Aspirin	ASPIRIN	BAYER ASPIRIN	TABLET	325 MG	ORAL
Aspirin	ASPIRIN	ADULT LOW STRENGTH ASPIRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE	BAYER WITH CALCIUM	TABLET	81MG-300MG	ORAL
Aspirin	ASA/CALCIUM CARB/MAG/AL HYDROX	BAYER PLUS	TABLET	500 MG	ORAL
Aspirin	ASA/ACETAMINOPHN/MAG/ALH/CAFF	VANQUISH	TABLET	227-194-33	ORAL
Aspirin	ASPIRIN	BAYER EXTRA STRENGTH	TABLET	500 MG	ORAL
Aspirin	ASPIRIN/CAFFEINE	BAYER BACK & BODY	TABLET	500-32.5MG	ORAL
Aspirin	ASPIRIN	ASPIRINA	TABLET	500 MG	ORAL
Aspirin	ASPIRIN/CAFFEINE	ASPIRIN	POWDER IN PACKET (EA)	850MG-65MG	ORAL
Aspirin	ASPIRIN	BAYER ADVANCED	TABLET	500 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	BAYER MIGRAINE	TABLET	250-250-65	ORAL
Aspirin	ASA/SALICYLAM/ACETAMINOPH/CAFF	LEVACET	TABLET	500-250 MG	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	ALKA-SELTZER	TABLET, EFFERVESCENT	324 MG	ORAL
Aspirin	ASA/DP-HYDRAMINE/SOD BICARB/CA	ALKA-SELTZER PM	TABLET, EFFERVESCENT	325-38MG	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	ALKA-SELTZER	TABLET, EFFERVESCENT	500 MG	ORAL
Aspirin	CHLORPHENIR/PHENYLEPH/ASPIRIN	ALKA-SELTZER PLUS COLD	TABLET, EFFERVESCENT	2-7.8-325	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Aspirin	CHLORPHEN/PHENYLEPH/DM/ASPIRIN	ALKA-SELTZER PLUS COLD-COUGH	TABLET, EFFERVESCENT	2-7.8-10MG	ORAL
Aspirin	DOXYLAMINE/PHENYLEP/DM/ASPIRIN	ALKA-SELTZER PLUS NIGHT	TABLET, EFFERVESCENT	6.25-7.8MG	ORAL
Aspirin	DOXYLAMINE/PHENYLEP/DM/ASPIRIN	ALKA-SELTZER PLUS DAY & NIGHT	TABLET, EFFERVESCENT SEQUENTIAL	7.8-10-325	ORAL
Aspirin	OXYCODONE HCL/ASPIRIN	ENDODAN	TABLET	4.8355-325	ORAL
Aspirin	ASPIRIN	ASPERDRINK	TABLET, EFFERVESCENT	81 MG	ORAL
Aspirin	CARISOPRODOL/ASPIRIN	CARISOPRODOL-ASPIRIN	TABLET	200-325 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	ASPIRIN-ACETAMINPHEN-CAFFEINE	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/CAFFEINE	ADULT STRENGTH ANALGESIC	TABLET	400MG-32MG	ORAL
Aspirin	ASPIRIN	LITE COAT ASPIRIN	TABLET	325 MG	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE/MAG	ASPIRIN BUFFERED	TABLET	324 MG	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	EFFERVESCENT ANTACID & PAIN	TABLET, EFFERVESCENT	324 MG	ORAL
Aspirin	ASPIRIN	LO-DOSE ASPIRIN EC	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	HEADACHE PAIN	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	PAIN RELIEF PLUS	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN	ACETYL SALICYLIC ACID	POWDER (GRAM)	100 %	MISCELLANEOUS
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	MIGRAINE PAIN-RELIEVER	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	ANTACID & PAIN RELIEF	TABLET, EFFERVESCENT	325-1916MG	ORAL
Aspirin	ASPIRIN	ST. JOSEPH ASPIRIN	TABLET	325 MG	ORAL
Aspirin	ASPIRIN	ST. JOSEPH ASPIRIN	TABLET, CHEWABLE	81 MG	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	ANTACID & PAIN RELIEF	TABLET, EFFERVESCENT	324 MG	ORAL
Aspirin	ASPIRIN	ANALGESIC	TABLET	325 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	PAMPRIN MAX	TABLET	250-250-65	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	EFFERVESCENT	TABLET, EFFERVESCENT	325-1916MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	GOODY'S EXTRA STRENGTH	POWDER IN PACKET (EA)	520-260 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	GOODY'S EXTRA STRENGTH	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	GOODY'S MIGRAINE RELIEF	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	EXTRAPRIN	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN	ADULT LOW DOSE ASPIRIN EC	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN	ASPIRIN	TABLET	81 MG	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	MEDI-SELTZER	TABLET, EFFERVESCENT	324 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	PAIN-OFF	TABLET	250-250-65	ORAL
Aspirin	ASA/SALICYLAM/ACETAMINOPH/CAFF	SALETO	TABLET	210-65-115	ORAL
Aspirin	ASA/SALICYLAM/ACETAMINOPH/CAFF	PAIN RELIEF	TABLET	162-110MG	ORAL
Aspirin	CHLORPHENIR/PHENYLEPH/ASPIRIN	COLD RELIEF	TABLET, EFFERVESCENT	2-7.8-325	ORAL
Aspirin	ASPIRIN	ASPIRIN	POWDER (GRAM)	100 %	MISCELLANEOUS
Aspirin	ASPIRIN	MINIPRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN	ZORPRIN	TABLET, EXTENDED RELEASE	800 MG	ORAL
Aspirin	ASPIRIN/ACETAMINOPHEN/CAFFEINE	SUPER PAIN RELIEF	TABLET	250-250-65	ORAL
Aspirin	ASPIRIN/SOD BICARB/CITRIC ACID	EFFERVESCENT ANTACID	TABLET, EFFERVESCENT	324 MG	ORAL
Aspirin	ASPIRIN/CAFFEINE	ASPIRIN-CAFFEINE	TABLET	400MG-32MG	ORAL
Aspirin	CODEINE/BUTALBITAL/ASA/CAFFEIN	ASCOMP WITH CODEINE	CAPSULE	30-50-325	ORAL
Aspirin	BUTALBITAL/ASPIRIN/CAFFEINE	FIORINAL	CAPSULE	50-325-40	ORAL
Aspirin	ORPHENADRINE/ASPIRIN/CAFFEINE	NORGESIC FORTE	TABLET	50-770-60	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Aspirin	ASPIRIN	HALFPRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	162MG	ORAL
Aspirin	ASPIRIN	HALFPRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN	BABY ASPIRIN	TABLET, CHEWABLE	81 MG	ORAL
Aspirin	CODEINE/BUTALBITAL/ASA/CAFFEIN	ASA-BUTALB-CAFFEINE-CODEINE	CAPSULE	30-50-325	ORAL
Aspirin	DIHYDROCODEINE/ASPIRIN/CAFFEIN	ASPIRIN-CAFFEINE-DIHYDROCODEIN	CAPSULE	16-356-30	ORAL
Aspirin	ASPIRIN	ASPIR 81	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN	ECPIRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	325 MG	ORAL
Aspirin	OXYCODONE HCL/ASPIRIN	PERCODAN	TABLET	4.8355-325	ORAL
Aspirin	ASPIRIN/CAFFEINE	ANACIN	TABLET	400MG-32MG	ORAL
Aspirin	ASPIRIN/CAFFEINE	ANACIN	TABLET	500MG-32MG	ORAL
Aspirin	CODEINE/CARISOPRODOL/ASPIRIN	CARISOPRODOL-ASPIRIN-CODEINE	TABLET	16-200-325	ORAL
Aspirin	ASPIRIN	ST. JOSEPH ASPIRIN	TABLET, DELAYED RELEASE (ENTERIC COATED)	81 MG	ORAL
Aspirin	ASPIRIN/CAFFEINE	ANALGESIC ADULT STRENGTH	TABLET	400MG-32MG	ORAL
Aspirin	ASA/CALCIUM CARB/MAG/AL HYDROX	ASPRIDROX	TABLET	325 MG	ORAL
Aspirin	ASPIRIN/CALCIUM CARBONATE/MAG	ASPIRIN TRI-BUFFERED	TABLET	324 MG	ORAL
Beta-Blockers	TIMOLOL MALEATE	TIMOPTIC-XE	GEL-FORMING SOLUTION	0.25 %	OPHTHALMIC
Beta-Blockers	TIMOLOL MALEATE	TIMOPTIC-XE	GEL-FORMING SOLUTION	0.5 %	OPHTHALMIC
Beta-Blockers	TIMOLOL MALEATE	TIMOPTIC	DROPS	0.25 %	OPHTHALMIC
Beta-Blockers	TIMOLOL MALEATE	TIMOPTIC	DROPS	0.5 %	OPHTHALMIC

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Beta-Blockers	CARVEDILOL PHOSPHATE	COREG CR	CAPSULE,EXTENDED RELEASE MULTIPHASE 24HR	10 MG	ORAL
Beta-Blockers	CARVEDILOL PHOSPHATE	COREG CR	CAPSULE,EXTENDED RELEASE MULTIPHASE 24HR	20 MG	ORAL
Beta-Blockers	CARVEDILOL PHOSPHATE	COREG CR	CAPSULE,EXTENDED RELEASE MULTIPHASE 24HR	40 MG	ORAL
Beta-Blockers	CARVEDILOL PHOSPHATE	COREG CR	CAPSULE,EXTENDED RELEASE MULTIPHASE 24HR	80 MG	ORAL
Beta-Blockers	CARVEDILOL	COREG	TABLET	3.125 MG	ORAL
Beta-Blockers	CARVEDILOL	COREG	TABLET	6.25 MG	ORAL
Beta-Blockers	CARVEDILOL	COREG	TABLET	12.5 MG	ORAL
Beta-Blockers	CARVEDILOL	COREG	TABLET	25 MG	ORAL
Beta-Blockers	BETAXOLOL HCL	KERLONE	TABLET	20 MG	ORAL
Beta-Blockers	BETAXOLOL HCL	KERLONE	TABLET	10 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	SOLUTION, ORAL	20 MG/5 ML	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	SOLUTION, ORAL	40MG/5ML	ORAL
Beta-Blockers	BETAXOLOL HCL	BETOPTIC S	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	0.25 %	OPHTHALMIC
Beta-Blockers	METOPROLOL TARTRATE	LOPRESSOR	AMPUL (ML)	5 MG/5 ML	INTRAVENOUS
Beta-Blockers	METOPROLOL TARTRATE	LOPRESSOR	TABLET	50 MG	ORAL
Beta-Blockers	METOPROLOL TARTRATE	LOPRESSOR	TABLET	100 MG	ORAL
Beta-Blockers	METOPROLOL/HYDROCHLOROTHIAZIDE	LOPRESSOR HCT	TABLET	50 MG-25MG	ORAL
Beta-Blockers	METOPROLOL/HYDROCHLOROTHIAZIDE	LOPRESSOR HCT	TABLET	100MG-25MG	ORAL
Beta-Blockers	PENBUTOLOL SULFATE	LEVATOL	TABLET	20 MG	ORAL
Beta-Blockers	CARVEDILOL	CARVEDILOL	TABLET	3.125 MG	ORAL
Beta-Blockers	CARVEDILOL	CARVEDILOL	TABLET	6.25 MG	ORAL
Beta-Blockers	METOPROLOL TARTRATE	METOPROLOL TARTRATE	TABLET	50 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Beta-Blockers	METOPROLOL TARTRATE	METOPROLOL TARTRATE	TABLET	100 MG	ORAL
Beta-Blockers	ATENOLOL	ATENOLOL	TABLET	50 MG	ORAL
Beta-Blockers	ATENOLOL	ATENOLOL	TABLET	100 MG	ORAL
Beta-Blockers	ATENOLOL	ATENOLOL	TABLET	25 MG	ORAL
Beta-Blockers	SOTALOL HCL	SOTALOL	TABLET	120 MG	ORAL
Beta-Blockers	SOTALOL HCL	SOTALOL	TABLET	80 MG	ORAL
Beta-Blockers	SOTALOL HCL	SOTALOL	TABLET	160 MG	ORAL
Beta-Blockers	SOTALOL HCL	SOTALOL	TABLET	240 MG	ORAL
Beta-Blockers	NADOLOL	NADOLOL	TABLET	20 MG	ORAL
Beta-Blockers	NADOLOL	NADOLOL	TABLET	40 MG	ORAL
Beta-Blockers	NADOLOL	NADOLOL	TABLET	80 MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE	BISOPROLOL FUMARATE	TABLET	5 MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE	BISOPROLOL FUMARATE	TABLET	10 MG	ORAL
Beta-Blockers	CARVEDILOL	CARVEDILOL	TABLET	12.5 MG	ORAL
Beta-Blockers	CARVEDILOL	CARVEDILOL	TABLET	25 MG	ORAL
Beta-Blockers	NADOLOL/BENDROFLUMETHIAZIDE	NADOLOL-BENDROFLUMETHIAZIDE	TABLET	40 MG-5 MG	ORAL
Beta-Blockers	NADOLOL/BENDROFLUMETHIAZIDE	NADOLOL-BENDROFLUMETHIAZIDE	TABLET	80 MG-5 MG	ORAL
Beta-Blockers	METOPROLOL TARTRATE	METOPROLOL TARTRATE	VIAL (ML)	5 MG/5 ML	INTRAVENOUS
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	VIAL (ML)	1 MG/ML	INTRAVENOUS
Beta-Blockers	LABETALOL HCL	LABETALOL HCL	TABLET	100 MG	ORAL
Beta-Blockers	LABETALOL HCL	LABETALOL HCL	TABLET	200 MG	ORAL
Beta-Blockers	LABETALOL HCL	LABETALOL HCL	TABLET	300 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	INNOPRAN XL	CAPSULE, EXT RELEASE 24 HR	80 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	INNOPRAN XL	CAPSULE, EXT RELEASE 24 HR	120 MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE	METOPROLOL SUCCINATE	TABLET, EXTENDED RELEASE 24 HR	25 MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE	METOPROLOL SUCCINATE	TABLET, EXTENDED RELEASE 24 HR	50 MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE	METOPROLOL SUCCINATE	TABLET, EXTENDED RELEASE 24 HR	100 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Beta-Blockers	METOPROLOL SUCCINATE	METOPROLOL SUCCINATE	TABLET, EXTENDED RELEASE 24 HR	200 MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	2.5-6.25MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	5-6.25MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	10-6.25MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE	TOPROL XL	TABLET, EXTENDED RELEASE 24 HR	25 MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE	TOPROL XL	TABLET, EXTENDED RELEASE 24 HR	50 MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE	TOPROL XL	TABLET, EXTENDED RELEASE 24 HR	100 MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE	TOPROL XL	TABLET, EXTENDED RELEASE 24 HR	200 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL ER	CAPSULE, EXTENDED RELEASE 24HR	60 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL ER	CAPSULE, EXTENDED RELEASE 24HR	80 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL ER	CAPSULE, EXTENDED RELEASE 24HR	120 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL ER	CAPSULE, EXTENDED RELEASE 24HR	160 MG	ORAL
Beta-Blockers	SOTALOL HCL	SORINE	TABLET	80 MG	ORAL
Beta-Blockers	SOTALOL HCL	SORINE	TABLET	120 MG	ORAL
Beta-Blockers	SOTALOL HCL	SORINE	TABLET	160 MG	ORAL
Beta-Blockers	SOTALOL HCL	SORINE	TABLET	240 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	TABLET	10 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	TABLET	40 MG	ORAL
Beta-Blockers	PROPRANOLOL/HYDROCHLOROTHIAZID	PROPRANOLOL HCL-HCTZ	TABLET	40 MG-25MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	INDERAL	VIAL (ML)	1 MG/ML	INTRAVENOUS
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	TABLET	20 MG	ORAL
Beta-Blockers	ATENOLOL	TENORMIN	TABLET	100 MG	ORAL
Beta-Blockers	ATENOLOL	TENORMIN	TABLET	50 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Beta-Blockers	ATENOLOL	TENORMIN	TABLET	25 MG	ORAL
Beta-Blockers	ATENOLOL/CHLORTHALIDONE	TENORETIC 50	TABLET	50 MG-25MG	ORAL
Beta-Blockers	ATENOLOL/CHLORTHALIDONE	TENORETIC 100	TABLET	100MG-25MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE/HCTZ	DUTOPROL	TABLET, EXTENDED RELEASE 24 HR	25-12.5 MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE/HCTZ	DUTOPROL	TABLET, EXTENDED RELEASE 24 HR	50-12.5 MG	ORAL
Beta-Blockers	METOPROLOL SUCCINATE/HCTZ	DUTOPROL	TABLET, EXTENDED RELEASE 24 HR	100-12.5MG	ORAL
Beta-Blockers	METOPROLOL TARTRATE	METOPROLOL TARTRATE	TABLET	25 MG	ORAL
Beta-Blockers	PINDOLOL	PINDOLOL	TABLET	5 MG	ORAL
Beta-Blockers	TIMOLOL MALEATE	TIMOLOL MALEATE	TABLET	5 MG	ORAL
Beta-Blockers	PINDOLOL	PINDOLOL	TABLET	10 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	TABLET	80 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	TABLET	60 MG	ORAL
Beta-Blockers	TIMOLOL MALEATE	TIMOLOL MALEATE	TABLET	10 MG	ORAL
Beta-Blockers	PROPRANOLOL/HYDROCHLOROTHIAZID	PROPRANOLOL-HYDROCHLOROTHIAZID	TABLET	80 MG-25MG	ORAL
Beta-Blockers	METOPROLOL/HYDROCHLOROTHIAZIDE	METOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	50 MG-25MG	ORAL
Beta-Blockers	METOPROLOL/HYDROCHLOROTHIAZIDE	METOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	100MG-25MG	ORAL
Beta-Blockers	METOPROLOL/HYDROCHLOROTHIAZIDE	METOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	100MG-50MG	ORAL
Beta-Blockers	TIMOLOL MALEATE	TIMOLOL MALEATE	TABLET	20 MG	ORAL
Beta-Blockers	PROPRANOLOL/HYDROCHLOROTHIAZID	PROPRANOLOL-HYDROCHLOROTHIAZID	TABLET	40 MG-25MG	ORAL
Beta-Blockers	ACEBUTOLOL HCL	ACEBUTOLOL HCL	CAPSULE	200 MG	ORAL
Beta-Blockers	ACEBUTOLOL HCL	ACEBUTOLOL HCL	CAPSULE	400 MG	ORAL
Beta-Blockers	ATENOLOL/CHLORTHALIDONE	ATENOLOL-CHLORTHALIDONE	TABLET	50 MG-25MG	ORAL
Beta-Blockers	ATENOLOL/CHLORTHALIDONE	ATENOLOL-CHLORTHALIDONE	TABLET	100MG-25MG	ORAL
Beta-Blockers	SOTALOL HCL	SOTALOL AF	TABLET	80 MG	ORAL
Beta-Blockers	SOTALOL HCL	SOTALOL AF	TABLET	120 MG	ORAL
Beta-Blockers	SOTALOL HCL	SOTALOL AF	TABLET	160 MG	ORAL
Beta-Blockers	METOPROLOL TARTRATE	METOPROLOL TARTRATE	SYRINGE (ML)	5 MG/5 ML	INTRAVENOUS
Beta-Blockers	LABETALOL HCL	LABETALOL HCL	VIAL (ML)	5 MG/ML	INTRAVENOUS
Beta-Blockers	METOPROLOL TARTRATE	METOPROLOL TARTRATE	AMPUL (ML)	5 MG/5 ML	INTRAVENOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Beta-Blockers	LABETALOL HCL	LABETALOL HCL	SYRINGE (ML)	20 MG/4 ML	INTRAVENOUS
Beta-Blockers	NEBIVOLOL HCL	BYSTOLIC	TABLET	2.5 MG	ORAL
Beta-Blockers	NEBIVOLOL HCL	BYSTOLIC	TABLET	5 MG	ORAL
Beta-Blockers	NEBIVOLOL HCL	BYSTOLIC	TABLET	10 MG	ORAL
Beta-Blockers	NEBIVOLOL HCL	BYSTOLIC	TABLET	20 MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL FUMARATE-HCTZ	TABLET	2.5-6.25MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL FUMARATE-HCTZ	TABLET	5-6.25MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL FUMARATE-HCTZ	TABLET	10-6.25MG	ORAL
Beta-Blockers	ESMOLOL HCL	ESMOLOL HCL	VIAL (ML)	100MG/10ML	INTRAVENOUS
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	CAPSULE, EXTENDED RELEASE 24HR	60 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	CAPSULE, EXTENDED RELEASE 24HR	80 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	CAPSULE, EXTENDED RELEASE 24HR	120 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	CAPSULE, EXTENDED RELEASE 24HR	160 MG	ORAL
Beta-Blockers	ESMOLOL HCL	BREVIBLOC	AMPUL (ML)	2.5 G/10ML	INTRAVENOUS
Beta-Blockers	ESMOLOL HCL	BREVIBLOC	VIAL (ML)	100 MG/5ML	INTRAVENOUS
Beta-Blockers	ESMOLOL HCL	BREVIBLOC	VIAL (ML)	100MG/10ML	INTRAVENOUS
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	AMPUL (ML)	1 MG/ML	INTRAVENOUS
Beta-Blockers	BETAXOLOL HCL	BETAXOLOL HCL	TABLET	10 MG	ORAL
Beta-Blockers	BETAXOLOL HCL	BETAXOLOL HCL	TABLET	20 MG	ORAL
Beta-Blockers	TIMOLOL MALEATE	TIMOLOL MALEATE	DROPS	0.25 %	OPHTHALMIC
Beta-Blockers	TIMOLOL MALEATE	TIMOLOL MALEATE	DROPS	0.5 %	OPHTHALMIC
Beta-Blockers	BETAXOLOL HCL	BETAXOLOL HCL	DROPS	0.5 %	OPHTHALMIC
Beta-Blockers	PROPRANOLOL HCL	INDERAL LA	CAPSULE, EXTENDED RELEASE 24HR	60 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	INDERAL LA	CAPSULE, EXTENDED RELEASE 24HR	80 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	INDERAL LA	CAPSULE, EXTENDED RELEASE 24HR	120 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Beta-Blockers	PROPRANOLOL HCL	INDERAL LA	CAPSULE, EXTENDED RELEASE 24HR	160 MG	ORAL
Beta-Blockers	LABETALOL HCL	LABETALOL HCL	SYRINGE (ML)	25 MG/5 ML	INTRAVENOUS
Beta-Blockers	TIMOLOL MALEATE	ISTALOL	DROPS, ONCE DAILY	0.5 %	OPHTHALMIC
Beta-Blockers	CARTEOLOL HCL	CARTEOLOL HCL	DROPS	1 %	OPHTHALMIC
Beta-Blockers	SOTALOL HCL	SOTYLIZE	SOLUTION, ORAL	5 MG/ML	ORAL
Beta-Blockers	TIMOLOL MALEATE	TIMOLOL MALEATE	GEL-FORMING SOLUTION	0.25 %	OPHTHALMIC
Beta-Blockers	TIMOLOL MALEATE	TIMOLOL MALEATE	GEL-FORMING SOLUTION	0.5 %	OPHTHALMIC
Beta-Blockers	PROPRANOLOL HCL	PROPRANOLOL HCL	POWDER (GRAM)		MISCELLANEOUS
Beta-Blockers	ATENOLOL	ATENOLOL	POWDER (GRAM)		MISCELLANEOUS
Beta-Blockers	TIMOLOL MALEATE	TIMOLOL MALEATE	POWDER (GRAM)	100 %	MISCELLANEOUS
Beta-Blockers	METOPROLOL TARTRATE	METOPROLOL TARTRATE	POWDER (GRAM)	100 %	MISCELLANEOUS
Beta-Blockers	LABETALOL HCL	LABETALOL HCL	POWDER (GRAM)		MISCELLANEOUS
Beta-Blockers	SOTALOL HCL	BETAPACE	TABLET	80 MG	ORAL
Beta-Blockers	SOTALOL HCL	BETAPACE	TABLET	160 MG	ORAL
Beta-Blockers	SOTALOL HCL	BETAPACE	TABLET	240 MG	ORAL
Beta-Blockers	SOTALOL HCL	BETAPACE	TABLET	120 MG	ORAL
Beta-Blockers	SOTALOL HCL	BETAPACE AF	TABLET	80 MG	ORAL
Beta-Blockers	SOTALOL HCL	BETAPACE AF	TABLET	160 MG	ORAL
Beta-Blockers	SOTALOL HCL	BETAPACE AF	TABLET	120 MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	ZIAC	TABLET	10-6.25MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	ZIAC	TABLET	2.5-6.25MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE/HCTZ	ZIAC	TABLET	5-6.25MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE	ZEBETA	TABLET	5 MG	ORAL
Beta-Blockers	BISOPROLOL FUMARATE	ZEBETA	TABLET	10 MG	ORAL
Beta-Blockers	NADOLOL	NADOLOL	POWDER (GRAM)		MISCELLANEOUS
Beta-Blockers	ACEBUTOLOL HCL	ACEBUTOLOL HCL	POWDER (GRAM)		MISCELLANEOUS
Beta-Blockers	NADOLOL	CORGARD	TABLET	40 MG	ORAL
Beta-Blockers	LABETALOL HCL	TRANDATE	VIAL (ML)	5 MG/ML	INTRAVENOUS
Beta-Blockers	NADOLOL/BENDROFLUMETHIAZIDE	CORZIDE	TABLET	80 MG-5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Beta-Blockers	NADOLOL/BENDROFLUMETHIAZIDE	CORZIDE	TABLET	40 MG-5 MG	ORAL
Beta-Blockers	NADOLOL	CORGARD	TABLET	20 MG	ORAL
Beta-Blockers	NADOLOL	CORGARD	TABLET	80 MG	ORAL
Beta-Blockers	LABETALOL HCL	LABETALOL HCL	SYRINGE (ML)	50 MG/10ML	INTRAVENOUS
Beta-Blockers	ESMOLOL HCL	ESMOLOL HCL	SYRINGE (ML)	100MG/10ML	INTRAVENOUS
Beta-Blockers	PROPRANOLOL HCL	HEMANGEOL	SOLUTION, ORAL	4.28 MG/ML	ORAL
Beta-Blockers	LABETALOL HCL	TRANDATE	TABLET	100 MG	ORAL
Beta-Blockers	LABETALOL HCL	TRANDATE	TABLET	200 MG	ORAL
Beta-Blockers	LABETALOL HCL	TRANDATE	TABLET	300 MG	ORAL
Beta-Blockers	SOTALOL HCL	SOTALOL HCL	VIAL (ML)	150MG/10ML	INTRAVENOUS
Beta-Blockers	ACEBUTOLOL HCL	SECTRAL	CAPSULE	200 MG	ORAL
Beta-Blockers	ACEBUTOLOL HCL	SECTRAL	CAPSULE	400 MG	ORAL
Beta-Blockers	METOPROLOL/DIETARY SUPPL.CMB10	HYPERTENSOLOL	COMBINATION PACKAGE (EA)	50 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	INDERAL XL	CAPSULE, EXT RELEASE 24 HR	80 MG	ORAL
Beta-Blockers	PROPRANOLOL HCL	INDERAL XL	CAPSULE, EXT RELEASE 24 HR	120 MG	ORAL
Calcium Channel	NICARDIPINE HCL	CARDENE SR	CAPSULE, EXTENDED RELEASE	30 MG	ORAL
Calcium Channel	NICARDIPINE HCL	CARDENE SR	CAPSULE, EXTENDED RELEASE	60 MG	ORAL
Calcium Channel	VERAPAMIL HCL	CALAN	TABLET	40 MG	ORAL
Calcium Channel	VERAPAMIL HCL	CALAN	TABLET	80 MG	ORAL
Calcium Channel	VERAPAMIL HCL	CALAN	TABLET	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	CALAN SR	TABLET, EXTENDED RELEASE	240 MG	ORAL
Calcium Channel	VERAPAMIL HCL	CALAN SR	TABLET, EXTENDED RELEASE	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	CALAN SR	TABLET, EXTENDED RELEASE	180 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	VERAPAMIL HCL	COVERA-HS	TABLET, EXTENDED RELEASE 24 HR	180 MG	ORAL
Calcium Channel	VERAPAMIL HCL	COVERA-HS	TABLET, EXTENDED RELEASE 24 HR	240 MG	ORAL
Calcium Channel	NIMODIPINE	NIMOTOP	CAPSULE	30 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE	AMLODIPINE BESYLATE	TABLET	2.5 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE	AMLODIPINE BESYLATE	TABLET	5 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE	AMLODIPINE BESYLATE	TABLET	10 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE	NORVASC	TABLET	2.5 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE	NORVASC	TABLET	5 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE	NORVASC	TABLET	10 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	5 MG-10 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	10 MG-10MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	5 MG-20 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	10 MG-20MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	5 MG-40 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	10 MG-40MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	5 MG-80 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	10 MG-80MG	ORAL
Calcium Channel	NIFEDIPINE	PROCARDIA	CAPSULE	10 MG	ORAL
Calcium Channel	NIFEDIPINE	PROCARDIA XL	TABLET, EXTENDED RELEASE 24 HR	30 MG	ORAL
Calcium Channel	NIFEDIPINE	PROCARDIA XL	TABLET, EXTENDED RELEASE 24 HR	60 MG	ORAL
Calcium Channel	NIFEDIPINE	PROCARDIA XL	TABLET, EXTENDED RELEASE 24 HR	90 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	2.5MG-10MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	2.5MG-20MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	2.5MG-40MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	SYRINGE (ML)	2.5 MG/ML	INTRAVENOUS
Calcium Channel	DILTIAZEM HCL	DILTIAZEM HCL	SYRINGE (ML)	5 MG/ML	INTRAVENOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	CARDIZEM LA	TABLET, EXTENDED RELEASE 24 HR	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM LA	TABLET, EXTENDED RELEASE 24 HR	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM LA	TABLET, EXTENDED RELEASE 24 HR	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM LA	TABLET, EXTENDED RELEASE 24 HR	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM LA	TABLET, EXTENDED RELEASE 24 HR	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM LA	TABLET, EXTENDED RELEASE 24 HR	420MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TARKA	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2 MG-180MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TARKA	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1-240MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TARKA	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2-240MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TARKA	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	4-240MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	10 MG-20MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	10 MG-40MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	5 MG-40 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	2.5MG-10MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	5 MG-10 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	LOTREL	CAPSULE	5 MG-20 MG	ORAL
Calcium Channel	AMLODIPINE/VALSARTAN	EXFORGE	TABLET	5MG-160MG	ORAL
Calcium Channel	AMLODIPINE/VALSARTAN	EXFORGE	TABLET	10MG-160MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	AMLODIPINE/VALSARTAN	EXFORGE	TABLET	5MG-320MG	ORAL
Calcium Channel	AMLODIPINE/VALSARTAN	EXFORGE	TABLET	10MG-320MG	ORAL
Calcium Channel	ALISKIREN/AMLODIPINE BESYLATE	TEKAMLO	TABLET	150 MG-5MG	ORAL
Calcium Channel	ALISKIREN/AMLODIPINE BESYLATE	TEKAMLO	TABLET	150MG-10MG	ORAL
Calcium Channel	ALISKIREN/AMLODIPINE BESYLATE	TEKAMLO	TABLET	300MG-5MG	ORAL
Calcium Channel	ALISKIREN/AMLODIPINE BESYLATE	TEKAMLO	TABLET	300MG-10MG	ORAL
Calcium Channel	NIFEDIPINE	ADALAT CC	TABLET, EXTENDED RELEASE	30 MG	ORAL
Calcium Channel	NIFEDIPINE	ADALAT CC	TABLET, EXTENDED RELEASE	60 MG	ORAL
Calcium Channel	NIFEDIPINE	ADALAT CC	TABLET, EXTENDED RELEASE	90 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERELAN	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	180 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERELAN	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERELAN	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	240 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERELAN	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	360 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERELAN PM	CAPSULE,24HR EXTENDED RELEASE PELLET CT	100 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERELAN PM	CAPSULE,24HR EXTENDED RELEASE PELLET CT	200 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	VERAPAMIL HCL	VERELAN PM	CAPSULE,24HR EXTENDED RELEASE PELLET CT	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM HCL	TABLET	30 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM HCL	TABLET	60 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM HCL	TABLET	90 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM HCL	TABLET	120 MG	ORAL
Calcium Channel	NICARDIPINE HCL	NICARDIPINE HCL	CAPSULE	20 MG	ORAL
Calcium Channel	NICARDIPINE HCL	NICARDIPINE HCL	CAPSULE	30 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDICAL XL	TABLET, EXTENDED RELEASE 24 HR	30 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIAC CC	TABLET, EXTENDED RELEASE	60 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIAC CC	TABLET, EXTENDED RELEASE	90 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE ER	TABLET, EXTENDED RELEASE	30 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE ER	TABLET, EXTENDED RELEASE	60 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE ER	TABLET, EXTENDED RELEASE	90 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER	TABLET, EXTENDED RELEASE	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER	TABLET, EXTENDED RELEASE	180 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER	TABLET, EXTENDED RELEASE	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	CAPSULE, EXT RELEASE 24 HR	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	CAPSULE, EXT RELEASE 24 HR	180 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	CAPSULE, EXT RELEASE 24 HR	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	CAPSULE, EXT RELEASE 24 HR	300 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDICAL XL	TABLET, EXTENDED RELEASE 24 HR	60 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIAC CC	TABLET, EXTENDED RELEASE	30 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	2.5MG-10MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	5 MG-10 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	5 MG-20 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	10 MG-20MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	5 MG-40 MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE/BENAZEPRIL	AMLODIPINE BESYLATE-BENAZEPRIL	CAPSULE	10 MG-40MG	ORAL
Calcium Channel	NICARDIPINE HCL	NICARDIPINE HCL	VIAL (ML)	25 MG/10ML	INTRAVENOUS
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	TABLET, EXTENDED RELEASE	240 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	TABLET, EXTENDED RELEASE	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	TABLET, EXTENDED RELEASE	180 MG	ORAL
Calcium Channel	ISRADIPINE	DYNACIRC CR	TABLET, EXTENDED RELEASE 24 HR	5 MG	ORAL
Calcium Channel	ISRADIPINE	DYNACIRC CR	TABLET, EXTENDED RELEASE 24 HR	10 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM	TABLET	30 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM	TABLET	60 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM	TABLET	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM CD	CAPSULE, EXT RELEASE 24 HR	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM CD	CAPSULE, EXT RELEASE 24 HR	180 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	CARDIZEM CD	CAPSULE, EXT RELEASE 24 HR	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM CD	CAPSULE, EXT RELEASE 24 HR	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARDIZEM CD	CAPSULE, EXT RELEASE 24 HR	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TIAZAC	CAPSULE, EXTENDED RELEASE	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TIAZAC	CAPSULE, EXTENDED RELEASE	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TIAZAC	CAPSULE, EXTENDED RELEASE	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TIAZAC	CAPSULE, EXTENDED RELEASE	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TIAZAC	CAPSULE, EXTENDED RELEASE	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TIAZAC	CAPSULE, EXTENDED RELEASE	420MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED RELEASE	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED RELEASE	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED RELEASE	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED RELEASE	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED RELEASE	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED RELEASE	420MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE	CAPSULE	10 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE	CAPSULE	20 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR CD	CAPSULE, EXT RELEASE 24 HR	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR CD	CAPSULE, EXT RELEASE 24 HR	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR CD	CAPSULE, EXT RELEASE 24 HR	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR CD	CAPSULE, EXT RELEASE 24 HR	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	CAPSULE, EXT RELEASE 24 HR	360 MG	ORAL
Calcium Channel	FELODIPINE	PLENDIL	TABLET, EXTENDED RELEASE 24 HR	2.5 MG	ORAL
Calcium Channel	FELODIPINE	PLENDIL	TABLET, EXTENDED RELEASE 24 HR	5 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE ER	TABLET, EXTENDED RELEASE 24 HR	30 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE ER	TABLET, EXTENDED RELEASE 24 HR	60 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE ER	TABLET, EXTENDED RELEASE 24 HR	90 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	TABLET	80 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	TABLET	120 MG	ORAL
Calcium Channel	TELMISARTAN/AMLODIPINE	TELMISARTAN-AMLODIPINE	TABLET	40 MG-5 MG	ORAL
Calcium Channel	TELMISARTAN/AMLODIPINE	TELMISARTAN-AMLODIPINE	TABLET	40MG-10MG	ORAL
Calcium Channel	TELMISARTAN/AMLODIPINE	TELMISARTAN-AMLODIPINE	TABLET	80 MG-5 MG	ORAL
Calcium Channel	TELMISARTAN/AMLODIPINE	TELMISARTAN-AMLODIPINE	TABLET	80 MG-10MG	ORAL
Calcium Channel	NISOLDIPINE	NISOLDIPINE	TABLET, EXTENDED RELEASE 24 HR	8.5MG	ORAL
Calcium Channel	NISOLDIPINE	NISOLDIPINE	TABLET, EXTENDED RELEASE 24 HR	17 MG	ORAL
Calcium Channel	NISOLDIPINE	NISOLDIPINE	TABLET, EXTENDED RELEASE 24 HR	25.5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	NISOLDIPINE	NISOLDIPINE	TABLET, EXTENDED RELEASE 24 HR	34 MG	ORAL
Calcium Channel	NISOLDIPINE	NISOLDIPINE	TABLET, EXTENDED RELEASE 24 HR	20 MG	ORAL
Calcium Channel	NISOLDIPINE	NISOLDIPINE	TABLET, EXTENDED RELEASE 24 HR	30 MG	ORAL
Calcium Channel	NISOLDIPINE	NISOLDIPINE	TABLET, EXTENDED RELEASE 24 HR	40 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	2.5MG-10MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	2.5MG-20MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	2.5MG-40MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	5 MG-10 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	5 MG-20 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	5 MG-40 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	5 MG-80 MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	10 MG-10MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	10 MG-20MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	10 MG-40MG	ORAL
Calcium Channel	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	10 MG-80MG	ORAL
Calcium Channel	FELODIPINE	FELODIPINE ER	TABLET, EXTENDED RELEASE 24 HR	2.5 MG	ORAL
Calcium Channel	FELODIPINE	FELODIPINE ER	TABLET, EXTENDED RELEASE 24 HR	5 MG	ORAL
Calcium Channel	FELODIPINE	FELODIPINE ER	TABLET, EXTENDED RELEASE 24 HR	10 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED- RELEASE DEGRADABLE	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED- RELEASE DEGRADABLE	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED- RELEASE DEGRADABLE	240 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 12HR ER	CAPSULE, EXTENDED RELEASE 12 HR	60 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 12HR ER	CAPSULE, EXTENDED RELEASE 12 HR	90 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 12HR ER	CAPSULE, EXTENDED RELEASE 12 HR	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER PM	CAPSULE,24HR EXTENDED RELEASE PELLET CT	100 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER PM	CAPSULE,24HR EXTENDED RELEASE PELLET CT	200 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER PM	CAPSULE,24HR EXTENDED RELEASE PELLET CT	300 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	180 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL ER	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	240 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	VIAL (ML)	2.5 MG/ML	INTRAVENOUS
Calcium Channel	DILTIAZEM HCL	DILTIAZEM HCL	VIAL (ML)	5 MG/ML	INTRAVENOUS
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	AMPUL (ML)	2.5 MG/ML	INTRAVENOUS
Calcium Channel	DILTIAZEM HCL	DILTIAZEM HCL	VIAL WITH THREADED PORT (EA)	100 MG	INTRAVENOUS
Calcium Channel	DILTIAZEM HCL	CARTIA XT	CAPSULE, EXT RELEASE 24 HR	180 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	CARTIA XT	CAPSULE, EXT RELEASE 24 HR	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIA XT	CAPSULE, EXTENDED- RELEASE DEGRADABLE	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIA XT	CAPSULE, EXTENDED- RELEASE DEGRADABLE	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIA XT	CAPSULE, EXTENDED- RELEASE DEGRADABLE	240 MG	ORAL
Calcium Channel	NIMODIPINE	NIMODIPINE	CAPSULE	30 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	TABLET	40 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL SR	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL SR	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	180 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL SR	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	240 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	360 MG	ORAL
Calcium Channel	NIFEDIPINE	AFEDITAB CR	TABLET, EXTENDED RELEASE	30 MG	ORAL
Calcium Channel	NIFEDIPINE	AFEDITAB CR	TABLET, EXTENDED RELEASE	60 MG	ORAL
Calcium Channel	TELMISARTAN/AMLODIPINE	TWYNSTA	TABLET	40 MG-5 MG	ORAL
Calcium Channel	TELMISARTAN/AMLODIPINE	TWYNSTA	TABLET	40MG-10MG	ORAL
Calcium Channel	TELMISARTAN/AMLODIPINE	TWYNSTA	TABLET	80 MG-5 MG	ORAL
Calcium Channel	TELMISARTAN/AMLODIPINE	TWYNSTA	TABLET	80 MG-10MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	NICARDIPINE IN NACL, ISO-OSM	CARDENE I.V.	INTRAVENOUS SOLUTION, PIGGYBACK (ML)	20MG/200ML	INTRAVENOUS
Calcium Channel	NICARDIPINE IN DEXTROSE,ISO-OS	CARDENE I.V.	INTRAVENOUS SOLUTION, PIGGYBACK (ML)	20MG/200ML	INTRAVENOUS
Calcium Channel	NICARDIPINE IN NACL, ISO-OSM	CARDENE I.V.	INTRAVENOUS SOLUTION, PIGGYBACK (ML)	40MG/200ML	INTRAVENOUS
Calcium Channel	NICARDIPINE IN DEXTROSE,ISO-OS	CARDENE I.V.	INTRAVENOUS SOLUTION, PIGGYBACK (ML)	40MG/200ML	INTRAVENOUS
Calcium Channel	VERAPAMIL HCL	ISOPTIN SR	TABLET, EXTENDED RELEASE	120 MG	ORAL
Calcium Channel	VERAPAMIL HCL	ISOPTIN SR	TABLET, EXTENDED RELEASE	180 MG	ORAL
Calcium Channel	VERAPAMIL HCL	ISOPTIN SR	TABLET, EXTENDED RELEASE	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXT RELEASE 24 HR	180 MG	ORAL
Calcium Channel	ISRADIPINE	ISRADIPINE	CAPSULE	2.5 MG	ORAL
Calcium Channel	ISRADIPINE	ISRADIPINE	CAPSULE	5 MG	ORAL
Calcium Channel	NIMODIPINE	NYMALIZE	SOLUTION, ORAL	60 MG/20ML	ORAL
Calcium Channel	NICARDIPINE HCL	CARDENE I.V.	AMPUL (ML)	25 MG/10ML	INTRAVENOUS
Calcium Channel	NIFEDIPINE	NIFEDIPINE XL	TABLET, EXTENDED RELEASE 24 HR	30 MG	ORAL
Calcium Channel	NIFEDIPINE	NIFEDIPINE	POWDER (GRAM)		MISCELLANEOUS
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
Calcium Channel	DILTIAZEM HCL	DILTIAZEM HCL	POWDER (GRAM)		MISCELLANEOUS
Calcium Channel	AMLODIPINE BESYLATE	AMLODIPINE BESILATE	POWDER (GRAM)	100 %	MISCELLANEOUS
Calcium Channel	NICARDIPINE HCL	NICARDIPINE HCL	AMPUL (ML)	25 MG/10ML	INTRAVENOUS
Calcium Channel	AMLODIPINE/VALSARTAN	AMLODIPINE-VALSARTAN	TABLET	5MG-160MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	AMLODIPINE/VALSARTAN	AMLODIPINE-VALSARTAN	TABLET	10MG-160MG	ORAL
Calcium Channel	AMLODIPINE/VALSARTAN	AMLODIPINE-VALSARTAN	TABLET	5MG-320MG	ORAL
Calcium Channel	AMLODIPINE/VALSARTAN	AMLODIPINE-VALSARTAN	TABLET	10MG-320MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	180 MG	ORAL
Calcium Channel	VERAPAMIL HCL	VERAPAMIL HCL	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	240 MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1-240MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2 MG-180MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2-240MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	4-240MG	ORAL
Calcium Channel	AMLODIPINE BESYLATE	AMLODIPINE BESYLATE	POWDER (GRAM)	100 %	MISCELLANEOUS
Calcium Channel	DILTIAZEM HCL	DILACOR XR	CAPSULE, EXTENDED- RELEASE DEGRADABLE	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILACOR XR	CAPSULE, EXTENDED- RELEASE DEGRADABLE	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILACOR XR	CAPSULE, EXTENDED- RELEASE DEGRADABLE	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	MATZIM LA	TABLET, EXTENDED RELEASE 24 HR	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	MATZIM LA	TABLET, EXTENDED RELEASE 24 HR	240 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	MATZIM LA	TABLET, EXTENDED RELEASE 24 HR	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	MATZIM LA	TABLET, EXTENDED RELEASE 24 HR	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL	MATZIM LA	TABLET, EXTENDED RELEASE 24 HR	420MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED RELEASE 12 HR	90 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	CAPSULE, EXTENDED RELEASE 12 HR	60 MG	ORAL
Calcium Channel	NISOLDIPINE	SULAR	TABLET, EXTENDED RELEASE 24 HR	25.5 MG	ORAL
Calcium Channel	AMLODIPINE BES/OLMESARTAN MED	AZOR	TABLET	5 MG-20 MG	ORAL
Calcium Channel	AMLODIPINE BES/OLMESARTAN MED	AZOR	TABLET	10 MG-40MG	ORAL
Calcium Channel	NISOLDIPINE	SULAR	TABLET, EXTENDED RELEASE 24 HR	8.5MG	ORAL
Calcium Channel	NISOLDIPINE	SULAR	TABLET, EXTENDED RELEASE 24 HR	17 MG	ORAL
Calcium Channel	NISOLDIPINE	SULAR	TABLET, EXTENDED RELEASE 24 HR	34 MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL ER	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	4-240MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL ER	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2-240MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL ER	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2 MG-180MG	ORAL
Calcium Channel	TRANDOLAPRIL/VERAPAMIL HCL	TRANDOLAPRIL-VERAPAMIL ER	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1-240MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	DILT-CD	CAPSULE, EXT RELEASE 24 HR	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILT-CD	CAPSULE, EXT RELEASE 24 HR	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILT-CD	CAPSULE, EXT RELEASE 24 HR	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILT-CD	CAPSULE, EXT RELEASE 24 HR	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILT-XR	CAPSULE, EXTENDED- RELEASE DEGRADABLE	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILT-XR	CAPSULE, EXTENDED- RELEASE DEGRADABLE	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILT-XR	CAPSULE, EXTENDED- RELEASE DEGRADABLE	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTZAC ER	CAPSULE, EXTENDED RELEASE	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTZAC ER	CAPSULE, EXTENDED RELEASE	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTZAC ER	CAPSULE, EXTENDED RELEASE	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTZAC ER	CAPSULE, EXTENDED RELEASE	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTZAC ER	CAPSULE, EXTENDED RELEASE	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL/D5W	DILTIAZEM-D5W	PLASTIC BAG, INJECTION (ML)	100MG/0.1L	INTRAVENOUS
Calcium Channel	DILTIAZEM HCL/D5W	DILTIAZEM-D5W	PLASTIC BAG, INJECTION (ML)	125 MG/125	INTRAVENOUS
Calcium Channel	DILTIAZEM HCL/D5W	DILTIAZEM-D5W	PLASTIC BAG, INJECTION (ML)	250MG/250	INTRAVENOUS
Calcium Channel	NICARDIPINE IN D5W	NICARDIPINE HCL-D5W	PLASTIC BAG, INJECTION (ML)	25MG/250ML	INTRAVENOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	DILTIAZEM HCL	CARTIA XT	CAPSULE, EXT RELEASE 24 HR	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	CARTIA XT	CAPSULE, EXT RELEASE 24 HR	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	TABLET, EXTENDED RELEASE 24 HR	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	TABLET, EXTENDED RELEASE 24 HR	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	TABLET, EXTENDED RELEASE 24 HR	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	TABLET, EXTENDED RELEASE 24 HR	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR ER	TABLET, EXTENDED RELEASE 24 HR	420MG	ORAL
Calcium Channel	DILTIAZEM HCL	TAZTIA XT	CAPSULE, EXTENDED RELEASE	120 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TAZTIA XT	CAPSULE, EXTENDED RELEASE	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TAZTIA XT	CAPSULE, EXTENDED RELEASE	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TAZTIA XT	CAPSULE, EXTENDED RELEASE	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	TAZTIA XT	CAPSULE, EXTENDED RELEASE	360 MG	ORAL
Calcium Channel	NIMODIPINE	NIMODIPINE	POWDER (GRAM)	100 %	MISCELLANEOUS
Calcium Channel	DILTIAZEM HCL	CARDIZEM	TABLET	90 MG	ORAL
Calcium Channel	CLEVIDIPINE BUTYRATE	CLEVIPREX	VIAL (ML)	50MG/100ML	INTRAVENOUS
Calcium Channel	CLEVIDIPINE BUTYRATE	CLEVIPREX	VIAL (ML)	25 MG/50ML	INTRAVENOUS
Calcium Channel	AMLODIPINE BES/OLMESARTAN MED	AZOR	TABLET	10 MG-20MG	ORAL
Calcium Channel	AMLODIPINE BES/OLMESARTAN MED	AZOR	TABLET	5 MG-40 MG	ORAL
Calcium Channel	DILTIAZEM HCL IN 0.9% NAACL	DILTIAZEM HCL-NS	PLASTIC BAG, INJECTION (ML)	125 MG/125	INTRAVENOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Calcium Channel	NICARDIPINE HCL	CARDENE SR	CAPSULE, EXTENDED RELEASE	45 MG	ORAL
Calcium Channel	FELODIPINE	PLENDIL	TABLET, EXTENDED RELEASE 24 HR	10 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM 24HR CD	CAPSULE, EXT RELEASE 24 HR	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	TABLET, EXTENDED RELEASE 24 HR	180 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	TABLET, EXTENDED RELEASE 24 HR	240 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	TABLET, EXTENDED RELEASE 24 HR	300 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	TABLET, EXTENDED RELEASE 24 HR	360 MG	ORAL
Calcium Channel	DILTIAZEM HCL	DILTIAZEM ER	TABLET, EXTENDED RELEASE 24 HR	420MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELEBREX	CAPSULE	50 MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELEBREX	CAPSULE	100 MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELEBREX	CAPSULE	200 MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELEBREX	CAPSULE	400 MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELECOXIB	CAPSULE	100 MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELECOXIB	CAPSULE	200 MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELECOXIB	CAPSULE	400 MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELECOXIB	CAPSULE	50 MG	ORAL
Cox 2 Inhibitor	CELECOXIB	CELECOXIB	POWDER (GRAM)	100 %	MISCELLANEOUS
Diuretic	TORSEMIDE	DEMADEX	TABLET	5 MG	ORAL
Diuretic	TORSEMIDE	DEMADEX	TABLET	10 MG	ORAL
Diuretic	TORSEMIDE	DEMADEX	TABLET	20 MG	ORAL
Diuretic	TORSEMIDE	DEMADEX	TABLET	100 MG	ORAL
Diuretic	ETHACRYNIC ACID	EDECRIN	TABLET	25 MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	PRINZIDE	TABLET	20-12.5 MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	PRINZIDE	TABLET	10-12.5MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Diuretic	LOSARTAN/HYDROCHLOROTHIAZIDE	HYZAAR	TABLET	50-12.5 MG	ORAL
Diuretic	LOSARTAN/HYDROCHLOROTHIAZIDE	HYZAAR	TABLET	100-12.5MG	ORAL
Diuretic	LOSARTAN/HYDROCHLOROTHIAZIDE	HYZAAR	TABLET	100MG-25MG	ORAL
Diuretic	CHLOROTHIAZIDE	DIURIL	SUSPENSION, ORAL (FINAL DOSE FORM)	250 MG/5ML	ORAL
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	DYAZIDE	CAPSULE	37.5-25 MG	ORAL
Diuretic	IRBESARTAN/HYDROCHLOROTHIAZIDE	AVALIDE	TABLET	150-12.5MG	ORAL
Diuretic	IRBESARTAN/HYDROCHLOROTHIAZIDE	AVALIDE	TABLET	300-12.5MG	ORAL
Diuretic	SPIRONOLACTONE	ALDACTONE	TABLET	25 MG	ORAL
Diuretic	SPIRONOLACT/HYDROCHLOROTHIAZID	ALDACTAZIDE	TABLET	25 MG-25MG	ORAL
Diuretic	SPIRONOLACT/HYDROCHLOROTHIAZID	ALDACTAZIDE	TABLET	50 MG-50MG	ORAL
Diuretic	SPIRONOLACTONE	ALDACTONE	TABLET	100 MG	ORAL
Diuretic	SPIRONOLACTONE	ALDACTONE	TABLET	50 MG	ORAL
Diuretic	EPLERENONE	INSpra	TABLET	25 MG	ORAL
Diuretic	EPLERENONE	INSpra	TABLET	50 MG	ORAL
Diuretic	FUROSEMIDE	LASIX	TABLET	40 MG	ORAL
Diuretic	FUROSEMIDE	LASIX	TABLET	80 MG	ORAL
Diuretic	FUROSEMIDE	LASIX	TABLET	20 MG	ORAL
Diuretic	TORSEMIDE	TORSEMIDE	TABLET	20 MG	ORAL
Diuretic	LOSARTAN/HYDROCHLOROTHIAZIDE	LOSARTAN-HYDROCHLOROTHIAZIDE	TABLET	50-12.5 MG	ORAL
Diuretic	LOSARTAN/HYDROCHLOROTHIAZIDE	LOSARTAN-HYDROCHLOROTHIAZIDE	TABLET	100MG-25MG	ORAL
Diuretic	IRBESARTAN/HYDROCHLOROTHIAZIDE	IRBESARTAN-HYDROCHLOROTHIAZIDE	TABLET	150-12.5MG	ORAL
Diuretic	IRBESARTAN/HYDROCHLOROTHIAZIDE	IRBESARTAN-HYDROCHLOROTHIAZIDE	TABLET	300-12.5MG	ORAL
Diuretic	LOSARTAN/HYDROCHLOROTHIAZIDE	LOSARTAN-HYDROCHLOROTHIAZIDE	TABLET	100-12.5MG	ORAL
Diuretic	TELMISARTAN/HYDROCHLOROTHIAZID	TELMISARTAN-HYDROCHLOROTHIAZID	TABLET	40-12.5 MG	ORAL
Diuretic	TELMISARTAN/HYDROCHLOROTHIAZID	TELMISARTAN-HYDROCHLOROTHIAZID	TABLET	80-12.5MG	ORAL
Diuretic	TELMISARTAN/HYDROCHLOROTHIAZID	TELMISARTAN-HYDROCHLOROTHIAZID	TABLET	80 MG-25MG	ORAL
Diuretic	FUROSEMIDE	FUROSEMIDE	SOLUTION, ORAL	10 MG/ML	ORAL
Diuretic	FUROSEMIDE	FUROSEMIDE	SOLUTION, ORAL	40MG/5ML	ORAL
Diuretic	FUROSEMIDE	FUROSEMIDE	TABLET	20 MG	ORAL
Diuretic	FUROSEMIDE	FUROSEMIDE	TABLET	40 MG	ORAL
Diuretic	FUROSEMIDE	FUROSEMIDE	TABLET	80 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	ACCURETIC	TABLET	20-12.5 MG	ORAL
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	ACCURETIC	TABLET	10-12.5MG	ORAL
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	ACCURETIC	TABLET	20-25MG	ORAL
Diuretic	FUROSEMIDE	FUROSEMIDE	SYRINGE (ML)	10 MG/ML	INJECTION
Diuretic	EPROSARTAN/HYDROCHLOROTHIAZIDE	TEVETEN HCT	TABLET	600-12.5MG	ORAL
Diuretic	EPROSARTAN/HYDROCHLOROTHIAZIDE	TEVETEN HCT	TABLET	600-25MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	80-12.5MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	160-12.5MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	160-25MG	ORAL
Diuretic	BENAZEPRIL/HYDROCHLOROTHIAZIDE	LOTENSIN HCT	TABLET	5-6.25MG	ORAL
Diuretic	BENAZEPRIL/HYDROCHLOROTHIAZIDE	LOTENSIN HCT	TABLET	10-12.5MG	ORAL
Diuretic	BENAZEPRIL/HYDROCHLOROTHIAZIDE	LOTENSIN HCT	TABLET	20-12.5 MG	ORAL
Diuretic	BENAZEPRIL/HYDROCHLOROTHIAZIDE	LOTENSIN HCT	TABLET	20-25MG	ORAL
Diuretic	METOPROLOL/HYDROCHLOROTHIAZIDE	LOPRESSOR HCT	TABLET	50 MG-25MG	ORAL
Diuretic	METOPROLOL/HYDROCHLOROTHIAZIDE	LOPRESSOR HCT	TABLET	100MG-25MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	320-12.5MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	DIOVAN HCT	TABLET	320MG-25MG	ORAL
Diuretic	ALISKIREN/HYDROCHLOROTHIAZIDE	TEKTURNA HCT	TABLET	150-12.5MG	ORAL
Diuretic	ALISKIREN/HYDROCHLOROTHIAZIDE	TEKTURNA HCT	TABLET	150MG-25MG	ORAL
Diuretic	ALISKIREN/HYDROCHLOROTHIAZIDE	TEKTURNA HCT	TABLET	300-12.5MG	ORAL
Diuretic	ALISKIREN/HYDROCHLOROTHIAZIDE	TEKTURNA HCT	TABLET	300MG-25MG	ORAL
Diuretic	FOSINOPRIL/HYDROCHLOROTHIAZIDE	MONOPRIL HCT	TABLET	10-12.5MG	ORAL
Diuretic	FOSINOPRIL/HYDROCHLOROTHIAZIDE	MONOPRIL HCT	TABLET	20-12.5 MG	ORAL
Diuretic	IRBESARTAN/HYDROCHLOROTHIAZIDE	AVALIDE	TABLET	300MG-25MG	ORAL
Diuretic	MOEXIPRIL/HYDROCHLOROTHIAZIDE	UNIRETIC	TABLET	7.5-12.5MG	ORAL
Diuretic	MOEXIPRIL/HYDROCHLOROTHIAZIDE	UNIRETIC	TABLET	15-12.5MG	ORAL
Diuretic	MOEXIPRIL/HYDROCHLOROTHIAZIDE	UNIRETIC	TABLET	15-25MG	ORAL
Diuretic	CAPTOPRIL/HYDROCHLOROTHIAZIDE	CAPTOPRIL-HYDROCHLOROTHIAZIDE	TABLET	25 MG-15MG	ORAL
Diuretic	CAPTOPRIL/HYDROCHLOROTHIAZIDE	CAPTOPRIL-HYDROCHLOROTHIAZIDE	TABLET	25 MG-25MG	ORAL
Diuretic	CAPTOPRIL/HYDROCHLOROTHIAZIDE	CAPTOPRIL-HYDROCHLOROTHIAZIDE	TABLET	50 MG-15MG	ORAL
Diuretic	CAPTOPRIL/HYDROCHLOROTHIAZIDE	CAPTOPRIL-HYDROCHLOROTHIAZIDE	TABLET	50 MG-25MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	10-12.5MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HCTZ	TABLET	20-12.5 MG	ORAL
Diuretic	ENALAPRIL/HYDROCHLOROTHIAZIDE	ENALAPRIL-HYDROCHLOROTHIAZIDE	TABLET	5MG-12.5MG	ORAL
Diuretic	ENALAPRIL/HYDROCHLOROTHIAZIDE	ENALAPRIL-HYDROCHLOROTHIAZIDE	TABLET	10 MG-25MG	ORAL
Diuretic	HYDROCHLOROTHIAZIDE	HYDROCHLOROTHIAZIDE	CAPSULE	12.5 MG	ORAL
Diuretic	BUMETANIDE	BUMETANIDE	TABLET	0.5 MG	ORAL
Diuretic	BUMETANIDE	BUMETANIDE	TABLET	1 MG	ORAL
Diuretic	BUMETANIDE	BUMETANIDE	TABLET	2 MG	ORAL
Diuretic	MOEXIPRIL/HYDROCHLOROTHIAZIDE	MOEXIPRIL-HYDROCHLOROTHIAZIDE	TABLET	7.5-12.5MG	ORAL
Diuretic	MOEXIPRIL/HYDROCHLOROTHIAZIDE	MOEXIPRIL-HYDROCHLOROTHIAZIDE	TABLET	15-12.5MG	ORAL
Diuretic	MOEXIPRIL/HYDROCHLOROTHIAZIDE	MOEXIPRIL-HYDROCHLOROTHIAZIDE	TABLET	15-25MG	ORAL
Diuretic	TORSEMIDE	TORSEMIDE	TABLET	5 MG	ORAL
Diuretic	TORSEMIDE	TORSEMIDE	TABLET	10 MG	ORAL
Diuretic	TORSEMIDE	TORSEMIDE	TABLET	100 MG	ORAL
Diuretic	NADOLOL/BENDROFLUMETHIAZIDE	NADOLOL-BENDROFLUMETHIAZIDE	TABLET	40 MG-5 MG	ORAL
Diuretic	NADOLOL/BENDROFLUMETHIAZIDE	NADOLOL-BENDROFLUMETHIAZIDE	TABLET	80 MG-5 MG	ORAL
Diuretic	CHLOROTHIAZIDE	CHLOROTHIAZIDE	TABLET	250 MG	ORAL
Diuretic	CHLOROTHIAZIDE	CHLOROTHIAZIDE	TABLET	500 MG	ORAL
Diuretic	HYDROCHLOROTHIAZIDE	HYDROCHLOROTHIAZIDE	TABLET	25 MG	ORAL
Diuretic	HYDROCHLOROTHIAZIDE	HYDROCHLOROTHIAZIDE	TABLET	50 MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-12.5 MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-25MG	ORAL
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	TRIAMTERENE-HCTZ	CAPSULE	50 MG-25MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HCTZ	TABLET	20-25MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	LISINOPRIL-HCTZ	TABLET	10-12.5MG	ORAL
Diuretic	BENAZEPRIL/HYDROCHLOROTHIAZIDE	BENAZEPRIL-HYDROCHLOROTHIAZIDE	TABLET	10-12.5MG	ORAL
Diuretic	BENAZEPRIL/HYDROCHLOROTHIAZIDE	BENAZEPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-12.5 MG	ORAL
Diuretic	BENAZEPRIL/HYDROCHLOROTHIAZIDE	BENAZEPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-25MG	ORAL
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	TRIAMTERENE-HYDROCHLOROTHIAZID	TABLET	75 MG-50MG	ORAL
Diuretic	METOLAZONE	METOLAZONE	TABLET	5 MG	ORAL
Diuretic	BENAZEPRIL/HYDROCHLOROTHIAZIDE	BENAZEPRIL-HYDROCHLOROTHIAZIDE	TABLET	5-6.25MG	ORAL
Diuretic	FOSINOPRIL/HYDROCHLOROTHIAZIDE	FOSINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	10-12.5MG	ORAL
Diuretic	FOSINOPRIL/HYDROCHLOROTHIAZIDE	FOSINOPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-12.5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Diuretic	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	2.5-6.25MG	ORAL
Diuretic	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	5-6.25MG	ORAL
Diuretic	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	10-6.25MG	ORAL
Diuretic	METOLAZONE	METOLAZONE	TABLET	2.5 MG	ORAL
Diuretic	EPLERENONE	EPLERENONE	TABLET	25 MG	ORAL
Diuretic	EPLERENONE	EPLERENONE	TABLET	50 MG	ORAL
Diuretic	METOLAZONE	METOLAZONE	TABLET	10 MG	ORAL
Diuretic	CANDESARTAN/HYDROCHLOROTHIAZID	ATACAND HCT	TABLET	16-12.5MG	ORAL
Diuretic	CANDESARTAN/HYDROCHLOROTHIAZID	ATACAND HCT	TABLET	32-12.5MG	ORAL
Diuretic	CANDESARTAN/HYDROCHLOROTHIAZID	ATACAND HCT	TABLET	32MG-25MG	ORAL
Diuretic	ENALAPRIL/HYDROCHLOROTHIAZIDE	VASERETIC	TABLET	10 MG-25MG	ORAL
Diuretic	INDAPAMIDE	INDAPAMIDE	TABLET	2.5 MG	ORAL
Diuretic	INDAPAMIDE	INDAPAMIDE	TABLET	1.25 MG	ORAL
Diuretic	SPIRONOLACTONE	SPIRONOLACTONE	TABLET	50 MG	ORAL
Diuretic	SPIRONOLACTONE	SPIRONOLACTONE	TABLET	100 MG	ORAL
Diuretic	SPIRONOLACTONE	SPIRONOLACTONE	TABLET	25 MG	ORAL
Diuretic	HYDROCHLOROTHIAZIDE	HYDROCHLOROTHIAZIDE	TABLET	12.5 MG	ORAL
Diuretic	PROPRANOLOL/HYDROCHLOROTHIAZID	PROPRANOLOL HCL-HCTZ	TABLET	40 MG-25MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	ZESTORETIC	TABLET	20-12.5 MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	ZESTORETIC	TABLET	20-25MG	ORAL
Diuretic	ATENOLOL/CHLORTHALIDONE	TENORETIC 50	TABLET	50 MG-25MG	ORAL
Diuretic	ATENOLOL/CHLORTHALIDONE	TENORETIC 100	TABLET	100MG-25MG	ORAL
Diuretic	LISINOPRIL/HYDROCHLOROTHIAZIDE	ZESTORETIC	TABLET	10-12.5MG	ORAL
Diuretic	METOPROLOL SUCCINATE/HCTZ	DUTOPROL	TABLET, EXTENDED RELEASE 24 HR	25-12.5 MG	ORAL
Diuretic	METOPROLOL SUCCINATE/HCTZ	DUTOPROL	TABLET, EXTENDED RELEASE 24 HR	50-12.5 MG	ORAL
Diuretic	METOPROLOL SUCCINATE/HCTZ	DUTOPROL	TABLET, EXTENDED RELEASE 24 HR	100-12.5MG	ORAL
Diuretic	CLONIDINE HCL/CHLORTHALIDONE	CLORPRES	TABLET	0.1MG-15MG	ORAL
Diuretic	CLONIDINE HCL/CHLORTHALIDONE	CLORPRES	TABLET	0.2-15MG	ORAL
Diuretic	CLONIDINE HCL/CHLORTHALIDONE	CLORPRES	TABLET	0.3MG-15MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Diuretic	SPIRONOLACT/HYDROCHLOROTHIAZID	SPIRONOLACTONE-HCTZ	TABLET	25 MG-25MG	ORAL
Diuretic	METHYCLOTHIAZIDE	METHYCLOTHIAZIDE	TABLET	5 MG	ORAL
Diuretic	CHLORTHALIDONE	CHLORTHALIDONE	TABLET	50 MG	ORAL
Diuretic	CHLORTHALIDONE	CHLORTHALIDONE	TABLET	25 MG	ORAL
Diuretic	PROPRANOLOL/HYDROCHLOROTHIAZID	PROPRANOLOL-HYDROCHLOROTHIAZID	TABLET	80 MG-25MG	ORAL
Diuretic	METOPROLOL/HYDROCHLOROTHIAZIDE	METOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	50 MG-25MG	ORAL
Diuretic	METOPROLOL/HYDROCHLOROTHIAZIDE	METOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	100MG-25MG	ORAL
Diuretic	METOPROLOL/HYDROCHLOROTHIAZIDE	METOPROLOL-HYDROCHLOROTHIAZIDE	TABLET	100MG-50MG	ORAL
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	MAXZIDE	TABLET	75 MG-50MG	ORAL
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	MAXZIDE-25 MG	TABLET	37.5-25 MG	ORAL
Diuretic	METHYLDOPA/HYDROCHLOROTHIAZIDE	METHYLDOPA-HYDROCHLOROTHIAZIDE	TABLET	250MG-15MG	ORAL
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINAPRIL-HYDROCHLOROTHIAZIDE	TABLET	10-12.5MG	ORAL
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINAPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-12.5 MG	ORAL
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINAPRIL-HYDROCHLOROTHIAZIDE	TABLET	20-25MG	ORAL
Diuretic	AMILORIDE/HYDROCHLOROTHIAZIDE	AMILORIDE-HYDROCHLOROTHIAZIDE	TABLET	5MG-50MG	ORAL
Diuretic	METHYLDOPA/HYDROCHLOROTHIAZIDE	METHYLDOPA-HYDROCHLOROTHIAZIDE	TABLET	250MG-25MG	ORAL
Diuretic	PROPRANOLOL/HYDROCHLOROTHIAZID	PROPRANOLOL-HYDROCHLOROTHIAZID	TABLET	40 MG-25MG	ORAL
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	TRIAMTERENE-HYDROCHLOROTHIAZID	TABLET	37.5-25 MG	ORAL
Diuretic	ATENOLOL/CHLORTHALIDONE	ATENOLOL-CHLORTHALIDONE	TABLET	50 MG-25MG	ORAL
Diuretic	ATENOLOL/CHLORTHALIDONE	ATENOLOL-CHLORTHALIDONE	TABLET	100MG-25MG	ORAL
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	TRIAMTERENE-HYDROCHLOROTHIAZID	CAPSULE	37.5-25 MG	ORAL
Diuretic	CANDESARTAN/HYDROCHLOROTHIAZID	CANDESARTAN-HYDROCHLOROTHIAZID	TABLET	16-12.5MG	ORAL
Diuretic	CANDESARTAN/HYDROCHLOROTHIAZID	CANDESARTAN-HYDROCHLOROTHIAZID	TABLET	32-12.5MG	ORAL
Diuretic	CANDESARTAN/HYDROCHLOROTHIAZID	CANDESARTAN-HYDROCHLOROTHIAZID	TABLET	32MG-25MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	80-12.5MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	160-12.5MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	160-25MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	320-12.5MG	ORAL
Diuretic	VALSARTAN/HYDROCHLOROTHIAZIDE	VALSARTAN-HYDROCHLOROTHIAZIDE	TABLET	320MG-25MG	ORAL
Diuretic	BUMETANIDE	BUMETANIDE	VIAL (ML)	0.25 MG/ML	INJECTION
Diuretic	FUROSEMIDE	FUROSEMIDE	VIAL (ML)	10 MG/ML	INJECTION
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	TRIAMTERENE-HCTZ	TABLET	37.5-25 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	TRIAMTERENE-HCTZ	TABLET	75 MG-50MG	ORAL
Diuretic	TORSEMIDE	TORSEMIDE	VIAL (ML)	20 MG/2 ML	INTRAVENOUS
Diuretic	TORSEMIDE	TORSEMIDE	VIAL (ML)	50 MG/5 ML	INTRAVENOUS
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	TRIAMTERENE-HCTZ	CAPSULE	37.5-25 MG	ORAL
Diuretic	AMILORIDE HCL	MIDAMOR	TABLET	5 MG	ORAL
Diuretic	AMILORIDE HCL	AMILORIDE HCL	TABLET	5 MG	ORAL
Diuretic	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL FUMARATE-HCTZ	TABLET	2.5-6.25MG	ORAL
Diuretic	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL FUMARATE-HCTZ	TABLET	5-6.25MG	ORAL
Diuretic	BISOPROLOL FUMARATE/HCTZ	BISOPROLOL FUMARATE-HCTZ	TABLET	10-6.25MG	ORAL
Diuretic	TELMISARTAN/HYDROCHLOROTHIAZID	MICARDIS HCT	TABLET	80 MG-25MG	ORAL
Diuretic	TELMISARTAN/HYDROCHLOROTHIAZID	MICARDIS HCT	TABLET	40-12.5 MG	ORAL
Diuretic	TELMISARTAN/HYDROCHLOROTHIAZID	MICARDIS HCT	TABLET	80-12.5MG	ORAL
Diuretic	TRIAMTERENE/HYDROCHLOROTHIAZID	TRIAMTERENE-HYDROCHLOROTHIAZID	CAPSULE	50 MG-25MG	ORAL
Diuretic	CHLOROTHIAZIDE SODIUM	CHLOROTHIAZIDE SODIUM	VIAL (EA)	500 MG	INTRAVENOUS
Diuretic	FUROSEMIDE IN 0.9 % NACL	FUROSEMIDE-0.9 % NACL	INTRAVENOUS SOLUTION, PIGGYBACK (ML)	200MG/0.1L	INTRAVENOUS
Diuretic	ETHACRYNATE SODIUM	SODIUM EDECRIN	VIAL (EA)	50 MG	INTRAVENOUS
Diuretic	OLMESARTAN/HYDROCHLOROTHIAZIDE	BENICAR HCT	TABLET	20-12.5 MG	ORAL
Diuretic	OLMESARTAN/HYDROCHLOROTHIAZIDE	BENICAR HCT	TABLET	40-12.5 MG	ORAL
Diuretic	OLMESARTAN/HYDROCHLOROTHIAZIDE	BENICAR HCT	TABLET	40 MG-25MG	ORAL
Diuretic	SPIRONOLACTONE	SPIRONOLACTONE	POWDER (GRAM)	100 %	MISCELLANEOUS
Diuretic	TRICHLORMETHIAZIDE	TRICHLORMETHIAZIDE	POWDER (GRAM)	100 %	MISCELLANEOUS
Diuretic	METHYCLOTHIAZIDE	METHYCLOTHIAZIDE	POWDER (GRAM)		MISCELLANEOUS
Diuretic	AMILORIDE HCL	AMILORIDE HCL	POWDER (GRAM)		MISCELLANEOUS
Diuretic	FUROSEMIDE	FUROSEMIDE	POWDER (GRAM)		MISCELLANEOUS
Diuretic	HYDROCHLOROTHIAZIDE	HYDROCHLOROTHIAZIDE	POWDER (GRAM)	100 %	MISCELLANEOUS
Diuretic	TRIAMTERENE	TRIAMTERENE	POWDER (GRAM)		MISCELLANEOUS
Diuretic	HYDRALAZINE/HYDROCHLOROTHIAZID	HYDRA-ZIDE	CAPSULE	25 MG-25MG	ORAL
Diuretic	HYDRALAZINE/HYDROCHLOROTHIAZID	HYDRA-ZIDE	CAPSULE	50 MG-50MG	ORAL
Diuretic	BISOPROLOL FUMARATE/HCTZ	ZIAC	TABLET	10-6.25MG	ORAL
Diuretic	BISOPROLOL FUMARATE/HCTZ	ZIAC	TABLET	2.5-6.25MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Diuretic	BISOPROLOL FUMARATE/HCTZ	ZIAC	TABLET	5-6.25MG	ORAL
Diuretic	SPIRONOLACTONE, MICRONIZED	SPIRONOLACTONE	POWDER (GRAM)	100 %	MISCELLANEOUS
Diuretic	BENDROFLUMETHIAZIDE	BENDROFLUMETHIAZIDE	POWDER (GRAM)		MISCELLANEOUS
Diuretic	ETHACRYNIC ACID	ETHACRYNIC ACID	POWDER (GRAM)	100 %	MISCELLANEOUS
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINARETIC	TABLET	10-12.5MG	ORAL
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINARETIC	TABLET	20-12.5 MG	ORAL
Diuretic	QUINAPRIL/HYDROCHLOROTHIAZIDE	QUINARETIC	TABLET	20-25MG	ORAL
Diuretic	HYDROCHLOROTHIAZIDE	MICROZIDE	CAPSULE	12.5 MG	ORAL
Diuretic	METOLAZONE	ZAROXOLYN	TABLET	10 MG	ORAL
Diuretic	METOLAZONE	ZAROXOLYN	TABLET	5 MG	ORAL
Diuretic	METOLAZONE	ZAROXOLYN	TABLET	2.5 MG	ORAL
Diuretic	METHYCLOTHIAZIDE	ENDURON	TABLET	5 MG	ORAL
Diuretic	TRIAMTERENE	DYRENIUM	CAPSULE	100 MG	ORAL
Diuretic	NADOLOL/BENDROFLUMETHIAZIDE	CORZIDE	TABLET	80 MG-5 MG	ORAL
Diuretic	AMILORIDE/HYDROCHLOROTHIAZIDE	AMILORIDE HCL-HCTZ	TABLET	5MG-50MG	ORAL
Diuretic	ENALAPRIL/HYDROCHLOROTHIAZIDE	ENALAPRIL MALEATE-HCTZ	TABLET	5MG-12.5MG	ORAL
Diuretic	AZILSARTAN MED/CHLORTHALIDONE	EDARBYCLOR	TABLET	40-12.5 MG	ORAL
Diuretic	AZILSARTAN MED/CHLORTHALIDONE	EDARBYCLOR	TABLET	40 MG-25MG	ORAL
Diuretic	NADOLOL/BENDROFLUMETHIAZIDE	CORZIDE	TABLET	40 MG-5 MG	ORAL
Diuretic	FUROSEMIDE IN 0.9 % NACL	FUROSEMIDE-0.9% NACL	INTRAVENOUS SOLUTION, PIGGYBACK (ML)	100MG/0.1L	INTRAVENOUS
Diuretic	CHLORTHALIDONE	THALITONE	TABLET	15 MG	ORAL
Diuretic	TRIAMTERENE	DYRENIUM	CAPSULE	50 MG	ORAL
Diuretic	CHLOROTHIAZIDE SODIUM	DIURIL SODIUM	VIAL (EA)	500 MG	INTRAVENOUS
Diuretic	FUROSEMIDE	FUROSEMIDE	SOLUTION, ORAL	40 MG/4 ML	ORAL
Diuretic	CHLOROTHIAZIDE SODIUM	SODIUM DIURIL	VIAL (EA)	500 MG	INTRAVENOUS
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	LO-OVRAL-28	TABLET	0.3-0.03MG	ORAL
Estrogen	ESTRADIOL CYPIONATE	DEPO-ESTRADIOL	VIAL (ML)	5 MG/ML	INTRAMUSCULAR
Estrogen	ESTROPIPATE	OGEN	TABLET	0.75 MG	ORAL
Estrogen	ESTROPIPATE	OGEN	TABLET	1.5 MG	ORAL
Estrogen	ESTROPIPATE	OGEN	TABLET	3 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	ESTRADIOL	ESTRING	RING, VAGINAL	7.5MCG/24H	VAGINAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	ESTRATEST H.S.	TABLET	0.625-1.25	ORAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	ESTRATEST	TABLET	1.25-2.5MG	ORAL
Estrogen	PROGESTERONE,MICRONIZED	PROMETRIUM	CAPSULE	100 MG	ORAL
Estrogen	PROGESTERONE,MICRONIZED	PROMETRIUM	CAPSULE	200 MG	ORAL
Estrogen	ESTRADIOL	ELESTRIN	GEL IN METERED-DOSE PUMP	0.87G	TRANSDERMAL
Estrogen	ESTROGENS, CONJUGATED	PREMARIN	VIAL (EA)	25 MG	INJECTION
Estrogen	ESTROGENS, CONJUGATED	PREMARIN	CREAM WITH APPLICATOR	0.625 MG/G	VAGINAL
Estrogen	ESTROGEN,CON/M-PROGEST ACET	PREMPRO	TABLET	0.625-2.5	ORAL
Estrogen	ESTROGEN,CON/M-PROGEST ACET	PREMPRO	TABLET	0.45-1.5MG	ORAL
Estrogen	ESTROGEN,CON/M-PROGEST ACET	PREMPRO	TABLET	0.3-1.5MG	ORAL
Estrogen	ESTROGEN,CON/M-PROGEST ACET	PREMPRO	TABLET	0.625-5 MG	ORAL
Estrogen	ESTROGENS, CONJUGATED	PREMARIN	TABLET	0.3 MG	ORAL
Estrogen	ESTROGENS, CONJUGATED	PREMARIN	TABLET	0.45MG	ORAL
Estrogen	ESTROGENS, CONJUGATED	PREMARIN	TABLET	0.625 MG	ORAL
Estrogen	ESTROGENS, CONJUGATED	PREMARIN	TABLET	0.9 MG	ORAL
Estrogen	ESTROGENS, CONJUGATED	PREMARIN	TABLET	1.25 MG	ORAL
Estrogen	ESTROGEN,CON/M-PROGEST ACET	PREMPHASE	TABLET	0.625 (14)	ORAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	DESOGEN	TABLET	0.15-0.03	ORAL
Estrogen	ETONOGESTREL/ETHINYL ESTRADIOL	NUVARING	RING, VAGINAL	.12-.015MG	VAGINAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	CYCLESSA	TABLET	7 DAYS X 3	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	ORTHO TRI-CYCLEN LO	TABLET	7DAYSX3 LO	ORAL
Estrogen	NORETHINDRONE-MESTRANOL	ORTHO-NOVUM	TABLET	1 MG-50MCG	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	MODICON	TABLET	0.5-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	ORTHO-NOVUM	TABLET	1 MG-35MCG	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	ORTHO-NOVUM	TABLET	7 DAYS X 3	ORAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	ORTHO-CEPT	TABLET	0.15-0.03	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	ORTHO-CYCLEN	TABLET	0.25-0.035	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	ORTHO TRI-CYCLEN	TABLET	7DAYSX3 28	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	NORELGESTROMIN/ETHIN.ESTRADIOL	ORTHO EVRA	PATCH, TRANSDERMAL WEEKLY	150-35/24H	TRANSDERMAL
Estrogen	ESTRADIOL	VIVELLE-DOT	PATCH, TRANSDERMAL SEMIWEEKLY	.0375MG/24	TRANSDERMAL
Estrogen	ESTRADIOL	VIVELLE-DOT	PATCH, TRANSDERMAL SEMIWEEKLY	0.05MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	VIVELLE-DOT	PATCH, TRANSDERMAL SEMIWEEKLY	.075MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	VIVELLE-DOT	PATCH, TRANSDERMAL SEMIWEEKLY	0.1MG/24HR	TRANSDERMAL
Estrogen	ESTRADIOL	VIVELLE-DOT	PATCH, TRANSDERMAL SEMIWEEKLY	.025MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL/NORETHINDRONE ACET	COMBIPATCH	PATCH, TRANSDERMAL SEMIWEEKLY	.05-.14/24	TRANSDERMAL
Estrogen	ESTRADIOL/NORETHINDRONE ACET	COMBIPATCH	PATCH, TRANSDERMAL SEMIWEEKLY	.05-.25/24	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADERM	PATCH, TRANSDERMAL SEMIWEEKLY	0.05MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADERM	PATCH, TRANSDERMAL SEMIWEEKLY	0.1MG/24HR	TRANSDERMAL
Estrogen	ESTRADIOL	VIVELLE	PATCH, TRANSDERMAL SEMIWEEKLY	0.05MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	VIVELLE	PATCH, TRANSDERMAL SEMIWEEKLY	0.1MG/24HR	TRANSDERMAL
Estrogen	NORETH-ETHINYL ESTRADIOL/IRON	ZEOSA	TABLET, CHEWABLE	0.4-35(21)	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	CAMRESE	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-PREVIFEM	TABLET	7DAYSX3 28	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	PREVIFEM	TABLET	0.25-0.035	ORAL
Estrogen	PROGESTERONE,MICRONIZED	PROGESTERONE	CAPSULE	100 MG	ORAL
Estrogen	PROGESTERONE,MICRONIZED	PROGESTERONE	CAPSULE	200 MG	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	GIANVI	TABLET	0.02-3(24)	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	ESTRADIOL/NORETHINDRONE ACET	MIMVEY LO	TABLET	0.5-0.1MG	ORAL
Estrogen	ESTRADIOL/NORETHINDRONE ACET	MIMVEY	TABLET	1 MG-0.5MG	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	CAMRESE LO	TABLET, DOSE PACK, 3 MONTHS	100-20(84)	ORAL
Estrogen	ESTRADIOL	VAGIFEM	TABLET	25 MCG	VAGINAL
Estrogen	ESTRADIOL/NORETHINDRONE ACET	ACTIVELLA	TABLET	1 MG-0.5MG	ORAL
Estrogen	ESTRADIOL/NORETHINDRONE ACET	ACTIVELLA	TABLET	0.5-0.1MG	ORAL
Estrogen	ESTRADIOL	VAGIFEM	TABLET	10 MCG	VAGINAL
Estrogen	ESTRADIOL	DIVIGEL	GEL IN PACKET (EA)	0.25(0.1%)	TRANSDERMAL
Estrogen	ESTRADIOL	DIVIGEL	GEL IN PACKET (EA)	0.5MG(0.1)	TRANSDERMAL
Estrogen	ESTRADIOL	DIVIGEL	GEL IN PACKET (GRAM)	1MG(0.1%)	TRANSDERMAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	LO-OVRAL-21	TABLET	0.3-0.03MG	ORAL
Estrogen	ESTRADIOL	ESTRADIOL	TABLET	0.5 MG	ORAL
Estrogen	ESTRADIOL	ESTRADIOL	TABLET	1 MG	ORAL
Estrogen	ESTRADIOL	ESTRADIOL	TABLET	2 MG	ORAL
Estrogen	NORELGESTROMIN/ETHIN.ESTRADIOL	XULANE	PATCH, TRANSDERMAL WEEKLY	150-35/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL WEEKLY	.025MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL WEEKLY	0.05MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL WEEKLY	.075MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL WEEKLY	0.1MG/24HR	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL WEEKLY	.0375MG/24	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL WEEKLY	0.06MG/24H	TRANSDERMAL
Estrogen	ESTROPIPATE	ESTROPIPATE	TABLET	0.75 MG	ORAL
Estrogen	ESTROPIPATE	ESTROPIPATE	TABLET	1.5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL SEMIWEEKLY	0.1MG/24HR	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL SEMIWEEKLY	.075MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL SEMIWEEKLY	0.05MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL SEMIWEEKLY	.0375MG/24	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL	PATCH, TRANSDERMAL SEMIWEEKLY	.025MG/24H	TRANSDERMAL
Estrogen	NORETH-ETHINYL ESTRADIOL/IRON	FEMCON FE	TABLET, CHEWABLE	0.4-35(21)	ORAL
Estrogen	ESTRADIOL ACETATE	FEMTRACE	TABLET	0.45MG	ORAL
Estrogen	ESTRADIOL ACETATE	FEMTRACE	TABLET	0.9 MG	ORAL
Estrogen	ESTRADIOL ACETATE	FEMTRACE	TABLET	1.8 MG	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	OVCON-35	TABLET	0.4-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	OVCON-50	TABLET	1 MG-50MCG	ORAL
Estrogen	ESTRADIOL	ESTRACE	TABLET	0.5 MG	ORAL
Estrogen	ESTRADIOL	ESTRACE	TABLET	1 MG	ORAL
Estrogen	ESTRADIOL	ESTRACE	TABLET	2 MG	ORAL
Estrogen	ESTRADIOL	ESTRACE	CREAM WITH APPLICATOR	0.01 %	VAGINAL
Estrogen	ESTRADIOL ACETATE	FEMRING	RING, VAGINAL	0.05MG/24H	VAGINAL
Estrogen	ESTRADIOL ACETATE	FEMRING	RING, VAGINAL	0.1MG/24HR	VAGINAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	ESTROGEN-METHYLTESTOSTERONE	TABLET	1.25-2.5MG	ORAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	ESTROGEN & METHYLTESTOSTERONE	TABLET	0.625-1.25	ORAL
Estrogen	ESTROPIPATE	ESTROPIPATE	TABLET	3 MG	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	NORTREL	TABLET	0.5-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	NORTREL	TABLET	1 MG-35MCG	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	NORTREL	TABLET	7 DAYS X 3	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	SPRINTEC	TABLET	0.25-0.035	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-SPRINTEC	TABLET	7DAYSX3 28	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	BALZIVA	TABLET	0.4-0.035	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	APRI	TABLET	0.15-0.03	ORAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	CRYSSELLE	TABLET	0.3-0.03MG	ORAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	VELIVET	TABLET	7 DAYS X 3	ORAL
Estrogen	ETHYNODIOL D-ETHINYL ESTRADIOL	KELNOR 1-35	TABLET	1 MG-35MCG	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-LO-SPRINTEC	TABLET	7DAYSX3 LO	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	ARANELLE	TABLET	7-9-5	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	OCELLA	TABLET	0.03-3MG	ORAL
Estrogen	PROGESTERONE,MICRONIZED	PROGESTERONE	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTRADIOL VALERATE	ESTRADIOL VALERATE	VIAL (ML)	20 MG/ML	INTRAMUSCULAR
Estrogen	ESTRADIOL VALERATE	ESTRADIOL VALERATE	VIAL (ML)	40 MG/ML	INTRAMUSCULAR
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	GILDAGIA	TABLET	0.4-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	CYCLAFEM	TABLET	1 MG-35MCG	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	CYCLAFEM	TABLET	7 DAYS X 3	ORAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	EMOQUETTE	TABLET	0.15-0.03	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	ESTARYLLA	TABLET	0.25-0.035	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-ESTARYLLA	TABLET	7DAYSX3 28	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	LORYNA	TABLET	0.02-3(24)	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	SYEDA	TABLET	0.03-3MG	ORAL
Estrogen	Y-PORT ADAPTER-EXTENSION SET	KANGAROO PUMP EXTENSION SET	EACH		MISCELLANEOUS
Estrogen	Y-PORT ADAPTER-EXTENSION SET	KANGAROO Y-SITE EXTENSION SET	EACH		MISCELLANEOUS
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	COVARYX	TABLET	1.25-2.5MG	ORAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	COVARYX H.S.	TABLET	0.625-1.25	ORAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	ESTROGEN-METHYLTESTOSTERONE	TABLET	0.625-1.25	ORAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	EEMT	TABLET	1.25-2.5MG	ORAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	EEMT H.S.	TABLET	0.625-1.25	ORAL
Estrogen	ESTRADIOL	ESTRASORB	EMULSION IN PACKET	2.5/G-1.74	TRANSDERMAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	DASETTA	TABLET	7 DAYS X 3	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	PHILITH	TABLET	0.4-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	DASETTA	TABLET	1 MG-35MCG	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	MONO-LINYAH	TABLET	0.25-0.035	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-LINYAH	TABLET	7DAYSX3 28	ORAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	ELINEST	TABLET	0.3-0.03MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	DESOGESTREL-ETHINYL ESTRADIOL	TABLET	0.15-0.03	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	WERA	TABLET	0.5-0.035	ORAL
Estrogen	ESTRADIOL	ESTROGEL	GEL IN METERED-DOSE PUMP	1.25 G	TRANSDERMAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	TRINESSA	TABLET	7DAYSX3 28	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	NECON	TABLET	1 MG-35MCG	ORAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	NORGESTREL-ETHINY ESTRA	TABLET	0.3-0.03MG	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	YAZ	TABLET	0.02-3(24)	ORAL
Estrogen	ESTRADIOL MICRONIZED	ESTRADIOL MICRONIZED	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTRIOL MICRONIZED	ESTRIOL MICRONIZED	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTRONE	ESTRONE	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	PROGESTERONE,MICRONIZED	PROGESTERONE MICRONIZED	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTRADIOL VALERATE	ESTRADIOL VALERATE	POWDER (GRAM)		MISCELLANEOUS
Estrogen	ESTRIOL MICRONIZED	ESTRIOL	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTRADIOL CYPIONATE	ESTRADIOL CYPIONATE	POWDER (GRAM)		MISCELLANEOUS
Estrogen	ESTRADIOL	ESTRADIOL	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTRADIOL VALERATE	DELESTROGEN	VIAL (ML)	10 MG/ML	INTRAMUSCULAR
Estrogen	ESTRADIOL VALERATE	DELESTROGEN	VIAL (ML)	20 MG/ML	INTRAMUSCULAR
Estrogen	ESTRADIOL VALERATE	DELESTROGEN	VIAL (ML)	40 MG/ML	INTRAMUSCULAR
Estrogen	ESTRADIOL VALERATE	ESTRADIOL VALERATE	VIAL (ML)	10 MG/ML	INTRAMUSCULAR
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	RECLIPSEN	TABLET	0.15-0.03	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	NECON	TABLET	0.5-0.035	ORAL
Estrogen	ESTRIOL	ESTRIOL	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	DIENESTROL	DIENESTROL	POWDER (GRAM)		MISCELLANEOUS
Estrogen	ESTROPIPATE	ESTRONE SULFATE PIPERAZINE	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ETHINYL ESTRADIOL	ETHINYL ESTRADIOL	POWDER (GRAM)		MISCELLANEOUS
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	YASMIN 28	TABLET	0.03-3MG	ORAL
Estrogen	DROSPIR/ETH ESTRA/LEVOMEFOL CA	SAFYRAL	TABLET	3-0.03(21)	ORAL
Estrogen	DROSPIR/ETH ESTRA/LEVOMEFOL CA	BEYAZ	TABLET	3-0.02(24)	ORAL
Estrogen	ESTRADIOL VALERATE/DIENOGEST	NATAZIA	TABLET	3-2-1(28)	ORAL
Estrogen	ESTRADIOL	CLIMARA	PATCH, TRANSDERMAL	0.05MG/24H	TRANSDERMAL WEEKLY

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	ESTRADIOL	CLIMARA	PATCH, TRANSDERMAL WEEKLY	0.1MG/24HR	TRANSDERMAL
Estrogen	ESTRADIOL	CLIMARA	PATCH, TRANSDERMAL WEEKLY	.075MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	CLIMARA	PATCH, TRANSDERMAL WEEKLY	.025MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	MENOSTAR	PATCH, TRANSDERMAL WEEKLY	14MCG/24HR	TRANSDERMAL
Estrogen	ESTRADIOL	CLIMARA	PATCH, TRANSDERMAL WEEKLY	.0375MG/24	TRANSDERMAL
Estrogen	ESTRADIOL	CLIMARA	PATCH, TRANSDERMAL WEEKLY	0.06MG/24H	TRANSDERMAL
Estrogen	DROSPIRENONE/ESTRADIOL	ANGELIQ	TABLET	0.25-0.5MG	ORAL
Estrogen	DROSPIRENONE/ESTRADIOL	ANGELIQ	TABLET	0.5 MG-1MG	ORAL
Estrogen	ESTRADIOL/LEVONORGESTREL	CLIMARA PRO	PATCH, TRANSDERMAL WEEKLY	45-15/24H	TRANSDERMAL
Estrogen	ESTRADIOL/NORGESTIMATE	PREFEST	TABLET	1-1-0.09MG	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	SEASONIQUE	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	LOSEASONIQUE	TABLET, DOSE PACK, 3 MONTHS	100-20(84)	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC B	ENJUVIA	TABLET	0.3 MG	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC B	ENJUVIA	TABLET	0.45MG	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC B	ENJUVIA	TABLET	0.625 MG	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC B	ENJUVIA	TABLET	0.9 MG	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC B	ENJUVIA	TABLET	1.25 MG	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	QUARTETTE	TABLET, DOSE PACK, 3 MONTHS	0.15MG(84)	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC A	CENESTIN	TABLET	0.3 MG	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC A	CENESTIN	TABLET	0.625 MG	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC A	CENESTIN	TABLET	0.9 MG	ORAL
Estrogen	ESTROGENS,CONJ.,SYNTHETIC A	CENESTIN	TABLET	1.25 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	ESTROGENS,CONJ.,SYNTHETIC A	CENESTIN	TABLET	0.45MG	ORAL
Estrogen	ESTRADIOL HEMIHYDRT,MICRONIZED	ESTRADIOL MICRONIZED	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTRADIOL HEMIHYDRT,MICRONIZED	ESTRADIOL	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTRONE	ESTRONE	CRYSTALS		MISCELLANEOUS
Estrogen	ESTRADIOL/NORETHINDRONE ACET	ESTRADIOL-NORETHINDRONE ACETAT	TABLET	1 MG-0.5MG	ORAL
Estrogen	ESTRADIOL/NORETHINDRONE ACET	ESTRADIOL-NORETHINDRONE ACETAT	TABLET	0.5-0.1MG	ORAL
Estrogen	NORETH-ETHINYL ESTRADIOL/IRON	GENERESS FE	TABLET, CHEWABLE	0.8-25(24)	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	ZENCHENT	TABLET	0.4-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	LEENA	TABLET	7-9-5	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	AMETHIA LO	TABLET, DOSE PACK, 3 MONTHS	100-20(84)	ORAL
Estrogen	NORETHINDRONE-MESTRANOL	NECON	TABLET	1 MG-50MCG	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	MONONESSA	TABLET	0.25-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	BREVICON	TABLET	0.5-0.035	ORAL
Estrogen	PROGESTERONE,MICRONIZED	CRINONE	GEL WITH PREFILLED APPLICATOR (GRAM)	4 %	VAGINAL
Estrogen	PROGESTERONE,MICRONIZED	CRINONE	GEL WITH PREFILLED APPLICATOR (GRAM)	8 %	VAGINAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	NORINYL 1+35	TABLET	1 MG-35MCG	ORAL
Estrogen	NORETHINDRONE-MESTRANOL	NORINYL 1+50	TABLET	1 MG-50MCG	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	AMETHIA	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	TRI-NORINYL	TABLET	7-9-5	ORAL
Estrogen	NORETH-ETHINYL ESTRADIOL/IRON	ZENCHENT FE	TABLET, CHEWABLE	0.4-35(21)	ORAL
Estrogen	ETHYNODIOL D-ETHINYL ESTRADIOL	ZOVIA 1-35E	TABLET	1 MG-35MCG	ORAL
Estrogen	ETHYNODIOL D-ETHINYL ESTRADIOL	ZOVIA 1-50E	TABLET	1 MG-50MCG	ORAL
Estrogen	ESTRADIOL	ALORA	PATCH, TRANSDERMAL SEMIWEEKLY	0.05MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ALORA	PATCH, TRANSDERMAL SEMIWEEKLY	.075MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ALORA	PATCH, TRANSDERMAL SEMIWEEKLY	0.1MG/24HR	TRANSDERMAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	NECON	TABLET	10-11	ORAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	LOW-OGESTREL	TABLET	0.3-0.03MG	ORAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	OGESTREL	TABLET	0.5 MG-50	ORAL
Estrogen	ESTRADIOL	ALORA	PATCH, TRANSDERMAL SEMIWEEKLY	.025MG/24H	TRANSDERMAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	NECON	TABLET	7 DAYS X 3	ORAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	CAZANT	TABLET	7 DAYS X 3	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	ZARAH	TABLET	0.03-3MG	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	VESTURA	TABLET	0.02-3(24)	ORAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	OVRAL-21	TABLET	0.5 MG-50	ORAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	SOLIA	TABLET	0.15-0.03	ORAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	CESIA	TABLET	7 DAYS X 3	ORAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	OVRAL-28	TABLET	0.5 MG-50	ORAL
Estrogen	ESTROPIPATE	ORTHO-EST	TABLET	0.75 MG	ORAL
Estrogen	ESTROPIPATE	ORTHO-EST	TABLET	1.5 MG	ORAL
Estrogen	ETHYNODIOL D-ETHINYL ESTRADIOL	DEMULEN 1-50-28	TABLET	1 MG-50MCG	ORAL
Estrogen	ESTRADIOL/NORGESTIMATE	ORTHO-PREFEST	TABLET	1-1-0.09MG	ORAL
Estrogen	ESTRADIOL	ESTRADIOL TRANSDERMAL PATCH	PATCH, TRANSDERMAL WEEKLY	0.05MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	ESTRADIOL TRANSDERMAL PATCH	PATCH, TRANSDERMAL WEEKLY	0.1MG/24HR	TRANSDERMAL
Estrogen	ESTROGENS,ESTERIFIED	MENEST	TABLET	0.625 MG	ORAL
Estrogen	ESTRADIOL	EVAMIST	SPRAY, NON-AEROSOL (ML)	1.53/SPRAY	TRANSDERMAL
Estrogen	ESTROGENS,ESTERIFIED	MENEST	TABLET	0.3 MG	ORAL
Estrogen	ESTROGENS,ESTERIFIED	MENEST	TABLET	1.25 MG	ORAL
Estrogen	PROGESTERONE,MICRONIZED	PROCHIEVE	GEL WITH PREFILLED APPLICATOR (GRAM)	4 %	VAGINAL
Estrogen	PROGESTERONE,MICRONIZED	PROCHIEVE	GEL WITH PREFILLED APPLICATOR (GRAM)	8 %	VAGINAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	LO-OVRAL-8	TABLET	0.3-0.03MG	ORAL
Estrogen	NORGESTREL-ETHINYL ESTRADIOL	NORGESTREL-ETHINY ESTRA	TABLET	0.5 MG-50	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	PROGESTERONE,MICRONIZED	ENDOMETRIN	INSERT	100 MG	VAGINAL
Estrogen	ESTROGENS,ESTERIFIED	MENEST	TABLET	2.5 MG	ORAL
Estrogen	ESTRADIOL MICRONIZED	ESTRADIOL	POWDER (GRAM)	100 %	MISCELLANEOUS
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	ESTROGEN & METHYLTESTOSTERONE	TABLET	1.25-2.5MG	ORAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	ESSIAN	TABLET	1.25-2.5MG	ORAL
Estrogen	ESTROGEN,ESTER/ME-TESTOSTERONE	ESSIAN H.S.	TABLET	0.625-1.25	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	DAYSEE	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	LEVONORG-ETH ESTRAD ETH ESTRAD	TABLET, DOSE PACK, 3 MONTHS	100-20(84)	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	VYFEMLA	TABLET	0.4-0.035	ORAL
Estrogen	DESOGESTREL-ETHINYL ESTRADIOL	ENSKYCE	TABLET	0.15-0.03	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	NIKKI	TABLET	0.02-3(24)	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	PIRMELLA	TABLET	7 DAYS X 3	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	PIRMELLA	TABLET	1 MG-35MCG	ORAL
Estrogen	NORETH-ETHINYL ESTRADIOL/IRON	NORETHINDRONE-ETHIN ESTRADIOL	TABLET, CHEWABLE	0.4-35(21)	ORAL
Estrogen	NORETH-ETHINYL ESTRADIOL/IRON	WYMZYA FE	TABLET, CHEWABLE	0.4-35(21)	ORAL
Estrogen	ETHINYL ESTRADIOL/DROSPIRENONE	DROSPIRENONE-ETHINYL ESTRADIOL	TABLET	0.03-3MG	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	NORGESTIMATE-ETHINYL ESTRADIOL	TABLET	0.25-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	BRIELLYN	TABLET	0.4-0.035	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	ALYACEN	TABLET	1 MG-35MCG	ORAL
Estrogen	NORETHINDRONE-ETHINYL ESTRAD	ALYACEN	TABLET	7 DAYS X 3	ORAL
Estrogen	NORGESTIMATE-ETHINYL ESTRADIOL	NORGESTIMATE-ETHINYL ESTRADIOL	TABLET	7DAYSX3 28	ORAL
Estrogen	L-NORGEST-ETH ESTR/ETHIN ESTRA	ASHLYNA	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Estrogen	ESTRADIOL	MINIVELLE	PATCH, TRANSDERMAL SEMIWEEKLY	0.1MG/24HR	TRANSDERMAL
Estrogen	ESTRADIOL	MINIVELLE	PATCH, TRANSDERMAL SEMIWEEKLY	.025MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	MINIVELLE	PATCH, TRANSDERMAL SEMIWEEKLY	.0375MG/24	TRANSDERMAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Estrogen	ESTRADIOL	MINIVELLE	PATCH, TRANSDERMAL SEMIWEEKLY	0.05MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL	MINIVELLE	PATCH, TRANSDERMAL SEMIWEEKLY	.075MG/24H	TRANSDERMAL
Estrogen	ESTRADIOL/NORETHINDRONE ACET	LOPREEZA	TABLET	1 MG-0.5MG	ORAL
Estrogen	ESTRADIOL/NORETHINDRONE ACET	LOPREEZA	TABLET	0.5-0.1MG	ORAL
Estrogen	Y-PORT ADAPTER-EXTENSION SET	Y-PORT CONNECTOR	EACH		MISCELLANEOUS
H2 Antagonists	FAMOTIDINE	PEPCID	TABLET	20 MG	ORAL
H2 Antagonists	FAMOTIDINE	PEPCID	TABLET	40 MG	ORAL
H2 Antagonists	FAMOTIDINE	PEPCID	SUSPENSION, ORAL (FINAL DOSE FORM)	40MG/5ML	ORAL
H2 Antagonists	FAMOTIDINE/PF	FAMOTIDINE	VIAL (ML)	20 MG/2 ML	INTRAVENOUS
H2 Antagonists	FAMOTIDINE	FAMOTIDINE	VIAL (ML)	10 MG/ML	INTRAVENOUS
H2 Antagonists	CIMETIDINE IN 0.9 % NACL	CIMETIDINE IN SODIUM CHLORIDE	INTRAVENOUS SOLUTION	900MG/.25L	INTRAVENOUS
H2 Antagonists	CIMETIDINE IN 0.9 % NACL	CIMETIDINE IN SODIUM CHLORIDE	INTRAVENOUS SOLUTION	1.2G/0.25L	INTRAVENOUS
H2 Antagonists	CIMETIDINE HCL	CIMETIDINE	SOLUTION, ORAL	300 MG/5ML	ORAL
H2 Antagonists	NIZATIDINE	NIZATIDINE	CAPSULE	150 MG	ORAL
H2 Antagonists	NIZATIDINE	NIZATIDINE	CAPSULE	300 MG	ORAL
H2 Antagonists	FAMOTIDINE	FAMOTIDINE	TABLET	10 MG	ORAL
H2 Antagonists	CIMETIDINE	CIMETIDINE	TABLET	300 MG	ORAL
H2 Antagonists	CIMETIDINE	CIMETIDINE	TABLET	400 MG	ORAL
H2 Antagonists	CIMETIDINE	CIMETIDINE	TABLET	800 MG	ORAL
H2 Antagonists	CIMETIDINE	HEARTBURN RELIEF	TABLET	200 MG	ORAL
H2 Antagonists	RANITIDINE HCL	ACID REDUCER	TABLET	150 MG	ORAL
H2 Antagonists	FAMOTIDINE	ACID REDUCER	TABLET	10 MG	ORAL
H2 Antagonists	FAMOTIDINE	ACID REDUCER	TABLET	20 MG	ORAL
H2 Antagonists	RANITIDINE HCL	ACID REDUCER	TABLET	75 MG	ORAL
H2 Antagonists	FAMOTIDINE/CA CARB/MAG HYDROX	COMPLETE	TABLET, CHEWABLE	10-800-165	ORAL
H2 Antagonists	RANITIDINE HCL	RANITIDINE HCL	SYRUP	15 MG/ML	ORAL
H2 Antagonists	CIMETIDINE	TAGAMET HB	TABLET	200 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
H2 Antagonists	FAMOTIDINE/CA CARB/MAG HYDROX	TUMS DUAL ACTION	TABLET, CHEWABLE	10-800-165	ORAL
H2 Antagonists	RANITIDINE HCL	RANITIDINE HCL	TABLET	150 MG	ORAL
H2 Antagonists	RANITIDINE HCL	RANITIDINE HCL	TABLET	300 MG	ORAL
H2 Antagonists	FAMOTIDINE	FAMOTIDINE	TABLET	20 MG	ORAL
H2 Antagonists	FAMOTIDINE	FAMOTIDINE	TABLET	40 MG	ORAL
H2 Antagonists	RANITIDINE HCL	ZANTAC	TABLET	150 MG	ORAL
H2 Antagonists	RANITIDINE HCL	ZANTAC	VIAL (ML)	50 MG/2 ML	INJECTION
H2 Antagonists	RANITIDINE HCL	ZANTAC	VIAL (ML)	25 MG/ML	INJECTION
H2 Antagonists	RANITIDINE HCL	ZANTAC	SYRUP	15 MG/ML	ORAL
H2 Antagonists	RANITIDINE HCL	ZANTAC	TABLET	300 MG	ORAL
H2 Antagonists	RANITIDINE IN 0.45 % SODIUM CL	ZANTAC	INTRAVENOUS SOLUTION, PIGGYBACK (ML)	50 MG/50ML	INTRAVENOUS
H2 Antagonists	RANITIDINE HCL	ZANTAC 25	TABLET, EFFERVESCENT	25 MG	ORAL
H2 Antagonists	NIZATIDINE	AXID	CAPSULE	150 MG	ORAL
H2 Antagonists	RANITIDINE HCL	ZANTAC	CAPSULE	150 MG	ORAL
H2 Antagonists	FAMOTIDINE IN NA ₂ CO ₃ /ISO-OSM/PF	FAMOTIDINE	INTRAVENOUS SOLUTION, PIGGYBACK (ML)	20 MG/50ML	INTRAVENOUS
H2 Antagonists	CIMETIDINE	CIMETIDINE	TABLET	200 MG	ORAL
H2 Antagonists	FAMOTIDINE	ACID CONTROLLER	TABLET	20 MG	ORAL
H2 Antagonists	RANITIDINE HCL	WAL-ZAN 150	TABLET	150 MG	ORAL
H2 Antagonists	FAMOTIDINE	ACID CONTROLLER	TABLET	10 MG	ORAL
H2 Antagonists	RANITIDINE HCL	WAL-ZAN 75	TABLET	75 MG	ORAL
H2 Antagonists	FAMOTIDINE/CA CARB/MAG HYDROX	ACID CONTROLLER COMPLETE	TABLET, CHEWABLE	10-800-165	ORAL
H2 Antagonists	CIMETIDINE HCL	CIMETIDINE	VIAL (ML)	150 MG/ML	INJECTION
H2 Antagonists	NIZATIDINE	AXID AR	TABLET	75 MG	ORAL
H2 Antagonists	FAMOTIDINE	FAMOTIDINE	SUSPENSION, ORAL (FINAL DOSE FORM)	40MG/5ML	ORAL
H2 Antagonists	RANITIDINE HCL	ZANTAC 75	TABLET	75 MG	ORAL
H2 Antagonists	RANITIDINE HCL	RANITIDINE HCL	CAPSULE	150 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
H2 Antagonists	RANITIDINE HCL	RANITIDINE HCL	CAPSULE	300 MG	ORAL
H2 Antagonists	CIMETIDINE	ACID REDUCER	TABLET	200 MG	ORAL
H2 Antagonists	RANITIDINE HCL	RANITIDINE HCL	TABLET	75 MG	ORAL
H2 Antagonists	FAMOTIDINE	HEARTBURN RELIEF	TABLET	10 MG	ORAL
H2 Antagonists	FAMOTIDINE	HEARTBURN RELIEF	TABLET	20 MG	ORAL
H2 Antagonists	FAMOTIDINE/CA CARB/MAG HYDROX	DUAL ACTION COMPLETE	TABLET, CHEWABLE	10-800-165	ORAL
H2 Antagonists	NIZATIDINE	NIZATIDINE	SOLUTION, ORAL	150MG/10ML	ORAL
H2 Antagonists	FAMOTIDINE/CA CARB/MAG HYDROX	ACID REDUCER COMPLETE	TABLET, CHEWABLE	10-800-165	ORAL
H2 Antagonists	RANITIDINE HCL	TALADINE	CAPSULE	150 MG	ORAL
H2 Antagonists	RANITIDINE HCL	TALADINE	CAPSULE	300 MG	ORAL
H2 Antagonists	FAMOTIDINE/CA CARB/MAG HYDROX	PEPCID COMPLETE	TABLET, CHEWABLE	10-800-165	ORAL
H2 Antagonists	FAMOTIDINE	PEPCID AC	TABLET, CHEWABLE	20 MG	ORAL
H2 Antagonists	FAMOTIDINE	PEPCID AC	TABLET	20 MG	ORAL
H2 Antagonists	FAMOTIDINE	PEPCID AC	TABLET	10 MG	ORAL
H2 Antagonists	RANITIDINE HCL	ACID REDUCER 150	TABLET	150 MG	ORAL
H2 Antagonists	RANITIDINE HCL	ACID CONTROL	TABLET	75 MG	ORAL
H2 Antagonists	RANITIDINE HCL	ACID CONTROL	TABLET	150 MG	ORAL
H2 Antagonists	CIMETIDINE	HEARTBURN 200	TABLET	200 MG	ORAL
H2 Antagonists	RANITIDINE HCL	HEARTBURN	TABLET	150 MG	ORAL
H2 Antagonists	RANITIDINE HCL	HEARTBURN RELIEF 150	TABLET	150 MG	ORAL
H2 Antagonists	RANITIDINE HCL	HEARTBURN RELIEF 75	TABLET	75 MG	ORAL
H2 Antagonists	CIMETIDINE	ACID RELIEF	TABLET	200 MG	ORAL
H2 Antagonists	FAMOTIDINE	HEARTBURN PREVENTION	TABLET	20 MG	ORAL
H2 Antagonists	RANITIDINE HCL	HEARTBURN RELIEF	TABLET	75 MG	ORAL
H2 Antagonists	FAMOTIDINE	HEARTBURN PREVENTION	TABLET	10 MG	ORAL
H2 Antagonists	RANITIDINE HCL	HEARTBURN RELIEF	TABLET	150 MG	ORAL
H2 Antagonists	FAMOTIDINE/CA CARB/MAG HYDROX	DUAL ACTION	TABLET, CHEWABLE	10-800-165	ORAL
H2 Antagonists	RANITIDINE HCL	DEPRIZINE	SUSPENSION, RECONSTITUTED, ORAL (ML)	15 MG/ML	ORAL
H2 Antagonists	FAMOTIDINE	ACID CONTROL	TABLET	20 MG	ORAL
H2 Antagonists	NIZATIDINE	AXID	SOLUTION, ORAL	150MG/10ML	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
H2 Antagonists	CIMETIDINE	TAGAMET	TABLET	300 MG	ORAL
H2 Antagonists	CIMETIDINE	TAGAMET	TABLET	400 MG	ORAL
H2 Antagonists	RANITIDINE HCL	RANITIDINE HCL	VIAL (ML)	25 MG/ML	INJECTION
H2 Antagonists	RANITIDINE HCL	RANITIDINE HCL	VIAL (ML)	50 MG/2 ML	INJECTION
H2 Antagonists	FAMOTIDINE IN 0.9 % NACL	FAMOTIDINE-NS	SYRINGE (ML)	20 MG/5 ML	INTRAVENOUS
H2 Antagonists	FAMOTIDINE IN 0.9 % NACL	FAMOTIDINE-NS	SYRINGE (ML)	20 MG/10ML	INTRAVENOUS
H2 Antagonists	RANITIDINE HCL/DIET.SUPP NO.17	GABITIDINE	COMBINATION PACKAGE (EA)	150 MG	ORAL
H2 Antagonists	RANITIDINE HCL/DIET.SUPP NO.8	SENTRADINE	COMBINATION PACKAGE (EA)	150 MG	ORAL
H2 Antagonists	IBUPROFEN/FAMOTIDINE	DUEXIS	TABLET	800-26.6MG	ORAL
H Pylori Combo	LANSOPRAZOLE/AMOXICILN/CLARITH	LANSOPRAZOL-AMOXICIL-CLARITHRO	COMBINATION PACKAGE (EA)	30-500-500	ORAL
H Pylori Combo	LANSOPRAZOLE/AMOXICILN/CLARITH	PREVPAC	COMBINATION PACKAGE (EA)	30-500-500	ORAL
Heparin and Related Drugs	FONDAPARINUX SODIUM	ARIXTRA	SYRINGE (ML)	2.5 MG/0.5	SUBCUTANEOUS
Heparin and Related Drugs	FONDAPARINUX SODIUM	ARIXTRA	SYRINGE (ML)	5MG/0.4ML	SUBCUTANEOUS
Heparin and Related Drugs	FONDAPARINUX SODIUM	ARIXTRA	SYRINGE (ML)	7.5MG/0.6	SUBCUTANEOUS
Heparin and Related Drugs	FONDAPARINUX SODIUM	ARIXTRA	SYRINGE (ML)	10MG/0.8ML	SUBCUTANEOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN SODIUM	VIAL (ML)	1000/ML	INJECTION
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	VIAL (ML)	1000/ML	INJECTION
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	VIAL (ML)	5000/ML	INJECTION
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	VIAL (ML)	10000/ML	INJECTION
Heparin and Related Drugs	ENOXAPARIN SODIUM	LOVENOX	SYRINGE (ML)	40MG/0.4ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	LOVENOX	SYRINGE (ML)	60MG/0.6ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	LOVENOX	SYRINGE (ML)	80MG/0.8ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	LOVENOX	SYRINGE (ML)	100 MG/ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	LOVENOX	SYRINGE (ML)	30MG/0.3ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	LOVENOX	VIAL (ML)	300MG/3ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	LOVENOX	SYRINGE (ML)	120MG/.8ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	LOVENOX	SYRINGE (ML)	150 MG/ML	SUBCUTANEOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/D5W	HEPARIN SODIUM-D5W	INTRAVENOUS SOLUTION	20K/500ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/D5W	HEPARIN SODIUM-D5W	INTRAVENOUS SOLUTION	25000/500	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/D5W	HEPARIN SODIUM-D5W	INTRAVENOUS SOLUTION	25000/250	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/NS/PF	HEPARIN SODIUM-NS	INTRAVENOUS SOLUTION	1000/500ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/NS/PF	HEPARIN SODIUM IN 0.9% NACL	INTRAVENOUS SOLUTION	2K/1000ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/D5W	HEPARIN SODIUM IN 5% DEXTROSE	INTRAVENOUS SOLUTION	20K/500ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/D5W	HEPARIN SODIUM IN 5% DEXTROSE	INTRAVENOUS SOLUTION	25000/250	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/D5W	HEPARIN SODIUM IN 5% DEXTROSE	INTRAVENOUS SOLUTION	25000/500	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN LOCK	VIAL (ML)	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN LOCK	VIAL (ML)	100/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN LOCK	SYRINGE (ML)	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN LOCK	SYRINGE (ML)	100/ML (1)	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN LOCK	SYRINGE (ML)	200/2 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN LOCK	SYRINGE (ML)	300/3 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN LOCK	SYRINGE (ML)	500/5 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN SODIUM	SYRINGE (ML)	5000/0.5ML	INJECTION
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	CARTRIDGE (ML)	5000/ML(1)	INJECTION
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN SODIUM	VIAL WITH THREADED PORT (ML)	10000/5ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN SODIUM	VIAL WITH THREADED PORT (ML)	25K/10ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORK IN 0.45% NACL	HEPARIN SODIUM IN 0.45% NACL	INTRAVENOUS SOLUTION	25000/250	INTRAVENOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Heparin and Related Drugs	HEPARIN SOD,PORK IN 0.45% NAACL	HEPARIN SODIUM IN 0.45% NAACL	INTRAVENOUS SOLUTION	25000/500	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORK IN 0.45% NAACL	HEPARIN SODIUM IN 0.45% NAACL	INTRAVENOUS SOLUTION	12500/250	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/D5W	HEPARIN SODIUM IN 5% DEXTROSE	INTRAVENOUS SOLUTION	10K/100ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/D5W	HEPARIN SODIUM-D5W	INTRAVENOUS SOLUTION	12500/250	INTRAVENOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	ENOXAPARIN SODIUM	SYRINGE (ML)	30MG/0.3ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	ENOXAPARIN SODIUM	SYRINGE (ML)	40MG/0.4ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	ENOXAPARIN SODIUM	SYRINGE (ML)	60MG/0.6ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	ENOXAPARIN SODIUM	SYRINGE (ML)	80MG/0.8ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	ENOXAPARIN SODIUM	SYRINGE (ML)	100 MG/ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	ENOXAPARIN SODIUM	SYRINGE (ML)	120MG/.8ML	SUBCUTANEOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	ENOXAPARIN SODIUM	SYRINGE (ML)	150 MG/ML	SUBCUTANEOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEP-LOCK	VIAL (ML)	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEP-LOCK	VIAL (ML)	100/ML (1)	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEP-LOCK	VIAL (ML)	100/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEP-LOCK	VIAL (ML)	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	ENOXAPARIN SODIUM	ENOXAPARIN SODIUM	VIAL (ML)	300MG/3ML	SUBCUTANEOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN FLUSH	SYRINGE (ML)	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN FLUSH	SYRINGE (ML)	200/2 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN FLUSH	SYRINGE (ML)	300/3 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN FLUSH	SYRINGE (ML)	500/5 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORCINE-0.9 % NAACL	HEPARIN FLUSH	KIT	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORCINE-0.9 % NAACL	HEPARIN FLUSH	KIT	100/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	MONOJECT PREFILL ADVANCED	SYRINGE (ML)	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	MONOJECT PREFILL	SYRINGE (ML)	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	MONOJECT PREFILL ADVANCED	SYRINGE (ML)	1000/10 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	MONOJECT PREFILL ADVANCED	SYRINGE (ML)	300/3 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	MONOJECT PREFILL ADVANCED	SYRINGE (ML)	500/5 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/PF	HEPARIN FLUSH	SYRINGE (ML)	1000/10 ML	INTRAVENOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Heparin and Related Drugs	HEPARIN (PORCINE) IN D5W/PF	HEPARIN SODIUM-D5W	SYRINGE (ML)	2 UNIT/4ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	VIAL (ML)	20000/ML	INJECTION
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	POWDER (EA)	25000 UNIT	MISCELLANEOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	POWDER (EA)	100K UNIT	MISCELLANEOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	POWDER (EA)	1MM UNIT	MISCELLANEOUS
Heparin and Related Drugs	TINZAPARIN SODIUM,PORCINE	INNOHEP	VIAL (ML)	20000/ML	SUBCUTANEOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE	HEPARIN SODIUM	POWDER (GRAM)	180/MG	MISCELLANEOUS
Heparin and Related Drugs	HEPARIN SOD,PORCINE-0.9 % NACL	HEPARIN SODIUM-0.9% NACL	SYRINGE (ML)	30 UNIT/3	INTRAVENOUS
Heparin and Related Drugs	FONDAPARINUX SODIUM	FONDAPARINUX SODIUM	SYRINGE (ML)	2.5 MG/0.5	SUBCUTANEOUS
Heparin and Related Drugs	FONDAPARINUX SODIUM	FONDAPARINUX SODIUM	SYRINGE (ML)	5MG/0.4ML	SUBCUTANEOUS
Heparin and Related Drugs	FONDAPARINUX SODIUM	FONDAPARINUX SODIUM	SYRINGE (ML)	7.5MG/0.6	SUBCUTANEOUS
Heparin and Related Drugs	FONDAPARINUX SODIUM	FONDAPARINUX SODIUM	SYRINGE (ML)	10MG/0.8ML	SUBCUTANEOUS
Heparin and Related Drugs	HEPARIN SOD,PORK IN 0.45% NACL	HEPARIN SODIUM-0.45% NACL	INTRAVENOUS SOLUTION	100/100 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORK IN 0.45% NACL	HEPARIN SODIUM-0.45% NACL	INTRAVENOUS SOLUTION	5K/1000 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/NS/PF	HEPARIN SODIUM-0.9% NACL	INTRAVENOUS SOLUTION	100/100 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORCINE-0.9 % NACL	HEPARIN SODIUM-NS	INTRAVENOUS SOLUTION	2500/500ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/NS/PF	HEPARIN SODIUM IN 0.9% NACL	INTRAVENOUS SOLUTION	3000/500ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORCINE-0.9 % NACL	HEPARIN SODIUM-NS	INTRAVENOUS SOLUTION	5K/1000 ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORCINE-0.9 % NACL	HEPARIN SODIUM-NS	INTRAVENOUS SOLUTION	5000/500ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORCINE-0.9 % NACL	HEPARIN SODIUM-NS	INTRAVENOUS SOLUTION	10K/1000ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM,PORCINE/NS/PF	HEPARIN SODIUM-NS	INTRAVENOUS SOLUTION	30K/1000ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD,PORCINE-0.9 % NACL	HEPARIN SODIUM-0.9% NACL	INTRAVENOUS SOLUTION	100/100 ML	INTRAVENOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Heparin and Related Drugs	HEPARIN SOD, PORCINE-0.9 % NACL	HEPARIN SODIUM-NS	INTRAVENOUS SOLUTION	25000/250	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SOD, PORCINE-0.9 % NACL	HEPARIN SODIUM-0.9% NACL	INTRAVENOUS SOLUTION	250/250 ML	INTRAVENOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	SYRINGE (ML)	10000/ML	SUBCUTANEOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	VIAL (ML)	10000/ML	SUBCUTANEOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	SYRINGE (ML)	12500/0.5	SUBCUTANEOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	SYRINGE (ML)	15000/0.6	SUBCUTANEOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	SYRINGE (ML)	18000/0.72	SUBCUTANEOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	SYRINGE (ML)	2500/0.2ML	SUBCUTANEOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	VIAL (ML)	25000/ML	SUBCUTANEOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	SYRINGE (ML)	5000/0.2ML	SUBCUTANEOUS
Heparin and Related Drugs	DALTEPARIN SODIUM, PORCINE	FRAGMIN	SYRINGE (ML)	7500/0.3ML	SUBCUTANEOUS
Heparin and Related Drugs	HEPARIN SODIUM, PORCINE/PF	HEPARIN FLUSH	VIAL (ML)	10 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM, PORCINE/PF	HEPARIN SODIUM	VIAL (ML)	5000/0.5ML	INJECTION
Heparin and Related Drugs	HEPARIN SODIUM, PORCINE/PF	HEPARIN LOCK	VIAL (ML)	100/ML (1)	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM, PORCINE/PF	HEPARIN FLUSH	SYRINGE (ML)	1 UNIT/ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM, PORCINE/PF	HEPARIN FLUSH	SYRINGE (ML)	6 UNIT/3ML	INTRAVENOUS
Heparin and Related Drugs	HEPARIN SODIUM, PORCINE/PF	HEPARIN FLUSH	SYRINGE (ML)	100/ML (1)	INTRAVENOUS
Inducer 3A4	RIFAMPIN	RIFADIN	CAPSULE	300 MG	ORAL
Inducer 3A4	RIFAMPIN/ISONIAZID	RIFAMATE	CAPSULE	300-150 MG	ORAL
Inducer 3A4	RIFAMPIN	RIFADIN	CAPSULE	150 MG	ORAL
Inducer 3A4	RIFAMPIN	RIFADIN	VIAL (EA)	600 MG	INTRAVENOUS
Inducer 3A4	RIFAMPIN	RIFAMPIN	VIAL (EA)	600 MG	INTRAVENOUS
Inducer 3A4	PHENYTOIN	DILANTIN	TABLET, CHEWABLE	50 MG	ORAL
Inducer 3A4	PHENYTOIN SODIUM EXTENDED	DILANTIN	CAPSULE	30 MG	ORAL
Inducer 3A4	PHENYTOIN SODIUM EXTENDED	DILANTIN	CAPSULE	100 MG	ORAL
Inducer 3A4	PHENYTOIN	DILANTIN-125	SUSPENSION, ORAL (FINAL DOSE FORM)	125 MG/5ML	ORAL
Inducer 3A4	PHENYTOIN SODIUM	PHENYTOIN SODIUM	SYRINGE (ML)	50 MG/ML	INTRAVENOUS
Inducer 3A4	CARBAMAZEPINE	TEGRETOL	TABLET, CHEWABLE	100 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Inducer 3A4	CARBAMAZEPINE	TEGRETOL	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
Inducer 3A4	CARBAMAZEPINE	TEGRETOL	TABLET	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	TEGRETOL XR	TABLET, EXTENDED RELEASE 12 HR	100 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	TEGRETOL XR	TABLET, EXTENDED RELEASE 12 HR	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	TEGRETOL XR	TABLET, EXTENDED RELEASE 12 HR	400 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	EPITOL	TABLET	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE	TABLET	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE	TABLET, CHEWABLE	100 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	100 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	300 MG	ORAL
Inducer 3A4	PHENYTOIN SODIUM	PHENYTOIN SODIUM	VIAL (ML)	50 MG/ML	INTRAVENOUS
Inducer 3A4	RIFAMPIN	RIFAMPIN	CAPSULE	300 MG	ORAL
Inducer 3A4	RIFAMPIN	RIFAMPIN	CAPSULE	150 MG	ORAL
Inducer 3A4	PHENYTOIN SODIUM EXTENDED	PHENYTOIN SODIUM EXTENDED	CAPSULE	100 MG	ORAL
Inducer 3A4	PHENYTOIN SODIUM EXTENDED	PHENYTEK	CAPSULE	200 MG	ORAL
Inducer 3A4	PHENYTOIN SODIUM EXTENDED	PHENYTEK	CAPSULE	300 MG	ORAL
Inducer 3A4	PHENYTOIN	PHENYTOIN	TABLET, CHEWABLE	50 MG	ORAL
Inducer 3A4	PHENYTOIN SODIUM	PHENYTOIN SODIUM	AMPUL (ML)	50 MG/ML	INTRAVENOUS
Inducer 3A4	PHENYTOIN	PHENYTOIN	SUSPENSION, ORAL (FINAL DOSE FORM)	125 MG/5ML	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Inducer 3A4	PHENYTOIN	PHENYTOIN	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/4ML	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE XR	TABLET, EXTENDED RELEASE 12 HR	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE XR	TABLET, EXTENDED RELEASE 12 HR	400 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE ER	TABLET, EXTENDED RELEASE 12 HR	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE ER	TABLET, EXTENDED RELEASE 12 HR	400 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	EQUETRO	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	100 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	EQUETRO	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	EQUETRO	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	300 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBATROL	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	100 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBATROL	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	200 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBATROL	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	300 MG	ORAL
Inducer 3A4	RIFAMPIN	RIMACTANE	CAPSULE	300 MG	ORAL
Inducer 3A4	RIFAMPIN/ISONIAZID	ISONARIF	CAPSULE	300-150 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Inducer 3A4	PHENYTOIN SODIUM EXTENDED	PHENYTOIN SODIUM EXTENDED	CAPSULE	200 MG	ORAL
Inducer 3A4	PHENYTOIN SODIUM EXTENDED	PHENYTOIN SODIUM EXTENDED	CAPSULE	300 MG	ORAL
Inducer 3A4	CARBAMAZEPINE	CARBAMAZEPINE	SUSPENSION, ORAL (FINAL DOSE FORM)	200MG/10ML	ORAL
Inducer 3A4	PHENYTOIN	PHENYTOIN	SYRINGE (ML)	100 MG/4ML	ORAL
Inhibitor 3A4	INDINAVIR SULFATE	CRIXIVAN	CAPSULE	100 MG	ORAL
Inhibitor 3A4	INDINAVIR SULFATE	CRIXIVAN	CAPSULE	200 MG	ORAL
Inhibitor 3A4	INDINAVIR SULFATE	CRIXIVAN	CAPSULE	400 MG	ORAL
Inhibitor 3A4	INDINAVIR SULFATE	CRIXIVAN	CAPSULE	333 MG	ORAL
Inhibitor 3A4	LOPINAVIR/RITONAVIR	KALETRA	TABLET	100MG-25MG	ORAL
Inhibitor 3A4	RITONAVIR	NORVIR	SOLUTION, ORAL	80 MG/ML	ORAL
Inhibitor 3A4	RITONAVIR	NORVIR	TABLET	100 MG	ORAL
Inhibitor 3A4	LOPINAVIR/RITONAVIR	KALETRA	SOLUTION, ORAL	400-100/5	ORAL
Inhibitor 3A4	RITONAVIR	NORVIR	CAPSULE	100 MG	ORAL
Inhibitor 3A4	LOPINAVIR/RITONAVIR	KALETRA	TABLET	200MG-50MG	ORAL
Inhibitor 3A4	KETOCONAZOLE	KETOCONAZOLE	TABLET	200 MG	ORAL
Inhibitor 3A4	FOSAMPRENAVIR CALCIUM	LEXIVA	TABLET	700 MG	ORAL
Inhibitor 3A4	FOSAMPRENAVIR CALCIUM	LEXIVA	SUSPENSION, ORAL (FINAL DOSE FORM)	50 MG/ML	ORAL
Inhibitor 3A4	ITRACONAZOLE	ITRACONAZOLE	CAPSULE	100 MG	ORAL
Inhibitor 3A4	ITRACONAZOLE	ONMEL	TABLET	200 MG	ORAL
Inhibitor 3A4	CONIVAPTAN HCL	VAPRISOL	AMPUL (ML)	20 MG/4 ML	INTRAVENOUS
Inhibitor 3A4	CONIVAPTAN HCL/D5W	VAPRISOL	PLASTIC BAG, INJECTION (ML)	20MG/100ML	INTRAVENOUS
Inhibitor 3A4	ITRACONAZOLE	SPORANOX	CAPSULE	100 MG	ORAL
Inhibitor 3A4	ITRACONAZOLE	SPORANOX	SOLUTION, ORAL	10 MG/ML	ORAL
Inhibitor 3A4	KETOCONAZOLE	NIZORAL	TABLET	200 MG	ORAL
Inhibitor 3A4	ESOMEPRAZOLE STRONTIUM	ESOMEPRAZOLE STRONTIUM	CAPSULE, DELAYED RELEASE (ENTERIC COATED)	24.65 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Inhibitor 3A4	ESOMEPRAZOLE STRONTIUM	ESOMEPRAZOLE STRONTIUM	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	49.3 MG	ORAL
Inducer 3A4	INSULIN LISPRO	HUMALOG	VIAL (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN NPL/INSULIN LISPRO	HUMALOG MIX 75-25	VIAL (ML)	75-25/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN NPL/INSULIN LISPRO	HUMALOG MIX 50-50	VIAL (ML)	50-50/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN LISPRO	HUMALOG	CARTRIDGE (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN REGULAR, HUMAN	HUMULIN R	VIAL (ML)	100/ML	INJECTION
Inducer 3A4	INSULIN REGULAR, HUMAN	HUMULIN R	VIAL (ML)	500/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN LISPRO	HUMALOG	INSULIN PEN (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN NPL/INSULIN LISPRO	HUMALOG MIX 50-50	INSULIN PEN (ML)	50-50/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN NPL/INSULIN LISPRO	HUMALOG MIX 75-25	INSULIN PEN (ML)	75-25/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN GLARGINE,HUM.REC.ANLOG	TOUJEO SOLOSTAR	INSULIN PEN (ML)	300/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN REGULAR, HUMAN	AFREZZA	CARTRIDGE, WITH INHALATION DEVICE	4 UNIT	INHALATION
Inducer 3A4	INSULIN REGULAR, HUMAN	AFREZZA	CARTRIDGE, WITH INHALATION DEVICE	4 UNIT(30)	INHALATION
Inducer 3A4	INSULIN REGULAR, HUMAN	AFREZZA	CARTRIDGE, WITH INHALATION DEVICE	4 UNIT(60)	INHALATION
Inducer 3A4	INSULIN GLARGINE,HUM.REC.ANLOG	LANTUS SOLOSTAR	INSULIN PEN (ML)	100/ML (3)	SUBCUTANEOUS
Inducer 3A4	INSULIN GLARGINE,HUM.REC.ANLOG	LANTUS	VIAL (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN GLARGINE,HUM.REC.ANLOG	LANTUS	CARTRIDGE (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN GLULISINE	APIDRA	VIAL (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN GLULISINE	APIDRA	CARTRIDGE (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN GLULISINE	APIDRA SOLOSTAR	INSULIN PEN (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN REGULAR, HUMAN	NOVOLIN R	VIAL (ML)	100/ML	INJECTION
Inducer 3A4	INSULIN REGULAR, HUMAN	NOVOLIN R	INSULIN PEN (ML)	100/ML (3)	SUBCUTANEOUS
Inducer 3A4	INSULIN ASPART	NOVOLOG	CARTRIDGE (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN REGULAR, HUMAN	NOVOLIN R	CARTRIDGE (ML)	100/ML	INJECTION
Inducer 3A4	INSULN ASP PRT/INSULIN ASPART	NOVOLOG MIX 70-30	VIAL (ML)	70-30/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN DETEMIR	LEVEMIR	VIAL (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULN ASP PRT/INSULIN ASPART	NOVOLOG MIX 70-30 FLEXPEN	INSULIN PEN (ML)	70-30/ML	SUBCUTANEOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Inducer 3A4	INSULIN ASPART	NOVOLOG FLEXPEN	INSULIN PEN (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULIN DETEMIR	LEVEMIR FLEXTOUCH	INSULIN PEN (ML)	100/ML (3)	SUBCUTANEOUS
Inducer 3A4	INSULIN DETEMIR	LEVEMIR FLEXPEN	INSULIN PEN (ML)	100/ML (3)	SUBCUTANEOUS
Inducer 3A4	INSULIN ASPART	NOVOLOG	VIAL (ML)	100/ML	SUBCUTANEOUS
Inducer 3A4	INSULN ASP PRT/INSULIN ASPART	NOVOLOG MIX 70-30	INSULIN PEN (ML)	70-30/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN LISPRO	HUMALOG	VIAL (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN NPL/INSULIN LISPRO	HUMALOG MIX 75-25	VIAL (ML)	75-25/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN NPL/INSULIN LISPRO	HUMALOG MIX 50-50	VIAL (ML)	50-50/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN LISPRO	HUMALOG	CARTRIDGE (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN REGULAR, HUMAN	HUMULIN R	VIAL (ML)	100/ML	INJECTION
Insulin 3A4	INSULIN REGULAR, HUMAN	HUMULIN R	VIAL (ML)	500/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN LISPRO	HUMALOG	INSULIN PEN (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN NPL/INSULIN LISPRO	HUMALOG MIX 50-50	INSULIN PEN (ML)	50-50/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN NPL/INSULIN LISPRO	HUMALOG MIX 75-25	INSULIN PEN (ML)	75-25/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN GLARGINE,HUM.REC.ANLOG	TOUJEO SOLOSTAR	INSULIN PEN (ML)	300/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN REGULAR, HUMAN	AFREZZA	CARTRIDGE, WITH INHALATION DEVICE	4 UNIT	INHALATION
Insulin 3A4	INSULIN REGULAR, HUMAN	AFREZZA	CARTRIDGE, WITH INHALATION DEVICE	4 UNIT(30)	INHALATION
Insulin 3A4	INSULIN REGULAR, HUMAN	AFREZZA	CARTRIDGE, WITH INHALATION DEVICE	4 UNIT(60)	INHALATION
Insulin 3A4	INSULIN GLARGINE,HUM.REC.ANLOG	LANTUS SOLOSTAR	INSULIN PEN (ML)	100/ML (3)	SUBCUTANEOUS
Insulin 3A4	INSULIN GLARGINE,HUM.REC.ANLOG	LANTUS	VIAL (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN GLARGINE,HUM.REC.ANLOG	LANTUS	CARTRIDGE (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN GLULISINE	APIDRA	VIAL (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN GLULISINE	APIDRA	CARTRIDGE (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN GLULISINE	APIDRA SOLOSTAR	INSULIN PEN (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN REGULAR, HUMAN	NOVOLIN R	VIAL (ML)	100/ML	INJECTION
Insulin 3A4	INSULIN REGULAR, HUMAN	NOVOLIN R	INSULIN PEN (ML)	100/ML (3)	SUBCUTANEOUS
Insulin 3A4	INSULIN ASPART	NOVOLOG	CARTRIDGE (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN REGULAR, HUMAN	NOVOLIN R	CARTRIDGE (ML)	100/ML	INJECTION
Insulin 3A4	INSULN ASP PRT/INSULIN ASPART	NOVOLOG MIX 70-30	VIAL (ML)	70-30/ML	SUBCUTANEOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Insulin 3A4	INSULIN DETEMIR	LEVEMIR	VIAL (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULN ASP PRT/INSULIN ASPART	NOVOLOG MIX 70-30 FLEXPEN	INSULIN PEN (ML)	70-30/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN ASPART	NOVOLOG FLEXPEN	INSULIN PEN (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULIN DETEMIR	LEVEMIR FLEXTOUCH	INSULIN PEN (ML)	100/ML (3)	SUBCUTANEOUS
Insulin 3A4	INSULIN DETEMIR	LEVEMIR FLEXPEN	INSULIN PEN (ML)	100/ML (3)	SUBCUTANEOUS
Insulin 3A4	INSULIN ASPART	NOVOLOG	VIAL (ML)	100/ML	SUBCUTANEOUS
Insulin 3A4	INSULN ASP PRT/INSULIN ASPART	NOVOLOG MIX 70-30	INSULIN PEN (ML)	70-30/ML	SUBCUTANEOUS
Nonstatin Lipid Low	NIACIN	NIACIN	TABLET	500 MG	ORAL
Nonstatin Lipid Low	COLESTIPOL HCL	COLESTID	PACKET (EA)	5 G	ORAL
Nonstatin Lipid Low	COLESTIPOL HCL	COLESTID	GRANULES (GRAM)	5 G	ORAL
Nonstatin Lipid Low	COLESTIPOL HCL	COLESTID	PACKET (EA)	7.5G	ORAL
Nonstatin Lipid Low	COLESTIPOL HCL	COLESTID	TABLET	1 G	ORAL
Nonstatin Lipid Low	GEMFIBROZIL	LOPID	TABLET	600 MG	ORAL
Nonstatin Lipid Low	NIACIN/LOVASTATIN	ADVICOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	500MG-20MG	ORAL
Nonstatin Lipid Low	NIACIN/LOVASTATIN	ADVICOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1000-20MG	ORAL
Nonstatin Lipid Low	NIACIN/LOVASTATIN	ADVICOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1000-40 MG	ORAL
Nonstatin Lipid Low	NIACIN/LOVASTATIN	ADVICOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	750MG-20MG	ORAL
Nonstatin Lipid Low	NIACIN	NIASPAN	TABLET, EXTENDED RELEASE 24 HR	500 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIASPAN	TABLET, EXTENDED RELEASE 24 HR	750 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIASPAN	TABLET, EXTENDED RELEASE 24 HR	1000 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Nonstatin Lipid Low	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	500MG-20MG	ORAL
Nonstatin Lipid Low	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	750MG-20MG	ORAL
Nonstatin Lipid Low	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1000-20MG	ORAL
Nonstatin Lipid Low	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1000-40 MG	ORAL
Nonstatin Lipid Low	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	500MG-40MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE NANOCRYSTALLIZED	TRICOR	TABLET	48 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE NANOCRYSTALLIZED	TRICOR	TABLET	145MG	ORAL
Nonstatin Lipid Low	FENOFIBRIC ACID (CHOLINE)	TRILIPIX	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	135 MG	ORAL
Nonstatin Lipid Low	FENOFIBRIC ACID (CHOLINE)	TRILIPIX	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	45 MG	ORAL
Nonstatin Lipid Low	GEMFIBROZIL	GEMFIBROZIL	TABLET	600 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE NANOCRYSTALLIZED	FENOFIBRATE	TABLET	145MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE NANOCRYSTALLIZED	FENOFIBRATE	TABLET	48 MG	ORAL
Nonstatin Lipid Low	OMEGA-3 ACID ETHYL ESTERS	OMEGA-3 ACID ETHYL ESTERS	CAPSULE	1 G	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN ER	TABLET, EXTENDED RELEASE 24 HR	500 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN ER	TABLET, EXTENDED RELEASE 24 HR	750 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Nonstatin Lipid Low	NIACIN	NIACIN ER	TABLET, EXTENDED RELEASE 24 HR	1000 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE, MICRONIZED	FENOFIBRATE	CAPSULE	67 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE, MICRONIZED	FENOFIBRATE	CAPSULE	134MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE, MICRONIZED	FENOFIBRATE	CAPSULE	200 MG	ORAL
Nonstatin Lipid Low	FENOFIBRIC ACID (CHOLINE)	FENOFIBRIC ACID	CAPSULE, DELAYED RELEASE (ENTERIC COATED)	45 MG	ORAL
Nonstatin Lipid Low	FENOFIBRIC ACID (CHOLINE)	FENOFIBRIC ACID	CAPSULE, DELAYED RELEASE (ENTERIC COATED)	135 MG	ORAL
Nonstatin Lipid Low	COLESTIPOL HCL	COLESTIPOL HCL	TABLET	1 G	ORAL
Nonstatin Lipid Low	COLESTIPOL HCL	COLESTIPOL HCL	PACKET (EA)	5 G	ORAL
Nonstatin Lipid Low	COLESTIPOL HCL	COLESTIPOL HCL	GRANULES (GRAM)	5 G	ORAL
Nonstatin Lipid Low	FENOFIBRATE	FENOFIBRATE	TABLET	54 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE	FENOFIBRATE	TABLET	160 MG	ORAL
Nonstatin Lipid Low	OMEGA-3 ACID ETHYL ESTERS	LOVAZA	CAPSULE	1 G	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	TABLET	100 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	TABLET	50 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	CAPSULE, EXTENDED RELEASE	250 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	TABLET	250 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	TABLET, EXTENDED RELEASE	500 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	CAPSULE, EXTENDED RELEASE	500 MG	ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE/ASPARTAME	CHOLESTYRAMINE LIGHT	POWDER (GRAM)	4 G	ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE/ASPARTAME	CHOLESTYRAMINE LIGHT	POWDER IN PACKET (EA)	4 G	ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE (WITH SUGAR)	CHOLESTYRAMINE	POWDER (GRAM)	4 G	ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE (WITH SUGAR)	CHOLESTYRAMINE	POWDER IN PACKET (EA)	4 G	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Nonstatin Lipid Low	CHOLESTYRAMINE/ASPARTAME	PREVALITE	POWDER (GRAM)	4 G	ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE/ASPARTAME	PREVALITE	POWDER IN PACKET (EA)	4 G	ORAL
Nonstatin Lipid Low	NIACIN	SLO-NIACIN	TABLET, EXTENDED RELEASE	250 MG	ORAL
Nonstatin Lipid Low	NIACIN	SLO-NIACIN	TABLET, EXTENDED RELEASE	500 MG	ORAL
Nonstatin Lipid Low	NIACIN	SLO-NIACIN	TABLET, EXTENDED RELEASE	750 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACOR	TABLET	500 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	FENOFIBRATE	CAPSULE	43 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	FENOFIBRATE	CAPSULE	130 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	TABLET, EXTENDED RELEASE	750 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	TABLET, EXTENDED RELEASE	1000 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	CAPSULE, EXTENDED RELEASE	125 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	CAPSULE, EXTENDED RELEASE	400 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	TABLET, EXTENDED RELEASE	250 MG	ORAL
Nonstatin Lipid Low	EZETIMIBE/SIMVASTATIN	VYTORIN	TABLET	10 MG-40MG	ORAL
Nonstatin Lipid Low	EZETIMIBE/SIMVASTATIN	VYTORIN	TABLET	10 MG-20MG	ORAL
Nonstatin Lipid Low	EZETIMIBE/SIMVASTATIN	VYTORIN	TABLET	10 MG-10MG	ORAL
Nonstatin Lipid Low	FENOFIBRIC ACID	FIBRICOR	TABLET	35 MG	ORAL
Nonstatin Lipid Low	FENOFIBRIC ACID	FIBRICOR	TABLET	105 MG	ORAL
Nonstatin Lipid Low	EZETIMIBE	ZETIA	TABLET	10 MG	ORAL
Nonstatin Lipid Low	COLESEVELAM HCL	WELCHOL	POWDER IN PACKET (EA)	3.75 G	ORAL
Nonstatin Lipid Low	COLESEVELAM HCL	WELCHOL	TABLET	625 MG	ORAL
Nonstatin Lipid Low	EZETIMIBE/SIMVASTATIN	VYTORIN	TABLET	10 MG-80MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	ANTARA	CAPSULE	30 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	ANTARA	CAPSULE	90 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	ANTARA	CAPSULE	43 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	ANTARA	CAPSULE	130 MG	ORAL
Nonstatin Lipid Low	NIACIN	ENDUR-ACIN	TABLET, EXTENDED RELEASE	500 MG	ORAL
Nonstatin Lipid Low	NIACIN	ENDUR-ACIN	TABLET, EXTENDED RELEASE	250 MG	ORAL
Nonstatin Lipid Low	NIACIN	NIACIN	POWDER (GRAM)		MISCELLANEOUS
Nonstatin Lipid Low	NIACIN	NICOTINIC ACID	POWDER (GRAM)		MISCELLANEOUS
Nonstatin Lipid Low	CHOLESTYRAMINE	CHOLESTYRAMINE RESIN	POWDER (GRAM)		MISCELLANEOUS
Nonstatin Lipid Low	NIACIN	NIACIN	POWDER (GRAM)		ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE (WITH SUGAR)	QUESTRAN	POWDER IN PACKET (EA)	4 G	ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE (WITH SUGAR)	QUESTRAN	POWDER (GRAM)	4 G	ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE/ASPARTAME	QUESTRAN LIGHT	POWDER IN PACKET (EA)	4 G	ORAL
Nonstatin Lipid Low	CHOLESTYRAMINE/ASPARTAME	QUESTRAN LIGHT	POWDER (GRAM)	4 G	ORAL
Nonstatin Lipid Low	GEMFIBROZIL	GEMFIBROZIL	POWDER (GRAM)		MISCELLANEOUS
Nonstatin Lipid Low	FENOFIBRATE	FENOGLIDE	TABLET	40 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE	FENOGLIDE	TABLET	120 MG	ORAL
Nonstatin Lipid Low	FENOFIBRIC ACID	FENOFIBRIC ACID	TABLET	35 MG	ORAL
Nonstatin Lipid Low	FENOFIBRIC ACID	FENOFIBRIC ACID	TABLET	105 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	LOFIBRA	CAPSULE	200 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE NANOCRYSTALLIZED	TRIGLIDE	TABLET	50 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	LOFIBRA	CAPSULE	67 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE,MICRONIZED	LOFIBRA	CAPSULE	134MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE	LOFIBRA	TABLET	54 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE	LOFIBRA	TABLET	160 MG	ORAL
Nonstatin Lipid Low	MIPOMERSEN SODIUM	KYNAMRO	SYRINGE (ML)	200 MG/ML	SUBCUTANEOUS
Nonstatin Lipid Low	FENOFIBRATE NANOCRYSTALLIZED	TRIGLIDE	TABLET	160 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE	FENOFIBRATE	CAPSULE	50 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Nonstatin Lipid Low	FENOFIBRATE	FENOFIBRATE	CAPSULE	150 MG	ORAL
Nonstatin Lipid Low	EZETIMIBE/ATORVASTATIN CALCIUM	LIPTRUZET	TABLET	10 MG-10MG	ORAL
Nonstatin Lipid Low	EZETIMIBE/ATORVASTATIN CALCIUM	LIPTRUZET	TABLET	10 MG-20MG	ORAL
Nonstatin Lipid Low	EZETIMIBE/ATORVASTATIN CALCIUM	LIPTRUZET	TABLET	10 MG-40MG	ORAL
Nonstatin Lipid Low	EZETIMIBE/ATORVASTATIN CALCIUM	LIPTRUZET	TABLET	10 MG-80MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE	LIPOFEN	CAPSULE	50 MG	ORAL
Nonstatin Lipid Low	FENOFIBRATE	LIPOFEN	CAPSULE	150 MG	ORAL
Nonstatin Lipid Low	LOMITAPIDE MESYLATE	JUXTAPID	CAPSULE	5 MG	ORAL
Nonstatin Lipid Low	LOMITAPIDE MESYLATE	JUXTAPID	CAPSULE	10 MG	ORAL
Nonstatin Lipid Low	LOMITAPIDE MESYLATE	JUXTAPID	CAPSULE	20 MG	ORAL
NSAIDS	NAPROXEN	NAPROSYN	SUSPENSION, ORAL (FINAL DOSE FORM)	125 MG/5ML	ORAL
NSAIDS	NAPROXEN SODIUM	ANAPROX	TABLET	275 MG	ORAL
NSAIDS	NAPROXEN SODIUM	ANAPROX DS	TABLET	550 MG	ORAL
NSAIDS	NAPROXEN	NAPROSYN	TABLET	250 MG	ORAL
NSAIDS	NAPROXEN	NAPROSYN	TABLET	375 MG	ORAL
NSAIDS	NAPROXEN	NAPROSYN	TABLET	500 MG	ORAL
NSAIDS	NAPROXEN	EC-NAPROSYN	TABLET, DELAYED RELEASE (ENTERIC COATED)	375 MG	ORAL
NSAIDS	NAPROXEN	EC-NAPROSYN	TABLET, DELAYED RELEASE (ENTERIC COATED)	500 MG	ORAL
NSAIDS	SULINDAC	CLINORIL	TABLET	200 MG	ORAL
NSAIDS	KETOROLAC TROMETHAMINE	ACULAR	DROPS	0.5 %	OPHTHALMIC
NSAIDS	KETOROLAC TROMETHAMINE	ACULAR PF	DROPPERETTE, SINGLE- USE DROP DISPENSER	0.5 %	OPHTHALMIC
NSAIDS	KETOROLAC TROMETHAMINE	ACULAR LS	DROPS	0.4 %	OPHTHALMIC
NSAIDS	OXAPROZIN	DAYPRO	TABLET	600 MG	ORAL
NSAIDS	DICLOFENAC SODIUM/MISOPROSTOL	ARTHROTEC 50	TABLET, IMMEDIATE & DELAY RELEASE, BIPHASE	50 MG-200	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	DICLOFENAC SODIUM/MISOPROSTOL	ARTHROTEC 75	TABLET,IMMEDIATE & DELAY RELEASE,BIPHASE	75 MG-200	ORAL
NSAIDS	DICLOFENAC SODIUM	VOLTAREN	TABLET, DELAYED RELEASE (ENTERIC COATED)	75 MG	ORAL
NSAIDS	IBUPROFEN	CHILDREN'S MOTRIN	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	IBUPROFEN	MOTRIN IB	TABLET	200 MG	ORAL
NSAIDS	IBUPROFEN	MOTRIN	TABLET, CHEWABLE	100 MG	ORAL
NSAIDS	IBUPROFEN	MOTRIN	TABLET	100 MG	ORAL
NSAIDS	MELOXICAM	MELOXICAM	SUSPENSION, ORAL (FINAL DOSE FORM)	7.5 MG/5ML	ORAL
NSAIDS	NAPROXEN	NAPROXEN	SUSPENSION, ORAL (FINAL DOSE FORM)	125 MG/5ML	ORAL
NSAIDS	MAGNESIUM SALICYLATE	DOAN'S REGULAR	TABLET	325 MG	ORAL
NSAIDS	MAGNESIUM SALICYLATE	DOAN'S EXTRA STRENGTH	TABLET	580(467)MG	ORAL
NSAIDS	DICLOFENAC SODIUM	VOLTAREN	GEL (GRAM)	1 %	TOPICAL
NSAIDS	PIROXICAM	FELDENE	CAPSULE	10 MG	ORAL
NSAIDS	PIROXICAM	FELDENE	CAPSULE	20 MG	ORAL
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	CARTRIDGE (ML)	15 MG/ML	INJECTION
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	CARTRIDGE (ML)	30 MG/ML	INJECTION
NSAIDS	HYDROCODONE/IBUPROFEN	VICOPROFEN	TABLET	7.5-200 MG	ORAL
NSAIDS	DICLOFENAC POTASSIUM	CATAFLAM	TABLET	50 MG	ORAL
NSAIDS	DICLOFENAC SODIUM	VOLTAREN-XR	TABLET, EXTENDED RELEASE 24 HR	100 MG	ORAL
NSAIDS	DICLOFENAC SODIUM	VOLTAREN	DROPS	0.1 %	OPHTHALMIC
NSAIDS	NAPROXEN	NAPROXEN	TABLET	250 MG	ORAL
NSAIDS	NAPROXEN	NAPROXEN	TABLET	375 MG	ORAL
NSAIDS	NAPROXEN	NAPROXEN	TABLET	500 MG	ORAL
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	TABLET	10 MG	ORAL
NSAIDS	NAPROXEN SODIUM	NAPROXEN SODIUM	TABLET	275 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	NAPROXEN SODIUM	NAPROXEN SODIUM	TABLET	550 MG	ORAL
NSAIDS	FLURBIPROFEN	FLURBIPROFEN	TABLET	100 MG	ORAL
NSAIDS	DIFLUNISAL	DIFLUNISAL	TABLET	500 MG	ORAL
NSAIDS	PIROXICAM	PIROXICAM	CAPSULE	10 MG	ORAL
NSAIDS	PIROXICAM	PIROXICAM	CAPSULE	20 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC	TABLET	400 MG	ORAL
NSAIDS	OXAPROZIN	OXAPROZIN	TABLET	600 MG	ORAL
NSAIDS	DICLOFENAC POTASSIUM	DICLOFENAC POTASSIUM	TABLET	50 MG	ORAL
NSAIDS	NAPROXEN	NAPROXEN	TABLET, DELAYED RELEASE (ENTERIC COATED)	375 MG	ORAL
NSAIDS	NAPROXEN	NAPROXEN	TABLET, DELAYED RELEASE (ENTERIC COATED)	500 MG	ORAL
NSAIDS	NABUMETONE	NABUMETONE	TABLET	500 MG	ORAL
NSAIDS	NABUMETONE	NABUMETONE	TABLET	750 MG	ORAL
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM ER	TABLET, EXTENDED RELEASE 24 HR	100 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC ER	TABLET, EXTENDED RELEASE 24 HR	600 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC ER	TABLET, EXTENDED RELEASE 24 HR	400 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC	TABLET	500 MG	ORAL
NSAIDS	TOLMETIN SODIUM	TOLMETIN SODIUM	CAPSULE	400 MG	ORAL
NSAIDS	KETOPROFEN	KETOPROFEN	CAPSULE	50 MG	ORAL
NSAIDS	KETOPROFEN	KETOPROFEN	CAPSULE	75 MG	ORAL
NSAIDS	INDOMETHACIN	INDOMETHACIN	CAPSULE	25 MG	ORAL
NSAIDS	INDOMETHACIN	INDOMETHACIN	CAPSULE	50 MG	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	HYDROCODONE-IBUPROFEN	TABLET	7.5-200 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC ER	TABLET, EXTENDED RELEASE 24 HR	500 MG	ORAL
NSAIDS	MELOXICAM	MELOXICAM	TABLET	7.5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	MELOXICAM	MELOXICAM	TABLET	15 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC	CAPSULE	300 MG	ORAL
NSAIDS	IBUPROFEN/DIPHENHYDRAMINE CIT	IBUPROFEN PM	TABLET	200MG-38MG	ORAL
NSAIDS	IBUPROFEN	INFANT'S IBUPROFEN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN	TABLET	200 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	IBUPROFEN COLD-SINUS	TABLET	200MG-30MG	ORAL
NSAIDS	IBUPROFEN	CHILDREN'S IBUPROFEN	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	NAPROXEN SODIUM	ALL DAY PAIN RELIEF	TABLET	220 MG	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN	TABLET, CHEWABLE	100 MG	ORAL
NSAIDS	NAPROXEN SODIUM	NAPROXEN SODIUM	TABLET	220 MG	ORAL
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM	GEL (GRAM)	3 %	TOPICAL
NSAIDS	IBUPROFEN	IBUPROFEN	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN	TABLET	800 MG	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN	TABLET	400 MG	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN	TABLET	600 MG	ORAL
NSAIDS	INDOMETHACIN	INDOMETHACIN	CAPSULE, EXTENDED RELEASE	75 MG	ORAL
NSAIDS	NAPROXEN/ESOMEPRAZOLE MAG	VIMOVO	TABLET, IMMEDIATE & DELAY RELEASE, BIPHASE	375MG-20MG	ORAL
NSAIDS	NAPROXEN/ESOMEPRAZOLE MAG	VIMOVO	TABLET, IMMEDIATE & DELAY RELEASE, BIPHASE	500MG-20MG	ORAL
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM	TABLET, DELAYED RELEASE (ENTERIC COATED)	50 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM	TABLET, DELAYED RELEASE (ENTERIC COATED)	75 MG	ORAL
NSAIDS	IBUPROFEN/OXYCODONE HCL	OXYCODONE HCL-IBUPROFEN	TABLET	400MG-5MG	ORAL
NSAIDS	ETODOLAC	LODINE	CAPSULE	300 MG	ORAL
NSAIDS	KETOROLAC TROMETHAMINE	TORADOL	TABLET	10 MG	ORAL
NSAIDS	MEFENAMIC ACID	PONSTEL	CAPSULE	250 MG	ORAL
NSAIDS	KETOROLAC TROMETHAMINE	TORADOL	CARTRIDGE (ML)	30 MG/ML	INJECTION
NSAIDS	FENOPROFEN CALCIUM	FENOPROFEN CALCIUM	TABLET	600 MG	ORAL
NSAIDS	ETODOLAC	LODINE	TABLET	400 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	ADVIL COLD & SINUS	TABLET	200MG-30MG	ORAL
NSAIDS	ETODOLAC	LODINE	CAPSULE	200 MG	ORAL
NSAIDS	ETODOLAC	LODINE	TABLET	500 MG	ORAL
NSAIDS	LANSOPRAZOLE/NAPROXEN	PREVACID NAPRAPAC	COMBINATION PACKAGE (EA)	15MG-500MG	ORAL
NSAIDS	IBUPROFEN	INFANTS' IBUPROFEN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	WAL-PROFEN	TABLET	200MG-30MG	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN	CAPSULE	200 MG	ORAL
NSAIDS	IBUPROFEN	INFANTS IBUPROFEN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	IBUPROFEN	WAL-PROFEN	TABLET	200 MG	ORAL
NSAIDS	MAGNESIUM SALICYLATE	BACKACHE EXTRA STRENGTH	TABLET	580(467)MG	ORAL
NSAIDS	NAPROXEN SODIUM	WAL-PROXEN	TABLET	220 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	WAL-PROFEN D	TABLET	200MG-30MG	ORAL
NSAIDS	IBUPROFEN/DIPHENHYDRAMINE HCL	IBUPROFEN PM	CAPSULE	200MG-25MG	ORAL
NSAIDS	NAPROXEN SODIUM	NAPROXEN SODIUM	CAPSULE	220 MG	ORAL
NSAIDS	FLURBIPROFEN	FLURBIPROFEN	TABLET	50 MG	ORAL
NSAIDS	TOLMETIN SODIUM	TOLMETIN SODIUM	TABLET	600 MG	ORAL
NSAIDS	SULINDAC	SULINDAC	TABLET	150 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	SULINDAC	SULINDAC	TABLET	200 MG	ORAL
NSAIDS	MECLOFENAMATE SODIUM	MECLOFENAMATE SODIUM	CAPSULE	50 MG	ORAL
NSAIDS	MECLOFENAMATE SODIUM	MECLOFENAMATE SODIUM	CAPSULE	100 MG	ORAL
NSAIDS	BROMFENAC SODIUM	BROMFENAC SODIUM	DROPS	0.09%	OPHTHALMIC
NSAIDS	KETOPROFEN	KETOPROFEN	CAPSULE, EXTENDED RELEASE PELLETS 24 HR	200 MG	ORAL
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	SYRINGE (ML)	30 MG/ML	INJECTION
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	VIAL (ML)	15 MG/ML	INJECTION
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	VIAL (ML)	30MG/ML(1)	INJECTION
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	VIAL (ML)	60 MG/2 ML	INTRAMUSCULAR
NSAIDS	ETODOLAC	ETODOLAC	TABLET, EXTENDED RELEASE 24 HR	400 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC	TABLET, EXTENDED RELEASE 24 HR	500 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC	TABLET, EXTENDED RELEASE 24 HR	600 MG	ORAL
NSAIDS	SALSALATE	SALSALATE	TABLET	500 MG	ORAL
NSAIDS	SALSALATE	SALSALATE	TABLET	750 MG	ORAL
NSAIDS	IBUPROFEN	INFANTS' MOTRIN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	IBUPROFEN	INFANT'S MOTRIN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	IBUPROFEN/DIPHENHYDRAMINE CIT	MOTRIN PM	TABLET	200MG-38MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	CHILDREN'S MOTRIN COLD	SUSPENSION, ORAL (FINAL DOSE FORM)	100-15MG/5	ORAL
NSAIDS	IBUPROFEN/OXYCODONE HCL	COMBUNOX	TABLET	400MG-5MG	ORAL
NSAIDS	SAL-AMIDE/ACETAMINOPHN/P-TLOX	ED-FLEX	CAPSULE	200-300-20	ORAL
NSAIDS	KETOROLAC TROMETHAMINE	SPRIX	SPRAY, NON-AEROSOL (EA)	15.75 MG	NASAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	NAPROXEN SODIUM	ALL DAY RELIEF	TABLET	220 MG	ORAL
NSAIDS	IBUPROFEN	ADVIL	TABLET	200 MG	ORAL
NSAIDS	IBUPROFEN/DIPHENHYDRAMINE CIT	ADVIL PM	TABLET	200MG-38MG	ORAL
NSAIDS	IBUPROFEN/DIPHENHYDRAMINE HCL	ADVIL PM	CAPSULE	200MG-25MG	ORAL
NSAIDS	IBUPROFEN	ADVIL MIGRAINE	CAPSULE	200 MG	ORAL
NSAIDS	IBUPROFEN	ADVIL	CAPSULE	200 MG	ORAL
NSAIDS	IBUPROFEN	ADVIL LIQUI-GELS	CAPSULE	200 MG	ORAL
NSAIDS	IBUPROFEN	CHILDREN'S ADVIL	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	IBUPROFEN	ADVIL	TABLET	100 MG	ORAL
NSAIDS	IBUPROFEN	ADVIL	TABLET, CHEWABLE	100 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	ADVIL COLD & SINUS	CAPSULE	200MG-30MG	ORAL
NSAIDS	CHLORPHEN/PSEUDOEPH/IBUPROFEN	ADVIL	TABLET	2-30-200MG	ORAL
NSAIDS	IBUPROFEN	INFANT'S ADVIL	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	CHLORPHEN/PHENYLEPH/IBUPROFEN	ADVIL ALLERGY-CONGESTION RLF	TABLET	4-10-200MG	ORAL
NSAIDS	MAGNESIUM SALICYLATE	MOMENTUM	TABLET	580(467)MG	ORAL
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM	DROPS	1.5 %	TOPICAL
NSAIDS	MEFENAMIC ACID	MEFENAMIC ACID	CAPSULE	250 MG	ORAL
NSAIDS	DICLOFENAC SODIUM/MISOPROSTOL	DICLOFENAC SODIUM-MISOPROSTOL	TABLET,IMMEDIATE & DELAY RELEASE,BIPHASE	50 MG-200	ORAL
NSAIDS	DICLOFENAC SODIUM/MISOPROSTOL	DICLOFENAC SODIUM-MISOPROSTOL	TABLET,IMMEDIATE & DELAY RELEASE,BIPHASE	75 MG-200	ORAL
NSAIDS	MELOXICAM	MOBIC	TABLET	7.5 MG	ORAL
NSAIDS	MELOXICAM	MOBIC	TABLET	15 MG	ORAL
NSAIDS	MELOXICAM	MOBIC	SUSPENSION, ORAL (FINAL DOSE FORM)	7.5 MG/5ML	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM	TABLET, DELAYED RELEASE (ENTERIC COATED)	25 MG	ORAL
NSAIDS	FENOPROFEN CALCIUM	NALFON	CAPSULE	200 MG	ORAL
NSAIDS	FENOPROFEN CALCIUM	NALFON	CAPSULE	400 MG	ORAL
NSAIDS	IBUPROFEN	IBU-200	TABLET	200 MG	ORAL
NSAIDS	SODIUM THIOSALICYLATE	THIOCYL	AMPUL (ML)	50 MG/ML	INJECTION
NSAIDS	ASPIRIN/SALICYLAMIDE/CAFFEINE	ARTHRITIS BC	PACKET (EA)	742-222-36	ORAL
NSAIDS	ASPIRIN/SALICYLAMIDE/CAFFEINE	BC	PACKET (EA)	650-195-32	ORAL
NSAIDS	DICLOFENAC SODIUM	SOLARAZE	GEL (GRAM)	3 %	TOPICAL
NSAIDS	SAL-AMIDE/ACETAMINOPHN/P-TLOX	ANABAR	TABLET	200-300-20	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN IB	TABLET	200 MG	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN	TABLET	100 MG	ORAL
NSAIDS	IBUPROFEN	CHILDREN'S IBUPROFEN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN IB	TABLET, CHEWABLE	100 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	IBUPROFEN COLD	SUSPENSION, ORAL (FINAL DOSE FORM)	100-15MG/5	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	REPREXAIN	TABLET	5MG-200MG	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	REPREXAIN	TABLET	7.5-200 MG	ORAL
NSAIDS	MAGNESIUM SALICYLATE	BACKACHE RELIEF	TABLET	580(467)MG	ORAL
NSAIDS	IBUPROFEN	WAL-PROFEN	CAPSULE	200 MG	ORAL
NSAIDS	FLURBIPROFEN SODIUM	OCUFEN	DROPS	0.03 %	OPHTHALMIC
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	VIAL (ML)	30 MG/ML	INJECTION
NSAIDS	IBUPROFEN	PROFEN IB	TABLET	200 MG	ORAL
NSAIDS	SALICYLAMIDE/ACETAMINOPHEN	FRENADOL	TABLET	600-250MG	ORAL
NSAIDS	NAPROXEN SODIUM	MIDOL	TABLET	220 MG	ORAL
NSAIDS	DICLOFENAC POTASSIUM	ZIPSOR	CAPSULE	25 MG	ORAL
NSAIDS	DICLOFENAC POTASSIUM	CAMBIA	POWDER IN PACKET (EA)	50 MG	ORAL
NSAIDS	KETOPROFEN	KETOPROFEN	POWDER (GRAM)	100 %	MISCELLANEOUS

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM	DROPS	0.1 %	OPHTHALMIC
NSAIDS	NAPROXEN SODIUM	NAPRELAN	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	750 MG	ORAL
NSAIDS	DICLOFENAC SODIUM	PENNSAID	DROPS	1.5 %	TOPICAL
NSAIDS	NAPROXEN SODIUM	NAPRELAN	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	375 MG	ORAL
NSAIDS	NAPROXEN SODIUM	NAPRELAN	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	500 MG	ORAL
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	DROPS	0.4 %	OPHTHALMIC
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	DROPS	0.5 %	OPHTHALMIC
NSAIDS	HYDROCODONE/IBUPROFEN	HYDROCODONE BIT-IBUPROFEN	TABLET	7.5-200 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	COLD & SINUS PAIN RELIEF	TABLET	200MG-30MG	ORAL
NSAIDS	FLURBIPROFEN SODIUM	FLURBIPROFEN SODIUM	DROPS	0.03 %	OPHTHALMIC
NSAIDS	CHOLINE SAL/MAG SALICYLATE	CHOLINE MAG TRISALICYLATE	TABLET	500 MG	ORAL
NSAIDS	CHOLINE SAL/MAG SALICYLATE	CHOLINE MAG TRISALICYLATE	TABLET	750 MG	ORAL
NSAIDS	DICLOFENAC SODIUM	PENNSAID	SOLUTION IN METERED- DOSE PUMP (GRAM)	20MG/G(2%)	TOPICAL
NSAIDS	HYDROCODONE/IBUPROFEN	REPREXAIN	TABLET	2.5-200MG	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	REPREXAIN	TABLET	10MG-200MG	ORAL
NSAIDS	BROMFENAC SODIUM	BROMDAY	DROPS	0.09%	OPHTHALMIC
NSAIDS	BROMFENAC SODIUM	PROLENSA	DROPS	0.07 %	OPHTHALMIC
NSAIDS	NAPROXEN SODIUM	ALEVE	TABLET	220 MG	ORAL
NSAIDS	NAPROXEN SODIUM	ALEVE	CAPSULE	220 MG	ORAL
NSAIDS	NAPROXEN SODIUM	FLANAX	TABLET	220 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	IBUPROFEN COLD & SINUS	TABLET	200MG-30MG	ORAL
NSAIDS	NAPROXEN SODIUM	NAPROXEN SODIUM	TABLET, EXTENDED RELEASE	500 MG	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	HYDROCODONE-IBUPROFEN	TABLET	5MG-200MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	IBUPROFEN/DIPHENHYDRAMINE HCL	IBUPROFEN-DIPHENHYDRAMINE HCL	CAPSULE	200MG-25MG	ORAL
NSAIDS	IBUPROFEN	CHILD IBUPROFEN	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	MAGNESIUM SALICYLATE	BACKACHE PAIN RELIEF	TABLET	580(467)MG	ORAL
NSAIDS	IBUPROFEN	INFANTS IBU-DROPS	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	IBUPROFEN	IBU-DROPS	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	FLURBIPROFEN	FLURBIPROFEN	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	IBUPROFEN	IBUPROFEN	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	KETOROLAC TROMETHAMINE	KETOROLAC TROMETHAMINE	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	PIROXICAM	PIROXICAM	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	INDOMETHACIN	INDOMETHACIN	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	MECLOFENAMATE SODIUM	MECLOFENAMATE SODIUM	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	PHENYL BUTAZONE	PHENYL BUTAZONE	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	NAPROXEN	NAPROXEN	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	MEFENAMIC ACID	MEFENAMIC ACID	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	MELOXICAM	MELOXICAM	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	NABUMETONE	NABUMETONE	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	IBUPROFEN	PROFEN IB	TABLET	100 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	PROFEN IB COLD & SINUS	TABLET	200MG-30MG	ORAL
NSAIDS	IBUPROFEN	CHILDREN'S PROFENIB	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	IBUPROFEN	CHILDREN'S PROFEN IB	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	IBUPROFEN	INFANTS PROFENIB	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	INDOMETHACIN	INDOCIN	SUSPENSION, ORAL (FINAL DOSE FORM)	25 MG/5 ML	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	INDOMETHACIN	INDOCIN	SUPPOSITORY, RECTAL	50 MG	RECTAL
NSAIDS	IBUPROFEN/IRR CNT-IRRIT CMB #2	COMFORT PAC-IBUPROFEN	KIT	800 MG	MISCELLANEOUS
NSAIDS	MELOXICAM/IRR CNTR-IRR CMB #2	COMFORT PAC-MELOXICAM	KIT	15 MG	MISCELLANEOUS
NSAIDS	KETOPROFEN	KETOPHENE	CREAM (GRAM)	10 %	TOPICAL
NSAIDS	KETOPROFEN, MICRONIZED	KETOPROFEN MICRONIZED	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	MG SALICYLATE/ACETAMINOPH/CAFF	BACK PAIN-OFF	TABLET	290-250-50	ORAL
NSAIDS	IBUPROFEN	I-PRIN	TABLET	200 MG	ORAL
NSAIDS	NAPROXEN SODIUM	MEDIPROXEN	TABLET	220 MG	ORAL
NSAIDS	NAPROXEN SODIUM	NAPROXEN CR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	500 MG	ORAL
NSAIDS	ETODOLAC	ETODOLAC	CAPSULE	200 MG	ORAL
NSAIDS	SODIUM SALICYLATE	SODIUM SALICYLATE	CRYSTALS		MISCELLANEOUS
NSAIDS	SULINDAC	SULINDAC	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	IBUPROFEN	MEDI-PROFEN	TABLET	200 MG	ORAL
NSAIDS	IBUPROFEN	INFANTS MEDI-PROFEN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	IBUPROFEN	CHILDREN'S MEDI-PROFEN	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	AMINOSALICYLIC ACID	PASER	GRANULES DELAYED RELEASE FOR SUSP PACKET	4 G	ORAL
NSAIDS	SAL-AMIDE/ACETAMINOPHN/P-TLOX	DURAXIN	CAPSULE	200-300-20	ORAL
NSAIDS	CHOLINE SAL/MAG SALICYLATE	CHOLINE MAG TRISALICYLATE	TABLET	1000 MG	ORAL
NSAIDS	NABUMETONE	RELAFEN	TABLET	500 MG	ORAL
NSAIDS	NABUMETONE	RELAFEN	TABLET	750 MG	ORAL
NSAIDS	IBUPROFEN	NUPRIN	TABLET	200 MG	ORAL
NSAIDS	IBUPROFEN	NUPRIN	CAPSULE	200 MG	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	COLD & SINUS RELIEF	TABLET	200MG-30MG	ORAL
NSAIDS	IBUPROFEN	CHILDREN'S MOTRIN	SUSPENSION, DROPS(FINAL DOSAGE FORM)(ML)	50 MG/1.25	ORAL
NSAIDS	SAL-AMIDE/ACETAMIN/P-TLOX/CAFF	DURABAC	CAPSULE	250-325-20	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	IBUDONE	TABLET	5MG-200MG	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	IBUDONE	TABLET	10MG-200MG	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	XYLON 10	TABLET	10MG-200MG	ORAL
NSAIDS	NAPROXEN SODIUM	NAPROXEN SODIUM	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	ETODOLAC	ETODOLAC	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	AMINOSALICYLIC ACID	AMINOSALICYLIC ACID	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	SODIUM SALICYLATE	SODIUM SALICYLATE	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	FENOPROFEN CALCIUM	FENOPROFEN CALCIUM	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	MEFENAMIC ACID	MEFENAMIC ACID	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	CHOLINE SAL/MAG SALICYLATE	CHOLINE MAGNESIUM TRISALICYLAT	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	SODIUM THIOSALICYLATE	SODIUM THIOSALICYLATE	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	DIFLUNISAL	DIFLUNISAL	POWDER (GRAM)		MISCELLANEOUS
NSAIDS	SALSALATE	SALSALATE	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	NABUMETONE, MICRONIZED	NABUMETONE MICRONIZED	POWDER (GRAM)	100 %	MISCELLANEOUS
NSAIDS	MAGNESIUM SALICYLATE/CAFFEINE	DIUREX	TABLET	162.5-50MG	ORAL
NSAIDS	FLURBIPROFEN	ANSAID	TABLET	100 MG	ORAL
NSAIDS	DICLOFENAC SODIUM	VOLTAREN	TABLET, DELAYED RELEASE (ENTERIC COATED)	25 MG	ORAL
NSAIDS	KETOPROFEN	ORUDIS KT	TABLET	12.5 MG	ORAL
NSAIDS	TOLMETIN SODIUM	TOLMETIN SODIUM	TABLET	200 MG	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	HYDROCODONE-IBUPROFEN	TABLET	2.5-200MG	ORAL
NSAIDS	HYDROCODONE/IBUPROFEN	HYDROCODONE-IBUPROFEN	TABLET	10MG-200MG	ORAL
NSAIDS	CHOLINE SAL/MAG SALICYLATE	CHOLINE MAG TRISALICYLATE	LIQUID (ML)	500 MG/5ML	ORAL
NSAIDS	IBUPROFEN	MOTRIN	TABLET	800 MG	ORAL
NSAIDS	IBUPROFEN	MOTRIN	TABLET	400 MG	ORAL
NSAIDS	IBUPROFEN	MOTRIN	TABLET	600 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	INDOMETHACIN	INDOCIN SR	CAPSULE, EXTENDED RELEASE	75 MG	ORAL
NSAIDS	IBUPROFEN	MOTRIN	SUSPENSION, ORAL (FINAL DOSE FORM)	100 MG/5ML	ORAL
NSAIDS	DICLOFENAC SODIUM	DICLOFENAC SODIUM	TABLET, EXTENDED RELEASE 24 HR	100 MG	ORAL
NSAIDS	NAPROXEN/IRR CNTR-IRRIT CMB #2	COMFORT PAC-NAPROXEN	KIT	500 MG	MISCELLANEOUS
NSAIDS	INDOMETHACIN SODIUM	INDOMETHACIN	VIAL (EA)	1 MG	INTRAVENOUS
NSAIDS	IBUPROFEN/CAFF/B1/B2/B6/B12	IC400	COMBINATION PACKAGE (EA)	400MG-65MG	ORAL
NSAIDS	IBUPROFEN/CAFF/B1/B2/B6/B12	IC800	COMBINATION PACKAGE (EA)	800MG-65MG	ORAL
NSAIDS	SAL-AMIDE/ACETAMIN/P-TLOX/CAFF	CAFGESIC	CAPSULE	250-325-20	ORAL
NSAIDS	SAL-AMIDE/ACETAMINOPHN/P-TLOX	BY-ACHE	CAPSULE	200-300-20	ORAL
NSAIDS	MAGNESIUM SALICYLATE	MST 600	TABLET	600 MG	ORAL
NSAIDS	IBUPROFEN	PROVIL	TABLET	200 MG	ORAL
NSAIDS	NAPROXEN	NAPRODERM	CREAM (GRAM)	15 %	MISCELLANEOUS
NSAIDS	IBUPROFEN	CALDOLOR	VIAL (ML)	400MG/4ML	INTRAVENOUS
NSAIDS	IBUPROFEN	CALDOLOR	VIAL (ML)	800MG/8ML	INTRAVENOUS
NSAIDS	INDOMETHACIN SODIUM	INDOCIN I.V.	VIAL (EA)	1 MG	INTRAVENOUS
NSAIDS	BROMFENAC SODIUM	XIBROM	DROPS	0.09%	OPHTHALMIC
NSAIDS	SAL-AMIDE/ACETAMINOPHN/P-TLOX	BE-FLEX PLUS	CAPSULE	200-300-20	ORAL
NSAIDS	IBUPROFEN	IBUPROFEN JR	TABLET, CHEWABLE	100 MG	ORAL
NSAIDS	IBUPROFEN/PSEUDOEPHEDRINE HCL	IBUPROFEN-PSE COLD-SINUS	TABLET	200MG-30MG	ORAL
NSAIDS	NAPROXEN/DIET. SUPP 11	THERAPROXEN	COMBINATION PACKAGE (EA)	250 MG	ORAL
NSAIDS	NAPROXEN/DIET. SUPP 11	THERAPROXEN-90	COMBINATION PACKAGE (EA)	250 MG	ORAL
NSAIDS	PIROXICAM/DIET. SUPP 11	THERAFELDAMINE	COMBINATION PACKAGE (EA)	20 MG	ORAL
NSAIDS	IBUPROFEN/DIET. SUPP 11	THERAPROFEN-60	COMBINATION PACKAGE (EA)	600 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
NSAIDS	IBUPROFEN/DIET. SUPP 11	THERAPROFEN-90	COMBINATION PACKAGE (EA)	600 MG	ORAL
NSAIDS	NAPROXEN SODIUM	NAPRELAN CR DOSE CARD	TABLET, ER BIPHASIC 24 HR, DOSE PACK	750(6)-500	ORAL
NSAIDS	SALSALATE	DISALCID	TABLET	500 MG	ORAL
NSAIDS	SALSALATE	DISALCID	TABLET	750 MG	ORAL
NSAIDS	IBUPROFEN/FAMOTIDINE	DUEXIS	TABLET	800-26.6MG	ORAL
NSAIDS	FENOPROFEN CALCIUM	FENOPROFEN CALCIUM	CAPSULE	400 MG	ORAL
NSAIDS	NAPROXEN	ENOVARX-NAPROXEN	CREAM (GRAM)	10 %	TOPICAL
NSAIDS	IBUPROFEN	ENOVARX-IBUPROFEN	CREAM (GRAM)	10 %	TOPICAL
NSAIDS	NAPROXEN	NAPRO	CREAM (GRAM)	15 %	MISCELLANEOUS
NSAIDS	IBUPROFEN	CAP-PROFEN	TABLET	200 MG	ORAL
Oral Antidiabetic	SAXAGLIPTIN HCL	ONGLYZA	TABLET	2.5 MG	ORAL
Oral Antidiabetic	SAXAGLIPTIN HCL	ONGLYZA	TABLET	5 MG	ORAL
Oral Antidiabetic	SAXAGLIPTIN HCL/METFORMIN HCL	KOMBIGLYZE XR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	5 MG-500MG	ORAL
Oral Antidiabetic	SAXAGLIPTIN HCL/METFORMIN HCL	KOMBIGLYZE XR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	2.5-1000MG	ORAL
Oral Antidiabetic	SAXAGLIPTIN HCL/METFORMIN HCL	KOMBIGLYZE XR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	5MG-1000MG	ORAL
Oral Antidiabetic	SITAGLIPTIN PHOS/METFORMIN HCL	JANUMET XR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	50MG-500MG	ORAL
Oral Antidiabetic	SITAGLIPTIN PHOS/METFORMIN HCL	JANUMET XR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	50-1000 MG	ORAL
Oral Antidiabetic	SITAGLIPTIN PHOS/METFORMIN HCL	JANUMET XR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	100-1000MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Oral Antidiabetic	SITAGLIPTIN PHOSPHATE	JANUVIA	TABLET	50 MG	ORAL
Oral Antidiabetic	SITAGLIPTIN PHOSPHATE	JANUVIA	TABLET	25 MG	ORAL
Oral Antidiabetic	SITAGLIPTIN PHOSPHATE	JANUVIA	TABLET	100 MG	ORAL
Oral Antidiabetic	SITAGLIPTIN/SIMVASTATIN	JUVISYNC	TABLET	50 MG-10MG	ORAL
Oral Antidiabetic	SITAGLIPTIN/SIMVASTATIN	JUVISYNC	TABLET	50 MG-20MG	ORAL
Oral Antidiabetic	SITAGLIPTIN/SIMVASTATIN	JUVISYNC	TABLET	50 MG-40MG	ORAL
Oral Antidiabetic	SITAGLIPTIN PHOS/METFORMIN HCL	JANUMET	TABLET	50MG-500MG	ORAL
Oral Antidiabetic	SITAGLIPTIN PHOS/METFORMIN HCL	JANUMET	TABLET	50-1000 MG	ORAL
Oral Antidiabetic	SITAGLIPTIN/SIMVASTATIN	JUVISYNC	TABLET	100MG-10MG	ORAL
Oral Antidiabetic	SITAGLIPTIN/SIMVASTATIN	JUVISYNC	TABLET	100MG-20MG	ORAL
Oral Antidiabetic	SITAGLIPTIN/SIMVASTATIN	JUVISYNC	TABLET	100MG-40MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/GLIMEPIRIDE	AVANDARYL	TABLET	8 MG-2 MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/GLIMEPIRIDE	AVANDARYL	TABLET	8MG-4MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/GLIMEPIRIDE	AVANDARYL	TABLET	4MG-1MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/GLIMEPIRIDE	AVANDARYL	TABLET	4MG-2MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/GLIMEPIRIDE	AVANDARYL	TABLET	4MG-4MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/METFORMIN HCL	AVANDAMET	TABLET	2-1000MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/METFORMIN HCL	AVANDAMET	TABLET	4-1000MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/METFORMIN HCL	AVANDAMET	TABLET	2 MG-500MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE/METFORMIN HCL	AVANDAMET	TABLET	4-500MG	ORAL
Oral Antidiabetic	GLYBURIDE,MICRONIZED	GLYNASE	TABLET	1.5 MG	ORAL
Oral Antidiabetic	GLYBURIDE,MICRONIZED	GLYNASE	TABLET	3 MG	ORAL
Oral Antidiabetic	GLYBURIDE,MICRONIZED	GLYNASE	TABLET	6 MG	ORAL
Oral Antidiabetic	MIGLITOL	GLYSET	TABLET	25 MG	ORAL
Oral Antidiabetic	MIGLITOL	GLYSET	TABLET	50 MG	ORAL
Oral Antidiabetic	MIGLITOL	GLYSET	TABLET	100 MG	ORAL
Oral Antidiabetic	ACARBOSE	PRECOSE	TABLET	50 MG	ORAL
Oral Antidiabetic	ACARBOSE	PRECOSE	TABLET	100 MG	ORAL
Oral Antidiabetic	ACARBOSE	PRECOSE	TABLET	25 MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE MALEATE	AVANDIA	TABLET	2 MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE MALEATE	AVANDIA	TABLET	4 MG	ORAL
Oral Antidiabetic	ROSIGLITAZONE MALEATE	AVANDIA	TABLET	8 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Oral Antidiabetic	GLYBURIDE	DIABETA	TABLET	2.5 MG	ORAL
Oral Antidiabetic	GLYBURIDE	DIABETA	TABLET	5 MG	ORAL
Oral Antidiabetic	GLYBURIDE	DIABETA	TABLET	1.25 MG	ORAL
Oral Antidiabetic	GLIMEPIRIDE	AMARYL	TABLET	1 MG	ORAL
Oral Antidiabetic	GLIMEPIRIDE	AMARYL	TABLET	2 MG	ORAL
Oral Antidiabetic	GLIMEPIRIDE	AMARYL	TABLET	4 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLUCOTROL XL	TABLET, EXTENDED RELEASE 24 HR	2.5 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLUCOTROL XL	TABLET, EXTENDED RELEASE 24 HR	5 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLUCOTROL XL	TABLET, EXTENDED RELEASE 24 HR	10 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLUCOTROL	TABLET	5 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLUCOTROL	TABLET	10 MG	ORAL
Oral Antidiabetic	ACARBOSE	ACARBOSE	TABLET	25 MG	ORAL
Oral Antidiabetic	ACARBOSE	ACARBOSE	TABLET	50 MG	ORAL
Oral Antidiabetic	ACARBOSE	ACARBOSE	TABLET	100 MG	ORAL
Oral Antidiabetic	NATEGLINIDE	STARLIX	TABLET	60 MG	ORAL
Oral Antidiabetic	NATEGLINIDE	STARLIX	TABLET	120 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	GLUCOPHAGE	TABLET	500 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	GLUCOPHAGE XR	TABLET, EXTENDED RELEASE 24 HR	500 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	GLUCOPHAGE XR	TABLET, EXTENDED RELEASE 24 HR	750 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	GLUCOPHAGE	TABLET	850 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	GLUCOPHAGE	TABLET	1000 MG	ORAL
Oral Antidiabetic	GLYBURIDE/METFORMIN HCL	GLUCOVANCE	TABLET	1.25-250MG	ORAL
Oral Antidiabetic	GLYBURIDE/METFORMIN HCL	GLUCOVANCE	TABLET	2.5-500 MG	ORAL
Oral Antidiabetic	GLYBURIDE/METFORMIN HCL	GLUCOVANCE	TABLET	5 MG-500MG	ORAL
Oral Antidiabetic	GLIPIZIDE/METFORMIN HCL	METAGLIP	TABLET	2.5-500 MG	ORAL
Oral Antidiabetic	GLIPIZIDE/METFORMIN HCL	METAGLIP	TABLET	5 MG-500MG	ORAL
Oral Antidiabetic	GLIPIZIDE/METFORMIN HCL	METAGLIP	TABLET	2.5-250 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Oral Antidiabetic	METFORMIN HCL	METFORMIN HCL	TABLET	500 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	METFORMIN HCL	TABLET	850 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL	PIOGLITAZONE HCL	TABLET	45 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL	PIOGLITAZONE HCL	TABLET	30 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL	PIOGLITAZONE HCL	TABLET	15 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL/METFORMIN HCL	PIOGLITAZONE-METFORMIN	TABLET	15MG-500MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL/METFORMIN HCL	PIOGLITAZONE-METFORMIN	TABLET	15MG-850MG	ORAL
Oral Antidiabetic	GLYBURIDE/METFORMIN HCL	GLYBURIDE-METFORMIN HCL	TABLET	1.25-250MG	ORAL
Oral Antidiabetic	GLYBURIDE/METFORMIN HCL	GLYBURIDE-METFORMIN HCL	TABLET	2.5-500 MG	ORAL
Oral Antidiabetic	GLYBURIDE/METFORMIN HCL	GLYBURIDE-METFORMIN HCL	TABLET	5 MG-500MG	ORAL
Oral Antidiabetic	METFORMIN HCL	METFORMIN HCL ER	TABLET, EXTENDED RELEASE 24 HR	750 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	METFORMIN HCL	TABLET	1000 MG	ORAL
Oral Antidiabetic	GLIMEPIRIDE	GLIMEPIRIDE	TABLET	1 MG	ORAL
Oral Antidiabetic	GLIMEPIRIDE	GLIMEPIRIDE	TABLET	2 MG	ORAL
Oral Antidiabetic	GLIMEPIRIDE	GLIMEPIRIDE	TABLET	4 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	METFORMIN HCL ER	TABLET, EXTENDED RELEASE 24 HR	500 MG	ORAL
Oral Antidiabetic	GLIPIZIDE/METFORMIN HCL	GLIPIZIDE-METFORMIN	TABLET	2.5-250 MG	ORAL
Oral Antidiabetic	GLIPIZIDE/METFORMIN HCL	GLIPIZIDE-METFORMIN	TABLET	2.5-500 MG	ORAL
Oral Antidiabetic	GLIPIZIDE/METFORMIN HCL	GLIPIZIDE-METFORMIN	TABLET	5 MG-500MG	ORAL
Oral Antidiabetic	GLYBURIDE,MICRONIZED	GLYBURIDE MICRONIZED	TABLET	1.5 MG	ORAL
Oral Antidiabetic	GLYBURIDE,MICRONIZED	GLYBURIDE MICRONIZED	TABLET	3 MG	ORAL
Oral Antidiabetic	GLYBURIDE,MICRONIZED	GLYBURIDE MICRONIZED	TABLET	6 MG	ORAL
Oral Antidiabetic	GLYBURIDE	GLYBURIDE	TABLET	1.25 MG	ORAL
Oral Antidiabetic	GLYBURIDE	GLYBURIDE	TABLET	2.5 MG	ORAL
Oral Antidiabetic	GLYBURIDE	GLYBURIDE	TABLET	5 MG	ORAL
Oral Antidiabetic	REPAGLINIDE	PRANDIN	TABLET	0.5 MG	ORAL
Oral Antidiabetic	REPAGLINIDE	PRANDIN	TABLET	1 MG	ORAL
Oral Antidiabetic	REPAGLINIDE	PRANDIN	TABLET	2 MG	ORAL
Oral Antidiabetic	REPAGLINIDE/METFORMIN HCL	PRANDIMET	TABLET	2 MG-500MG	ORAL
Oral Antidiabetic	REPAGLINIDE/METFORMIN HCL	PRANDIMET	TABLET	1MG-500MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Oral Antidiabetic	LIRAGLUTIDE	VICTOZA 2-PAK	PEN INJECTOR (ML)	0.6MG/0.1	SUBCUTANEOUS
Oral Antidiabetic	LIRAGLUTIDE	VICTOZA 3-PAK	PEN INJECTOR (ML)	0.6MG/0.1	SUBCUTANEOUS
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE	TABLET	5 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE	TABLET	10 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE ER	TABLET, EXTENDED RELEASE 24 HR	2.5 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE ER	TABLET, EXTENDED RELEASE 24 HR	5 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE ER	TABLET, EXTENDED RELEASE 24 HR	10 MG	ORAL
Oral Antidiabetic	CHLORPROPAMIDE	CHLORPROPAMIDE	TABLET	250 MG	ORAL
Oral Antidiabetic	EXENATIDE	BYETTA	PEN INJECTOR (ML)	5MCG/0.02	SUBCUTANEOUS
Oral Antidiabetic	EXENATIDE MICROSPHERES	BYDUREON	VIAL (EA)	2 MG	SUBCUTANEOUS
Oral Antidiabetic	EXENATIDE	BYETTA	PEN INJECTOR (ML)	10MCG/0.04	SUBCUTANEOUS
Oral Antidiabetic	EXENATIDE MICROSPHERES	BYDUREON PEN	PEN INJECTOR (EA)	2MG/0.65ML	SUBCUTANEOUS
Oral Antidiabetic	PRAMLINTIDE ACETATE	SYMLINPEN 60	PEN INJECTOR (ML)	1500/1.5ML	SUBCUTANEOUS
Oral Antidiabetic	PRAMLINTIDE ACETATE	SYMLINPEN 120	PEN INJECTOR (ML)	2700/2.7ML	SUBCUTANEOUS
Oral Antidiabetic	CHLORPROPAMIDE	CHLORPROPAMIDE	TABLET	100 MG	ORAL
Oral Antidiabetic	TOLBUTAMIDE	TOLBUTAMIDE	TABLET	500 MG	ORAL
Oral Antidiabetic	TOLAZAMIDE	TOLAZAMIDE	TABLET	250 MG	ORAL
Oral Antidiabetic	TOLAZAMIDE	TOLAZAMIDE	TABLET	500 MG	ORAL
Oral Antidiabetic	REPAGLINIDE	REPAGLINIDE	TABLET	0.5 MG	ORAL
Oral Antidiabetic	REPAGLINIDE	REPAGLINIDE	TABLET	1 MG	ORAL
Oral Antidiabetic	REPAGLINIDE	REPAGLINIDE	TABLET	2 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	METFORMIN HCL ER	TABLET, EXTENDED RELEASE 24 HR	1000 MG	ORAL
Oral Antidiabetic	NATEGLINIDE	NATEGLINIDE	TABLET	60 MG	ORAL
Oral Antidiabetic	NATEGLINIDE	NATEGLINIDE	TABLET	120 MG	ORAL
Oral Antidiabetic	LINAGLIPTIN	TRADJENTA	TABLET	5 MG	ORAL
Oral Antidiabetic	LINAGLIPTIN/METFORMIN HCL	JENTADUETO	TABLET	2.5-500 MG	ORAL
Oral Antidiabetic	LINAGLIPTIN/METFORMIN HCL	JENTADUETO	TABLET	2.5-850 MG	ORAL
Oral Antidiabetic	LINAGLIPTIN/METFORMIN HCL	JENTADUETO	TABLET	2.5-1000MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Oral Antidiabetic	PIOGLITAZONE HCL/GLIMEPIRIDE	PIOGLITAZONE-GLIMEPIRIDE	TABLET	30 MG-2 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL/GLIMEPIRIDE	PIOGLITAZONE-GLIMEPIRIDE	TABLET	30 MG-4 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	RIOMET	SOLUTION, ORAL	500 MG/5ML	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL	ACTOS	TABLET	15 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	GLUMETZA	TABLET, ER GASTRIC RETENTION 24 HR	500 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	GLUMETZA	TABLET, ER GASTRIC RETENTION 24 HR	1000 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL	ACTOS	TABLET	30 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL/METFORMIN HCL	ACTOPLUS MET	TABLET	15MG-850MG	ORAL
Oral Antidiabetic	PRAMLINTIDE ACETATE	SYMLIN	VIAL (ML)	600MCG/ML	SUBCUTANEOUS
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE	POWDER (GRAM)	100 %	MISCELLANEOUS
Oral Antidiabetic	METFORMIN HCL	METFORMIN HYDROCHLORIDE	POWDER (GRAM)	100 %	MISCELLANEOUS
Oral Antidiabetic	PIOGLITAZONE HCL	ACTOS	TABLET	45 MG	ORAL
Oral Antidiabetic	CANAGLIFLOZIN	INVOKANA	TABLET	100 MG	ORAL
Oral Antidiabetic	CANAGLIFLOZIN	INVOKANA	TABLET	300 MG	ORAL
Oral Antidiabetic	GLYBURIDE	GLYBURIDE	POWDER (GRAM)		MISCELLANEOUS
Oral Antidiabetic	METFORMIN HCL	FORTAMET	TABLET, EXTENDED RELEASE 24 HR	1000 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL/METFORMIN HCL	ACTOPLUS MET	TABLET	15MG-500MG	ORAL
Oral Antidiabetic	METFORMIN HCL	FORTAMET	TABLET, EXTENDED RELEASE 24 HR	500 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE XL	TABLET, EXTENDED RELEASE 24 HR	5 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE XL	TABLET, EXTENDED RELEASE 24 HR	2.5 MG	ORAL
Oral Antidiabetic	GLIPIZIDE	GLIPIZIDE XL	TABLET, EXTENDED RELEASE 24 HR	10 MG	ORAL
Oral Antidiabetic	METFORMIN HCL	METFORMIN HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
Oral Antidiabetic	METFORMIN HCL	METFORMIN HYDROCHLORIDE	CRYSTALS	99.2%	MISCELLANEOUS
Oral Antidiabetic	ALOGLIPTIN BENZOATE	NESINA	TABLET	12.5 MG	ORAL
Oral Antidiabetic	ALOGLIPTIN BENZOATE	NESINA	TABLET	25 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Oral Antidiabetic	PIOGLITAZONE HCL/GLIMEPIRIDE	DUETACT	TABLET	30 MG-2 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL/GLIMEPIRIDE	DUETACT	TABLET	30 MG-4 MG	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL/METFORMIN HCL	ACTOPLUS MET XR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	30-1000 MG	ORAL
Oral Antidiabetic	ALOGLIPTIN BENZ/METFORMIN HCL	KAZANO	TABLET	12.5-500MG	ORAL
Oral Antidiabetic	ALOGLIPTIN BENZ/METFORMIN HCL	KAZANO	TABLET	12.5-1000	ORAL
Oral Antidiabetic	PIOGLITAZONE HCL/METFORMIN HCL	ACTOPLUS MET XR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	15-1000 MG	ORAL
Oral Antidiabetic	ALOGLIPTIN BENZOATE	NESINA	TABLET	6.25 MG	ORAL
Oral Antidiabetic	METFORMIN/CAFF/AA7/HRB125/CHOL	APPPFORMIN	COMBINATION PACKAGE (EA)	500-40-267	ORAL
Oral Antidiabetic	METFORMIN/AA COMB.#7/HC#125/CH	APPPFORMIN-D	COMBINATION PACKAGE (EA)	500-383.5	ORAL
Other Antihypertensive	METYROSINE	DEMSER	CAPSULE	250 MG	ORAL
Other Antihypertensive	MINOXIDIL	ROGAINE	SOLUTION, NON-ORAL	2 %	TOPICAL
Other Antihypertensive	MINOXIDIL	ROGAINE	KIT	5 %	TOPICAL
Other Antihypertensive	MINOXIDIL	ROGAINE	SOLUTION, NON-ORAL	5 %	TOPICAL
Other Antihypertensive	DOXAZOSIN MESYLATE	CARDURA XL	TABLET, EXTENDED RELEASE 24 HR	4 MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	CARDURA XL	TABLET, EXTENDED RELEASE 24 HR	8 MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	CARDURA	TABLET	1 MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	CARDURA	TABLET	2 MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	CARDURA	TABLET	4 MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	CARDURA	TABLET	8 MG	ORAL
Other Antihypertensive	PRAZOSIN HCL	MINIPRESS	CAPSULE	1 MG	ORAL
Other Antihypertensive	PRAZOSIN HCL	MINIPRESS	CAPSULE	2 MG	ORAL
Other Antihypertensive	PRAZOSIN HCL	MINIPRESS	CAPSULE	5 MG	ORAL
Other Antihypertensive	METHYLDOPATE HCL	METHYLDOPATE HCL	VIAL (ML)	250 MG/5ML	INTRAVENOUS
Other Antihypertensive	TERAZOSIN HCL	HYTRIN	CAPSULE	2 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Other Antihypertensive	ALISKIREN HEMIFUMARATE	TEKTURNA	TABLET	150 MG	ORAL
Other Antihypertensive	ALISKIREN HEMIFUMARATE	TEKTURNA	TABLET	300 MG	ORAL
Other Antihypertensive	ALISKIREN/HYDROCHLOROTHIAZIDE	TEKTURNA HCT	TABLET	150-12.5MG	ORAL
Other Antihypertensive	ALISKIREN/HYDROCHLOROTHIAZIDE	TEKTURNA HCT	TABLET	150MG-25MG	ORAL
Other Antihypertensive	ALISKIREN/HYDROCHLOROTHIAZIDE	TEKTURNA HCT	TABLET	300-12.5MG	ORAL
Other Antihypertensive	ALISKIREN/HYDROCHLOROTHIAZIDE	TEKTURNA HCT	TABLET	300MG-25MG	ORAL
Other Antihypertensive	ALISKIREN/VALSARTAN	VALTURNA	TABLET	150-160 MG	ORAL
Other Antihypertensive	ALISKIREN/VALSARTAN	VALTURNA	TABLET	300-320MG	ORAL
Other Antihypertensive	ALISKIREN/AMLODIPINE BESYLATE	TEKAMLO	TABLET	150 MG-5MG	ORAL
Other Antihypertensive	ALISKIREN/AMLODIPINE BESYLATE	TEKAMLO	TABLET	150MG-10MG	ORAL
Other Antihypertensive	ALISKIREN/AMLODIPINE BESYLATE	TEKAMLO	TABLET	300MG-5MG	ORAL
Other Antihypertensive	ALISKIREN/AMLODIPINE BESYLATE	TEKAMLO	TABLET	300MG-10MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	DOXAZOSIN MESYLATE	TABLET	8 MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	DOXAZOSIN MESYLATE	TABLET	4 MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	DOXAZOSIN MESYLATE	TABLET	2 MG	ORAL
Other Antihypertensive	DOXAZOSIN MESYLATE	DOXAZOSIN MESYLATE	TABLET	1 MG	ORAL
Other Antihypertensive	METHYLDOPA	METHYLDOPA	TABLET	250 MG	ORAL
Other Antihypertensive	METHYLDOPA	METHYLDOPA	TABLET	500 MG	ORAL
Other Antihypertensive	PRAZOSIN HCL	PRAZOSIN HCL	CAPSULE	1 MG	ORAL
Other Antihypertensive	PRAZOSIN HCL	PRAZOSIN HCL	CAPSULE	2 MG	ORAL
Other Antihypertensive	PRAZOSIN HCL	PRAZOSIN HCL	CAPSULE	5 MG	ORAL
Other Antihypertensive	TERAZOSIN HCL	TERAZOSIN HCL	CAPSULE	1 MG	ORAL
Other Antihypertensive	TERAZOSIN HCL	TERAZOSIN HCL	CAPSULE	2 MG	ORAL
Other Antihypertensive	TERAZOSIN HCL	TERAZOSIN HCL	CAPSULE	5 MG	ORAL
Other Antihypertensive	TERAZOSIN HCL	TERAZOSIN HCL	CAPSULE	10 MG	ORAL
Other Antihypertensive	MINOXIDIL	HAIR REGROWTH TREATMENT	SOLUTION, NON-ORAL	5 %	TOPICAL
Other Antihypertensive	MINOXIDIL	HAIR REGROWTH TREATMENT	SOLUTION, NON-ORAL	2 %	TOPICAL
Other Antihypertensive	CLONIDINE HCL/PF	CLONIDINE HCL	VIAL (ML)	5000MCG/10	EPIDURAL
Other Antihypertensive	CLONIDINE HCL/PF	CLONIDINE HCL	VIAL (ML)	1000MCG/10	EPIDURAL
Other Antihypertensive	GUANABENZ ACETATE	GUANABENZ ACETATE	TABLET	4 MG	ORAL
Other Antihypertensive	GUANABENZ ACETATE	GUANABENZ ACETATE	TABLET	8 MG	ORAL
Other Antihypertensive	HYDRALAZINE HCL	HYDRALAZINE HCL	TABLET	25 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Other Antihypertensive	HYDRALAZINE HCL	HYDRALAZINE HCL	TABLET	50 MG	ORAL
Other Antihypertensive	HYDRALAZINE HCL	HYDRALAZINE HCL	TABLET	10 MG	ORAL
Other Antihypertensive	RESERPINE	RESERPINE	TABLET	0.1 MG	ORAL
Other Antihypertensive	RESERPINE	RESERPINE	TABLET	0.25 MG	ORAL
Other Antihypertensive	PAPAVERINE HCL	PAPAVERINE HCL	CAPSULE, EXTENDED RELEASE	150 MG	ORAL
Other Antihypertensive	CLONIDINE HCL	CLONIDINE HCL	TABLET	0.1 MG	ORAL
Other Antihypertensive	CLONIDINE HCL	CLONIDINE HCL	TABLET	0.2 MG	ORAL
Other Antihypertensive	CLONIDINE HCL	CLONIDINE HCL	TABLET	0.3 MG	ORAL
Other Antihypertensive	GUANFACINE HCL	GUANFACINE HCL ER	TABLET, EXTENDED RELEASE 24 HR	1 MG	ORAL
Other Antihypertensive	GUANFACINE HCL	GUANFACINE HCL ER	TABLET, EXTENDED RELEASE 24 HR	2 MG	ORAL
Other Antihypertensive	GUANFACINE HCL	GUANFACINE HCL ER	TABLET, EXTENDED RELEASE 24 HR	3 MG	ORAL
Other Antihypertensive	GUANFACINE HCL	GUANFACINE HCL ER	TABLET, EXTENDED RELEASE 24 HR	4 MG	ORAL
Other Antihypertensive	MINOXIDIL	MINOXIDIL	SOLUTION, NON-ORAL	5 %	TOPICAL
Other Antihypertensive	MINOXIDIL	MINOXIDIL	SOLUTION, NON-ORAL	2 %	TOPICAL
Other Antihypertensive	CLONIDINE HCL/CHLORTHALIDONE	CLORPRES	TABLET	0.1MG-15MG	ORAL
Other Antihypertensive	CLONIDINE HCL/CHLORTHALIDONE	CLORPRES	TABLET	0.2-15MG	ORAL
Other Antihypertensive	CLONIDINE HCL/CHLORTHALIDONE	CLORPRES	TABLET	0.3MG-15MG	ORAL
Other Antihypertensive	METHYLDOPA/HYDROCHLOROTHIAZIDE	METHYLDOPA-HYDROCHLOROTHIAZIDE	TABLET	250MG-15MG	ORAL
Other Antihypertensive	METHYLDOPA/HYDROCHLOROTHIAZIDE	METHYLDOPA-HYDROCHLOROTHIAZIDE	TABLET	250MG-25MG	ORAL
Other Antihypertensive	CLONIDINE	CLONIDINE	PATCH, TRANSDERMAL WEEKLY	0.1MG/24HR	TRANSDERMAL
Other Antihypertensive	CLONIDINE	CLONIDINE	PATCH, TRANSDERMAL WEEKLY	0.2MG/24HR	TRANSDERMAL
Other Antihypertensive	CLONIDINE	CLONIDINE	PATCH, TRANSDERMAL WEEKLY	0.3MG/24HR	TRANSDERMAL
Other Antihypertensive	GUANFACINE HCL	GUANFACINE HCL	TABLET	1 MG	ORAL
Other Antihypertensive	GUANFACINE HCL	GUANFACINE HCL	TABLET	2 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Other Antihypertensive	FENOLDOPAM MESYLATE	CORLOPAM	AMPUL (ML)	10 MG/ML	INTRAVENOUS
Other Antihypertensive	NITROPRUSSIDE SODIUM	NITROPRESS	VIAL (ML)	25 MG/ML	INTRAVENOUS
Other Antihypertensive	FENOLDOPAM MESYLATE	CORLOPAM	VIAL (ML)	10 MG/ML	INTRAVENOUS
Other Antihypertensive	HYDRALAZINE HCL	HYDRALAZINE HCL	VIAL (ML)	20 MG/ML	INJECTION
Other Antihypertensive	PAPAVERINE HCL	PAPAVERINE HCL	VIAL (ML)	30 MG/ML	INJECTION
Other Antihypertensive	MINOXIDIL	MINOXIDIL	TABLET	2.5 MG	ORAL
Other Antihypertensive	MINOXIDIL	MINOXIDIL	TABLET	10 MG	ORAL
Other Antihypertensive	CLONIDINE HCL	CATAPRES	TABLET	0.1 MG	ORAL
Other Antihypertensive	CLONIDINE HCL	CATAPRES	TABLET	0.2 MG	ORAL
Other Antihypertensive	CLONIDINE HCL	CATAPRES	TABLET	0.3 MG	ORAL
Other Antihypertensive	CLONIDINE	CATAPRES-TTS 1	PATCH, TRANSDERMAL WEEKLY	0.1MG/24HR	TRANSDERMAL
Other Antihypertensive	CLONIDINE	CATAPRES-TTS 2	PATCH, TRANSDERMAL WEEKLY	0.2MG/24HR	TRANSDERMAL
Other Antihypertensive	CLONIDINE	CATAPRES-TTS 3	PATCH, TRANSDERMAL WEEKLY	0.3MG/24HR	TRANSDERMAL
Other Antihypertensive	ISOXSUPRINE HCL	ISOXSUPRINE HCL	TABLET	10 MG	ORAL
Other Antihypertensive	ISOXSUPRINE HCL	ISOXSUPRINE HCL	TABLET	20 MG	ORAL
Other Antihypertensive	FENOLDOPAM MESYLATE	FENOLDOPAM MESYLATE	AMPUL (ML)	10 MG/ML	INTRAVENOUS
Other Antihypertensive	PHENTOLAMINE MESYLATE	PHENTOLAMINE MESYLATE	VIAL (ML)	5 MG/ML(1)	INJECTION
Other Antihypertensive	CLONIDINE HCL	CLONIDINE HCL ER	TABLET, EXTENDED RELEASE 12 HR	0.1 MG	ORAL
Other Antihypertensive	MINOXIDIL	HAIR REGROWTH	SOLUTION, NON-ORAL	2 %	TOPICAL
Other Antihypertensive	MINOXIDIL	HAIR REGROWTH	SOLUTION, NON-ORAL	5 %	TOPICAL
Other Antihypertensive	MINOXIDIL	RENEWAL	FOAM (GRAM)	5 %	TOPICAL
Other Antihypertensive	HYDRALAZINE HCL	HYDRALAZINE HCL	TABLET	100 MG	ORAL
Other Antihypertensive	MINOXIDIL	ROGAINE	FOAM (GRAM)	5 %	TOPICAL
Other Antihypertensive	ISOSORB DINIT/HYDRALAZINE HCL	BIDIL	TABLET	20-37.5MG	ORAL
Other Antihypertensive	CLONIDINE HCL	NEXICLON XR	TABLET, EXTENDED RELEASE 24 HR	0.17 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Other Antihypertensive	CLONIDINE HCL	NEXICLON XR	SUSPENSION, EXTENDED RELEASE 24 HR	0.09 MG/ML	ORAL
Other Antihypertensive	CLONIDINE HCL	CLONIDINE HCL	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	RESERPINE	RESERPINE	POWDER (GRAM)	100 %	MISCELLANEOUS
Other Antihypertensive	ISOXSUPRINE HCL	ISOXSUPRINE HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
Other Antihypertensive	PAPAVERINE HCL	PAPAVERINE HCL	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	MINOXIDIL	MINOXIDIL	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	PHENTOLAMINE MESYLATE	PHENTOLAMINE MESYLATE	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	PHENOXYBENZAMINE HCL	PHENOXYBENZAMINE HCL	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	MINOXIDIL	HAIR REGROWTH TREATMENT	FOAM (GRAM)	5 %	TOPICAL
Other Antihypertensive	CYCLANDELATE	CYCLANDELATE	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	NYLIDRIN HCL	NYLIDRIN HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
Other Antihypertensive	PAPAVERINE HCL	PARA-TIME	CAPSULE, EXTENDED RELEASE	150 MG	ORAL
Other Antihypertensive	HYDRALAZINE/HYDROCHLOROTHIAZID	HYDRA-ZIDE	CAPSULE	25 MG-25MG	ORAL
Other Antihypertensive	HYDRALAZINE/HYDROCHLOROTHIAZID	HYDRA-ZIDE	CAPSULE	50 MG-50MG	ORAL
Other Antihypertensive	MINOXIDIL	MEN'S HAIR REGROWTH TREATMENT	SOLUTION, NON-ORAL	5 %	TOPICAL
Other Antihypertensive	HYDRALAZINE HCL	HYDRALAZINE HCL	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	GUANETHIDINE SULFATE	GUANETHIDINE MONOSULFATE	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	GUANABENZ ACETATE	GUANABENZ ACETATE	POWDER (GRAM)	100 %	MISCELLANEOUS
Other Antihypertensive	RAUWOLFIA SERPENTINA	RAUWOLFIA SERPENTINA	POWDER (GRAM)	0.15 %	MISCELLANEOUS
Other Antihypertensive	GUANFACINE HCL	GUANFACINE HYDROCHLORIDE	POWDER (GRAM)	100 %	MISCELLANEOUS
Other Antihypertensive	BUFLOMEDIL HCL	BUFLOMEDIL HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
Other Antihypertensive	GUANETHIDINE SULFATE	GUANETHIDINE HEMISULFATE	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	TOLAZOLINE HCL	TOLAZOLINE HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
Other Antihypertensive	PRAZOSIN HCL	PRAZOSIN HCL	POWDER (GRAM)		MISCELLANEOUS
Other Antihypertensive	GUANFACINE HCL	INTUNIV	TABLET, EXTENDED RELEASE 24 HR	1 MG	ORAL
Other Antihypertensive	GUANFACINE HCL	INTUNIV	TABLET, EXTENDED RELEASE 24 HR	2 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Other Antihypertensive	GUANFACINE HCL	INTUNIV	TABLET, EXTENDED RELEASE 24 HR	3 MG	ORAL
Other Antihypertensive	GUANFACINE HCL	INTUNIV	TABLET, EXTENDED RELEASE 24 HR	4 MG	ORAL
Other Antihypertensive	TERAZOSIN HCL	HYTRIN	CAPSULE	5 MG	ORAL
Other Antihypertensive	TERAZOSIN HCL	HYTRIN	CAPSULE	10 MG	ORAL
Other Antihypertensive	FENOLDOPAM MESYLATE	FENOLDOPAM MESYLATE	VIAL (ML)	10 MG/ML	INTRAVENOUS
Other Antihypertensive	PHENTOLAMINE MESYLATE	PHENTOLAMINE MESYLATE	VIAL (EA)	5 MG	INJECTION
Other Antihypertensive	CLONIDINE HCL	KAPVAY	TABLET, EXTENDED RELEASE 12 HR	0.1 MG	ORAL
Other Antihypertensive	CLONIDINE HCL	KAPVAY	TABLET, EXTENDED RELEASE, DOSE PACK	0.1-0.2 MG	ORAL
Other Antihypertensive	PHENOXYBENZAMINE HCL	DIBENZYLINE	CAPSULE	10 MG	ORAL
Other Antihypertensive	CLONIDINE HCL/PF	DURACLON	VIAL (ML)	1000MCG/10	EPIDURAL
Other Antihypertensive	CLONIDINE HCL/PF	DURACLON	VIAL (ML)	5000MCG/10	EPIDURAL
Other Antihypertensive	GUANFACINE HCL	TENEX	TABLET	1 MG	ORAL
Other Antihypertensive	GUANFACINE HCL	TENEX	TABLET	2 MG	ORAL
Platelet Inhibitor	PRASUGREL HCL	EFFIENT	TABLET	10 MG	ORAL
Platelet Inhibitor	PRASUGREL HCL	EFFIENT	TABLET	5 MG	ORAL
Platelet Inhibitor	TICLOPIDINE HCL	TICLID	TABLET	250 MG	ORAL
Platelet Inhibitor	PENTOXIFYLLINE	TRENTAL	TABLET, EXTENDED RELEASE	400 MG	ORAL
Platelet Inhibitor	CILOSTAZOL	CILOSTAZOL	TABLET	50 MG	ORAL
Platelet Inhibitor	CILOSTAZOL	CILOSTAZOL	TABLET	100 MG	ORAL
Platelet Inhibitor	DIPYRIDAMOLE	DIPYRIDAMOLE	TABLET	25 MG	ORAL
Platelet Inhibitor	DIPYRIDAMOLE	DIPYRIDAMOLE	TABLET	50 MG	ORAL
Platelet Inhibitor	DIPYRIDAMOLE	DIPYRIDAMOLE	TABLET	75 MG	ORAL
Platelet Inhibitor	TICLOPIDINE HCL	TICLOPIDINE HCL	TABLET	250 MG	ORAL
Platelet Inhibitor	PENTOXIFYLLINE	PENTOXIFYLLINE	TABLET, EXTENDED RELEASE	400 MG	ORAL
Platelet Inhibitor	CLOPIDOGREL BISULFATE	CLOPIDOGREL	TABLET	75 MG	ORAL
Platelet Inhibitor	ANAGRELIDE HCL	ANAGRELIDE HCL	CAPSULE	1 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Platelet Inhibitor	ANAGRELIDE HCL	ANAGRELIDE HCL	CAPSULE	0.5 MG	ORAL
Platelet Inhibitor	TICAGRELOR	BRILINTA	TABLET	90 MG	ORAL
Platelet Inhibitor	PENTOXIFYLLINE	PENTOXIL	TABLET, EXTENDED RELEASE	400 MG	ORAL
Platelet Inhibitor	ASPIRIN/DIPYRIDAMOLE	AGGRENOX	CAPSULE,EXTENDED RELEASE MULTIPHASE 12HR	25MG-200MG	ORAL
Platelet Inhibitor	DIPYRIDAMOLE	PERSANTINE	TABLET	25 MG	ORAL
Platelet Inhibitor	DIPYRIDAMOLE	PERSANTINE	TABLET	50 MG	ORAL
Platelet Inhibitor	DIPYRIDAMOLE	PERSANTINE	TABLET	75 MG	ORAL
Platelet Inhibitor	DIPYRIDAMOLE	DIPYRIDAMOLE	VIAL (ML)	5 MG/ML	INTRAVENOUS
Platelet Inhibitor	CLOPIDOGREL BISULFATE	CLOPIDOGREL	TABLET	300 MG	ORAL
Platelet Inhibitor	CLOPIDOGREL BISULFATE	PLAVIX	TABLET	75 MG	ORAL
Platelet Inhibitor	PENTOXIFYLLINE	PENTOXIFYLLINE	POWDER (GRAM)	100 %	MISCELLANEOUS
Platelet Inhibitor	DIPYRIDAMOLE	DIPYRIDAMOLE	POWDER (GRAM)	100 %	MISCELLANEOUS
Platelet Inhibitor	PENTOXIFYLLINE	PENTOXIFYLLINE	POWDER (GRAM)		MISCELLANEOUS
Platelet Inhibitor	ANAGRELIDE HCL	AGRYLIN	CAPSULE	0.5 MG	ORAL
Platelet Inhibitor	CILOSTAZOL	PLETAL	TABLET	100 MG	ORAL
Platelet Inhibitor	CILOSTAZOL	PLETAL	TABLET	50 MG	ORAL
Platelet Inhibitor	CLOPIDOGREL BISULFATE	PLAVIX	TABLET	300 MG	ORAL
Protein Pump Inhibitor	PANTOPRAZOLE SODIUM	PANTOPRAZOLE SODIUM	TABLET, DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	PANTOPRAZOLE SODIUM	PANTOPRAZOLE SODIUM	TABLET, DELAYED RELEASE (ENTERIC COATED)	40 MG	ORAL
Protein Pump Inhibitor	PANTOPRAZOLE SODIUM	PROTONIX	TABLET, DELAYED RELEASE (ENTERIC COATED)	40 MG	ORAL
Protein Pump Inhibitor	PANTOPRAZOLE SODIUM	PROTONIX	TABLET, DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Protein Pump Inhibitor	PANTOPRAZOLE SODIUM	PROTONIX	GRANULES DELAYED RELEASE FOR SUSP PACKET	40 MG	ORAL
Protein Pump Inhibitor	PANTOPRAZOLE SODIUM	PROTONIX IV	VIAL (EA)	40 MG	INTRAVENOUS
Protein Pump Inhibitor	LANSOPRAZOLE	PREVACID 24HR	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	15 MG	ORAL
Protein Pump Inhibitor	RABEPRAZOLE SODIUM	RABEPRAZOLE SODIUM	TABLET, DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	OMEPRAZOLE	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	10 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	OMEPRAZOLE	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	OMEPRAZOLE	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	40 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	ESOMEPRAZOLE MAGNESIUM	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	ESOMEPRAZOLE MAGNESIUM	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	40 MG	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE	LANSOPRAZOLE	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	15 MG	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE	LANSOPRAZOLE	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	30 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Protein Pump Inhibitor	LANSOPRAZOLE	LANSOPRAZOLE	TABLET,DISINTEGRATING , DELAYED RELEASE	15 MG	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE	LANSOPRAZOLE	TABLET,DISINTEGRATING , DELAYED RELEASE	30 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	OMEPRAZOLE	TABLET, DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE MAGNESIUM	OMEPRAZOLE MAGNESIUM	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	NAPROXEN/ESOMEPRAZOLE MAG	VIMOVO	TABLET,IMMEDIATE & DELAY RELEASE,BIPHASE	375MG-20MG	ORAL
Protein Pump Inhibitor	NAPROXEN/ESOMEPRAZOLE MAG	VIMOVO	TABLET,IMMEDIATE & DELAY RELEASE,BIPHASE	500MG-20MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	PRILOSEC	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	10 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE MAGNESIUM	PRILOSEC	SUSP FOR RECON,DELAYED REL. IN A PACKET	10 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE MAGNESIUM	PRILOSEC	SUSP FOR RECON,DELAYED REL. IN A PACKET	2.5 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	PRILOSEC	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	PRILOSEC	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	40 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	NEXIUM	SUSP FOR RECON,DELAYED REL. IN A PACKET	10 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	NEXIUM	SUSP FOR RECON,DELAYED REL. IN A PACKET	20 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	NEXIUM	SUSP FOR RECON,DELAYED REL. IN A PACKET	2.5 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	NEXIUM	SUSP FOR RECON,DELAYED REL. IN A PACKET	40 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	NEXIUM	SUSP FOR RECON,DELAYED REL. IN A PACKET	5 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	NEXIUM	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	NEXIUM	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	40 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE SODIUM	NEXIUM I.V.	VIAL (EA)	20 MG	INTRAVENOUS
Protein Pump Inhibitor	ESOMEPRAZOLE SODIUM	NEXIUM I.V.	VIAL (EA)	40 MG	INTRAVENOUS
Protein Pump Inhibitor	LANSOPRAZOLE	PREVACID	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	15 MG	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE	PREVACID	TABLET,DISINTEGRATING , DELAYED RELEASE	15 MG	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE	PREVACID	TABLET,DISINTEGRATING , DELAYED RELEASE	30 MG	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE/NAPROXEN	PREVACID NAPRAPAC	COMBINATION PACKAGE (EA)	15MG-500MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Protein Pump Inhibitor	LANSOPRAZOLE	PREVACID	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	30 MG	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE	PREVACID IV	VIAL (EA)	30 MG	INTRAVENOUS
Protein Pump Inhibitor	LANSOPRAZOLE	HEARTBURN TREATMENT 24 HOUR	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	15 MG	ORAL
Protein Pump Inhibitor	ESOMEPRAZOLE MAGNESIUM	NEXIUM 24HR	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	22.3 MG	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE	HEARTBURN RELIEF 24 HOUR	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	15 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE/SODIUM BICARBONATE	ZEGERID OTC	CAPSULE	20MG-1.1G	ORAL
Protein Pump Inhibitor	OMEPRAZOLE/SODIUM BICARBONATE	OMEPRAZOLE-SODIUM BICARBONATE	CAPSULE	20MG-1.1G	ORAL
Protein Pump Inhibitor	RABEPRAZOLE SODIUM	ACIPHEX SPRINKLE	CAPSULE, DELAYED RELEASE SPRINKLE	5 MG	ORAL
Protein Pump Inhibitor	RABEPRAZOLE SODIUM	ACIPHEX SPRINKLE	CAPSULE, DELAYED RELEASE SPRINKLE	10 MG	ORAL
Protein Pump Inhibitor	RABEPRAZOLE SODIUM	ACIPHEX	TABLET, DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	PANTOPRAZOLE SODIUM	PANTOPRAZOLE SODIUM	VIAL (EA)	40 MG	INTRAVENOUS
Protein Pump Inhibitor	OMEPRAZOLE MAGNESIUM	PRILOSEC OTC	TABLET, DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	OMEPRAZOLE	POWDER (GRAM)	100 %	MISCELLANEOUS
Protein Pump Inhibitor	LANSOPRAZOLE	LANSOPRAZOLE	POWDER (GRAM)	100 %	MISCELLANEOUS
Protein Pump Inhibitor	ESOMEPRAZOLE SODIUM	ESOMEPRAZOLE SODIUM	VIAL (EA)	20 MG	INTRAVENOUS
Protein Pump Inhibitor	ESOMEPRAZOLE SODIUM	ESOMEPRAZOLE SODIUM	VIAL (EA)	40 MG	INTRAVENOUS
Protein Pump Inhibitor	OMEPRAZOLE/SODIUM BICARBONATE	OMEPRAZOLE-SODIUM BICARBONATE	CAPSULE	40MG-1.1G	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Protein Pump Inhibitor	OMEPRAZOLE	OMEPRAZOLE+SYRSPEND SF ALKA	SUSPENSION, RECONSTITUTED, ORAL (ML)	2 MG/ML	ORAL
Protein Pump Inhibitor	OMEPRAZOLE/SODIUM BICARBONATE	ZEGERID	CAPSULE	40MG-1.1G	ORAL
Protein Pump Inhibitor	DEXLANSOPRAZOLE	KAPIDEX	CAPSULE, DELAYED RELEASE, BIPHASIC	30 MG	ORAL
Protein Pump Inhibitor	DEXLANSOPRAZOLE	DEXILANT	CAPSULE, DELAYED RELEASE, BIPHASIC	60 MG	ORAL
Protein Pump Inhibitor	DEXLANSOPRAZOLE	DEXILANT	CAPSULE, DELAYED RELEASE, BIPHASIC	30 MG	ORAL
Protein Pump Inhibitor	DEXLANSOPRAZOLE	KAPIDEX	CAPSULE, DELAYED RELEASE, BIPHASIC	60 MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE/CLARITH/AMOXICILLIN	OMECLAMOX-PAK	COMBINATION PACKAGE (EA)	20(20)-500	ORAL
Protein Pump Inhibitor	OMEPRAZOLE	FIRST-OMEPRAZOLE	SUSPENSION, RECONSTITUTED, ORAL (ML)	2 MG/ML	ORAL
Protein Pump Inhibitor	LANSOPRAZOLE	FIRST-LANSOPRAZOLE	SUSPENSION, RECONSTITUTED, ORAL (ML)	3 MG/ML	ORAL
Protein Pump Inhibitor	OMEPRAZOLE/SODIUM BICARBONATE	ZEGERID	PACKET (EA)	20-1680MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE/SODIUM BICARBONATE	ZEGERID	PACKET (EA)	40-1680MG	ORAL
Protein Pump Inhibitor	OMEPRAZOLE/SODIUM BICARBONATE	ZEGERID	CAPSULE	20MG-1.1G	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	LO-OVRAL-28	TABLET	0.3-0.03MG	ORAL
Progestin	MEDROXYPROGESTERONE ACETATE	PROVERA	TABLET	10 MG	ORAL
Progestin	MEDROXYPROGESTERONE ACETATE	PROVERA	TABLET	2.5 MG	ORAL
Progestin	MEDROXYPROGESTERONE ACETATE	PROVERA	TABLET	5 MG	ORAL
Progestin	MEDROXYPROGESTERONE ACETATE	DEPO-PROVERA	VIAL (ML)	400 MG/ML	INTRAMUSCULAR
Progestin	MEDROXYPROGESTERONE ACETATE	DEPO-PROVERA	VIAL (ML)	150 MG/ML	INTRAMUSCULAR
Progestin	MEDROXYPROGESTERONE ACETATE	DEPO-SUBQ PROVERA 104	SYRINGE (ML)	104MG/0.65	SUBCUTANEOUS
Progestin	MEDROXYPROGESTERONE ACETATE	DEPO-PROVERA	SYRINGE (ML)	150 MG/ML	INTRAMUSCULAR

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Progestin	MEGESTROL ACETATE	MEGACE	SUSPENSION, ORAL (FINAL DOSE FORM)	400MG/10ML	ORAL
Progestin	PROGESTERONE, MICRONIZED	PROMETRIUM	CAPSULE	100 MG	ORAL
Progestin	PROGESTERONE, MICRONIZED	PROMETRIUM	CAPSULE	200 MG	ORAL
Progestin	ESTROGEN, CON/M-PROGEST ACET	PREMPRO	TABLET	0.625-2.5	ORAL
Progestin	ESTROGEN, CON/M-PROGEST ACET	PREMPRO	TABLET	0.45-1.5MG	ORAL
Progestin	ESTROGEN, CON/M-PROGEST ACET	PREMPRO	TABLET	0.3-1.5MG	ORAL
Progestin	ESTROGEN, CON/M-PROGEST ACET	PREMPRO	TABLET	0.625-5 MG	ORAL
Progestin	ESTROGEN, CON/M-PROGEST ACET	PREMPHASE	TABLET	0.625 (14)	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	DESOGEN	TABLET	0.15-0.03	ORAL
Progestin	ETONOGESTREL	IMPLANON	IMPLANT (EA)	68 MG	SUBCUTANEOUS
Progestin	ETONOGESTREL/ETHINYL ESTRADIOL	NUVARING	RING, VAGINAL	.12-.015MG	VAGINAL
Progestin	ETONOGESTREL	NEXPLANON	IMPLANT (EA)	68 MG	SUBCUTANEOUS
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	CYCLESSA	TABLET	7 DAYS X 3	ORAL
Progestin	MEGESTROL ACETATE	MEGESTROL ACETATE	SUSPENSION, ORAL (FINAL DOSE FORM)	400MG/10ML	ORAL
Progestin	MEGESTROL ACETATE	MEGESTROL ACETATE	TABLET	20 MG	ORAL
Progestin	MEGESTROL ACETATE	MEGESTROL ACETATE	TABLET	40 MG	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	ORTHO TRI-CYCLEN LO	TABLET	7DAYSX3 LO	ORAL
Progestin	NORETHINDRONE-MESTRANOL	ORTHO-NOVUM	TABLET	1 MG-50MCG	ORAL
Progestin	NORETHINDRONE	MICRONOR	TABLET	0.35 MG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	MODICON	TABLET	0.5-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	ORTHO-NOVUM	TABLET	1 MG-35MCG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	ORTHO-NOVUM	TABLET	7 DAYS X 3	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	ORTHO-CEPT	TABLET	0.15-0.03	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	ORTHO-CYCLEN	TABLET	0.25-0.035	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	ORTHO TRI-CYCLEN	TABLET	7DAYSX3 28	ORAL
Progestin	NORELGESTROMIN/ETHIN. ESTRADIOL	ORTHO EVRA	PATCH, TRANSDERMAL WEEKLY	150-35/24H	TRANSDERMAL
Progestin	ESTRADIOL/NORETHINDRONE ACET	COMBIPATCH	PATCH, TRANSDERMAL SEMIWEEKLY	.05-.14/24	TRANSDERMAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Progestin	ESTRADIOL/NORETHINDRONE ACET	COMBIPATCH	PATCH, TRANSDERMAL SEMIWEEKLY	.05-.25/24	TRANSDERMAL
Progestin	NORETH-ETHINYL ESTRADIOL/IRON	ZEOSA	TABLET, CHEWABLE	0.4-35(21)	ORAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	CAMRESE	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-PREVIFEM	TABLET	7DAYSX3 28	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	PREVIFEM	TABLET	0.25-0.035	ORAL
Progestin	PROGESTERONE,MICRONIZED	PROGESTERONE	CAPSULE	100 MG	ORAL
Progestin	PROGESTERONE,MICRONIZED	PROGESTERONE	CAPSULE	200 MG	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	GIANVI	TABLET	0.02-3(24)	ORAL
Progestin	ESTRADIOL/NORETHINDRONE ACET	MIMVEY LO	TABLET	0.5-0.1MG	ORAL
Progestin	ESTRADIOL/NORETHINDRONE ACET	MIMVEY	TABLET	1 MG-0.5MG	ORAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	CAMRESE LO	TABLET, DOSE PACK, 3 MONTHS	100-20(84)	ORAL
Progestin	MEGESTROL ACETATE	MEGESTROL ACETATE	SUSPENSION, ORAL (FINAL DOSE FORM)	800MG/20ML	ORAL
Progestin	PROGESTERONE	PROGESTERONE	VIAL (ML)	50 MG/ML	INTRAMUSCULAR
Progestin	ESTRADIOL/NORETHINDRONE ACET	ACTIVELLA	TABLET	1 MG-0.5MG	ORAL
Progestin	ESTRADIOL/NORETHINDRONE ACET	ACTIVELLA	TABLET	0.5-0.1MG	ORAL
Progestin	MEDROXYPROGESTERONE ACETATE	MEDROXYPROGESTERONE ACETATE	TABLET	10 MG	ORAL
Progestin	MEDROXYPROGESTERONE ACETATE	MEDROXYPROGESTERONE ACETATE	TABLET	2.5 MG	ORAL
Progestin	MEDROXYPROGESTERONE ACETATE	MEDROXYPROGESTERONE ACETATE	TABLET	5 MG	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	LO-OVRAL-21	TABLET	0.3-0.03MG	ORAL
Progestin	NORELGESTROMIN/ETHIN.ESTRADIOL	XULANE	PATCH, TRANSDERMAL WEEKLY	150-35/24H	TRANSDERMAL
Progestin	NORETHINDRONE	NORETHINDRONE	TABLET	0.35 MG	ORAL
Progestin	NORETH-ETHINYL ESTRADIOL/IRON	FEMCON FE	TABLET, CHEWABLE	0.4-35(21)	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	OVCON-35	TABLET	0.4-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	OVCON-50	TABLET	1 MG-50MCG	ORAL
Progestin	PROGESTERONE	PROGESTERONE IN OIL	VIAL (ML)	50 MG/ML	INTRAMUSCULAR
Progestin	NORETHINDRONE ACETATE	NORETHINDRONE ACETATE	TABLET	5 MG	ORAL
Progestin	NORETHINDRONE	ERRIN	TABLET	0.35 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Progestin	NORETHINDRONE	CAMILA	TABLET	0.35 MG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	NORTREL	TABLET	0.5-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	NORTREL	TABLET	1 MG-35MCG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	NORTREL	TABLET	7 DAYS X 3	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	SPRINTEC	TABLET	0.25-0.035	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-SPRINTEC	TABLET	7DAYSX3 28	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	BALZIVA	TABLET	0.4-0.035	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	APRI	TABLET	0.15-0.03	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	CRYSSELLE	TABLET	0.3-0.03MG	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	VELIVET	TABLET	7 DAYS X 3	ORAL
Progestin	ETHYNODIOL D-ETHINYL ESTRADIOL	KELNOR 1-35	TABLET	1 MG-35MCG	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-LO-SPRINTEC	TABLET	7DAYSX3 LO	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	ARANELLE	TABLET	7-9-5	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	OCELLA	TABLET	0.03-3MG	ORAL
Progestin	PROGESTERONE, MICRONIZED	PROGESTERONE	POWDER (GRAM)	100 %	MISCELLANEOUS
Progestin	PROGESTERONE	PROGESTERONE	POWDER (GRAM)	100 %	MISCELLANEOUS
Progestin	NORETHINDRONE-ETHINYL ESTRAD	GILDAGIA	TABLET	0.4-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	CYCLAFEM	TABLET	1 MG-35MCG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	CYCLAFEM	TABLET	7 DAYS X 3	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	EMOQUETTE	TABLET	0.15-0.03	ORAL
Progestin	MEDROXYPROGESTERONE ACETATE	MEDROXYPROGESTERONE ACETATE	VIAL (ML)	150 MG/ML	INTRAMUSCULAR
Progestin	MEDROXYPROGESTERONE ACETATE	MEDROXYPROGESTERONE ACETATE	SYRINGE (ML)	150 MG/ML	INTRAMUSCULAR
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	ESTARYLLA	TABLET	0.25-0.035	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-ESTARYLLA	TABLET	7DAYSX3 28	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	LORYNA	TABLET	0.02-3(24)	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	SYEDA	TABLET	0.03-3MG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	DASETTA	TABLET	7 DAYS X 3	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	PHILITH	TABLET	0.4-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	DASETTA	TABLET	1 MG-35MCG	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	MONO-LINYAH	TABLET	0.25-0.035	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	TRI-LINYAH	TABLET	7DAYSX3 28	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	ELINEST	TABLET	0.3-0.03MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	DESOGESTREL-ETHINYL ESTRADIOL	TABLET	0.15-0.03	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	WERA	TABLET	0.5-0.035	ORAL
Progestin	NORETHINDRONE	DEBLITANE	TABLET	0.35 MG	ORAL
Progestin	NORETHINDRONE	SHAROBEL	TABLET	0.35 MG	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	TRINESSA	TABLET	7DAYSX3 28	ORAL
Progestin	LEVONORGESTREL	NEXT CHOICE	TABLET	0.75 MG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	NECON	TABLET	1 MG-35MCG	ORAL
Progestin	LEVONORGESTREL	PLAN B ONE-STEP	TABLET	1.5 MG	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	NORGESTREL-ETHINY ESTRA	TABLET	0.3-0.03MG	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	YAZ	TABLET	0.02-3(24)	ORAL
Progestin	PROGESTERONE,MICRONIZED	PROGESTERONE MICRONIZED	POWDER (GRAM)	100 %	MISCELLANEOUS
Progestin	MEGESTROL ACETATE,MICRONIZED	MEGESTROL ACETATE	POWDER (GRAM)	100 %	MISCELLANEOUS
Progestin	HYDROXYPROGESTERONE CAPROATE	HYDROXYPROGESTERONE CAPROATE	POWDER (GRAM)	100 %	MISCELLANEOUS
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	RECLIPSEN	TABLET	0.15-0.03	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	NECON	TABLET	0.5-0.035	ORAL
Progestin	LEVONORGESTREL	MY WAY	TABLET	1.5 MG	ORAL
Progestin	LEVONORGESTREL	LEVONORGESTREL	TABLET	0.75 MG	ORAL
Progestin	MEGESTROL ACETATE	MEGACE ES	SUSPENSION, ORAL (FINAL DOSE FORM)	625MG/5ML	ORAL
Progestin	NORETHINDRONE	LYZA	TABLET	0.35 MG	ORAL
Progestin	LEVONORGESTREL	ECONTRA EZ	TABLET	1.5 MG	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	YASMIN 28	TABLET	0.03-3MG	ORAL
Progestin	DROSPIR/ETH ESTRA/LEVOMEFOL CA	SAFYRAL	TABLET	3-0.03(21)	ORAL
Progestin	DROSPIR/ETH ESTRA/LEVOMEFOL CA	BEYAZ	TABLET	3-0.02(24)	ORAL
Progestin	ESTRADIOL VALERATE/DIENOGEST	NATAZIA	TABLET	3-2-1(28)	ORAL
Progestin	LEVONORGESTREL	MIRENA	INTRAUTERINE DEVICE	20MCG/24HR	INTRAUTERINE
Progestin	LEVONORGESTREL	SKYLA	INTRAUTERINE DEVICE	14MCG/24HR	INTRAUTERINE
Progestin	DROSPIRENONE/ESTRADIOL	ANGELIQ	TABLET	0.25-0.5MG	ORAL
Progestin	DROSPIRENONE/ESTRADIOL	ANGELIQ	TABLET	0.5 MG-1MG	ORAL
Progestin	ESTRADIOL/LEVONORGESTREL	CLIMARA PRO	PATCH, TRANSDERMAL WEEKLY	45-15/24H	TRANSDERMAL
Progestin	NORETHINDRONE	ORTHO MICRONOR	TABLET	0.35 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Progestin	LEVONORGESTREL	PLAN B	TABLET	0.75 MG	ORAL
Progestin	ESTRADIOL/NORGESTIMATE	PREFEST	TABLET	1-1-0.09MG	ORAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	SEASONIQUE	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	LOSEASONIQUE	TABLET, DOSE PACK, 3 MONTHS	100-20(84)	ORAL
Progestin	LEVONORGESTREL	TAKE ACTION	TABLET	1.5 MG	ORAL
Progestin	LEVONORGESTREL	AFTERA	TABLET	1.5 MG	ORAL
Progestin	NORETHINDRONE ACETATE	AYGESTIN	TABLET	5 MG	ORAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	QUARTETTE	TABLET, DOSE PACK, 3 MONTHS	0.15MG(84)	ORAL
Progestin	NORETHINDRONE ACETATE	NORETHINDRONE ACETATE	POWDER (GRAM)		MISCELLANEOUS
Progestin	NORETHINDRONE	NORLYROC	TABLET	0.35 MG	ORAL
Progestin	NORETHINDRONE	NORETHINDRONE	POWDER (GRAM)	100 %	MISCELLANEOUS
Progestin	ESTRADIOL/NORETHINDRONE ACET	ESTRADIOL-NORETHINDRONE ACETAT	TABLET	1 MG-0.5MG	ORAL
Progestin	ESTRADIOL/NORETHINDRONE ACET	ESTRADIOL-NORETHINDRONE ACETAT	TABLET	0.5-0.1MG	ORAL
Progestin	LEVONORGESTREL	NEXT CHOICE ONE DOSE	TABLET	1.5 MG	ORAL
Progestin	NORETH-ETHINYL ESTRADIOL/IRON	GENERESS FE	TABLET, CHEWABLE	0.8-25(24)	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	ZENCHENT	TABLET	0.4-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	LEENA	TABLET	7-9-5	ORAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	AMETHIA LO	TABLET, DOSE PACK, 3 MONTHS	100-20(84)	ORAL
Progestin	NORETHINDRONE	NOR-Q-D	TABLET	0.35 MG	ORAL
Progestin	NORETHINDRONE-MESTRANOL	NECON	TABLET	1 MG-50MCG	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	MONONESSA	TABLET	0.25-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	BREVICON	TABLET	0.5-0.035	ORAL
Progestin	PROGESTERONE,MICRONIZED	CRINONE	GEL WITH PREFILLED APPLICATOR (GRAM)	4 %	VAGINAL
Progestin	PROGESTERONE,MICRONIZED	CRINONE	GEL WITH PREFILLED APPLICATOR (GRAM)	8 %	VAGINAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	NORINYL 1+35	TABLET	1 MG-35MCG	ORAL
Progestin	NORETHINDRONE-MESTRANOL	NORINYL 1+50	TABLET	1 MG-50MCG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	AMETHIA	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	TRI-NORINYL	TABLET	7-9-5	ORAL
Progestin	NORETH-ETHINYL ESTRADIOL/IRON	ZENCHENT FE	TABLET, CHEWABLE	0.4-35(21)	ORAL
Progestin	ETHYNODIOL D-ETHINYL ESTRADIOL	ZOVIA 1-35E	TABLET	1 MG-35MCG	ORAL
Progestin	ETHYNODIOL D-ETHINYL ESTRADIOL	ZOVIA 1-50E	TABLET	1 MG-50MCG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	NECON	TABLET	10-11	ORAL
Progestin	NORETHINDRONE	NORA-BE	TABLET	0.35 MG	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	LOW-OGESTREL	TABLET	0.3-0.03MG	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	OGESTREL	TABLET	0.5 MG-50	ORAL
Progestin	NORETHINDRONE	JOLIVETTE	TABLET	0.35 MG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	NECON	TABLET	7 DAYS X 3	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	CAZIAN	TABLET	7 DAYS X 3	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	ZARAH	TABLET	0.03-3MG	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	VESTURA	TABLET	0.02-3(24)	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	OVRAL-21	TABLET	0.5 MG-50	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	SOLIA	TABLET	0.15-0.03	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	CESIA	TABLET	7 DAYS X 3	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	OVRAL-28	TABLET	0.5 MG-50	ORAL
Progestin	ETHYNODIOL D-ETHINYL ESTRADIOL	DEMULEN 1-50-28	TABLET	1 MG-50MCG	ORAL
Progestin	ESTRADIOL/NORGESTIMATE	ORTHO-PREFEST	TABLET	1-1-0.09MG	ORAL
Progestin	PROGESTERONE,MICRONIZED	PROCHIEVE	GEL WITH PREFILLED APPLICATOR (GRAM)	4 %	VAGINAL
Progestin	PROGESTERONE,MICRONIZED	PROCHIEVE	GEL WITH PREFILLED APPLICATOR (GRAM)	8 %	VAGINAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	LO-OVRAL-8	TABLET	0.3-0.03MG	ORAL
Progestin	NORGESTREL-ETHINYL ESTRADIOL	NORGESTREL-ETHINY ESTRA	TABLET	0.5 MG-50	ORAL
Progestin	PROGESTERONE,MICRONIZED	ENDOMETRIN	INSERT	100 MG	VAGINAL
Progestin	LEVONORGESTREL	OPCON ONE-STEP	TABLET	1.5 MG	ORAL
Progestin	LEVONORGESTREL	LEVONORGESTREL	TABLET	1.5 MG	ORAL
Progestin	HYDROXYPROGESTERONE CAPROATE	MAKENA	VIAL (ML)	250 MG/ML	INTRAMUSCULAR

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Progestin	PROGESTERONE	FIRST-PROGESTERONE VGS 25	SUPPOSITORY, VAGINAL	25 MG	VAGINAL
Progestin	PROGESTERONE	FIRST-PROGESTERONE VGS 50	SUPPOSITORY, VAGINAL	50 MG	VAGINAL
Progestin	PROGESTERONE	FIRST-PROGESTERONE VGS 100	SUPPOSITORY, VAGINAL	100 MG	VAGINAL
Progestin	PROGESTERONE	FIRST-PROGESTERONE VGS 200	SUPPOSITORY, VAGINAL	200 MG	VAGINAL
Progestin	PROGESTERONE	FIRST-PROGESTERONE VGS 400	SUPPOSITORY, VAGINAL	400 MG	VAGINAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	DAYSEE	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	LEVONORG-ETH ESTRAD ETH ESTRAD	TABLET, DOSE PACK, 3 MONTHS	100-20(84)	ORAL
Progestin	LEVONORGESTREL	FALLBACK SOLO	TABLET	1.5 MG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	VYFEMLA	TABLET	0.4-0.035	ORAL
Progestin	NORETHINDRONE	JENCYCLA	TABLET	0.35 MG	ORAL
Progestin	DESOGESTREL-ETHINYL ESTRADIOL	ENSKYCE	TABLET	0.15-0.03	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	NIKKI	TABLET	0.02-3(24)	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	PIRMELLA	TABLET	7 DAYS X 3	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	PIRMELLA	TABLET	1 MG-35MCG	ORAL
Progestin	NORETH-ETHINYL ESTRADIOL/IRON	NORETHINDRONE-ETHIN ESTRADIOL	TABLET, CHEWABLE	0.4-35(21)	ORAL
Progestin	NORETH-ETHINYL ESTRADIOL/IRON	WYMZYA FE	TABLET, CHEWABLE	0.4-35(21)	ORAL
Progestin	ETHINYL ESTRADIOL/DROSPIRENONE	DROSPIRENONE-ETHINYL ESTRADIOL	TABLET	0.03-3MG	ORAL
Progestin	NORETHINDRONE	HEATHER	TABLET	0.35 MG	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	NORGESTIMATE-ETHINYL ESTRADIOL	TABLET	0.25-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	BRIELLYN	TABLET	0.4-0.035	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	ALYACEN	TABLET	1 MG-35MCG	ORAL
Progestin	NORETHINDRONE-ETHINYL ESTRAD	ALYACEN	TABLET	7 DAYS X 3	ORAL
Progestin	NORGESTIMATE-ETHINYL ESTRADIOL	NORGESTIMATE-ETHINYL ESTRADIOL	TABLET	7DAYSX3 28	ORAL
Progestin	L-NORGEST-ETH ESTR/ETHIN ESTRA	ASHLYNA	TABLET, DOSE PACK, 3 MONTHS	150-30(84)	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Progestin	ESTRADIOL/NORETHINDRONE ACET	LOPREEZA	TABLET	1 MG-0.5MG	ORAL
Progestin	ESTRADIOL/NORETHINDRONE ACET	LOPREEZA	TABLET	0.5-0.1MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	PROZAC WEEKLY	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	90 MG	ORAL
SSRI and SNRIs	DULOXETINE HCL	CYMBALTA	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
SSRI and SNRIs	DULOXETINE HCL	CYMBALTA	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	60 MG	ORAL
SSRI and SNRIs	DULOXETINE HCL	CYMBALTA	CAPSULE,DELAYED RELEASE (ENTERIC COATED)	30 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	EFFEXOR	TABLET	25 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	EFFEXOR	TABLET	50 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	EFFEXOR	TABLET	75 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	EFFEXOR	TABLET	100 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	EFFEXOR	TABLET	37.5 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	EFFEXOR XR	CAPSULE, EXT RELEASE 24 HR	75 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	EFFEXOR XR	CAPSULE, EXT RELEASE 24 HR	150 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	EFFEXOR XR	CAPSULE, EXT RELEASE 24 HR	37.5 MG	ORAL
SSRI and SNRIs	DESVENLAFAXINE SUCCINATE	PRISTIQ ER	TABLET, EXTENDED RELEASE 24 HR	50 MG	ORAL
SSRI and SNRIs	DESVENLAFAXINE SUCCINATE	PRISTIQ ER	TABLET, EXTENDED RELEASE 24 HR	100 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAXIL CR	TABLET, EXTENDED RELEASE 24 HR	12.5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
SSRI and SNRIs	PAROXETINE HCL	PAXIL CR	TABLET, EXTENDED RELEASE 24 HR	25 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAXIL CR	TABLET, EXTENDED RELEASE 24 HR	37.5 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAXIL	TABLET	10 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAXIL	TABLET	20 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAXIL	TABLET	30 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAXIL	TABLET	40 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAXIL	SUSPENSION, ORAL (FINAL DOSE FORM)	10 MG/5 ML	ORAL
SSRI and SNRIs	SERTRALINE HCL	ZOLOFT	TABLET	50 MG	ORAL
SSRI and SNRIs	SERTRALINE HCL	ZOLOFT	TABLET	100 MG	ORAL
SSRI and SNRIs	SERTRALINE HCL	ZOLOFT	CONCENTRATE, ORAL	20 MG/ML	ORAL
SSRI and SNRIs	SERTRALINE HCL	ZOLOFT	TABLET	25 MG	ORAL
SSRI and SNRIs	SERTRALINE HCL	SERTRALINE HCL	TABLET	25 MG	ORAL
SSRI and SNRIs	SERTRALINE HCL	SERTRALINE HCL	TABLET	50 MG	ORAL
SSRI and SNRIs	SERTRALINE HCL	SERTRALINE HCL	TABLET	100 MG	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CITALOPRAM HBR	SOLUTION, ORAL	10 MG/5 ML	ORAL
SSRI and SNRIs	FLUVOXAMINE MALEATE	FLUVOXAMINE MALEATE	TABLET	50 MG	ORAL
SSRI and SNRIs	FLUVOXAMINE MALEATE	FLUVOXAMINE MALEATE	TABLET	100 MG	ORAL
SSRI and SNRIs	FLUVOXAMINE MALEATE	FLUVOXAMINE MALEATE	TABLET	25 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL	TABLET	25 MG	ORAL
SSRI and SNRIs	NEFAZODONE HCL	NEFAZODONE HCL	TABLET	100 MG	ORAL
SSRI and SNRIs	NEFAZODONE HCL	NEFAZODONE HCL	TABLET	200 MG	ORAL
SSRI and SNRIs	NEFAZODONE HCL	NEFAZODONE HCL	TABLET	250 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	FLUOXETINE HCL	CAPSULE	10 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	FLUOXETINE HCL	CAPSULE	20 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	FLUOXETINE HCL	CAPSULE	40 MG	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CITALOPRAM HBR	TABLET	10 MG	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CITALOPRAM HBR	TABLET	20 MG	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CITALOPRAM HBR	TABLET	40 MG	ORAL
SSRI and SNRIs	ESCITALOPRAM OXALATE	ESCITALOPRAM OXALATE	TABLET	5 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
SSRI and SNRIs	ESCITALOPRAM OXALATE	ESCITALOPRAM OXALATE	TABLET	10 MG	ORAL
SSRI and SNRIs	ESCITALOPRAM OXALATE	ESCITALOPRAM OXALATE	TABLET	20 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	FLUOXETINE HCL	SOLUTION, ORAL	20 MG/5 ML	ORAL
SSRI and SNRIs	NEFAZODONE HCL	NEFAZODONE HCL	TABLET	150 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAROXETINE HCL	TABLET	10 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAROXETINE HCL	TABLET	20 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAROXETINE HCL	TABLET	30 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAROXETINE HCL	TABLET	40 MG	ORAL
SSRI and SNRIs	NEFAZODONE HCL	NEFAZODONE HCL	TABLET	50 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	FLUOXETINE HCL	TABLET	10 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	SELFEMRA	CAPSULE	10 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	SELFEMRA	CAPSULE	20 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL	TABLET	37.5 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL	TABLET	50 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL	TABLET	75 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL	TABLET	100 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL ER	CAPSULE, EXT RELEASE 24 HR	37.5 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL ER	CAPSULE, EXT RELEASE 24 HR	75 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL ER	CAPSULE, EXT RELEASE 24 HR	150 MG	ORAL
SSRI and SNRIs	DULOXETINE HCL	DULOXETINE HCL	CAPSULE, DELAYED RELEASE (ENTERIC COATED)	20 MG	ORAL
SSRI and SNRIs	DULOXETINE HCL	DULOXETINE HCL	CAPSULE, DELAYED RELEASE (ENTERIC COATED)	30 MG	ORAL
SSRI and SNRIs	DULOXETINE HCL	DULOXETINE HCL	CAPSULE, DELAYED RELEASE (ENTERIC COATED)	60 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL ER	TABLET, EXTENDED RELEASE 24 HR	37.5 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL ER	TABLET, EXTENDED RELEASE 24 HR	75 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL ER	TABLET, EXTENDED RELEASE 24 HR	150 MG	ORAL
SSRI and SNRIs	VENLAFAXINE HCL	VENLAFAXINE HCL ER	TABLET, EXTENDED RELEASE 24 HR	225 MG	ORAL
SSRI and SNRIs	FLUVOXAMINE MALEATE	FLUVOXAMINE MALEATE ER	CAPSULE, EXT RELEASE 24 HR	100 MG	ORAL
SSRI and SNRIs	FLUVOXAMINE MALEATE	FLUVOXAMINE MALEATE ER	CAPSULE, EXT RELEASE 24 HR	150 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	PROZAC	CAPSULE	20 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	PROZAC	CAPSULE	10 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	FLUOXETINE HCL	TABLET	20 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAROXETINE HCL	TABLET, EXTENDED RELEASE 24 HR	12.5 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAROXETINE HCL	TABLET, EXTENDED RELEASE 24 HR	25 MG	ORAL
SSRI and SNRIs	PAROXETINE HCL	PAROXETINE HCL	TABLET, EXTENDED RELEASE 24 HR	37.5 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	SARAFEM	TABLET	10 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	SARAFEM	TABLET	15 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	SARAFEM	TABLET	20 MG	ORAL
SSRI and SNRIs	VILAZODONE HYDROCHLORIDE	VIIBRYD	TABLET, DOSE PACK	10-20-40MG	ORAL
SSRI and SNRIs	VILAZODONE HYDROCHLORIDE	VIIBRYD	TABLET	10 MG	ORAL
SSRI and SNRIs	VILAZODONE HYDROCHLORIDE	VIIBRYD	TABLET	20 MG	ORAL
SSRI and SNRIs	VILAZODONE HYDROCHLORIDE	VIIBRYD	TABLET	40 MG	ORAL
SSRI and SNRIs	MILNACIPRAN HCL	SAVELLA	TABLET, DOSE PACK	12.5-25-50	ORAL
SSRI and SNRIs	MILNACIPRAN HCL	SAVELLA	TABLET	100 MG	ORAL
SSRI and SNRIs	MILNACIPRAN HCL	SAVELLA	TABLET	12.5 MG	ORAL
SSRI and SNRIs	MILNACIPRAN HCL	SAVELLA	TABLET	25 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
SSRI and SNRIs	MILNACIPRAN HCL	SAVELLA	TABLET	50 MG	ORAL
SSRI and SNRIs	ESCITALOPRAM OXALATE	LEXAPRO	TABLET	5 MG	ORAL
SSRI and SNRIs	ESCITALOPRAM OXALATE	LEXAPRO	TABLET	10 MG	ORAL
SSRI and SNRIs	ESCITALOPRAM OXALATE	LEXAPRO	TABLET	20 MG	ORAL
SSRI and SNRIs	ESCITALOPRAM OXALATE	LEXAPRO	SOLUTION, ORAL	5 MG/5 ML	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CELEXA	TABLET	10 MG	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CELEXA	TABLET	20 MG	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CELEXA	TABLET	40 MG	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CELEXA	SOLUTION, ORAL	10 MG/5 ML	ORAL
SSRI and SNRIs	FLUOXETINE HCL	FLUOXETINE DR	CAPSULE, DELAYED RELEASE (ENTERIC COATED)	90 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	PROZAC	CAPSULE	40 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	PROZAC	SOLUTION, ORAL	20 MG/5 ML	ORAL
SSRI and SNRIs	FLUOXETINE HCL	RAPIFLUX	TABLET	20 MG	ORAL
SSRI and SNRIs	SERTRALINE HCL	SERTRALINE HCL	CONCENTRATE, ORAL	20 MG/ML	ORAL
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CITALOPRAM HBR	SOLUTION, ORAL	20 MG/10ML	ORAL
SSRI and SNRIs	ESCITALOPRAM OXALATE	ESCITALOPRAM OXALATE	SOLUTION, ORAL	5 MG/5 ML	ORAL
SSRI and SNRIs	FLUOXETINE	FLUOXETINE HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
SSRI and SNRIs	DESVENLAFAXINE	DESVENLAFAXINE ER	TABLET, EXTENDED RELEASE 24 HR	50 MG	ORAL
SSRI and SNRIs	DESVENLAFAXINE	DESVENLAFAXINE ER	TABLET, EXTENDED RELEASE 24 HR	100 MG	ORAL
SSRI and SNRIs	DESVENLAFAXINE	KHEDEZLA	TABLET, EXTENDED RELEASE 24 HR	50 MG	ORAL
SSRI and SNRIs	DESVENLAFAXINE	KHEDEZLA	TABLET, EXTENDED RELEASE 24 HR	100 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL	FLUOXETINE HCL	TABLET	60 MG	ORAL
SSRI and SNRIs	SERTRALINE HCL	SERTRALINE HCL	POWDER (GRAM)	98 %	MISCELLANEOUS
SSRI and SNRIs	DULOXETINE HCL	DULOXETINE HCL	POWDER (GRAM)	100 %	MISCELLANEOUS
SSRI and SNRIs	CITALOPRAM HYDROBROMIDE	CITALOPRAM	SOLUTION, ORAL	10 MG/5 ML	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
SSRI and SNRIs	PAROXETINE HCL	PAROXETINE HCL	SUSPENSION, ORAL (FINAL DOSE FORM)	10 MG/5 ML	ORAL
SSRI and SNRIs	FLUOXETINE HCL/DIET.SUPP NO.17	GABOXETINE	CAPSULE	10 MG	ORAL
SSRI and SNRIs	FLUOXETINE HCL/DIET. SUPP NO.8	SENTROXATINE	CAPSULE	10 MG	ORAL
SSRI and SNRIs	FLUVOXAMINE MALEATE	LUVOX CR	CAPSULE, EXT RELEASE 24 HR	100 MG	ORAL
SSRI and SNRIs	FLUVOXAMINE MALEATE	LUVOX CR	CAPSULE, EXT RELEASE 24 HR	150 MG	ORAL
SSRI and SNRIs	PAROXETINE MESYLATE	PEXEVA	TABLET	10 MG	ORAL
SSRI and SNRIs	PAROXETINE MESYLATE	PEXEVA	TABLET	20 MG	ORAL
SSRI and SNRIs	PAROXETINE MESYLATE	PEXEVA	TABLET	30 MG	ORAL
SSRI and SNRIs	PAROXETINE MESYLATE	PEXEVA	TABLET	40 MG	ORAL
SSRI and SNRIs	PAROXETINE MESYLATE	BRISDELLE	CAPSULE	7.5 MG	ORAL
Statins	PITAVASTATIN CALCIUM	LIVALO	TABLET	1 MG	ORAL
Statins	PITAVASTATIN CALCIUM	LIVALO	TABLET	2 MG	ORAL
Statins	PITAVASTATIN CALCIUM	LIVALO	TABLET	4 MG	ORAL
Statins	PRAVASTATIN SODIUM	PRAVACHOL	TABLET	10 MG	ORAL
Statins	PRAVASTATIN SODIUM	PRAVACHOL	TABLET	20 MG	ORAL
Statins	PRAVASTATIN SODIUM	PRAVACHOL	TABLET	40 MG	ORAL
Statins	PRAVASTATIN SODIUM	PRAVACHOL	TABLET	80 MG	ORAL
Statins	SIMVASTATIN	ZOCOR	TABLET	80 MG	ORAL
Statins	SIMVASTATIN	ZOCOR	TABLET	5 MG	ORAL
Statins	LOVASTATIN	MEVACOR	TABLET	20 MG	ORAL
Statins	LOVASTATIN	MEVACOR	TABLET	40 MG	ORAL
Statins	SIMVASTATIN	ZOCOR	TABLET	10 MG	ORAL
Statins	SIMVASTATIN	ZOCOR	TABLET	20 MG	ORAL
Statins	SIMVASTATIN	ZOCOR	TABLET	40 MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	5 MG-10 MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	10 MG-10MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	5 MG-20 MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	10 MG-20MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	5 MG-40 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	10 MG-40MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	5 MG-80 MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	10 MG-80MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	2.5MG-10MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	2.5MG-20MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	CADUET	TABLET	2.5MG-40MG	ORAL
Statins	ATORVASTATIN CALCIUM	LIPITOR	TABLET	10 MG	ORAL
Statins	ATORVASTATIN CALCIUM	LIPITOR	TABLET	20 MG	ORAL
Statins	ATORVASTATIN CALCIUM	LIPITOR	TABLET	40 MG	ORAL
Statins	ATORVASTATIN CALCIUM	LIPITOR	TABLET	80 MG	ORAL
Statins	NIACIN/LOVASTATIN	ADVICOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	500MG-20MG	ORAL
Statins	NIACIN/LOVASTATIN	ADVICOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1000-20MG	ORAL
Statins	NIACIN/LOVASTATIN	ADVICOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1000-40 MG	ORAL
Statins	NIACIN/LOVASTATIN	ADVICOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	750MG-20MG	ORAL
Statins	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	500MG-20MG	ORAL
Statins	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	750MG-20MG	ORAL
Statins	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1000-20MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Statins	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	1000-40 MG	ORAL
Statins	NIACIN/SIMVASTATIN	SIMCOR	TABLET,EXTENDED RELEASE MULTIPHASE 24 HR	500MG-40MG	ORAL
Statins	FLUVASTATIN SODIUM	LESCOL	CAPSULE	20 MG	ORAL
Statins	FLUVASTATIN SODIUM	LESCOL	CAPSULE	40 MG	ORAL
Statins	FLUVASTATIN SODIUM	LESCOL XL	TABLET, EXTENDED RELEASE 24 HR	80 MG	ORAL
Statins	LOVASTATIN	LOVASTATIN	TABLET	20 MG	ORAL
Statins	PRAVASTATIN SODIUM	PRAVASTATIN SODIUM	TABLET	10 MG	ORAL
Statins	LOVASTATIN	LOVASTATIN	TABLET	10 MG	ORAL
Statins	LOVASTATIN	LOVASTATIN	TABLET	40 MG	ORAL
Statins	SIMVASTATIN	SIMVASTATIN	TABLET	5 MG	ORAL
Statins	SIMVASTATIN	SIMVASTATIN	TABLET	10 MG	ORAL
Statins	SIMVASTATIN	SIMVASTATIN	TABLET	20 MG	ORAL
Statins	SIMVASTATIN	SIMVASTATIN	TABLET	40 MG	ORAL
Statins	SIMVASTATIN	SIMVASTATIN	TABLET	80 MG	ORAL
Statins	PRAVASTATIN SODIUM	PRAVASTATIN SODIUM	TABLET	20 MG	ORAL
Statins	PRAVASTATIN SODIUM	PRAVASTATIN SODIUM	TABLET	40 MG	ORAL
Statins	PRAVASTATIN SODIUM	PRAVASTATIN SODIUM	TABLET	80 MG	ORAL
Statins	FLUVASTATIN SODIUM	FLUVASTATIN SODIUM	CAPSULE	20 MG	ORAL
Statins	FLUVASTATIN SODIUM	FLUVASTATIN SODIUM	CAPSULE	40 MG	ORAL
Statins	ATORVASTATIN CALCIUM	ATORVASTATIN CALCIUM	TABLET	80 MG	ORAL
Statins	ROSUVASTATIN CALCIUM	CRESTOR	TABLET	10 MG	ORAL
Statins	ROSUVASTATIN CALCIUM	CRESTOR	TABLET	20 MG	ORAL
Statins	ROSUVASTATIN CALCIUM	CRESTOR	TABLET	40 MG	ORAL
Statins	ROSUVASTATIN CALCIUM	CRESTOR	TABLET	5 MG	ORAL
Statins	ATORVASTATIN CALCIUM	ATORVASTATIN CALCIUM	TABLET	10 MG	ORAL
Statins	ATORVASTATIN CALCIUM	ATORVASTATIN CALCIUM	TABLET	20 MG	ORAL
Statins	ATORVASTATIN CALCIUM	ATORVASTATIN CALCIUM	TABLET	40 MG	ORAL

Appendix F. Generic and Brand Names Used to Define Drug Covariates in this Request

Covariate	Description/Generic Name	Brand Name	Form	Strength	Route
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	2.5MG-10MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	2.5MG-20MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	2.5MG-40MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	5 MG-10 MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	5 MG-20 MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	5 MG-40 MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	5 MG-80 MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	10 MG-10MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	10 MG-20MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	10 MG-40MG	ORAL
Statins	AMLODIPINE/ATORVASTATIN	AMLODIPINE-ATORVASTATIN	TABLET	10 MG-80MG	ORAL
Statins	EZETIMIBE/SIMVASTATIN	VYTORIN	TABLET	10 MG-40MG	ORAL
Statins	EZETIMIBE/SIMVASTATIN	VYTORIN	TABLET	10 MG-20MG	ORAL
Statins	EZETIMIBE/SIMVASTATIN	VYTORIN	TABLET	10 MG-10MG	ORAL
Statins	EZETIMIBE/SIMVASTATIN	VYTORIN	TABLET	10 MG-80MG	ORAL
Statins	SIMVASTATIN	SIMVASTATIN	POWDER (GRAM)	100 %	MISCELLANEOUS
Statins	LOVASTATIN	ALTOPREV	TABLET, EXTENDED RELEASE 24 HR	60 MG	ORAL
Statins	LOVASTATIN	ALTOPREV	TABLET, EXTENDED RELEASE 24 HR	40 MG	ORAL
Statins	LOVASTATIN	ALTOPREV	TABLET, EXTENDED RELEASE 24 HR	20 MG	ORAL
Statins	EZETIMIBE/ATORVASTATIN CALCIUM	LIPTRUZET	TABLET	10 MG-10MG	ORAL
Statins	EZETIMIBE/ATORVASTATIN CALCIUM	LIPTRUZET	TABLET	10 MG-20MG	ORAL
Statins	EZETIMIBE/ATORVASTATIN CALCIUM	LIPTRUZET	TABLET	10 MG-40MG	ORAL
Statins	EZETIMIBE/ATORVASTATIN CALCIUM	LIPTRUZET	TABLET	10 MG-80MG	ORAL

Appendix G. Specifications for to16_cap_mpl2r_wp005_nsdp_v01, Report 2 of 8

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

Enrollment Gap:	45 days
Age Groups:	21-44, 45-64, 65-74, 75-84, 85+ years
Query Period:	November 1, 2010 to December 31, 2013
Coverage Requirement:	Medical and Drug Coverage
Enrollment Requirement:	365 days

		Exposure of Interest	Comparator of Interest
		Dabigatran	Warfarin
Drug/ Exposure:	Incident w/ respect to:	Apixaban, Dabigatran, Rivaroxaban, and Warfarin	Apixaban, Dabigatran, Rivaroxaban, and Warfarin
	Washout (days)	365	365
	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
Inclusion/ Exclusion:	Episode Truncation by Incident Exposure	Yes	Yes
	Criterion	Atrial Fibrillation/Flutter	Atrial Fibrillation/Flutter
	Include or Exclude	Include	Include
	Lookback Start	-365	-365
	Lookback End	0	0
Inclusion/ Exclusion:	Care Setting/PDX	Any	Any
	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	-365	-365
	Lookback End	0	0
Event/ Outcome:	Care Setting/PDX	See Appendix B	See Appendix B
	Event/ Outcome	Gastrointestinal Hemorrhage	Gastrointestinal Hemorrhage
	Care Setting/PDX	IPP	IPP
	Incident w/ respect to:	Gastrointestinal Hemorrhage	Gastrointestinal Hemorrhage
Propensity Score Match (PSM) Analysis:	Washout (days)	0	0
	PSM Ratio		1:1
	PSM Caliper		0.025, 0.050
	Covariate evaluation window (days)		365
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 Edition, 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 Revision (CPT-4) codes checked against "Optum 2012 Current Procedure Codes & Relative Values Data File"