### Table S1. Systemic Antihypertensive Medication Classes and Common Generic and Brand Names

| #  | Antihypertensive medication classes | Generic Name (GNN) | Brand Name (BN) |
|----|------------------------------------|--------------------|-----------------|
| 1  | Aldosterone antagonists †           | Eplerenone         | Inspra          |
|    |                                    | Spironolactone     | Aldactone, Carospir, Aldactazide † |
| 2  | Alpha 1 adrenergic receptor agonist (selective; α-blocker) | **Doxazosin [Step 1 in ALLHAT]** | Cardura (XL) |
|    |                                    | Prazosin           | Minipress, Prazin, Prazo |
|    |                                    | Terazosin          | Hytrin          |
| 3  | Angiotensin-converting enzyme (ACE) inhibitor | Benazepril | Lotensin, Lotensin HCT ‡, Lotrel ‡ |
|    |                                    | Captopril          | Capoten, Captoril, Capozide † |
|    |                                    | Enalapril          | Vasotec, Enalaprilat, Epaned, Lexxel ‡§, Vaseretic ‡ |
|    |                                    | Fosinopril         | Monopril        |
|    |                                    | **Lisinopril [Step I]** | Prinivil, Qbrelis, Zestril, Zestoretic ‡ |
|    |                                    | Moexipril          | Univasc, Uniretic ‡ |
|    |                                    | Perindopril        | Aceon, Prestalia ‡ |
|    |                                    | Quinapril          | Accupril, Accuretic ‡ |
|    |                                    | Ramipril           | Altace          |
|    |                                    | Trandolapril       | Mavik, Tarka ‡ |
| 4  | Angiotensin II receptor blockers (ARB) | Azilsartan | Edarbi, Edarbychlor ‡ |
|    |                                    | Candesartan        | Atacand, Atacand HCT ‡ |
|    |                                    | Eprosartan         | Teveten, Teveten HCT ‡, Teveten Plus ‡ |
|    |                                    | Irbesartan         | Avapro, Avidale ‡ |
|    |                                    | Losartan           | Cozaar, Hyzaar ‡ |
|    |                                    | Olmesartan         | Benicar, Azor ‡, Benicar HCT ‡, Tribenzor ‡ |
|    |                                    | Telmisartan        | Micardis, Micardis HCT ‡, Micardis Plus ‡, Twynsta ‡ |
|    |                                    | Valsartan          | Diovan, Prexxartan ‡, Byvalson ‡, Diovan HCT ‡, Exforge HCT ‡, Entresto ‡, Valtuma ‡ |
| 5  | Arteriolar vasodilators            | **Hydralazine [Step 3 in ALLHAT]** | - , Hydra-zide ‡, **BiDil** |
|    |                                    | Minoxidil          | Loniten, Minodyl, Minoxidil HTN |
| 6  | Autonomic ganglionic vasodilators | Mecamylamine       | -              |
| 7  | Beta adrenergic blockers (β-blockers) | Acebutolol       | Sectral        |
|    |                                    | **Atenolol [Step 2 in ALLHAT]** | Tenormin, Tenoretic ‡ |
|    |                                    | Betaxolol          | Kerlone        |
|    |                                    | Bisoprolol         | Monocor, Zebeta, Ziac ‡ |
|    |                                    | Carvedilol {also with α1 properties} | Coreg, Coreg CR |
|    |                                    | Labetalol {also with α1 properties} | Trandate        |
|    |                                    | Metoprolol         | Kapspargo Sprinkle, Lopressor, Toprol XL, Dutoprol ‡, Lopressor HCT ‡ |
|    |                                    | Nadolol            | Corgard, Corzide ‡ |
|    |                                    | Nebivolol          | Bystolic, Byvalson ‡ |
|    |                                    | Pindolol           | Visken         |
|    |                                    | Propranolol        | Inderal, Inderal LA, InnoPram XL, Inderide ‡ |
**8 Calcium channel blocker (CCB)-dihydropyridine**

| Amlodipine [Step I] |
|---------------------|
| Felodipine          |
| Isradipine          |
| Nicardipine         |
| Nifedipine          |
| Nisoldipine         |

Norvasc, Amturnide‡, Azor‡, Exforge HCT‡, Lotrel‡, Prestalia‡, Tekamlo‡, Tribenzor‡, Twynsta‡

Caberg, Cardioplen XL, Felendil XL, Felogen XL, Felotens XL, Keloc SR, Neofel XL, Plendi, Renedil, Vascalpha, Lexxel§

Cardene, Cardene SR

Adalat, Adalat CC, Afeditab CR, Nifedi CC, Nifedical XL, Procardia, Procardia XL Sular

**9 Calcium channel blocker – non-dihydropyridine**

| Diltiazem            |
|----------------------|
| Verapamil            |

Cardizem, Cardizem CD, Cardizem LA, Cartia XT, Dilacor, Dilacor XR, Dilatrate, Diltazem, Diltiazem CD, Diltia XT, Diltiaz, Diltiaz CD, Diltiaz SR, Diltzac, Taztia, Tiazac

Calan, Calan HS, Calan SR, Covera HS, Isoptin, Isoptin SR, Verelan, Verelan PM, Tarka‡

**10 Central alpha 2 adrenergic agonists**

| Clonidine [Step 2] |
|---------------------|
| Guanfacine          |
| Methyldopa          |

Catapres, Jenloga, Kapvay, Nexiclon XR, Clorpres‡

Intuniv, Tenex

**11 Diuretics: thiazide**

| Bendroflumethiazide |
|---------------------|
| Chlorothiazide      |
| Hydrochlorothiazide |

Naturetin§, NeoNaCllex§, Urizide§, Corzide‡

Diuril, Tekturna HCT‡

Microzide, Accuretic‡, Aldactazide‡, Atacand HCT‡, Avalide‡, Benicar HCT‡, Capozi‡, Corzide‡, Dutropl‡, Exforge HCT‡

Hydra-izide‡, Hyzaar‡, Inderide‡, Lopressor HCT‡, Lotensin HCT‡, Maxide‡, Micards HCT‡, Micards Plus‡, Moduretic‡, Teveten HCT‡, Teveten Plus‡, Tribenzor‡, Uniretic‡, Vaseretic‡, Zestoretic‡, Ziac‡

**Diuretics: thiazide-type**

| Indapamide |
|------------|
| Metolazone |

Hygroton, Thalitone, Chlorthalid, Clorpres‡, Edarbychlor‡, Tenoretic‡

Zaroxolyn

**Diuretics: loop**

| Bumetanide |
|------------|
| Furosemide |
| Torsemide  |

Bumex, Burinex

Lasix

Demadex

**Diuretics: potassium-sparing†**

| Amiloride |
|-----------|
| Triamterene |

Midamor, Moduretic‡

Dyrenium, Dyazide, Maxide‡

**12 Peripheral adrenergic neuron antagonist†**

| Reserpine [Step 2] |
|---------------------|
| Serpasil           |

**13 Renin inhibitors**

| Aliskiren |
|-----------|

Tekturna, Tekturna HCT‡, Teklamo‡, Amturnide‡, Valturin‡

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1Not used alone/used in combination for chronic hypertension treatment
2Combination medication also listed in another class
3Currently discontinued in the US but in use during ALLHAT
| ICD-10 Codes | Description | ICD-9 Codes | Description |
|--------------|-------------|-------------|-------------|
| I09.81       | Rheumatic heart failure | 398.91 | Rheumatic heart failure (congestive) |
| I09.89       | Other specified rheumatic heart diseases | 398.99 | Other rheumatic heart diseases |
| I11.0        | Hypertensive heart disease with heart failure | 402.01 | Malignant hypertensive heart disease with heart failure |
| I11.0        | Hypertensive heart disease with heart failure | 402.11 | Benign hypertensive heart disease with heart failure |
| I13.0        | Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease | 404.01 | Malignant hypertensive heart and renal disease with heart failure |
| I13.2        | Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease | 404.03 | Malignant hypertensive heart and renal disease with heart failure and renal failure |
| I13.0        | Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease | 404.11 | Benign hypertensive heart and renal disease with heart failure |
| I13.2        | Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease | 404.13 | Benign hypertensive heart and renal disease with heart failure and renal failure |
| I13.0        | Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease | 404.91 | Unspecified hypertensive heart and renal disease with heart failure |
| I13.2        | Hypertensive heart and chronic kidney disease with heart failure and with stage 5 chronic kidney disease, or end stage renal disease | 404.93 | Unspecified hypertensive heart and renal disease with heart failure and renal failure |
| I26.09       | Other pulmonary embolism with acute cor pulmonale | 415 | Acute pulmonary heart disease |
| I40.9        | Acute myocarditis, unspecified | 422.90 | Acute myocarditis, unspecified |
| I42.5        | Other restrictive cardiomyopathy | 425.4 | Other primary cardiomyopathies |
| I42.7        | Cardiomyopathy due to drug and external agent | 425.9 | Secondary cardiomyopathy, unspecified |
| I50          | Heart failure | 428 | Heart failure |
### Table S2b. ICD-9 and ICD-10 Codes for Ischemic heart disease, or coronary heart disease (CHD) or coronary artery disease

| ICD-10 Codes | Description | ICD-9 Codes | Description |
|--------------|-------------|-------------|-------------|
| I21.x        | Acute myocardial infarction | 410.x | Acute myocardial infarction |
| I24.x        | Other acute and subacute forms of ischemic heart disease | 411.x | Other acute and subacute forms of ischemic heart disease |
| I25.2        | Old myocardial infarction | 412.x | Old myocardial infarction |
| I20.x        | Angina pectoris | 413.x | Angina pectoris |
| I25.x        | Other forms of chronic ischemic heart disease | 414.x | Other forms of chronic ischemic heart disease |

### Table S2c. ICD-9 and ICD-10 Codes for Cerebrovascular Disease or Stroke

| ICD-10 Codes | Description | ICD-9 Codes | Description |
|--------------|-------------|-------------|-------------|
| I60.x        | Nontraumatic subarachnoid hemorrhage, unspecified | 430.x | Subarachnoid hemorrhage |
| I61.x        | Nontraumatic intracerebral hemorrhage, unspecified | 431.x | Intracerebral hemorrhage |
| I62.x        | Nontraumatic extradural hemorrhage | 432.x | Other and unspecified intracranial hemorrhage |
| I65.x        | Occlusion and stenosis of ‘various’ artery | 433.x | Occlusion and stenosis of precerebral arteries |
| I66.x        | Occlusion and stenosis of ‘various’ cerebral artery | 434.x | Occlusion of cerebral arteries |
| G45.x        | Other transient cerebral ischemic attacks and related syndromes | 435.x | Transient cerebral ischemia |
| I67.89       | Other cerebrovascular disease | 436.x | Acute, but ill-defined, cerebrovascular disease |
| I67.x        | Cerebral atherosclerosis, or Cerebrovascular disease, unspecified | 437.x | Other and ill-defined cerebrovascular disease |
| I69.x        | Unspecified sequelae of unspecified cerebrovascular disease | 438.x | Late effects of cerebrovascular disease |
Table S2d. ICD-9 and ICD-10 Codes for Cancer

| ICD-10 Codes | Description                                           | ICD-9 Codes | Description               |
|--------------|-------------------------------------------------------|-------------|---------------------------|
| C00          | Malignant neoplasm of lip                             | 140         | MALIGNANT NEOPLASM LIP    |
| C000         | MALIGNANT NEOPLASM OF EXTERNAL UPPER LIP              | 1400        | MAL NEO UPPER VERMILION   |
| C001         | MALIGNANT NEOPLASM OF EXTERNAL LOWER LIP              | 1401        | MAL NEO LOWER VERMILION   |
| C003         | MALIGNANT NEOPLASM OF UPPER LIP, INNER ASPECT         | 1403        | MAL NEO UPPER LIP, INNER  |
| C004         | MALIGNANT NEOPLASM OF LOWER LIP, INNER ASPECT         | 1404        | MAL NEO LOWER LIP, INNER  |
| C005         | MALIGNANT NEOPLASM OF LIP, UNSPECIFIED, INNER ASPECT | 1405        | MAL NEO LIP, INNER NOS    |
| C006         | MALIGNANT NEOPLASM OF COMMISURE OF LIP, UNSPECIFIED   | 1406        | MAL NEO LIP, COMMISURE    |
| C008         | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF LIP        | 1408        | MAL NEO LIP NEC           |
| C002         | MALIGNANT NEOPLASM OF EXTERNAL LIP, UNSPECIFIED       | 1409        | MAL NEO LIP/VERMIL NOS    |
| C029         | MALIGNANT NEOPLASM OF TONGUE, UNSPECIFIED             | 141         | MALIG NEO TONGUE          |
| C01          | MALIGNANT NEOPLASM OF BASE OF TONGUE                 | 1410        | MAL NEO TONGUE BASE       |
| C020         | MALIGNANT NEOPLASM OF DORSAL SURFACE OF TONGUE        | 1411        | MAL NEO DORSAL TONGUE     |
| C021         | MALIGNANT NEOPLASM OF BORDER OF TONGUE                | 1412        | MAL NEO TIP/LAT TONGUE    |
| C022         | MALIGNANT NEOPLASM OF VENTRAL SURFACE OF TONGUE       | 1413        | MAL NEO VENTRAL TONGUE    |
| C023         | MALIGNANT NEOPLASM OF ANTERIOR TWO-THIRDS OF TONGUE, PART UNSPECIFIED | 1414 | MAL NEO ANT 2/3 TONGUE |
| C028         | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF TONGUE     | 1415        | MAL NEO TONGUE JUNCTION   |
| C024         | MALIGNANT NEOPLASM OF LINGUAL TONSIL                  | 1416        | MAL NEO LINGUAL TONSIL    |
| C028         | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF TONGUE     | 1418        | MALIG NEO TONGUE NEC      |
| C029         | MALIGNANT NEOPLASM OF TONGUE, UNSPECIFIED             | 1419        | MALIG NEO TONGUE NOS      |
| C089         | MALIGNANT NEOPLASM OF MAJOR SALIVARY GLAND, UNSPECIFIED | 142         | MAL NEO MAJOR SALIVARY    |
| C07          | MALIGNANT NEOPLASM OF PAROTID GLAND                   | 1420        | MALIG NEO PAROTID         |
| C080         | MALIGNANT NEOPLASM OF SUBMANDIBULAR GLAND             | 1421        | MALIG NEO SUBMANDIBULAR   |
| C081         | MALIGNANT NEOPLASM OF SUBLINGUAL GLAND                | 1422        | MALIG NEO SUBLINGUAL      |
| C088         | MALIGNANT NEOPLASM OF MAJOR SALIVARY GLAND, UNSPECIFIED | 1428        | MAL NEO MAJ SALIVARY NEC  |
| C089         | MALIGNANT NEOPLASM OF MAJOR SALIVARY GLAND, UNSPECIFIED | 1429        | MAL NEO SALIVARY NOS      |
| C03          | Malignant neoplasm of gum                             | 143         | MALIGNANT NEOPLASM GUM    |
| C030         | MALIGNANT NEOPLASM OF UPPER GUM                       | 1430        | MALIG NEO UPPER GUM       |
| C031         | MALIGNANT NEOPLASM OF LOWER GUM                       | 1431        | MALIG NEO LOWER GUM       |
| C039         | MALIGNANT NEOPLASM OF GUM, UNSPECIFIED                | 1438        | MALIG NEO GUM NEC         |
| C039         | MALIGNANT NEOPLASM OF GUM, UNSPECIFIED                | 1439        | MALIG NEO GUM NOS         |
| C04          | Malignant neoplasm of floor of mouth                  | 144         | MALIG NEO MOUTH FLOOR     |
| C040         | MALIGNANT NEOPLASM OF ANTERIOR FLOOR OF MOUTH         | 1440        | MAL NEO ANT FLOOR MOUTH   |
| C041         | MALIGNANT NEOPLASM OF LATERAL FLOOR OF MOUTH          | 1441        | MAL NEO LAT FLOOR MOUTH   |
| C048         | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF FLOOR OF MOUTH | 1448    | MAL NEO MOUTH FLOOR NEC   |
| C049         | MALIGNANT NEOPLASM OF FLOOR OF MOUTH, UNSPECIFIED     | 1449        | MAL NEO MOUTH FLOOR NOS   |
| C06          | Malignant neoplasm of other and unspecified parts of mouth | 145         | MALIG NEO MOUTH NEC/NOS   |
| C060         | MALIGNANT NEOPLASM OF CHEEK MUCOSA                    | 1450        | MAL NEO CHEEK MUCOSA      |
| C061         | MALIGNANT NEOPLASM OF VESTIBULE OF MOUTH              | 1451        | MAL NEO MOUTH VESTIBULE   |
| Code  | Description                                                                 | Page |
|-------|------------------------------------------------------------------------------|------|
| C050  | MALIGNANT NEOPLASM OF HARD PALATE                                            | 1452 |
| C051  | MALIGNANT NEOPLASM OF SOFT PALATE                                            | 1453 |
| C052  | MALIGNANT NEOPLASM OF UVULA                                                  | 1454 |
| C059  | MALIGNANT NEOPLASM OF PALATE, UNSPECIFIED                                   | 1455 |
| C062  | MALIGNANT NEOPLASM OF RETROMOLAR AREA                                        | 1456 |
| C0689 | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF OTHER PARTS OF MOUTH              | 1458 |
| C069  | MALIGNANT NEOPLASM OF MOUTH, UNSPECIFIED                                    | 1459 |
| C10   | Malignant neoplasm of oropharynx                                            | 146  |
| C099  | MALIGNANT NEOPLASM OF TONSIL, UNSPECIFIED                                   | 1460 |
| C090  | MALIGNANT NEOPLASM OF TONSILLAR FOSSA                                        | 1461 |
| C091  | MALIGNANT NEOPLASM OF TONSILLAR PILLAR (ANTERIOR) (POSTERIOR)               | 1462 |
| C100  | MALIGNANT NEOPLASM OF VALLECUANA                                              | 1463 |
| C101  | MALIGNANT NEOPLASM OF ANTERIOR SURFACE OF EPIGLOTTIS                           | 1464 |
| C108  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF OROPHARYNX                         | 1465 |
| C102  | MALIGNANT NEOPLASM OF LATERAL WALL OF OROPHARYNX                             | 1466 |
| C103  | MALIGNANT NEOPLASM OF POSTERIOR WALL OF OROPHARYNX                           | 1467 |
| C109  | MALIGNANT NEOPLASM OF OROPHARYNX, UNSPECIFIED                                | 1468 |
| C109  | MALIGNANT NEOPLASM OF OROPHARYNX, UNSPECIFIED                                | 1469 |
| C11   | Malignant neoplasm of nasopharynx                                           | 147  |
| C110  | MALIGNANT NEOPLASM OF SUPERIOR WALL OF NASOPHARYNX                           | 1470 |
| C111  | MALIGNANT NEOPLASM OF POSTERIOR WALL OF NASOPHARYNX                          | 1471 |
| C112  | MALIGNANT NEOPLASM OF LATERAL WALL OF NASOPHARYNX                            | 1472 |
| C113  | MALIGNANT NEOPLASM OF ANTERIOR WALL OF NASOPHARYNX                           | 1473 |
| C118  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF NASOPHARYNX                       | 1478 |
| C119  | MALIGNANT NEOPLASM OF NASOPHARYNX, UNSPECIFIED                               | 1479 |
| C13   | Malignant neoplasm of hypopharynx                                            | 148  |
| C130  | MALIGNANT NEOPLASM OF POSTCRICOID REGION                                      | 1480 |
| C12   | MALIGNANT NEOPLASM OF PYRIFORM SINUS                                         | 1481 |
| C131  | MALIGNANT NEOPLASM OF ARYEPIGLOTTIC FOLD, HYPOPHARYNGEAL ASPECT              | 1482 |
| C132  | MALIGNANT NEOPLASM OF POSTERIOR WALL OF HYPOPHARYNX                          | 1483 |
| C138  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF HYPOPHARYNX                       | 1488 |
| C139  | MALIGNANT NEOPLASM OF HYPOPHARYNX, UNSPECIFIED                               | 1489 |
| C14   | Malignant neoplasm of other and ill-defined sites in the lip, oral cavity, and pharynx | 149  |
| C140  | MALIGNANT NEOPLASM OF PHARYNX, UNSPECIFIED                                   | 1490 |
| C142  | MALIGNANT NEOPLASM OF WALDEYER'S RING                                         | 1491 |
| C148  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF LIP, ORAL CAVITY AND PHARYNX      | 1498 |
| C148  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF LIP, ORAL CAVITY AND PHARYNX      | 1499 |
| C15   | Malignant neoplasm of esophagus                                              | 150  |
| C150  | MALIGNANT NEOPLASM OF UPPER THIRD OF ESOPHAGUS                               | 1500 |
| C151  | MALIGNANT NEOPLASM OF MIDDLE THIRD OF ESOPHAGUS                              | 1501 |
| C152  | MALIGNANT NEOPLASM OF LOWER THIRD OF ESOPHAGUS                               | 1502 |
| C153  | MALIGNANT NEOPLASM OF UPPER THIRD OF ESOPHAGUS                               | 1503 |
| C154  | MALIGNANT NEOPLASM OF MIDDLE THIRD OF ESOPHAGUS                              | 1504 |
| C155  | MALIGNANT NEOPLASM OF LOWER THIRD OF ESOPHAGUS                               | 1505 |
| Code  | Description                                                                 | Page | Code  | Description                                                                 |
|-------|------------------------------------------------------------------------------|------|-------|------------------------------------------------------------------------------|
| C158  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF ESOPHAGUS                          | 1508 | MAL NEO ESOPHAGUS NEC                                                        |
| C159  | MALIGNANT NEOPLASM OF ESOPHAGUS, UNSPECIFIED                                | 1509 | MAL NEO ESOPHAGUS NOS                                                        |
| C16   | Malignant neoplasm of stomach                                                | 151  | MALIG NEO STOMACH CARDIA                                                     |
| C160  | MALIGNANT NEOPLASM OF CARDIA                                                 | 1510 | MAL NEO STOMACH CARDIA                                                       |
| C164  | MALIGNANT NEOPLASM OF PYLORUS                                                | 1511 | MALIG NEO PYLORUS                                                           |
| C163  | MALIGNANT NEOPLASM OF PYLORIC ANTRUM                                        | 1512 | MAL NEO PYLORIC ANTRUM                                                      |
| C161  | MALIGNANT NEOPLASM OF FUNDUS OF STOMACH                                      | 1513 | MAL NEO STOMACH FUNDUS                                                       |
| C162  | MALIGNANT NEOPLASM OF BODY OF STOMACH                                        | 1514 | MAL NEO STOMACH BODY                                                        |
| C165  | MALIGNANT NEOPLASM OF LESSER CURVATURE OF STOMACH, UNSPECIFIED              | 1515 | MAL NEO STOM LESSER CURV                                                    |
| C166  | MALIGNANT NEOPLASM OF GREATER CURVATURE OF STOMACH, UNSPECIFIED              | 1516 | MAL NEO STOM GREAT CURV                                                      |
| C168  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF STOMACH                           | 1518 | MALIG NEOPL STOMACH NOS                                                     |
| C169  | MALIGNANT NEOPLASM OF STOMACH, UNSPECIFIED                                   | 1519 | MALIG NEOPL STOMACH NOS                                                     |
| C17   | Malignant neoplasm of small intestine                                        | 152  | MAL NEO SMALL BOWEL                                                          |
| C170  | MALIGNANT NEOPLASM OF DUODENUM                                               | 1520 | MALIG NEOPL DUODENUM                                                         |
| C171  | MALIGNANT NEOPLASM OF JEJUNUM                                                | 1521 | MALIG NEOPL JEJUNUM                                                         |
| C172  | MALIGNANT NEOPLASM OF ILEUM                                                  | 1522 | MALIG NEOPLASM ILEUM                                                        |
| C173  | MECKEL'S DIVERTICULUM, MALIGNANT                                             | 1523 | MAL NEO MECKEL'S DIVERT                                                     |
| C178  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF SMALL INTESTE                      | 1528 | MAL NEO SMALL BOWEL NOS                                                      |
| C179  | MALIGNANT NEOPLASM OF SMALL INTESTINE, UNSPECIFIED                           | 1529 | MAL NEO SMALL BOWEL NOS                                                      |
| C18   | Malignant neoplasm of colon                                                  | 153  | MALIG NEOPLASM COLON                                                        |
| C183  | MALIGNANT NEOPLASM OF HEPATIC FLEXURE                                        | 1530 | MAL NEO HEPATIC FLEXURE                                                     |
| C184  | MALIGNANT NEOPLASM OF TRANSVERSE COLON                                       | 1531 | MAL NEO TRANSVERSE COLON                                                    |
| C186  | MALIGNANT NEOPLASM OF DESCENDING COLON                                       | 1532 | MAL NEO DESCEND COLON                                                       |
| C187  | MALIGNANT NEOPLASM OF SIGMOID COLON                                          | 1533 | MAL NEO SIGMOID COLON                                                       |
| C180  | MALIGNANT NEOPLASM OF CECUM                                                  | 1534 | MALIG NEOPLASM CECUM                                                        |
| C181  | MALIGNANT NEOPLASM OF APPENDIX                                               | 1535 | MALIG NEO PL APPENDIX                                                       |
| C182  | MALIGNANT NEOPLASM OF ASCENDING COLON                                        | 1536 | MALIG NEO ASCEND COLON                                                      |
| C185  | MALIGNANT NEOPLASM OF SPLENIC FLEXURE                                        | 1537 | MAL NEO SPLENIC FLEXURE                                                     |
| C188  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF COLON                             | 1538 | MALIG NEO PL COLON NOS                                                      |
| C189  | MALIGNANT NEOPLASM OF COLON, UNSPECIFIED                                    | 1539 | MALIG NEO PL COLON NOS                                                      |
| C218  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF RECTUM, ANUS AND ANAL CANAL       | 154  | MALIG NEO PL RECTUM/ANUS                                                   |
| C19   | MALIGNANT NEOPLASM OF RECTOSIGMOID JUNCTION                                  | 1540 | MAL NEO RECTOSIGMOID JCT                                                    |
| C20   | MALIGNANT NEOPLASM OF RECTUM                                                 | 1541 | MALIG NEO PL RECTUM                                                         |
| C211  | MALIGNANT NEOPLASM OF ANAL CANAL                                             | 1542 | MALIG NEO PL ANAL CANAL                                                    |
| C210  | MALIGNANT NEOPLASM OF ANUS, UNSPECIFIED                                     | 1543 | MALIG NEO PL ANUS NOS                                                       |
| C218  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF RECTUM, ANUS AND ANAL CANAL       | 1548 | MAL NEO RECTUM/ANUS NOS                                                     |
| C22   | Malignant neoplasm of liver and intrahepatic bile ducts                      | 155  | MALIG NEOPL LIVER NOS                                                       |
| C228  | MALIGNANT NEOPLASM OF LIVER, PRIMARY, UNSPECIFIED AS TO TYPE                 | 1550 | MAL NEO LIVER, PRIMARY                                                      |
| C221  | INTRAHEPATIC BILE DUCT CARCINOMA                                             | 1551 | MAL NEO INTRAHEPAT DUCTS                                                    |
| C229  | MALIGNANT NEOPLASM OF LIVER, NOT SPECIFIED AS PRIMARY OR SECONDARY           | 1552 | MALIG NEO PL LIVER NOS                                                      |
| C248  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF BILIARY TRACT                     | 1556 | MAL NEO GB/EXTRAHEPAT DUCTS                                                 |
| C23   | MALIGNANT NEOPLASM OF GALLBLADDER                                            | 156  | MALIG NEO GALLBLADDER                                                       |
| C240  | MALIGNANT NEOPLASM OF EXTRAHEPATIC BILE DUCT                                 | 1561 | MAL NEO EXTRAHEPATIC DUCTS                                                  |
| C241  | MALIGNANT NEOPLASM OF AMPULLA OF VATER                                       | 1562 | MAL NEO AMPULLA OF VATER                                                   |
| Code   | Description                                                                 | Page No. | ICD-10 Code     |
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| C248   | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF BILIARY TRACT                    | 1568     | MALIG NEO BILIARY NEC |
| C249   | MALIGNANT NEOPLASM OF BILIARY TRACT, UNSPECIFIED                            | 1569     | MALIG NEO BILIARY NOS |
| C25    | Malignant neoplasm of pancreas                                             | 157      | MALIGNANT NEO PANCREAS |
| C250   | MALIGNANT NEOPLASM OF HEAD OF PANCREAS                                     | 1570     | MAL NEO PANCREAS HEAD |
| C251   | MALIGNANT NEOPLASM OF BODY OF PANCREAS                                     | 1571     | MAL NEO PANCREAS BODY |
| C252   | MALIGNANT NEOPLASM OF TAIL OF PANCREAS                                     | 1572     | MAL NEO PANCREAS TAIL |
| C253   | MALIGNANT NEOPLASM OF PANCREATIC DUCT                                       | 1573     | MAL NEO PANCREATIC DUCT |
| C254   | MALIGNANT NEOPLASM OF ENDOCRINE PANCREAS                                   | 1574     | MAL NEO ISLET LANGERHANS |
| C255   | MALIGNANT NEOPLASM OF OTHER PARTS OF PANCREAS                               | 1578     | MAL NEO PANCREAS NEC |
| C256   | MALIGNANT NEOPLASM OF PANCREAS, UNSPECIFIED                                 | 1579     | MAL NEO PANCREAS NOS |
| C257   | MALIGNANT NEOPLASM OF RETROPERITONEUM                                      | 1580     | MAL NEO RETROPERITONEUM |
| C258   | MALIGNANT NEOPLASM OF SPECIFIED PARTS OF PERITONEUM                        | 1588     | MAL NEO PERITONEUM |
| C259   | MALIGNANT NEOPLASM OF PERITONEUM, UNSPECIFIED                               | 1589     | MAL NEO PERITONEUM NOS |
| C26    | Malignant neoplasm of other and ill-defined digestive organs                | 159      | OTH MALIG NEO GI/PERITON |
| C260   | MALIGNANT NEOPLASM OF INTESTINAL TRACT, PART UNSPECIFIED                    | 1590     | MAL NEO INTESTINE NOS |
| C261   | MALIGNANT NEOPLASM OF SPLEEN                                                | 1591     | MALIGNANT NEO SPLEEN NEC |
| C262   | MALIGNANT NEOPLASM OF ILL-DEFINED SITES WITHIN THE DIGESTIVE SYSTEM         | 1598     | MAL NEO GI/INTRA-ABD NEC |
| C263   | MALIGNANT NEOPLASM OF ILL-DEFINED SITES WITHIN THE DIGESTIVE SYSTEM         | 1599     | MAL NEO GI TRACT ILL-DEF |
| C264   | Malignant neoplasm of respiratory and intrathoracic organs                 | 160      | MAL NEO NASAL CAV/SINUS |
| C265   | MALIGNANT NEOPLASM OF NASAL CAVITY                                          | 1600     | MAL NEO NASAL CAVITIES |
| C266   | MALIGNANT NEOPLASM OF MIDDLE EAR                                            | 1601     | MAL NEO MIDDLE EAR |
| C267   | MALIGNANT NEOPLASM OF MAXILLARY SINUS                                       | 1602     | MAL NEO MAXILLARY SINUS |
| C268   | MALIGNANT NEOPLASM OF ETHMOIDAL SINUS                                       | 1603     | MAL NEO ETHMOIDAL SINUS |
| C269   | MALIGNANT NEOPLASM OF FRONTAL SINUS                                        | 1604     | MAL NEO FRONTAL SINUS |
| C270   | MALIGNANT NEOPLASM OF SPHENOID SINUS                                        | 1605     | MAL NEO SPHENOID SINUS |
| C271   | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF ACCESSORY SINUSES                | 1608     | MAL NEO ACCESS SINUS NEC |
| C272   | MALIGNANT NEOPLASM OF ACCESSORY SINUS, UNSPECIFIED                          | 1609     | MAL NEO ACCESS SINUS NOS |
| C273   | Malignant neoplasm of larynx                                                | 161      | MALIGNANT NEO LARYNX |
| C274   | MALIGNANT NEOPLASM OF GLOTTIS                                               | 1610     | MALIGNANT NEO GLOTTIS |
| C275   | MALIGNANT NEOPLASM OF SUPRAGLOTTIS                                          | 1611     | MALIG NEO SUPRAGLOTTIS |
| C276   | MALIGNANT NEOPLASM OF SUBGLOTTIS                                            | 1612     | MALIG NEO SUBGLOTTIS |
| C277   | MALIGNANT NEOPLASM OF LARYNGEAN CARTILAGE                                    | 1613     | MAL NEO CARTILAGE LARYNX |
| C278   | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF LARYNX                           | 1618     | MALIGNANT NEO LARYNX NEC |
| C279   | MALIGNANT NEOPLASM OF LARYNX, UNSPECIFIED                                   | 1619     | MALIGNANT NEO LARYNX NOS |
| C28    | Malignant neoplasm of trachea and lung                                       | 162      | MAL NEO TRACHEA/LUNG* |
| C281   | Malignant neoplasm of trachea                                               | 1620     | MALIGNANT NEO TRACHEA |
| C282   | Malignant neoplasm of main bronchus                                         | 1622     | MALIG NEO MAIN BRONCHUS |
| C283   | Malignant neoplasm of upper lobe, bronchus or lung                          | 1623     | MAL NEO UPPER LOBE LUNG |
| C284   | Malignant neoplasm of middle lobe, bronchus or lung                         | 1624     | MAL NEO MIDDLE LOBE LUNG |
| C285   | Malignant neoplasm of lower lobe, bronchus or lung                          | 1625     | MAL NEO LOWER LOBE LUNG |
| C286   | Malignant neoplasm of overlapping sites of bronchus and lung                | 1628     | MAL NEO BRONCH/LUNG NEC |
| C287   | Malignant neoplasm of unspecified part of bronchus or lung                  | 1629     | MAL NEO BRONCH/LUNG NOS |
| C288   | MALIGNANT NEOPLASM OF PLEURA                                                | 163      | MALIGNANT NEOPL PLEURA |
| Code   | Description                                                                 | Page 101 | Description                                |
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| C384   | MALIGNANT NEOPLASM OF PLEURA                                                | 1630     | MAL NEO PARIETAL PLEURA                    |
| C384   | MALIGNANT NEOPLASM OF PLEURA                                                | 1631     | MAL NEO VISCERAL PLEURA                    |
| C384   | MALIGNANT NEOPLASM OF PLEURA                                                | 1638     | MALIG NEOPL PLEURA NEC                    |
| C384   | MALIGNANT NEOPLASM OF PLEURA                                                | 1639     | MALIG NEOPL PLEURA NOS                    |
| C457   | MALIGNANT NEOPLASM OF MEDIASTINUM, PART UNSPECIFIED                         | 164      | MAL NEO THYMUS/MEDIASTIN                   |
| C37    | Malignant neoplasm of thymus                                                | 1640     | MALIGNANT NEOPL THYMUS                     |
| C380   | MALIGNANT NEOPLASM OF HEART                                                  | 1641     | MALIGNANT NEOPL HEART                     |
| C361   | MALIGNANT NEOPLASM OF ANTERIOR MEDIASTINUM                                  | 1642     | MALIGNANT NEOPL THYMUS                     |
| C382   | MALIGNANT NEOPLASM OF POSTERIOR MEDIASTINUM                                 | 1643     | MALIGNANT NEOPL HEART                     |
| C388   | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF HEART, MEDIASTINUM AND PLEURA    | 1648     | MALIGNANT NEOPL THYMUS                     |
| C457   | MALIGNANT NEOPLASM OF MEDIASTINUM, PART UNSPECIFIED                         | 1649     | MALIGNANT NEOPL HEART                     |
| C39    | Malignant neoplasm of other and ill-defined sited in the respiratory system and intrathoracic organs | 165      | OTH/ILL-DEF MAL NEO RESP                   |
| C390   | MALIGNANT NEOPLASM OF UPPER RESPIRATORY TRACT, PART UNSPECIFIED             | 1650     | MALIGNANT NEOPL HEART                     |
| C399   | MALIGNANT NEOPLASM OF LOWER RESPIRATORY TRACT, PART UNSPECIFIED             | 1658     | MALIGNANT NEOPL HEART                     |
| C41    | Malignant neoplasm of bone and articular cartilage of other and unspecified sites | 170      | MALIGNANT NEOPL HEART                     |
| C410   | MALIGNANT NEOPLASM OF BONES OF SKULL AND FACE                               | 1700     | MALIGNANT NEOPL HEART                     |
| C411   | MALIGNANT NEOPLASM OF MANDIBLE                                              | 1701     | MALIGNANT NEOPL HEART                     |
| C442   | MALIGNANT NEOPLASM OF VERTEBRAL COLUMN                                       | 1702     | MALIGNANT NEOPL HEART                     |
| C443   | MALIGNANT NEOPLASM OF RIBS, STERNUM AND CLAVICLE                            | 1703     | MALIGNANT NEOPL HEART                     |
| C4000  | MALIGNANT NEOPLASM OF SCAPULA AND LONG BONES OF UNSPECIFIED UPPER LIMB      | 1704     | MALIGNANT NEOPL HEART                     |
| C4010  | MALIGNANT NEOPLASM OF SHORT BONES OF UNSPECIFIED UPPER LIMB                 | 1705     | MALIGNANT NEOPL HEART                     |
| C414   | MALIGNANT NEOPLASM OF PELVIC BONES, SACRUM AND COCCYX                       | 1706     | MALIGNANT NEOPL HEART                     |
| C4020  | MALIGNANT NEOPLASM OF LONG BONES OF UNSPECIFIED LOWER LIMB                  | 1707     | MALIGNANT NEOPL HEART                     |
| C4030  | MALIGNANT NEOPLASM OF SHORT BONES OF UNSPECIFIED LOWER LIMB                 | 1708     | MALIGNANT NEOPL HEART                     |
| C419   | MALIGNANT NEOPLASM OF BONE AND ARTICULAR CARTILAGE, UNSPECIFIED             | 1709     | MALIGNANT NEOPL HEART                     |
| C49    | Malignant neoplasm of other connective and soft tissue                      | 171      | MALIGNANT NEOPL HEART                     |
| C490   | MALIGNANT NEOPLASM OF CONNECTIVE AND SOFT TISSUE OF HEAD, FACE AND NECK     | 1710     | MALIGNANT NEOPL HEART                     |
| C4910  | MALIGNANT NEOPLASM OF CONNECTIVE AND SOFT TISSUE OF UNSPECIFIED UPPER LIMB, INCLUDING SHOULDER | 1712     | MALIGNANT NEOPL HEART                     |
| C4920  | MALIGNANT NEOPLASM OF CONNECTIVE AND SOFT TISSUE OF UNSPECIFIED LOWER LIMB, INCLUDING HIP | 1713     | MALIGNANT NEOPL HEART                     |
| C493   | MALIGNANT NEOPLASM OF CONNECTIVE AND SOFT TISSUE OF THORAX                  | 1714     | MALIGNANT NEOPL HEART                     |
| C494   | MALIGNANT NEOPLASM OF CONNECTIVE AND SOFT TISSUE OF ABDOMEN                 | 1715     | MALIGNANT NEOPL HEART                     |
| C495   | MALIGNANT NEOPLASM OF CONNECTIVE AND SOFT TISSUE OF PELVIS                  | 1716     | MALIGNANT NEOPL HEART                     |
| C496   | MALIGNANT NEOPLASM OF CONNECTIVE AND SOFT TISSUE OF TRUNK, UNSPECIFIED      | 1717     | MALIGNANT NEOPL HEART                     |
| C498   | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF CONNECTIVE AND SOFT TISSUE        | 1718     | MALIGNANT NEOPL HEART                     |
| C499   | MALIGNANT NEOPLASM OF CONNECTIVE AND SOFT TISSUE, UNSPECIFIED               | 1719     | MALIGNANT NEOPL HEART                     |
| C43    | Malignant melanoma of skin                                                  | 172      | MALIGNANT MELANOMA SKIN                   |
| C430   | MALIGNANT MELANOMA OF LIP                                                   | 1720     | MALIGNANT MELANOMA SKIN                   |
| C4310  | MALIGNANT MELANOMA OF UNSPECIFIED EYELID, INCLUDING CANTHUS                 | 1721     | MALIGNANT MELANOMA SKIN                   |
| C4320  | MALIGNANT MELANOMA OF UNSPECIFIED EAR AND EXTERNAL AURICULAR CANAL          | 1722     | MALIGNANT MELANOMA SKIN                   |
| C4330  | MALIGNANT MELANOMA OF UNSPECIFIED PART OF FACE                              | 1723     | MALIGNANT MELANOMA SKIN                   |
| C434   | MALIGNANT MELANOMA OF SCALP AND NECK                                        | 1724     | MALIGNANT MELANOMA SKIN                   |
| Code  | Description                                                                                   | Web | ICD-10 Code   |
|-------|-----------------------------------------------------------------------------------------------|----|--------------|
| C435  | Malignant melanoma of trunk                                                                   | 1725| MALIG MELANOMA TRUNK |
| C4360 | MALIGNANT MELANOMA OF UNSPECIFIED UPPER LIMB, INCLUDING SHOULDER                               | 1726| MALIG MELANOMA ARM |
| C4370 | MALIGNANT MELANOMA OF UNSPECIFIED LOWER LIMB, INCLUDING HIP                                    | 1727| MALIG MELANOMA LEG |
| C438  | MALIGNANT MELANOMA OF OVERLAPPING SITES OF SKIN                                                | 1728| MALIG MELANOMA SKIN NEC |
| C439  | MALIGNANT MELANOMA OF SKIN, UNSPECIFIED                                                        | 1729| MALIG MELANOMA SKIN NOS |
| C5091 | Malignant neoplasm of breast of unspecified site, female                                       | 174 | MALIG NEO FEMALE BREAST |
| C500  | Malignant neoplasm of nipple and areola                                                        | 1740| MALIG NEO NIPPLE |
| C50119| MALIGNANT NEOPLASM OF CENTRAL PORTION OF UNSPECIFIED FEMALE BREAST                            | 1741| MALIG NEO BREAST-CENTRAL |
| C50219| MALIGNANT NEOPLASM OF UPPER-INNER QUADRANT OF UNSPECIFIED FEMALE BREAST                       | 1742| MALIG NEO BREAST UP-INNER |
| C50319| MALIGNANT NEOPLASM OF LOWER-INNER QUADRANT OF UNSPECIFIED FEMALE BREAST                       | 1743| MALIG NEO BREAST LOW-INNER |
| C50419| MALIGNANT NEOPLASM OF UPPER-OUTER QUADRANT OF UNSPECIFIED FEMALE BREAST                       | 1744| MALIG NEO BREAST UP-OUTER |
| C50519| MALIGNANT NEOPLASM OF LOWER-OUTER QUADRANT OF UNSPECIFIED FEMALE BREAST                       | 1745| MALIG NEO BREAST LOW-OUTER |
| C50619| MALIGNANT NEOPLASM OF AXILLARY TAIL OF UNSPECIFIED FEMALE BREAST                              | 1746| MALIG NEO BREAST-AXILLARY |
| C50919| MALIGNANT NEOPLASM OF OVERLAPPING SITES OF UNSPECIFIED FEMALE BREAST                          | 1748| MALIG NEOPL BREAST NEC |
| C50929| MALIGNANT NEOPLASM OF UNSPECIFIED SITE OF UNSPECIFIED FEMALE BREAST                           | 1749| MALIG NEOPL BREAST NOS |
| C50929 | MALIGNANT NEOPLASM OF UNSPECIFIED SITE OF UNSPECIFIED MALE BREAST                            | 175 | MALIG NEO MALE BREAST |
| C50119| MALIGNANT NEOPLASM OF CENTRAL PORTION OF UNSPECIFIED FEMALE BREAST                            | 1759| MALIG NEO MALE BREAST NEC |
| C46   | NULL                                                                                          | 176 | Kaposis's sarcoma |
| C460  | KAPOSI'S SARCOMA OF SKIN                                                                      | 1760| SKIN - KAPOSI'S SARCOMA |
| C461  | KAPOSI'S SARCOMA OF SOFT TISSUE                                                                | 1761| SFT TISSUE - KPSI'S SRCMA |
| C462  | KAPOSI'S SARCOMA OF PALATE                                                                    | 1762| PALATE - KPSI'S SARCOMA |
| C464  | KAPOSI'S SARCOMA OF GASTROINTESTINAL SITES                                                     | 1763| GI SITES - KPSI'S SRCMA |
| C4650 | KAPOSI'S SARCOMA OF UNSPECIFIED LUNG                                                           | 1764| LUNG - KAPOSI'S SRCMA |
| C463  | KAPOSI'S SARCOMA OF LYMPH NODES                                                                | 1765| LYM NDS - KPSI'S SARCOMA |
| C467  | KAPOSI'S SARCOMA OF OTHER SITES                                                                | 1768| SPF STS - KPSI'S SRCMA |
| C469  | KAPOSI'S SARCOMA, UNSPECIFIED                                                                  | 1769| KAPOSI'S SARCOMA NOS |
| C55   | MALIGNANT NEOPLASM OF UTERUS, PART UNSPECIFIED                                                 | 179 | MALIG NEOPL UTERUS NOS |
| C53   | Malignant neoplasm of cervix uteri                                                             | 180 | MALIG NEOPL CERVIX UTERI* |
| C530  | MALIGNANT NEOPLASM OF ENDOCERVIX                                                               | 1800| MALIG NEO ENDOCERVIX |
| C531  | MALIGNANT NEOPLASM OF EXOCERVIX                                                                | 1801| MALIG NEO EXOCERVIX |
| C538  | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF CERVIX UTERI                                        | 1808| MALIG NEO CERVIX NEC |
| C539  | MALIGNANT NEOPLASM OF CERVIX UTERI, UNSPECIFIED                                               | 1809| MALIG NEO CERVIX UTERI NOS |
| C574  | MALIGNANT NEOPLASM OF UTERINE ADNEXA, UNSPECIFIED                                              | 183 | MAL NEO UTERINE ADNEXA* |
| C569  | MALIGNANT NEOPLASM OF UNSPECIFIED OVARY                                                        | 1830| MALIG NEO OVARY |
| C5700 | MALIGNANT NEOPLASM OF UNSPECIFIED FALLOPIAN TUBE                                               | 1832| MAL NEO FALLOPIAN TUBE |
| C5710 | MALIGNANT NEOPLASM OF UNSPECIFIED BROAD LIGAMENT                                               | 1833| MAL NEO BROAD LIGAMENT |
| C573  | MALIGNANT NEOPLASM OF PARAMETRIUM                                                              | 1834| MALIG NEO PARAMETRIUM |
| C5720 | MALIGNANT NEOPLASM OF UNSPECIFIED ROUND LIGAMENT                                               | 1835| MAL NEO ROUND LIGAMENT |
| C577  | MALIGNANT NEOPLASM OF UTERINE ADNEXA, UNSPECIFIED                                              | 1838| MAL NEO ADNEXA NEC |
| C574  | MALIGNANT NEOPLASM OF UTERINE ADNEXA, UNSPECIFIED                                              | 1839| MAL NEO ADNEXA NOS |
| C57   | Malignant neoplasm of other and unspecified female genital organs                               | 184 | MAL NEO FEM GEN NEC/NOS* |
| C52   | MALIGNANT NEOPLASM OF VAGINA                                                                   | 1840| MALIG NEOPL VAGINA |
| C510  | MALIGNANT NEOPLASM OF LABIUM MAJUS                                                             | 1841| MAL NEO LABIA MAJORA |
| C511  | MALIGNANT NEOPLASM OF LABIUM MINUS                                                             | 1842| MAL NEO LABIA MINORA |
| Code   | Description                                                                 | Page | Code   | Description                                                                 | Page |
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| C512   | MALIGNANT NEOPLASM OF CLITORIS                                               | 1843 | MALIGN NEOPL CLITORIS                                                        |      |
| C519   | MALIGNANT NEOPLASM OF VULVA, UNSPECIFIED                                    | 1844 | MALIGN NEOPL VULVA NOS                                                       |      |
| C577   | MALIGNANT NEOPLASM OF OTHER SPECIFIED FEMALE GENITAL ORGANS                 | 1848 | MAL NEO FEMALE GENIT NEC                                                      |      |
| C579   | MALIGNANT NEOPLASM OF FEMALE GENITAL ORGAN, UNSPECIFIED                     | 1849 | MAL NEO FEMALE GENIT NOS                                                      |      |
| C61    | MALIGNANT NEOPLASM OF PROSTATE                                              | 185  | MALIGN NEOPL PROSTATE                                                        |      |
| C62    | Malignant neoplasm of testis                                                | 186  | MALIGN NEOPL TESTIS*                                                         |      |
| C6200  | MALIGNANT NEOPLASM OF UNSPECIFIED UNDESCENDED TESTIS                        | 1860 | MAL NEO UNDESCEND TESTIS                                                     |      |
| C6290  | MALIGNANT NEOPLASM OF MALE GENITAL ORGAN, UNSPECIFIED                       | 187  | MAL NEO MALE GENITAL NEC                                                     |      |
| C600   | MALIGNANT NEOPLASM OF PREPUCE                                                | 1871 | MALIGN NEOPL PREPUCE                                                         |      |
| C601   | MALIGNANT NEOPLASM OF GLANS PENIS                                           | 1872 | MALIG NEO GLANS PENIS                                                        |      |
| C602   | MALIGNANT NEOPLASM OF BODY OF PENIS                                         | 1873 | MALIG NEO PENIS BODY                                                         |      |
| C609   | MALIGNANT NEOPLASM OF PENIS, UNSPECIFIED                                    | 1874 | MALIG NEO PENIS NOS                                                          |      |
| C6300  | MALIGNANT NEOPLASM OF UNSPECIFIED EPIDIDYMIS                                 | 1875 | MALIG NEO EPIDIDYMIS                                                         |      |
| C6310  | MALIGNANT NEOPLASM OF UNSPECIFIED SPERMATIC CORD                            | 1876 | MAL NEO SPERMATIC CORD                                                       |      |
| C632   | MALIGNANT NEOPLASM OF SCROTUM                                                | 1877 | MALIGN NEOPL SCROTUM                                                         |      |
| C637   | MALIGNANT NEOPLASM OF OTHER SPECIFIED MALE GENITAL ORGANS                   | 1878 | MAL NEO MALE GENITAL NEC                                                     |      |
| C639   | MALIGNANT NEOPLASM OF MALE GENITAL ORGAN, UNSPECIFIED                       | 1879 | MAL NEO MALE GENITAL NOS                                                      |      |
| C67    | MALIGNANT NEOPLASM OF BLADDER                                                | 188  | MALIG NEOBLADDER-GLASS                                                      |      |
| C670   | MALIGNANT NEOPLASM OF TRIGONE OF BLADDER                                    | 1880 | MAL NEO BLADDER-TRIGONE                                                      |      |
| C671   | MALIGNANT NEOPLASM OF DOME OF BLADDER                                       | 1881 | MAL NEO BLADDER-DOME                                                         |      |
| C672   | MALIGNANT NEOPLASM OF LATERAL WALL OF BLADDER                               | 1882 | MAL NEO BLADDER-LATERAL                                                      |      |
| C673   | MALIGNANT NEOPLASM OF ANTERIOR WALL OF BLADDER                              | 1883 | MAL NEO BLADDER-ANTERIOR                                                     |      |
| C674   | MALIGNANT NEOPLASM OF POSTERIOR WALL OF BLADDER                             | 1884 | MAL NEO BLADDER-POST                                                         |      |
| C675   | MALIGNANT NEOPLASM OF BLADDER NECK                                          | 1885 | MAL NEO BLADDER NECK                                                         |      |
| C676   | MALIGNANT NEOPLASM OF URETERERIC ORIFICE                                   | 1886 | MAL NEO URETERERIC ORIFICE                                                   |      |
| C677   | MALIGNANT NEOPLASM OF URACHUS                                               | 1887 | MALIG NEOURACHUS                                                            |      |
| C678   | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF BLADDER                          | 1888 | MALIG NEO BLADDER NOS                                                        |      |
| C679   | MALIGNANT NEOPLASM OF BLADDER, UNSPECIFIED                                  | 1889 | MALIG NEO BLADDER NOS                                                        |      |
| C68    | Malignant neoplasm of other and unspecified urinary organs                   | 189  | MAL NEO URINARY NEC/NOS                                                      |      |
| C64    | MALIGNANT NEOPLASM OF UNSPECIFIED KIDNEY, EXCEPT RENAL PELVIS              | 1890 | MALIG NEOPL KIDNEY                                                           |      |
| C65    | MALIGNANT NEOPLASM OF UNSPECIFIED RENAL PELVIS                              | 1891 | MALIG NEO RENAL PELVIS                                                      |      |
| C66    | MALIGNANT NEOPLASM OF UNSPECIFIED URETER                                    | 1892 | MALIG NEOPL URETER                                                          |      |
| C680   | MALIGNANT NEOPLASM OF URETHRA                                               | 1893 | MALIG NEOPL URETHRA                                                         |      |
| C681   | MALIGNANT NEOPLASM OF PARAURETHRAL GLANDS                                   | 1894 | MAL NEO PARAURETHRAL                                                         |      |
| C688   | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF URINARY ORGANS                   | 1898 | MAL NEO URINARY NEC                                                         |      |
| C689   | MALIGNANT NEOPLASM OF URINARY ORGAN, UNSPECIFIED                            | 1899 | MAL NEO URINARY NOS                                                          |      |
| C69    | Malignant neoplasm of eye and adnexa                                        | 190  | MALIGN NEOPLASM EYE*                                                        |      |
| C6940  | MALIGNANT NEOPLASM OF UNSPECIFIED CILIARY BODY                              | 1900 | MALIG NEOPL EYEBALL                                                         |      |
| C6960  | MALIGNANT NEOPLASM OF UNSPECIFIED ORBIT                                     | 1901 | MALIG NEOPL ORBIT                                                           |      |
| C6950  | MALIGNANT NEOPLASM OF UNSPECIFIED LACRIMAL GLAND AND DUCT                   | 1902 | MAL NEO LACRIMAL GLAND                                                       |      |
| C6900  | MALIGNANT NEOPLASM OF UNSPECIFIED CONJUNCTIVA                               | 1903 | MAL NEO CONJUNCTIVA                                                         |      |
| C6910  | MALIGNANT NEOPLASM OF UNSPECIFIED CORNEA                                    | 1904 | MALIG NEOPL CORNEA                                                          |      |
| Code     | Description                                                                 | Page  | ICD Code   |
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| C6920    | MALIGNANT NEOPLASM OF UNSPECIFIED RETINA                                    | 1905  | MALIGN NEOPL RETINA |
| C6930    | MALIGNANT NEOPLASM OF UNSPECIFIED CHOROID                                    | 1906  | MALIGN NEOPL CHOROID |
| C6950    | MALIGNANT NEOPLASM OF UNSPECIFIED LACRIMAL GLAND AND DUCT                   | 1907  | MAL NEO LACRIMAL DUCT |
| C6980    | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF UNSPECIFIED EYE AND ADNEXA       | 1908  | MALIGN NEOPL EYE NEC |
| C699     | MALIGNANT NEOPLASM OF UNSPECIFIED SITE OF UNSPECIFIED EYE                    | 1909  | MALIGN NEOPL EYE NOS |
| C71      | Malignant neoplasm of brain                                                 | 191   | MALIGNANT NEOPLASM BRAIN* |
| C710     | MALIGNANT NEOPLASM OF CEREBRUM, EXCEPT LOBES AND VENTRICLES                 | 1910  | MALIGN NEOPL CEREBRUM |
| C711     | MALIGNANT NEOPLASM OF FRONTAL LOBE                                          | 1911  | MALIGN NEO FRONTAL LOBE |
| C712     | MALIGNANT NEOPLASM OF TEMPORAL LOBE                                         | 1912  | MAL NEO TEMPORAL LOBE |
| C713     | MALIGNANT NEOPLASM OF PARIETAL LOBE                                         | 1913  | MAL NEO PARIETAL LOBE |
| C714     | MALIGNANT NEOPLASM OF OCCIPITAL LOBE                                        | 1914  | MAL NEO OCCIPITAL LOBE |
| C715     | MALIGNANT NEOPLASM OF CEREBRAL VENTRICLE                                    | 1915  | MAL NEO CEREB VENTRICLE |
| C716     | MALIGNANT NEOPLASM OF CEREBELLUM                                            | 1916  | MAL NEO CEREBELLUM |
| C717     | MALIGNANT NEOPLASM OF BRAIN STEM                                            | 1917  | MAL NEO BRAIN STEM |
| C718     | MALIGNANT NEOPLASM OF OVERLAPPING SITES OF BRAIN                            | 1918  | MALIG NEO BRAIN NEC |
| C719     | MALIGNANT NEOPLASM OF BRAIN, UNSPECIFIED                                    | 1919  | MAL NEO BRAIN NOS |
| C72      | Malignant neoplasm of spinal cord, cranial nerves and other parts of central nervous system | 192   | MAL NEO NERVE NEC/NOS* |
| C7250    | MALIGNANT NEOPLASM OF UNSPECIFIED CRANIAL NERVE                             | 1920  | MAL NEO CRANIAL NERVES |
| C720     | MALIGNANT NEOPLASM OF CEREBRAL MENING                                       | 1921  | MAL NEO CEREBRAL MENING |
| C722     | MALIGNANT NEOPLASM OF SPINAL CORD                                           | 1922  | MAL NEO SPINAL CORD |
| C721     | MALIGNANT NEOPLASM OF SPINAL MENING                                         | 1923  | MAL NEO SPINAL MENING |
| C728     | MALIGNANT NEOPLASM OF CENTRAL NERVOUS SYSTEM, UNSPECIFIED                   | 1928  | MAL NEO NERVOUS SYST NEC |
| C729     | MALIGNANT NEOPLASM OF CENTRAL NERVOUS SYSTEM, UNSPECIFIED                   | 1929  | MAL NEO NERVOUS SYST NOS |
| C73      | MALIGNANT NEOPLASM OF THYROID GLAND                                         | 193   | MALIGN NEO THYROID |
| C759     | MALIGNANT NEOPLASM OF ENDOCRINE GLAND, UNSPECIFIED                          | 194   | MAL NEO OTHER ENDOCRINE* |
| C7490    | MALIGNANT NEOPLASM OF UNSPECIFIED PART OF UNSPECIFIED ADRENAL GLAND         | 1940  | MALIGN NEOPL ADRENAL |
| C750     | MALIGNANT NEOPLASM OF PARATHYROID GLAND                                     | 1941  | MAL NEO PARATHYROID |
| C751     | MALIGNANT NEOPLASM OF PITUITARY GLAND                                       | 1943  | MAL NEO PITUITARY |
| C753     | MALIGNANT NEOPLASM OF PINEAL GLAND                                          | 1944  | MAL NEO PINEAL GLAND |
| C754     | MALIGNANT NEOPLASM OF CAROTID BODY                                          | 1945  | MAL NEO CAROTID BODY |
| C755     | MALIGNANT NEOPLASM OF AORTIC BODY AND OTHER PARAGANGLIA                    | 1946  | MAL NEO PARAGANGLIA |
| C758     | MALIGNANT NEOPLASM WITH PLURIGLANDULAR INVOLVEMENT, UNSPECIFIED             | 1948  | MAL NEO ENDOCRINE |
| C759     | MALIGNANT NEOPLASM OF ENDOCRINE GLAND, UNSPECIFIED                          | 1949  | MAL NEO ENDOCRINE |
| C76      | Malignant neoplasm of other and ill-defined sites                           | 195   | MAL NEO OTH/ILL-DEF SITE* |
| C760     | MALIGNANT NEOPLASM OF HEAD, FACE AND NECK                                   | 1950  | MAL NEO HEAD/FACE/NECK |
| C761     | MALIGNANT NEOPLASM OF THORAX                                                 | 1951  | MAL NEO THORAX |
| C762     | MALIGNANT NEOPLASM OF ABDOMEN                                                | 1952  | MAL NEO ABDOMEN |
| C763     | MALIGNANT NEOPLASM OF PELVIS                                                | 1953  | MAL NEO PELVIS |
| C764     | MALIGNANT NEOPLASM OF UPPER LIMB                                             | 1954  | MAL NEO ARM |
| C765     | MALIGNANT NEOPLASM OF LOWER LIMB                                             | 1955  | MAL NEO LEG |
| C768     | MALIGNANT NEOPLASM OF OTHER SPECIFIED ILL-DEFINED SITES                     | 1958  | MAL NEO SITE NOS |
| C77      | Secondary and unspecified malignant neoplasm of lymph nodes                  | 196   | MALIG NEO LYMPH NODES* |
| C770     | SECONDARY AND UNSPECIFIED MALIGNANT NEOPLASM OF LYMPH NODES OF HEAD, FACE AND NECK | 1960  | MAL NEO LYMPH-HEAD/NECK |
| Code   | Description                                                                 | Year | ICD-10 Code |
|--------|-----------------------------------------------------------------------------|------|-------------|
| C771   | SECONDARY AND UNSPECIFIED MALIGNANT NEOPLASM OF INTRATHORACIC LYMPH NODES   | 1961 | MAL NEO LYMPH-INTRATHOR |
| Code   | Description                                                                 | Code | Description                                                                 |
|--------|------------------------------------------------------------------------------|------|------------------------------------------------------------------------------|
| C8338  | DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF MULTIPLE SITES                 |      |                                                                              |
| C835   | Lymphoblastic (diffuse) lymphoma                                              |      |                                                                              |
| C8350  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, UNSPECIFIED SITE                           |      |                                                                              |
| C8351  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK        |      |                                                                              |
| C8352  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, INTRATHORACIC LYMPH NODES                 |      |                                                                              |
| C8353  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES               |      |                                                                              |
| C8354  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB      |      |                                                                              |
| C8355  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB |      |                                                                              |
| C8356  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, INTRAPERITONEAL LYMPH NODES               |      |                                                                              |
| C8357  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, SPLEEN                                     |      |                                                                              |
| C8358  | LYMPHOBLASTIC (DIFFUSE) LYMPHOMA, LYMPH NODES OF MULTIPLE SITES             |      |                                                                              |
| C837   | Burkitt lymphoma                                                             |      |                                                                              |
| C8370  | BURKITT LYMPHOMA, UNSPECIFIED SITE                                           |      |                                                                              |
| C8371  | BURKITT LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK                        |      |                                                                              |
| C8372  | BURKITT LYMPHOMA, INTRATHORACIC LYMPH NODES                                 |      |                                                                              |
| C8373  | BURKITT LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES                               |      |                                                                              |
| C8374  | BURKITT LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB                      |      |                                                                              |
| C8375  | BURKITT LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB             |      |                                                                              |
| C8376  | BURKITT LYMPHOMA, INTRAPERITONEAL LYMPH NODES                               |      |                                                                              |
| C8377  | BURKITT LYMPHOMA, SPLEEN                                                     |      |                                                                              |
| C8378  | BURKITT LYMPHOMA, LYMPH NODES OF MULTIPLE SITES                             |      |                                                                              |
| C8389  | OTHER NON-FOLLICULAR LYMPHOMA, EXTRANODAL AND SOLID ORGAN SITES             |      |                                                                              |
| C8381  | OTHER NON-FOLLICULAR LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK          |      |                                                                              |
| C8382  | OTHER NON-FOLLICULAR LYMPHOMA, INTRATHORACIC LYMPH NODES                    |      |                                                                              |
| C8383  | OTHER NON-FOLLICULAR LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES                  |      |                                                                              |
| C8384  | OTHER NON-FOLLICULAR LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB         |      |                                                                              |
| C8385  | OTHER NON-FOLLICULAR LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB |      |                                                                              |
| C8386  | OTHER NON-FOLLICULAR LYMPHOMA, INTRAPERITONEAL LYMPH NODES                  |      |                                                                              |
| C8387  | OTHER NON-FOLLICULAR LYMPHOMA, SPLEEN                                        |      |                                                                              |
| C8388  | OTHER NON-FOLLICULAR LYMPHOMA, LYMPH NODES OF MULTIPLE SITES                |      |                                                                              |
| C8319  | MANTLE CELL LYMPHOMA, EXTRANODAL AND SOLID ORGAN SITES                      |      |                                                                              |
| C8311  | MANTLE CELL LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK                   |      |                                                                              |
| C8312  | MANTLE CELL LYMPHOMA, INTRATHORACIC LYMPH NODES                            |      |                                                                              |
| C8313  | MANTLE CELL LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES                           |      |                                                                              |
| C8314  | MANTLE CELL LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB                  |      |                                                                              |
| C8315  | MANTLE CELL LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB         |      |                                                                              |
| Code   | Description                                                                 | ICD-10 Code | Description                                                                 |
|--------|-----------------------------------------------------------------------------|-------------|-----------------------------------------------------------------------------|
| C8316  | MANTLE CELL LYMPHOMA, INTRAPELVIC LYMPH NODES                              | 20046       | MANTLE CELL LYMPHOMA, INTRAPELVIC LYMPH NODES                              |
| C8317  | MANTLE CELL LYMPHOMA, SPLEEN                                               | 20047       | MANTLE CELL LYMPHOMA, SPLEEN                                               |
| C8318  | MANTLE CELL LYMPHOMA, LYMPH NODES OF MULTIPLE SITE                         | 20048       | MANTLE CELL LYMPHOMA, LYMPH NODES MULTIPLE SITES                           |
| C8339  | DIFFUSE LARGE B-CELL LYMPHOMA, EXTRANODAL AND SOLID ORGAN SITES             | 20050       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, UNSPECIFIED SITE, EXTRANODAL AND SOLID ORGAN SITES |
| C8331  | DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK         | 20051       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK |
| C8332  | DIFFUSE LARGE B-CELL LYMPHOMA, INTRATHORACIC LYMPH NODES                   | 20052       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, INTRATHORACIC LYMPH NODES         |
| C8333  | DIFFUSE LARGE B-CELL LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES                 | 20053       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES       |
| C8334  | DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB        | 20054       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB |
| C8335  | DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20055       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB |
| C8336  | DIFFUSE LARGE B-CELL LYMPHOMA, INTRAPELVIC LYMPH NODES                     | 20056       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, INTRAPELVIC LYMPH NODES           |
| C8337  | DIFFUSE LARGE B-CELL LYMPHOMA, SPLEEN                                      | 20057       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, SPLEEN                            |
| C8338  | DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF MULTIPLE SITES               | 20058       | PRIMARY CENTRAL NERVOUS SYSTEM LYMPHOMA, LYMPH NODES OF MULTIPLE SITES     |
| C8479  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, EXTRANODAL AND SOLID ORGAN SITES | 20060       | ANAPLASTIC LARGE CELL LYMPHOMA, UNSPECIFIED SITE, EXTRANODAL AND SOLID ORGAN SITES |
| C8471  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, LYMPH NODES OF HEAD, FACE, AND NECK | 20061       | ANAPLASTIC LARGE CELL LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK        |
| C8472  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, INTRATHORACIC LYMPH NODES    | 20062       | ANAPLASTIC LARGE CELL LYMPHOMA, INTRATHORACIC LYMPH NODES                  |
| C8473  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, INTRA-ABDOMINAL LYMPH NODES  | 20063       | ANAPLASTIC LARGE CELL LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES                |
| C8474  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, LYMPH NODES OF AXILLA AND UPPER LIMB | 20064       | ANAPLASTIC LARGE CELL LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB       |
| C8475  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20065       | ANAPLASTIC LARGE CELL LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB |
| C8476  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, INTRAPELVIC LYMPH NODES      | 20066       | ANAPLASTIC LARGE CELL LYMPHOMA, INTRAPELVIC LYMPH NODES                    |
| C8477  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, SPLEEN                       | 20067       | ANAPLASTIC LARGE CELL LYMPHOMA, SPLEEN                                      |
| C8478  | ANAPLASTIC LARGE CELL LYMPHOMA, ALK-NEGATIVE, LYMPH NODES OF MULTIPLE SITES | 20068       | ANAPLASTIC LARGE CELL LYMPHOMA, LYMPH NODES OF MULTIPLE SITES              |
| C8339  | DIFFUSE LARGE B-CELL LYMPHOMA, EXTRANODAL AND SOLID ORGAN SITES             | 20070       | LARGE CELL LYMPHOMA, UNSPECIFIED SITE, EXTRANODAL AND SOLID ORGAN SITES     |
| C8331  | DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK         | 20071       | LARGE CELL LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK                    |
| C8332  | DIFFUSE LARGE B-CELL LYMPHOMA, INTRATHORACIC LYMPH NODES                   | 20072       | LARGE CELL LYMPHOMA, INTRATHORACIC LYMPH NODES                            |
| C8333  | DIFFUSE LARGE B-CELL LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES                 | 20073       | LARGE CELL LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES                          |
| C8334  | DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB        | 20074       | LARGE CELL LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB                  |
| Code   | Description                                                                 | Year  |
|--------|-----------------------------------------------------------------------------|-------|
| C8335  | **DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB** | 20075 |
| C8336  | **DIFFUSE LARGE B-CELL LYMPHOMA, INTRAPELVIC LYMPH NODES**                  | 20076 |
| C8337  | **DIFFUSE LARGE B-CELL LYMPHOMA, SPLEEN**                                  | 20077 |
| C8338  | **DIFFUSE LARGE B-CELL LYMPHOMA, LYMPH NODES OF MULTIPLE SITES**            | 20078 |
| C838   | Other non-follicular lymphoma                                                | 2008  |
| C8380  | **OTHER NON-FOLLICULAR LYMPHOMA, UNSPECIFIED SITE**                         |       |
| C8381  | **OTHER NON-FOLLICULAR LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK**      | 20081 |
| C8382  | **OTHER NON-FOLLICULAR LYMPHOMA, INTRATHORACIC LYMPH NODES**                | 20082 |
| C8383  | **OTHER NON-FOLLICULAR LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES**              | 20083 |
| C8384  | **OTHER NON-FOLLICULAR LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB**     | 20084 |
| C8385  | **OTHER NON-FOLLICULAR LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB** | 20085 |
| C8386  | **OTHER NON-FOLLICULAR LYMPHOMA, INTRAPELVIC LYMPH NODES**                  | 20086 |
| C8387  | **OTHER NON-FOLLICULAR LYMPHOMA, SPLEEN**                                  | 20087 |
| C8388  | **OTHER NON-FOLLICULAR LYMPHOMA, LYMPH NODES OF MULTIPLE SITES**            | 20088 |
| C81    | Hodgkin lymphoma                                                            |       |
| C8170  | **OTHER CLASSICAL HODGKIN LYMPHOMA, UNSPECIFIED SITE**                      | 2010  |
| C8179  | **OTHER CLASSICAL HODGKIN LYMPHOMA, EXTRANODAL AND SOLID ORGAN SITES**       | 20100 |
| C8171  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK**   | 20101 |
| C8172  | **OTHER CLASSICAL HODGKIN LYMPHOMA, INTRATHORACIC LYMPH NODES**              | 20102 |
| C8173  | **OTHER CLASSICAL HODGKIN LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES**            | 20103 |
| C8174  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB**  | 20104 |
| C8175  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB** | 20105 |
| C8176  | **OTHER CLASSICAL HODGKIN LYMPHOMA, INTRAPELVIC LYMPH NODES**                | 20106 |
| C8177  | **OTHER CLASSICAL HODGKIN LYMPHOMA, SPLEEN**                                | 20107 |
| C8178  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF MULTIPLE SITES**          | 20108 |
| C817   | Other Hodgkin lymphoma                                                       |       |
| C8179  | **OTHER CLASSICAL HODGKIN LYMPHOMA, EXTRANODAL AND SOLID ORGAN SITES**       | 20110 |
| C8171  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK**   | 20111 |
| C8172  | **OTHER CLASSICAL HODGKIN LYMPHOMA, INTRATHORACIC LYMPH NODES**              | 20112 |
| C8173  | **OTHER CLASSICAL HODGKIN LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES**            | 20113 |
| C8174  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB**  | 20114 |
| C8175  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB** | 20115 |
| C8176  | **OTHER CLASSICAL HODGKIN LYMPHOMA, INTRAPELVIC LYMPH NODES**                | 20116 |
| C8177  | **OTHER CLASSICAL HODGKIN LYMPHOMA, SPLEEN**                                | 20117 |
| C8178  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF MULTIPLE SITES**          | 20118 |
| C817   | Other Hodgkin lymphoma                                                       |       |
| C8179  | **OTHER CLASSICAL HODGKIN LYMPHOMA, EXTRANODAL AND SOLID ORGAN SITES**       | 20120 |
| C8171  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK**   | 20121 |
| C8172  | **OTHER CLASSICAL HODGKIN LYMPHOMA, INTRATHORACIC LYMPH NODES**              | 20122 |
| C8173  | **OTHER CLASSICAL HODGKIN LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES**            | 20123 |
| C8174  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB**  | 20124 |
| C8175  | **OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB** | 20125 |

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| C8176 | OTHER CLASSICAL HODGKIN LYMPHOMA, INTRAPELVIC LYMPH NODES | 20126 | HODGKINS SARCOMA PELVIC |
| C8177 | OTHER CLASSICAL HODGKIN LYMPHOMA, SPLEEN | 20127 | HODGKINS SARCOMA SPLEEN |
| C8178 | OTHER CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF MULTIPLE SITES | 20128 | HODGKINS SARCOMA MULT |
| C810 | Nodular lymphocyte predominant Hodgkin lymphoma | 2014 | HODGKINS LYMPH-HISTIOCYT* |
| C8100 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, UNSPECIFIED SITE | 20140 | LYM-HST UNSP XTRNDL ORGN |
| C8101 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK | 20141 | HODG LYMP-HISTIO HEAD |
| C8102 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, INTRATHORACIC LYMPH NODES | 20142 | HODG LYMP-HISTIO THORAX |
| C8103 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES | 20143 | HODG LYMP-HISTIO ABDOM |
| C8104 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB | 20144 | HODG LYMP-HISTIO AXILLA |
| C8105 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20145 | HODG LYMP-HISTIO INGUIN |
| C8106 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, INTRAPELVIC LYMPH NODES | 20146 | HODG LYMP-HISTIO PELVIC |
| C8107 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, SPLEEN | 20147 | HODG LYMP-HISTIO SPLEEN |
| C8108 | NODULAR LYMPHOCYTE PREDOMINANT HODGKIN LYMPHOMA, LYMPH NODES OF MULTIPLE SITES | 20148 | HODG LYMP-HISTIO MULT |
| C811 | Nodular sclerosis Hodgkin lymphoma | 2015 | HODGKINS NODULAR SCLEROS* |
| C8110 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, UNSPECIFIED SITE | 20150 | NDR SCLR UNSP XTRNDL ORG |
| C8111 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK | 20151 | HODG NODUL SCLERO HEAD |
| C8112 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK | 20152 | HODG NODUL SCLERO THORAX |
| C8113 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES | 20153 | HODG NODUL SCLERO ABDOM |
| C8114 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB | 20154 | HODG NODUL SCLERO AXILLA |
| C8115 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20155 | HODG NODUL SCLERO INGUIN |
| C8116 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, INTRAPELVIC LYMPH NODES | 20156 | HODG NODUL SCLERO PELVIC |
| C8117 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, SPLEEN | 20157 | HODG NODUL SCLERO SPLEEN |
| C8118 | NODULAR SCLEROSIS CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF MULTIPLE SITES | 20158 | HODG NODUL SCLERO MULT |
| C812 | Mixed cellularity Hodgkin lymphoma | 2016 | HODGKINS MIX CELLULARITY* |
| C8120 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, UNSPECIFIED SITE | 20160 | MXD CELR UNSP XTRNDL ORG |
| C8121 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK | 20161 | HODGKINS MIX CELL HEAD |
| C8122 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, INTRATHORACIC LYMPH NODES | 20162 | HODGKINS MIX CELL THORAX |
| C8123 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES | 20163 | HODGKINS MIX CELL ABDOM |
| C8124 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB | 20164 | HODGKINS MIX CELL AXILLA |
| C8125 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20165 | HODGKINS MIX CELL INGUIN |
| C8126 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, INTRAPELVIC LYMPH NODES | 20166 | HODGKINS MIX CELL PELVIC |
| C8127 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, SPLEEN | 20167 | HODGKINS MIX CELL SPLEEN |
| C8128 | MIXED CELLULARITY CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF MULTIPLE SITES | 20168 | HODGKINS MIX CELL MULT |
| C813 | Lymphocyte depleted Hodgkin lymphoma | 2017 | HODG LYMPHOCYTIC DEPLET* |
| C8130 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, UNSPECIFIED SITE | 20170 | LYM DPLT UNSP XTRNDL ORG |
| C8131 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK | 20171 | HODG LYMP DEPLET HEAD |
| C8132 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, INTRATHORACIC LYMPH NODES | 20172 | HODG LYMP DEPLET THORAX |
| C8133 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES | 20173 | HODG LYMP DEPLET ABDOM |
| C8134 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF AXILLA AND UPPER LIMB | 20174 | HODG LYMP DEPLET AXILLA |
| Code | Diagnosis                                                                 | Year | Reference                      |
|------|---------------------------------------------------------------------------|------|-------------------------------|
| C8135 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20175 | HODG LYMPH DEPLET INGUIN      |
| C8136 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, INTRAPELVIC LYMPH NODES   | 20176 | HODG LYMPH DEPLET PELVIC      |
| C8137 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, SPLEEN                    | 20177 | HODG LYMPH DEPLET SPLEEN      |
| C8138 | LYMPHOCYTE DEPLETED CLASSICAL HODGKIN LYMPHOMA, LYMPH NODES OF MULTIPLE SITES | 20178 | HODG LYMPH DEPLET MULT        |
| C819  | Hodgkin lymphoma, unspecified                                             | 2019  | HODGKINS DISEASE NOS*         |
| C8190 | HODGKIN LYMPHOMA, UNSPECIFIED, UNSPECIFIED SITE                          | 20190 | HDGK DIS UNSP XTRNDL ORG      |
| C8191 | HODGKIN LYMPHOMA, UNSPECIFIED, LYMPH NODES OF HEAD, FACE, AND NECK        | 20191 | HODGKINS DIS NOS HEAD         |
| C8192 | HODGKIN LYMPHOMA, UNSPECIFIED, INTRATHORACIC LYMPH NODES                  | 20192 | HODGKINS DIS NOS THORAX       |
| C8193 | HODGKIN LYMPHOMA, UNSPECIFIED, INTRA-ABDOMINAL LYMPH NODES                | 20193 | HODGKINS DIS NOS ABDOM        |
| C8194 | HODGKIN LYMPHOMA, UNSPECIFIED, LYMPH NODES OF AXILLA AND UPPER LIMB       | 20194 | HODGKINS DIS NOS AXILLA       |
| C8195 | HODGKIN LYMPHOMA, UNSPECIFIED, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20195 | HODGKINS DIS NOS INGUIN       |
| C8196 | HODGKIN LYMPHOMA, UNSPECIFIED, INTRAPELVIC LYMPH NODES                    | 20196 | HODGKINS DIS NOS PELVIC       |
| C8197 | HODGKIN LYMPHOMA, UNSPECIFIED, SPLEEN                                     | 20197 | HODGKINS DIS NOS SPLEEN       |
| C8198 | HODGKIN LYMPHOMA, UNSPECIFIED, LYMPH NODES OF MULTIPLE SITES              | 20198 | HODGKINS DIS NOS MULT         |
| C8290 | FOLLICULAR LYMPHOMA, UNSPECIFIED, UNSPECIFIED SITE                        | 20200 | NDLR LYM UNSP XTRNDL ORG      |
| C8291 | FOLLICULAR LYMPHOMA, UNSPECIFIED, LYMPH NODES OF HEAD, FACE, AND NECK     | 20201 | NODULAR LYMPHOMA HEAD         |
| C8292 | FOLLICULAR LYMPHOMA, UNSPECIFIED, INTRATHORACIC LYMPH NODES               | 20202 | NODULAR LYMPHOMA THORAX       |
| C8293 | FOLLICULAR LYMPHOMA, UNSPECIFIED, INTRA-ABDOMINAL LYMPH NODES             | 20203 | NODULAR LYMPHOMA ABDOM        |
| C8294 | FOLLICULAR LYMPHOMA, UNSPECIFIED, LYMPH NODES OF AXILLA AND UPPER LIMB    | 20204 | NODULAR LYMPHOMA AXILLA       |
| C8295 | FOLLICULAR LYMPHOMA, UNSPECIFIED, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20205 | NODULAR LYMPHOMA INGUIN       |
| C8296 | FOLLICULAR LYMPHOMA, UNSPECIFIED, INTRAPELVIC LYMPH NODES                 | 20206 | NODULAR LYMPHOMA PELVIC       |
| C8297 | FOLLICULAR LYMPHOMA, UNSPECIFIED, SPLEEN                                  | 20207 | NODULAR LYMPHOMA SPLEEN       |
| C8298 | FOLLICULAR LYMPHOMA, UNSPECIFIED, LYMPH NODES OF MULTIPLE SITES           | 20208 | NODULAR LYMPHOMA MULT         |
| C840  | MYCOSIS FUNGOIDES                                                         | 2021  | MYCOSIS FUNGOIDES*            |
| C8409 | MYCOSIS FUNGOIDES, EXTRANODAL AND SOLID ORGAN SITES                       | 20210 | MYCS FNG UNSP XTRNDL ORG      |
| C8401 | MYCOSIS FUNGOIDES, LYMPH NODES OF HEAD, FACE, AND NECK                     | 20211 | MYCOSIS FUNGOIDES HEAD        |
| C8402 | MYCOSIS FUNGOIDES, INTRATHORACIC LYMPH NODES                              | 20212 | MYCOSIS FUNGOIDES THORAX      |
| C8403 | MYCOSIS FUNGOIDES, INTRA-ABDOMINAL LYMPH NODES                            | 20213 | MYCOSIS FUNGOIDES ABDOM       |
| C8404 | MYCOSIS FUNGOIDES, LYMPH NODES OF AXILLA AND UPPER LIMB                   | 20214 | MYCOSIS FUNGOIDES AXILLA      |
| C8405 | MYCOSIS FUNGOIDES, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB           | 20215 | MYCOSIS FUNGOIDES INGUIN      |
| C8406 | MYCOSIS FUNGOIDES, INTRAPELVIC LYMPH NODES                               | 20216 | MYCOSIS FUNGOIDES PELVIC      |
| C8407 | MYCOSIS FUNGOIDES, SPLEEN                                                 | 20217 | MYCOSIS FUNGOIDES SPLEEN      |
| C8408 | MYCOSIS FUNGOIDES, LYMPH NODES OF MULTIPLE SITES                          | 20218 | MYCOSIS FUNGOIDES MULT        |
| C841  | Sézary disease                                                            | 2022  | SEZARY'S DISEASE*             |
| C8419 | SEZARY DISEASE, EXTRANODAL AND SOLID ORGAN SITES                          | 20220 | SZRY DIS UNSP XTRNDL ORG      |
| C8421 | SEZARY DISEASE, LYMPH NODES OF HEAD, FACE, AND NECK                        | 20221 | SEZARY'S DISEASE HEAD         |
| C8422 | SEZARY DISEASE, INTRATHORACIC LYMPH NODES                                 | 20222 | SEZARY'S DISEASE THORAX       |
| C8423 | SEZARY DISEASE, INTRA-ABDOMINAL LYMPH NODES                               | 20223 | SEZARY'S DISEASE ABDOM        |
| C8424 | SEZARY DISEASE, LYMPH NODES OF AXILLA AND UPPER LIMB                      | 20224 | SEZARY'S DISEASE AXILLA       |
| C8425 | SEZARY DISEASE, LYMPH NODES OF INGUINAL REGION AND LOWER LIMB              | 20225 | SEZARY'S DISEASE INGUIN       |
| C8426 | SEZARY DISEASE, INTRAPELVIC LYMPH NODES                                   | 20226 | SEZARY'S DISEASE PELVIC       |
| C8427 | SEZARY DISEASE, SPLEEN                                                     | 20227 | SEZARY'S DISEASE SPLEEN       |
| C8428 | SEZARY DISEASE, LYMPH NODES OF MULTIPLE SITES                             | 20228 | SEZARY'S DISEASE MULT         |
| Code | Description                                                                 | Year | Category                              |
|------|------------------------------------------------------------------------------|------|---------------------------------------|
| C96  | Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue | 2023 | MALIGNANT HISTIOCYTOSIS*              |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20230| MLG HIST UNSP XTRNDL ORG             |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20231| MAL HISTIOCYTOSIS HEAD               |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20232| MAL HISTIOCYTOSIS THORAX             |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20233| MAL HISTIOCYTOSIS ABDOM              |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20234| MAL HISTIOCYTOSIS AXILLA             |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20235| MAL HISTIOCYTOSIS INGUIN             |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20236| MAL HISTIOCYTOSIS PELVIC             |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20237| MAL HISTIOCYTOSIS SPLEEN             |
| C96A | HISTIOCYTIC SARCOMA                                                          | 20238| MAL HISTIOCYTOSIS MULT               |
| C914 | Hairy cell leukemia                                                          | 2024 | LEUKEM RETICULOENDOTHEL*             |
| C9140| Hairy cell leukemia not having achieved remission                             | 20240| LK RTCTL UNSP XTRNDL ORG            |
| C9141| Hairy cell leukemia not having achieved remission                             | 20241| HAIRY-CELL LEUKEM HEAD              |
| C9142| Hairy cell leukemia not having achieved remission                             | 20242| HAIRY-CELL LEUKEM THORAX            |
| C9143| Hairy cell leukemia not having achieved remission                             | 20243| HAIRY-CELL LEUKEM ABDOM             |
| C9144| Hairy cell leukemia not having achieved remission                             | 20244| HAIRY-CELL LEUKEM AXILLA            |
| C9145| Hairy cell leukemia not having achieved remission                             | 20245| HAIRY-CELL LEUKEM INGUIN            |
| C9146| Hairy cell leukemia not having achieved remission                             | 20246| HAIRY-CELL LEUKEM PELVIC            |
| C9147| Hairy cell leukemia not having achieved remission                             | 20247| HAIRY-CELL LEUKEM SPLEEN            |
| C9148| Hairy cell leukemia not having achieved remission                             | 20248| HAIRY-CELL LEUKEM MULT              |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 2025 | LETTERER-SIWE DISEASE*              |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20250| LTR-SIWE UNSP XTRNDL ORG            |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20251| LETTERER-SIWE DIS ABD               |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20252| LETTERER-SIWE DIS THORAX            |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20253| LETTERER-SIWE DIS ABDOM             |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20254| LETTERER-SIWE DIS AXILLA            |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20255| LETTERER-SIWE DIS INGUIN            |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20256| LETTERER-SIWE DIS PELVIC            |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20257| LETTERER-SIWE DIS SPLEEN            |
| C960 | MULTIFOCAL AND MULTISYSTEMIC (DISSEMINATED) LANGERHANS-CELL HISTIOCYTOSIS    | 20258| LETTERER-SIWE DIS MULT              |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 2026 | MALIG MAST CELL TUMORS*             |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20260| MLG MAST UNSP XTRNDL ORG            |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20261| MAL MASTOCYTOSIS HEAD               |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20262| MAL MASTOCYTOSIS THORAX             |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20263| MAL MASTOCYTOSIS ABDOM              |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20264| MAL MASTOCYTOSIS AXILLA             |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20265| MAL MASTOCYTOSIS INGUIN             |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20266| MAL MASTOCYTOSIS PELVIC             |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20267| MAL MASTOCYTOSIS SPLEEN             |
| C962 | MALIGNANT MAST CELL TUMOR                                                   | 20268| MAL MASTOCYTOSIS MULT               |
| C858 | Other specified types of non-Hodgkin lymphoma                                | 2028 | LYMPHOMAS NEC*                      |
| C8580| OTHER MALIGNANT LYMPHOMAS UNSPECIFIED SITE                                    | 20280| OTHER MALIGNANT LYMPHOMAS UNSPECIFIED SITE |
| C8581| OTHER SPECIFIED TYPES OF NON-HODGKIN LYMPHOMA, LYMPH NODES OF HEAD, FACE, AND NECK | 20281| LYMPHOMAS NEC HEAD                  |
| Code   | Description                                                                 | Page |
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| C8582  | OTHER SPECIFIED TYPES OF NON-HODGKIN LYMPHOMA, INTRATHORACIC LYMPH NODES    | 20282|
| C8583  | OTHER SPECIFIED TYPES OF NON-HODGKIN LYMPHOMA, INTRA-ABDOMINAL LYMPH NODES | 20283|
| C8584  | OTHER MALIGNANT LYMPHOMAS INVOLVING LYMPH NODES OF AXILLA AND UPPER LIMB    | 20284|
| C8585  | OTHER MALIGNANT LYMPHOMAS INVOLVING LYMPH NODES OF INGUINAL REGION AND LOWER LIMB | 20285|
| C8586  | OTHER MALIGNANT LYMPHOMAS INVOLVING INTRAPELVIC LYMPH NODES                | 20286|
| C8587  | OTHER MALIGNANT LYMPHOMAS INVOLVING SPLEEN                                  | 20287|
| C8588  | OTHER MALIGNANT LYMPHOMAS INVOLVING LYMPH NODES OF MULTIPLE SITES          | 20288|
| C96    | Other and unspecified malignant neoplasms of lymphoid, hematopoietic and related tissue | 2029  |
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20290|
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20291|
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20292|
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20293|
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20294|
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20295|
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20296|
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20297|
| C969   | MALIGNANT NEOPLASM OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE, UNSPECIFIED | 20298|
| C90    | Multiple myeloma and malignant plasma cell neoplasms                        | 203   |
| C900   | Multiple myeloma                                                             | 2030  |
| C9000  | MULTIPLE MYELOMA NOT HAVING ACHIEVED REMISSION                               | 20300|
| C9001  | MULTIPLE MYELOMA IN REMISSION                                                | 20301|
| C901   | Plasma cell leukemia                                                         | 2031  |
| C9010  | PLASMA CELL LEUKEMIA NOT HAVING ACHIEVED REMISSION                           | 20310|
| C9011  | PLASMA CELL LEUKEMIA IN REMISSION                                            | 20311|
| C91    | Lymphoid leukemia                                                            | 204   |
| C910   | Acute lymphoblastic leukemia                                                 | 2040  |
| C9100  | LYMPHOID LEUKEMIA ACUTE WITHOUT MENTION OF HAVING ACHIEVED REMISSION         | 20400|
| C9101  | ACUTE LYMPHOBLASTIC LEUKEMIA, IN REMISSION                                  | 20401|
| C9102  | ACUTE LYMPHOBLASTIC LEUKEMIA, IN RELAPSE                                    | 20402|
| C911   | Chronic lymphocytic leukemia                                                 | 2041  |
| C9110  | CHRONIC LYMPHOCYTIC LEUKEMIA OF B-CELL TYPE NOT HAVING ACHIEVED REMISSION    | 20410|
| C9111  | CHRONIC LYMPHOCYTIC LEUKEMIA OF B-CELL TYPE IN REMISSION                    | 20411|
| C912   | Subacute lymphocytic leukemia                                                | 2042  |
| C9120  | LYMPHOID LEUKEMIA, SUBACUTE, WITHOUT MENTION OF HAVING ACHIEVED REMISSION, FAILED REMISSION | 20420|
| C9121  | LYMPHOID LEUKEMIA SUBACUTE IN REMISSION                                      | 20421|
| C917   | Other lymphoid leukemia                                                     | 2048  |
| C9120  | OTHER LYMPHOID LEUKEMIA NOT HAVING ACHIEVED REMISSION                        | 20480|
| C9121  | OTHER LYMPHOID LEUKEMIA, IN REMISSION                                       | 20481|
| C9122  | OTHER LYMPHOID LEUKEMIA, IN RELAPSE                                         | 20482|
| C919   | Lymphoid Leukemia, unspecified                                              | 2049  |
| C9190  | LYMPHOID LEUKEMIA, UNSPECIFIED NOT HAVING ACHIEVED REMISSION | 20490 | UNS LYM LEUK W/O RMSION  |
|-------|------------------------------------------------------------|-------|--------------------------|
| C9191 | LYMPHOID LEUKEMIA, UNSPECIFIED, IN REMISSION              | 20491 | UNS LYM LEUK W RMSION    |
| C9192 | LYMPHOID LEUKEMIA, UNSPECIFIED, IN RELAPSE                | 20492 | UNSPECIFIED LYMPHOID LEUKEMIA, IN RELAPSE |
| C92   | Myeloid Leukemia                                          | 205   | MYELOID LEUKEMIA*        |
| C920  | ACUTE MYELOID LEUKEMIA                                   | 2050  | ACUTE MYELOID LEUKEMIA*  |
| C9200 | ACUTE MYELOBLASTIC LEUKEMIA, NOT HAVING ACHIEVED REMISSION| 20500 | ACT MYL LEUK W/O RMSION  |
| C9201 | ACUTE MYELOBLASTIC LEUKEMIA, IN REMISSION                 | 20501 | ACT MYL LEUK W RMSION    |
| C9202 | ACUTE MYELOBLASTIC LEUKEMIA, IN RELAPSE                   | 20502 | MYELOID LEUKEMIA, ACUTE, IN RELAPSE |
| C921  | Chronic myeloid leukemia, BCR/ABL-positive                | 2051  | CHRONIC MYELOID LEUKEMIA*|
| C9210 | CHRONIC MYELOID LEUKEMIA, BCR/ABL-POSITIVE, NOT HAVING ACHIEVED REMISSION | 20510 | CHR MYL LEUK W/O RMSION  |
| C9211 | CHRONIC MYELOID LEUKEMIA, BCR/ABL-POSITIVE, IN REMISSION  | 20511 | CHR MYL LEUK W RMSION    |
| C9212 | CHRONIC MYELOID LEUKEMIA, BCR/ABL-POSITIVE, IN RELAPSE    | 2052  | SUBACUT MYELOID LEUKEMIA*|
| C9220 | ATYPICAL CHRONIC MYELOID LEUKEMIA, BCR/ABL-NEGATIVE, NOT HAVING ACHIEVED REMISSION | 20520 | SBAC MYL LEUK W/O RMSION  |
| C9221 | ATYPICAL CHRONIC MYELOID LEUKEMIA, BCR/ABL-NEGATIVE, IN REMISSION | 20521 | SBAC MYL LEUK W RMSION    |
| C9222 | ATYPICAL CHRONIC MYELOID LEUKEMIA, BCR/ABL-NEGATIVE, IN RELAPSE | 20522 | MYELOID LEUKEMIA, SUBACUTE, IN RELAPSE |
| C923  | Myeloid sarcoma                                           | 2053  | MYELOID SARCOMA*         |
| C9230 | MYELOID SARCOMA, NOT HAVING ACHIEVED REMISSION             | 20530 | MYL SRCOMA W/O RMSION    |
| C9231 | MYELOID SARCOMA, IN REMISSION                             | 20531 | MYL SRCOMA W RMSION      |
| C929  | Myeloid leukemia, unspecified                             | 2058  | MYELOID LEUKEMIA NEC*    |
| C9220 | OTHER MYELOID LEUKEMIA NOT HAVING ACHIEVED REMISSION       | 20580 | OTHER MYL LEUK W/O RMSION|
| C9221 | OTHER MYELOID LEUKEMIA, IN RELAPSE                        | 20581 | OTHER MYL LEUK W RMSION  |
| C9222 | OTHER MYELOID LEUKEMIA, IN RELAPSE                        | 20582 | MYELOID LEUKEMIA, UNSPECIFIED, IN RELAPSE |
| C929  | Myeloid leukemia, unspecified                             | 2059  | MYELOID LEUKEMIA, UNSPECIFIED, IN RELAPSE |
| C9290 | MYELOID LEUKEMIA, UNSPECIFIED, NOT HAVING ACHIEVED REMISSION | 20590 | UNS MYL LEUK W/O RMSION  |
| C9291 | MYELOID LEUKEMIA, UNSPECIFIED IN REMISSION                 | 20591 | UNS MYL LEUK W RMSION    |
| C9292 | MYELOID LEUKEMIA, UNSPECIFIED IN RELAPSE                   | 20592 | UNSPECIFIED MYELOID LEUKEMIA, IN RELAPSE |
| C93   | MONOCYTIC LEUKEMIA                                        | 206   | MONOCYTIC LEUKEMIA*      |
| C930  | ACUTE MONOCYTIC LEUKEMIA                                 | 2060  | ACUTE MONOCYTIC LEUKEMIA*|
| C9300 | ACUTE MONOBLASTIC/MONOCYTIC LEUKEMIA, NOT HAVING ACHIEVED REMISSION | 20600 | ACT MONO LEUK W/O RMSION  |
| C9301 | ACUTE MONOBLASTIC/MONOCYTIC LEUKEMIA, IN REMISSION        | 20601 | ACT MONO LEUK W RMSION   |
| C9302 | ACUTE MONOBLASTIC/MONOCYTIC LEUKEMIA, IN RELAPSE          | 20602 | MONOCYTIC LEUKEMIA, ACUTE, IN RELAPSE |
| C931  | CHRONIC MYELOMONOCYTIC LEUKEMIA                           | 2061  | CHR MONOCYTIC LEUKEMIA*  |
| C9310 | CHRONIC MYELOMONOCYTIC LEUKEMIA NOT HAVING ACHIEVED REMISSION | 20610 | CHR MONO LEUK W/O RMSION  |
| C9311 | CHRONIC MYELOMONOCYTIC LEUKEMIA, IN REMISSION              | 20611 | CHR MONO LEUK W RMSION   |
| C9312 | CHRONIC MYELOMONOCYTIC LEUKEMIA, IN RELAPSE               | 20612 | MONOCYTIC LEUKEMIA, CHRONIC, IN RELAPSE |
| C932  | Subacute monomyctic leukemia                              | 2062  | SUBACUT MONOCYTIC LEUKEMIA*|
| C9390 | MONOCYTIC LEUKEMIA, UNSPECIFIED, NOT HAVING ACHIEVED REMISSION | 20620 | SBAC MONO LEUK W/O RMSION |
| C9391 | MONOCYTIC LEUKEMIA, UNSPECIFIED IN REMISSION              | 20621 | SBAC MONO LEUK W RMSION  |
| C9392 | MONOCYTIC LEUKEMIA, UNSPECIFIED IN RELAPSE                | 20622 | SBAC MONO LEUK W RMSION  |
| C929  | Myeloid leukemia, unspecified                             | 2068  | MONOCYTIC LEUKEMIA NEC*  |
| C93Z0 | OTHER MONOCYTIC LEUKEMIA, NOT HAVING ACHIEVED REMISSION    | 20680 | OTH MONO LEUK W/O RMSION  |
| C93Z1 | OTHER MONOCYTIC LEUKEMIA, IN REMISSION                    | 20681 | OTH MONO LEUK W RMSION   |
| Code   | Description                                                                 | Page  |
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| C9322  | OTHER MONOCYTIC LEUKEMIA, IN RELAPSE                                       | 20682 |
| C939   | MONOCYTIC LEUKEMIA, UNSPECIFIED                                            | 2069  |
| C9390  | MONOCYTIC LEUKEMIA, UNSPECIFIED, NOT HAVING ACHIEVED REMISSION             | 20690 |
| C9391  | MONOCYTIC LEUKEMIA, UNSPECIFIED IN REMISSION                               | 20691 |
| C9392  | MONOCYTIC LEUKEMIA, UNSPECIFIED IN RELAPSE                                 | 20692 |
| C94    | Other leukemia of specified cell type                                       | 207   |
| C940   | Acute erythremia and erythroleukemia                                       | 2070  |
| C9400  | ACUTE ERYTHROID LEUKEMIA, NOT HAVING ACHIEVED REMISSION                    | 20700 |
| C9401  | ACUTE ERYTHROID LEUKEMIA, IN REMISSION                                     | 20701 |
| C9402  | ACUTE ERYTHROID LEUKEMIA, IN RELAPSE                                       | 20702 |
| D45    | POLYCYTHEMA VERA                                                           | 2071  |
| D45    | POLYCYTHEMA VERA                                                           | 20710 |
| D45    | POLYCYTHEMA VERA                                                           | 20711 |
| D45    | POLYCYTHEMA VERA                                                           | 20712 |
| C942   | ACUTE MEGAKARYOBLASTIC LEUKEMIA                                            | 2072  |
| C9420  | ACUTE MEGAKARYOBLASTIC LEUKEMIA NOT HAVING ACHIEVED REMISSION              | 20720 |
| C9421  | ACUTE MEGAKARYOBLASTIC LEUKEMIA, IN REMISSION                              | 20721 |
| C9422  | ACUTE MEGAKARYOBLASTIC LEUKEMIA, IN RELAPSE                                | 20722 |
| C948   | Other specified leukemias                                                  | 2078  |
| C9480  | OTHER SPECIFIED LEUKEMIAS NOT HAVING ACHIEVED REMISSION                    | 20780 |
| C9481  | OTHER SPECIFIED LEUKEMIAS, IN REMISSION                                    | 20781 |
| C9482  | OTHER SPECIFIED LEUKEMIAS, IN RELAPSE                                      | 20782 |
| C95    | LEUKEMIA OF UNSPECIFIED CELL TYPE                                          | 208   |
| C950   | ACUTE LEUKEMIA OF UNSPECIFIED CELL TYPE                                    | 2080  |
| C9500  | ACUTE LEUKEMIA OF UNSPECIFIED CELL TYPE NOT HAVING ACHIEVED REMISSION      | 20800 |
| C9501  | ACUTE LEUKEMIA OF UNSPECIFIED CELL TYPE, IN REMISSION                      | 20801 |
| C9502  | ACUTE LEUKEMIA OF UNSPECIFIED CELL TYPE, IN RELAPSE                        | 20802 |
| C951   | CHRONIC LEUKEMIA OF UNSPECIFIED CELL TYPE                                  | 2081  |
| C9510  | CHRONIC LEUKEMIA OF UNSPECIFIED CELL TYPE NOT HAVING ACHIEVED REMISSION    | 20810 |
| C9511  | CHRONIC LEUKEMIA OF UNSPECIFIED CELL TYPE, IN REMISSION                    | 20811 |
| C9512  | CHRONIC LEUKEMIA OF UNSPECIFIED CELL TYPE, IN RELAPSE                      | 20812 |
| C959   | LEUKEMIA, UNSPECIFIED                                                      | 2082  |
| C9590  | LEUKEMIA, UNSPECIFIED NOT HAVING ACHIEVED REMISSION                        | 20820 |
| C9591  | LEUKEMIA OF UNSPECIFIED CELL TYPE SUBACUTE IN REMISSION                    | 20821 |
| C9592  | LEUKEMIA OF UNSPECIFIED CELL TYPE, SUBACUTE, IN RELAPSE                    | 20822 |
| C959   | LEUKEMIA, UNSPECIFIED                                                      | 2088  |
| C9590  | LEUKEMIA, UNSPECIFIED NOT HAVING ACHIEVED REMISSION                        | 20880 |
| C9591  | LEUKEMIA, UNSPECIFIED, IN REMISSION                                        | 20881 |
| C9592  | LEUKEMIA, UNSPECIFIED, IN RELAPSE                                         | 20882 |
| C959   | LEUKEMIA, UNSPECIFIED                                                      | 2089  |

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| Code   | Diagnosis                                                                                     | Code   | Diagnosis                                                                                     |
|--------|---------------------------------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------------|
| C9590  | LEUKEMIA, UNSPECIFIED NOT HAVING ACHIEVED REMISSION                                         | 20890 | LEUKEMIA NOS W/O REMISSION                                                                |
| C9591  | LEUKEMIA, UNSPECIFIED, IN REMISSION                                                         | 20891 | LEUKEMIA NOS W REMISSION                                                                 |
| C9592  | LEUKEMIA, UNSPECIFIED, IN RELAPSE                                                           | 20892 | UNSPECIFIED LEUKEMIA IN RELAPSE                                                            |
| D00    | Carcinoma in situ of oral cavity, esophagus and stomach                                       | 230   | CA IN SITU DIGESTIVE ORG*                                                                     |
| D000   | CARCINOMA IN SITU OF ORAL CAVITY, UNSPECIFIED SITE                                           | 2300  | CA IN SITU ORAL CAV/PHAR                                                                       |
| D001   | CARCINOMA IN SITU OF ESOPHAGUS                                                              | 2301  | CA IN SITU ESOPHAGUS                                                                          |
| D002   | CARCINOMA IN SITU OF STOMACH                                                                 | 2302  | CA IN SITU STOMACH                                                                            |
| D010   | CARCINOMA IN SITU OF COLON                                                                  | 2303  | CA IN SITU COLON                                                                              |
| D012   | CARCINOMA IN SITU OF RECTUM                                                                  | 2304  | CA IN SITU RECTUM                                                                             |
| D013   | CARCINOMA IN SITU OF ANUS AND ANAL CANAL                                                     | 2305  | CA IN SITU ANAL CANAL                                                                         |
| D014   | CARCINOMA IN SITU OF OTHER AND UNSPECIFIED PARTS OF INTESTINE                               | 2306  | CA IN SITU ANUS NOS                                                                            |
| D015   | CARCINOMA IN SITU OF LIVER, GALLBLAGGER AND BILE DUCTS                                       | 2307  | CA IN SITU BOWEL NEC/NOS                                                                       |
| D019   | CARCINOMA IN SITU OF DIGESTIVE ORGAN, UNSPECIFIED                                           | 2308  | CA IN SITU LIVER/BILIARY                                                                       |
| D02    | CARCINOMA IN SITU OF MIDDLE EAR AND RESPIRATORY SYSTEM                                       | 2309  | CA IN SITU GI NEC/NOS                                                                         |
| D020   | CARCINOMA IN SITU OF LARYNX                                                                  | 2310  | CA IN SITU LARYNX                                                                             |
| D021   | CARCINOMA IN SITU OF TRACHEA                                                                 | 2311  | CA IN SITU TRACHEA                                                                            |
| D022   | CARCINOMA IN SITU OF BRONCHUS AND LUNG                                                       | 2312  | CA IN SITU BRONCHUS/LUNG                                                                       |
| D023   | CARCINOMA IN SITU OF OTHER PARTS OF RESPIRATORY SYSTEM                                       | 2313  | CA IN SITU RESP SYS NEC                                                                        |
| D024   | CARCINOMA IN SITU OF RESPIRATORY SYSTEM, UNSPECIFIED                                        | 2314  | CA IN SITU RESP SYS NOS                                                                        |
| D040   | CARCINOMA IN SITU OF SKIN OF LIP                                                             | 2315  | CA IN SITU SKIN LIP                                                                           |
| D0410  | CARCINOMA IN SITU OF SKIN OF UNSPECIFIED EYELID, INCLUDING CANTHUS                          | 2316  | CA IN SITU EYELID                                                                             |
| D0420  | CARCINOMA IN SITU OF SKIN OF UNSPECIFIED EAR AND EXTERNAL AURICULAR CANAL                   | 2317  | CA IN SITU SKIN EAR                                                                            |
| D0430  | CARCINOMA IN SITU OF SKIN OF UNSPECIFIED PART OF FACE                                        | 2318  | CA IN SITU SKIN FACE NEC                                                                       |
| D044   | CARCINOMA IN SITU OF SKIN OF SCALP AND NECK                                                  | 2319  | CA IN SITU SCALP                                                                              |
| D045   | CARCINOMA IN SITU OF SKIN OF TRUNK                                                          | 2320  | CA IN SITU SKIN TRUNK                                                                         |
| D0460  | CARCINOMA IN SITU OF SKIN OF UNSPECIFIED UPPER LIMB, INCLUDING SHOULDER                      | 2321  | CA IN SITU SKIN ARM                                                                            |
| D0470  | CARCINOMA IN SITU OF SKIN OF UNSPECIFIED LOWER LIMB, INCLUDING HIP                           | 2322  | CA IN SITU SKIN LEG                                                                            |
| D048   | CARCINOMA IN SITU OF SKIN OF OTHER SITES                                                     | 2323  | CA IN SITU SKIN NEC                                                                            |
| D049   | CARCINOMA IN SITU OF SKIN, UNSPECIFIED                                                      | 2324  | CA IN SITU SKIN NOS                                                                            |
| D059   | CARCINOMA IN SITU OF BREAST, UNSPECIFIED                                                    | 2325  | CA IN SITU SKIN NOS                                                                            |
| D0590  | UNSPECIFIED TYPE OF CARCINOMA IN SITU OF UNSPECIFIED BREAST                                 | 2326  | CA IN SITU SKIN BREAST                                                                         |
| D069   | CARCINOMA IN SITU OF CERVIX, UNSPECIFIED                                                    | 2327  | CA IN SITU SKIN BREAST                                                                         |
| D070   | CARCINOMA IN SITU OF ENDOMETRIUM                                                            | 2328  | CA IN SITU CERVIX UTERI                                                                        |
| D073   | CARCINOMA IN SITU OF OTHER AND UNSPECIFIED GENITAL ORGANS                                   | 2329  | CA IN SITU UTERUS NEC                                                                          |
| D0730  | CARCINOMA IN SITU OF UNSPECIFIED FEMALE GENITAL ORGANS                                       | 2330  | CA IN SITU FEM NEC                                                                            |
| D072   | CARCINOMA IN SITU OF VAGINA                                                                 | 2331  | CARCINOMA IN SITU OTHER AND UNSPECIFIED FEMALE GENITAL ORGANS; VAGINA                         |
| D071   | CARCINOMA IN SITU OF VULVA                                                                   | 2332  | CARCINOMA IN SITU OTHER AND UNSPECIFIED FEMALE GENITAL ORGANS; VULVA                          |
| Code   | Description                                                                 | Page |
|--------|-----------------------------------------------------------------------------|------|
| D0739  | CARCINOMA IN SITU OF OTHER FEMALE GENITAL ORGANS                             | 23339|
| D075   | CARCINOMA IN SITU OF PROSTATE                                               | 2334 |
| D074   | CARCINOMA IN SITU OF PENIS                                                  | 2335 |
| D0760  | CARCINOMA IN SITU OF UNSPECIFIED MALE GENITAL ORGANS                        | 2336 |
| D090   | CARCINOMA IN SITU OF BLADDER                                                | 2337 |
| D091   | CARCINOMA IN SITU OF OTHER AND UNSPECIFIED URINARY ORGANS                  | 2339 |
| D09    | CARCINOMA IN SITU OF OTHER AND UNSPECIFIED SITES                           | 234  |
| D098   | CARCINOMA IN SITU OF OTHER SPECIFIED SITES                                  | 2348 |
| D099   | CARCINOMA IN SITU, UNSPECIFIED                                              | 2349 |
| D37    | NEOPLASM OF UNCERTAIN OR UNKNOWN BEHAVIOR OF ORAL CAVITY AND DIGESTIVE ORGANS | 235  |
| D370   | NEOPLASM OF UNCERTAIN BEHAVIOR OF THE MAJOR SALIVARY GLANDS, UNSPECIFIED   | 2350 |
| D37039 | NEOPLASM OF UNCERTAIN BEHAVIOR OF LIP, ORAL CAVITY AND PHARYNX             | 2351 |
| D378   | NEOPLASM OF UNCERTAIN BEHAVIOR OF OTHER SPECIFIED DIGESTIVE ORGANS         | 2352 |
| D376   | NEOPLASM OF UNCERTAIN BEHAVIOR OF LIVER, GALLBLADDER AND BILE DUCTS         | 2353 |
| D484   | NEOPLASM OF UNCERTAIN BEHAVIOR OF PERITONEUM                                | 2354 |
| D379   | NEOPLASM OF UNCERTAIN BEHAVIOR OF DIGESTIVE ORGAN, UNSPECIFIED             | 2355 |
| D380   | NEOPLASM OF UNCERTAIN BEHAVIOR OF LARYNX                                    | 2356 |
| D381   | NEOPLASM OF UNCERTAIN BEHAVIOR OF TRACHEA, BRONCHUS AND LUNG               | 2357 |
| D385   | NEOPLASM OF UNCERTAIN BEHAVIOR OF OTHER RESPIRATORY ORGANS                 | 2358 |
| D386   | NEOPLASM OF UNCERTAIN BEHAVIOR OF RESPIRATORY ORGAN, UNSPECIFIED           | 2359 |
| D39    | NEOPLASM OF UNCERTAIN BEHAVIOR OF FEMALE GENITAL ORGANS                    | 236  |
| D390   | NEOPLASM OF UNCERTAIN BEHAVIOR OF UTERUS                                    | 2360 |
| D392   | NEOPLASM OF UNCERTAIN BEHAVIOR OF PLACENTA                                 | 2361 |
| D3910  | NEOPLASM OF UNCERTAIN BEHAVIOR OF UNSPECIFIED OVARY                        | 2362 |
| D399   | NEOPLASM OF UNCERTAIN BEHAVIOR OF MALE GENITAL ORGAN, UNSPECIFIED          | 2363 |
| D401   | NEOPLASM OF UNCERTAIN BEHAVIOR OF TESTIS                                    | 2364 |
| D400   | NEOPLASM OF UNCERTAIN BEHAVIOR OF PROSTATE                                  | 2365 |
| D409   | NEOPLASM OF UNCERTAIN BEHAVIOR OF MALE GENITAL ORGAN, UNSPECIFIED          | 2366 |
| D414   | NEOPLASM OF UNCERTAIN BEHAVIOR OF BLADDER                                   | 2367 |
| D41    | NEOPLASM OF UNCERTAIN OR UNKNOWN BEHAVIOR OF URINARY ORGANS               | 2369 |
| D419   | NEOPLASM OF UNCERTAIN BEHAVIOR OF UNSPECIFIED URINARY ORGAN                | 23690|
| D4100  | NEOPLASM OF UNCERTAIN BEHAVIOR OF UNSPECIFIED KIDNEY                       | 23691|
| D418   | NEOPLASM OF UNCERTAIN BEHAVIOR OF OTHER SPECIFIED URINARY ORGANS          | 23699|
| D44    | NEOPLASM OF UNCERTAIN BEHAVIOR OF OF ENDOCRINE GLANDS                      | 237  |
| D44    | NEOPLASM OF UNCERTAIN BEHAVIOR OF OF ENDOCRINE GLANDS                      | 2370 |
| D445   | NEOPLASM OF UNCERTAIN BEHAVIOR OF PINEAL GLAND                             | 2371 |
| D4410  | NEOPLASM OF UNCERTAIN BEHAVIOR OF UNSPECIFIED ADRENAL GLAND                | 2372 |
| D447   | NEOPLASM OF UNCERTAIN BEHAVIOR OF AORTIC BODY AND OTHER PARAGANGLIA       | 2373 |
| D449   | NEOPLASM OF UNCERTAIN BEHAVIOR OF UNSPECIFIED ENDOCRINE GLAND              | 2374 |
| D43    | NEOPLASM OF UNCERTAIN OR UNKNOWN BEHAVIOR OF BRAIN AND CENTRAL NERVOUS SYSTEM | 2375 |
| D429   | NEOPLASM OF UNCERTAIN BEHAVIOR OF MENINGES, UNSPECIFIED                    | 2376 |
| Code  | Description                                                                 | Code  | Description                        |
|-------|------------------------------------------------------------------------------|-------|------------------------------------|
| Q85   | Phakomatoses, not elsewhere classified                                       | 2377  | NEUROFIBROMATOsis*                 |
| Q8500 | NEUROFIBROMATOsis, UNSPECIFIED                                               | 23770 | NEUROFIBROMATOsis NOS              |
| Q8501 | NEUROFIBROMATOsis, TYPE 1                                                    | 23771 | NEUROFIBROMATOsis TYPE I           |
| Q8502 | NEUROFIBROMATOsis, TYPE 2                                                    | 23772 | NEUROFIBROMATOsis TYP II           |
| Q8503 | SCHWANNOMATOsis                                                              | 23773 | SCHWANNOMATOsis                    |
| Q8509 | OTHER NEUROFIBROMATOsis                                                      | 23779 | OTHER NEUROFIBROMATOsis            |
| D439  | NEOPLASM OF UNCERTAIN BEHAVIOR OF CENTRAL NERVOUS SYSTEM, UNSPECIFIED        | 2379  | UNC BEH NEO NERV SYS NEC           |
| D48   | Neoplasm of uncertain behavior of other and unspecified sites                | 238   | UNC BEHAV NEO NEC/NOS*             |
| D480  | NEOPLASM OF UNCERTAIN BEHAVIOR OF BONE AND ARTICULAR CARTILAGE              | 2380  | UNC BEHAV NEO BONE                 |
| D481  | NEOPLASM OF UNCERTAIN BEHAVIOR OF CONNECTIVE AND OTHER SOFT TISSUE          | 2381  | UNC BEHAV NEO SOFT TISSU           |
| D485  | NEOPLASM OF UNCERTAIN BEHAVIOR OF SKIN                                       | 2382  | UNC BEHAV NEO SKIN                 |
| D4860 | NEOPLASM OF UNCERTAIN BEHAVIOR OF UNSPECIFIED BREAST                        | 2383  | UNC BEHAV NEO BREAST               |
| D45   | POLYCYTHEMIA VERA                                                           | 2384  | POLYCYTHEMIA VERA                 |
| D470  | HISTIOCYTIC AND MAST CELL TUMORS OF UNCERTAIN BEHAVIOR                      | 2385  | MASTOCYTOMA NOS                   |
| D4729 | OTHER SPECIFIED NEOPLASMS OF UNCERTAIN BEHAVIOR OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE | 2386  | PLASMACYTOMA NOS                   |
| D4729 | OTHER SPECIFIED NEOPLASMS OF UNCERTAIN BEHAVIOR OF LYMPHOID, HEMATOPOIETIC AND RELATED TISSUE | 2387  | LYMPHOPROLIFERAT DIS NOS           |
| D473  | ESSENTIAL (HEMORRHAGIC) THROMBOCYTHEMIA                                     | 23871 | ESSENTIAL THROMBOCYTHEMIA          |
| D46   | Myelodysplastic syndromes                                                    | 23872 | LOW GRADE MYELODYSPLASTIC SYNDROME LESIONS |
| D4622 | REFRACTORY ANEMIA WITH EXCESS OF BLASTS 2                                   | 23873 | HIGH GRADE MYELODYSPLASTIC SYNDROME LESIONS |
| D487  | NEOPLASM OF UNCERTAIN BEHAVIOR OF OTHER SPECIFIED SITES                     | 2388  | UNCERT BEHAVIOR NEO NEC            |
| D489  | NEOPLASM OF UNCERTAIN BEHAVIOR, UNSPECIFIED                                 | 2389  | UNCERT BEHAVIOR NEO NOS            |
| D49   | Neoplasms of unspecified behavior                                           | 239   | UNSPECIFIED NEOPLASM*              |
| D490  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF DIGESTIVE SYSTEM                        | 2390  | DIGESTIVE NEOPLASM NOS             |
| D491  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF RESPIRATORY SYSTEM                      | 2391  | RESPIRATORY NEOPLASM NOS           |
| D492  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF BONE, SOFT TISSUE, AND SKIN             | 2392  | BONE/SKIN NEOPLASM NOS             |
| D493  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF BREAST                                  | 2393  | BREAST NEOPLASM NOS                |
| D494  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF BLADDER                                  | 2394  | BLADDER NEOPLASM NOS               |
| D495  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF OTHER GENITOURINARY ORGANS              | 2395  | OTHER GU NEOPLASM NOS              |
| D496  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF BRAIN                                   | 2396  | BRAIN NEOPLASM NOS                 |
| D497  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF ENDOCRINE GLANDS AND OTHER PARTS OF NERVOUS SYSTEM | 2397  | ENDOCRINE/NERV NEO NOS             |
| D498  | Neoplasm of unspecified behavior of other specified sites                   | 2398  | NEOPLASM NOS, SITE NEC             |
| D499  | NEOPLASM OF UNSPECIFIED BEHAVIOR OF UNSPECIFIED SITE                        | 2399  | NEOPLASM NOS                       |
Table S2e. ICD-9 and ICD-19 Codes for Kidney disease or other complications due to renal dialysis

| ICD-10 Codes | ICD-9 Codes | Description |
|--------------|-------------|-------------|
| N00          | 580         | ACUTE NEPHRITIS |
| N003         | 5800        | AC PROLIFERAT NEPHRITIS |
| N013         | 5804        | AC RAPIDLY PROGR NEPHRIT |
| N008         | 5808        | AC NEPHRITIS W OTH LES |
| N08          | 58081       | AC NEPHRITIS IN OTH DIS |
| N008         | 58089       | ACUTE NEPHRITIS NEC |
| N009         | 5809        | ACUTE NEPHRITIS NOS |
| N04          | 581         | NEPHROTIC SYNDROME |
| N044         | 5810        | NEPHROTIC SYN, PROLIFER |
| N022         | 5811        | EPIMEMBRANOUS NEPHRITIS |
| N043         | 5812        | MEMBRANOPROLIF NEPHROSIS |
| N040         | 5813        | MINIMAL CHANGE NEPHROSIS |
| N041         | 5818        | NEPHROTIC SYN W OTH LES |
| N08          | 58181       | NEPHROTIC SYN IN OTH DIS |
| N048         | 58189       | NEPHROTIC SYNDROME NEC |
| N049         | 5819        | NEPHROTIC SYNDROME NOS |
| N03          | 582         | CHRONIC NEPHRITIS |
| N032         | 5820        | CHR PROLIFERAT NEPHRITIS |
| N033         | 5821        | CHR MEMBRANOUS NEPHRITIS |
| N035         | 5822        | CHR MEMBRANOPROLIF NEPHR |
| N038         | 5824        | CHR RAPID PROGR NEPHRIT |
| N038         | 5828        | CHR NEPHRITIS W OTH LES |
| N08          | 58281       | CHR NEPHRITIS IN OTH DIS |
| N038         | 58289       | CHRONIC NEPHRITIS NEC |
| N039         | 5829        | CHRONIC NEPHRITIS NOS |
| N059         | 583         | NEPHRITIS NOS |
| N059         | 5830        | PROLIFERAT NEPHRITIS NOS |
| N052         | 5831        | MEMBRANOUS NEPHRITIS NOS |
| N055         | 5832        | MEMBRANOPROLIF NEPHR NOS |
| N059         | 5834        | RAPIDLY PROG NEPHRIT NOS |
| N171         | 5836        | RENAL CORT NECROSIS NOS |
| N172         | 5837        | NEPHR NOS/MEDULL NECROS |
| N059         | 5838        | NEPHRITIS NOS W OTH LES |
| N08          | 58381       | NEPHRITIS NOS IN OTH DIS |
| N058         | 58389       | NEPHRITIS NEC |
| N059         | 5839        | NEPHRITIS NOS |
| N17          | 584         | ACUTE RENAL FAILURE |
| N170         | 5845        | LOWER NEPHRON NEPHROSIS |
| N171         | 5846        | AC RENAL FAIL, CORT NECR |
| N172         | 5847        | AC REN FAIL, MEDULL NECR |
| Code  | Description                                      |
|-------|--------------------------------------------------|
| N178  | 5848 AC RENAL FAILURE NEC                       |
| N179  | 5849 ACUTE RENAL FAILURE NOS                    |
| N18   | 585 CHRONIC RENAL FAILURE                       |
| N181  | 5851 Chronic kidney disease, stage 1            |
| N182  | 5852 Chronic kidney disease, stage 2 (mild)     |
| N183  | 5853 Chronic kidney disease, stage 3 (moderate) |
| N1830 | 5853 Chronic kidney disease, stage 3 unspecified|
| N1831 | 5853 Chronic kidney disease, stage 3a           |
| N1832 | 5853 Chronic kidney disease, stage 3b           |
| N184  | 5854 Chronic kidney disease, stage 4 (severe)   |
| N185  | 5855 Chronic kidney disease, stage 5             |
| N186  | 5856 End stage renal disease                    |
| N189  | 5859 Chronic kidney disease, unspecified        |
| N19   | 586 RENAL FAILURE NOS                           |
| N269  | 587 RENAL SCLEROSIS NOS                         |
| N25   | 588 IMPAIRED RENAL FUNCTION                     |
| N250  | 5880 RENAL OSTEODYSTROPHY                       |
| N251  | 5881 NEPHROGEN DIABETES INSIP                   |
| N2589 | 5888 IMPAIRED RENAL FUNCT NEC                   |
| N259  | 5889 IMPAIRED RENAL FUNCT NOS                   |
| N27   | 589 SMALL KIDNEY                                |
| N270  | 5890 UNILATERAL SMALL KIDNEY                    |
| N271  | 5891 BILATERAL SMALL KIDNEYS                    |
| N279  | 5899 SMALL KIDNEY NOS                           |
| N11   | 590 CHRONIC NEPHRITIS                           |
| N110  | 5900 CHRONIC PYELONEPHRITIS                     |
| N110  | 59000 CHR PYELONEPHRITIS NOS                    |
| N118  | 59001 CHR PYELONEPH W MED NECR                  |
| N10   | 5901 ACUTE PYELONEPHRITIS                       |
| N10   | 59010 AC PYELONEPHRITIS NOS                     |
| N10   | 59011 AC PYELONEPHR W MED NECR                  |
| N151  | 5902 RENAL/PERIRENAL ABSCESS                    |
| N2884 | 5903 PYELOURETERITIS CYSTICA                    |
| N12   | 5908 OTHER PYELONEPHRITIS                       |
| N12   | 59080 PYELONEPHRITIS NOS                        |
| N12   | 59081 PYELONEPHRIT IN OTH DIS                   |
| N159  | 5909 INFECTION OF KIDNEY NOS                    |
| N130  | 591 HYDRONEPHROSIS                              |
| N131  | 591 HYDRONEPHROSIS                              |
| N132  | 591 HYDRONEPHROSIS                              |
| N133  | 591 HYDRONEPHROSIS                              |
| N136  | 591 HYDRONEPHROSIS                              |
| N20   | 592 RENAL/URETERAL CALCULUS                     |
| N200  | 5920 CALCULUS OF KIDNEY                         |
| Code  | Description                                      |
|-------|--------------------------------------------------|
| N201  | CALCULUS OF URETER                               |
| N209  | URINARY CALCULUS NOS                             |
| N288  | OTH RENAL & URETERAL DIS                         |
| N2883 | NEPHROPTOSIS                                     |
| N2881 | HYPERTROPHY OF KIDNEY                            |
| N281  | CYST OF KIDNEY, ACQUIRED                         |
| N135  | STRicture OF URETER                              |
| N138  | URETERIC OBSTRUCTION NEC                         |
| N134  | HYDROURETER                                      |
| R802  | POSTURAL PROTEINURIA                             |
| N137  | VESICOURETERAL REFLUX                            |
| N1370 | VESCOURETRL RFLUX UNSPCF                         |
| N13721| VSCURT RFLX NPHT UNILTRL                         |
| N13722| VSCOURTL RFLX NPHT BLTRL                         |
| N13729| VSCOURTL RFLX W NPHT NOS                         |
| N28   | OTH RENAL & URETERAL DIS                         |
| N280  | RENAL VASCULAR DISORDER                          |
| N2889 | URETERAL FISTULA                                 |
| N2889 | RENAL & URETERAL DIS NEC                         |
| N289  | RENAL & URETERAL DIS NOS                         |
| Q610  | CYSTIC KIDNEY DISEASE                            |
| Q611  | CYSTIC KIDNEY DISEASE                            |
| Q612  | CYSTIC KIDNEY DISEAS NOS                         |
| Q613  | CONGENITAL RENAL CYST                            |
| Q614  | POLYCYSTIC KIDNEY NOS                            |
| Q615  | POLYCYST KID-Autosom Dom                         |
| Q618  | POLYCYST KID-Autosom REC                         |
| Q619  | RENAL DYSPLASIA                                  |
| Q615  | MEDULLARY CYSTIC KIDNEY                          |
| Q615  | MEDULLARY SPONGE KIDNEY                          |
| Q615  | CYSTIC KIDNEY DISEAS NEC                         |
| Q630  | KIDNEY ANOMALY NEC                               |
| Q631  | KIDNEY ANOMALY NEC                               |
| Q632  | KIDNEY ANOMALY NEC                               |
| Q633  | KIDNEY ANOMALY NEC                               |
| Q638  | KIDNEY ANOMALY NEC                               |
| T82898A| COMP-REN DIALYS DEV/GRFT                         |
| T861  | COMPL KIDNEY TRANSPLANT                          |
| Z992  | HEMODIALYSIS                                     |
| Z940  | KIDNEY TRANSPLANT                                |
| Z940  | RENAL AUTOTRANSPLANT                             |
| Z940  | KIDNEY TRANSPLANT NEC                            |
Table S3. Baseline characteristics of participants eligible for Medicare and enrolled for Medicare Part-D by three comparison groups in 2007

|                              | Chlorthalidone | Amlodipine | Lisinopril | Total | P value |
|------------------------------|----------------|------------|------------|-------|---------|
| Eligible number of participants | 3637           | 2189       | 2181       | 8007  |         |
| Age, mean [range], years     | 67.8 [55-94]   | 67.9 [55-89] | 67.7 [55-90] | 67.8 [55-94] | 0.231   |
| 55-64                        | 1162 (31.9)    | 694 (31.7) | 706 (32.4) | 2562 (32.0) | 0.786   |
| 65-69                        | 1183 (32.5)    | 693 (31.7) | 716 (32.8) | 2592 (32.4) |         |
| 70 or older                  | 1292 (35.5)    | 802 (36.6) | 759 (34.8) | 2651 (35.2) |         |
| Sex                          |                |            |            |       |         |
| Women                        | 2355 (64.8)    | 1442 (65.9) | 1399 (64.1) | 5196 (64.9) | 0.474   |
| Men                          | 1282 (35.2)    | 747 (34.1) | 782 (35.9) | 2811 (35.1) |         |
| Race/ethnicity               |                |            |            |       |         |
| Black                        | 1395 (38.4)    | 826 (37.7) | 802 (36.8) | 3023 (37.8) | 0.483   |
| Non-Black                    | 2242 (61.6)    | 1363 (62.3) | 1379 (63.2) | 4984 (62.2) |         |
| Hispanic ethnicity*          |                |            |            |       |         |
| Hispanic                     | 898 (24.8)     | 509 (23.4) | 574 (26.5) | 1981 (24.9) | 0.063   |
| Non-Hispanic                 | 2723 (75.2)    | 1663 (76.6) | 1591 (73.5) | 5977 (75.1) |         |
| Education, mean (SD), years* | 10.4 (4.1)     | 10.3 (4.0) | 10.3 (4.3) | 10.4 (4.1)  | <0.001  |
| Antihypertensive treatment   |                |            |            |       |         |
| Treated (prior to baseline)  | 3303 (90.8)    | 1974 (90.2) | 1984 (91.0) | 7261 (90.7) | 0.623   |
| Category                                      | Untreated | 215 (9.8) | 197 (9.0) | 746 (9.3) | 0.964 |
|-----------------------------------------------|-----------|-----------|-----------|-----------|-------|
| Aspirin use at baseline*                      |           |           |           |           |       |
| Yes aspirin used                              | 1160 (32.4) | 699 (32.3) | 704 (32.7) | 2563 (32.5) | 0.922 |
| On pravastatin                                | 506 (13.9) | 301 (13.8) | 309 (14.2) | 1116 (13.9) | 0.224 |
| Women taking estrogen*                        | 417 (18.0) | 238 (16.7) | 219 (15.9) | 874 (17.1) | 0.673 |
| HDL, mean (SD), mg/dl*                        | 48.8 (14.6) | 48.8 (14.5) | 49.0 (14.8) | 48.8 (14.6) | 0.339 |
| LDL, mean (SD), mg/dl*                        | 137.9 (37.8) | 136.6 (36.9) | 137.3 (37.0) | 137.4 (37.3) | 0.833 |
| HDL <35 mg/dl                                 | 386 (10.6) | 240 (11.0) | 227 (10.4) | 853 (10.7) | 0.821 |
| GFR, mean (SD)*                               | 77.9 (18.2) | 77.9 (18.1) | 77.9 (18.4) | 77.9 (18.2) | 0.728 |
| Diabetes classification                       |           |           |           |           |       |
| Diabetic                                      | 1280 (35.2) | 761 (34.8) | 783 (35.9) | 2824 (35.3) | 0.728 |
| Non-diabetic                                  | 2357 (64.8) | 1428 (65.2) | 1398 (64.1) | 5183 (64.7) | 0.234 |
| Cigarette smoking                             |           |           |           |           |       |
| Smoker (current)                              | 605 (16.6) | 381 (17.4) | 338 (15.5) | 1324 (16.5) | 0.326 |
| Nonsmoker (non/former)                       | 3032 (83.4) | 1808 (82.6) | 1842 (84.5) | 6682 (83.5) | 0.362 |
| History of CHD*                               | 848 (23.5) | 484 (22.3) | 473 (21.9) | 1805 (22.7) | 0.333 |
| Atherosclerotic CVD (yes if any of 4 below)   | 1870 (51.4) | 1095 (50.0) | 1083 (49.7) | 4048 (50.6) | 0.416 |
| History MI or stroke                          | 735 (20.2) | 463 (21.2) | 422 (19.3) | 1620 (20.2) | 0.160 |
| History coronary revascularization            | 406 (11.2) | 211 (9.6) | 241 (11.0) | 858 (10.7) | 0.074 |
| Other atherosclerotic CVD                     | 914 (25.1) | 553 (25.3) | 518 (23.8) | 1985 (24.8) | 0.329 |
| ST-T wave*                                    | 383 (10.6) | 204 (9.4) | 249 (11.5) | 836 (10.5) | 0.416 |
| LVH by Minnesota code*                        | 134 (4.4) | 94 (5.1) | 76 (4.2) | 304 (4.5) | 0.329 |
|                         | C     | A     | L     | p     |
|-------------------------|-------|-------|-------|-------|
| SBP, mean (SD), mmHg    | 145.5 (12.8) | 145.6 (13.1) | 145.5 (12.9) | 145.5 (12.9) | 0.445 |
| DBP, mean (SD), mmHg    | 83.8 (8.7)  | 83.8 (8.8)  | 83.5 (8.7)  | 83.7 (8.8)  | 0.814 |
| Final SBP, mean (SD), mmHg | 136.1 (15.9) | 135.9 (15.3) | 137.8 (17.5) | 136.5 (16.2) | <0.001 |
| BMI, mean (SD), mg/kg²* | 30.3 (6.3)  | 30.1 (6.1)  | 30.1 (6.1)  | 30.2 (6.2)  | 0.032 |
| Obesity*                | 1594 (43.9) | 955 (43.7)  | 976 (44.9)  | 3525 (44.1) | 0.717 |
| Lipid trial participants| 987 (27.1)  | 575 (26.3)  | 572 (26.2)  | 2134 (26.7) | 0.668 |

*Reduced denominator Chlorthalidone/Amlodipine/Lisinopril available for Aspirin: C=3581/A=2162/L=2154; BMI: C=3627/A=2183/L=2175; Education: C=3374/A=2025/L=2011; Estrogen: C=2312/A=1423/L=1378; GFR: C=3497/A=2083/L=2075; HDL: C=3484/A=2078/L=2067; Hispanic: C=3621/A=2172/L=2165; History of CHD: C=3611/A=2170/L=2160; LDL: C=3314/A=1971/L=1962; LVH by Minnesota code: C=3065/A=1837/L=1827; Obesity: C=3627/A=2183/L=2175; ST-T wave: C=3608/A=2165/L=2156.
Table S4a. Patterns of antihypertensive drug utilization from Medicare Part-D drug coverage in 2007, by 3 arms and added-on drugs (Black)

| Total Black Participants: N=3024 | N (%) of antihypertensive drug who received the study class drug | N (%) of antihypertensive drug who did not receive the study trial drug |
|----------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
|                                  | 1) any diuretic (1 drug)                                      | 2) any diuretic plus 1 drug                                  | 3) any diuretic plus 2 drugs                                | 4) any diuretic plus ≥3 drugs                                | 1) no diuretic (on 1 drug)                        | 2) no diuretic (on 2 drugs)                     | 3) no diuretic (on 3 drugs)                     | 4) no diuretic (on 4+ drugs)                     |
| **Diuretic= Thiazide/thiazide-type** |                                                               |                                                               |                                                               |                                                               |                                                               |                                                               |                                                               |                                                               |
| [Randomized to Chlorthalidone in trial: 1395 (46.1)] |                                                               |                                                               |                                                               |                                                               |                                                               |                                                               |                                                               |                                                               |
| Aldosterone antagonists †         | 0 (0)                                                         | 1 (0.1)                                                       | 16 (1.1)                                                      | 2 (0.1)                                                       | 1 (0.1)                                                      | 11 (0.8)                                                      | 32 (2.3)                                                      |                                                               |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker) | 0 (0)                                                         | 6 (0.4)                                                       | 24 (1.7)                                                      | 1 (0.1)                                                       | 1 (0.1)                                                      | 8 (0.6)                                                       | 13 (0.9)                                                      |                                                               |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 76 (5.4)                                                      | 171 (12.3)                                                   | 259 (18.6)                                                   | 50 (3.6)                                                      | 108 (7.7)                                                   | 127 (9.1)                                                   | 140 (10)                                                      |                                                               |
| Arteriolar vasodilators           | 0 (0)                                                         | 4 (0.3)                                                       | 30 (2.2)                                                      | 1 (0.1)                                                       | 2 (0.1)                                                      | 10 (0.7)                                                      | 38 (2.7)                                                      |                                                               |
| Autonomic ganglionic vasodilators | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         |                                                               |
| Beta adrenergic blockers (β-blockers) | 34 (2.4)                                                      | 85 (6.1)                                                      | 224 (16.1)                                                   | 24 (1.7)                                                      | 78 (5.6)                                                      | 112 (8)                                                      | 132 (9.5)                                                      |                                                               |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 17 (1.2)                                                      | 110 (7.9)                                                     | 218 (15.6)                                                   | 56 (4.0)                                                      | 92 (6.6)                                                      | 106 (7.6)                                                     | 126 (9)                                                      |                                                               |
| Central alpha 2 adrenergic agonists | 2 (0.1)                                                      | 6 (0.4)                                                       | 60 (4.3)                                                      | 5 (0.4)                                                       | 9 (0.6)                                                      | 24 (1.7)                                                      | 48 (3.4)                                                      |                                                               |
| Diuretics: thiazide/thiazide-type  | 32 (2.3)                                                      | 148 (10.6)                                                    | 212 (15.2)                                                   | 277 (19.9)                                                   | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         |
| Diuretics: loop                   | 5 (0.4)                                                       | 21 (1.5)                                                      | 96 (6.9)                                                      | 12 (0.9)                                                      | 64 (4.6)                                                      | 101 (7.2)                                                     | 128 (9.2)                                                      |                                                               |
| Diuretics: potassium-sparing †    | 14 (1)                                                        | 20 (1.4)                                                      | 42 (3)                                                       | 1 (0.1)                                                       | 3 (0.2)                                                      | 2 (0.1)                                                      | 4 (0.3)                                                      |                                                               |
| Peripheral adrenergic neuron antagonist † | 0 (0)                                                      | 0 (0)                                                         | 1 (0.1)                                                      | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         | 1 (0.1)                                                      |
| Renin inhibitors                  | 0 (0)                                                         | 0 (0)                                                         | 8 (0.6)                                                      | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         | 0 (0)                                                         |                                                               |
| **Total participants**            | 32 (2.3)                                                      | 148 (10.6)                                                    | 212 (15.2)                                                   | 277 (19.9)                                                   | 152 (10.9)                                                    | 179 (12.8)                                                    | 167 (12)                                                      | 153 (11)                                                      |

**Calcium channel blocker (CCB)**

[Randomized to Amlodipine in trial: 827 (27.3)]

|                                  | 1) any CCB (1 drug) | 2) any CCB plus 1 drug | 3) any CCB plus 2 drugs | 4) any CCB plus ≥3 drugs | 1) no CCB (on 1 drug) | 2) no CCB (on 2 drugs) | 3) no CCB (on 3 drugs) | 4) no CCB (on 4+ drugs) |
|----------------------------------|---------------------|------------------------|-------------------------|--------------------------|-----------------------|------------------------|------------------------|------------------------|
|                                  |                     |                        |                         |                          |                       |                        |                        |                        |
| Classification                                      | 2 drugs | 3 drugs | 4+ drugs |
|----------------------------------------------------|---------|---------|----------|
| Aldosterone antagonists †                          | 0 (0)   | 1 (0.1) | 15 (1.8) |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker) | 1 (0.1) | 2 (0.2) | 20 (2.4) |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 42 (5.1) | 102 (12.3) | 205 (24.8) |
| Arteriolar vasodilators                            | 0 (0)   | 5 (0.6) | 40 (4.8) |
| Autonomic ganglionic vasodilators                  | 0 (0)   | 0 (0)   | 0 (0)    |
| Beta adrenergic blockers (β-blockers)              | 16 (1.9) | 55 (6.7) | 184 (22.2) |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 37 (4.5) | 87 (10.5) | 139 (16.8) |
| Central alpha 2 adrenergic agonists                | 4 (0.5) | 7 (0.8)  | 61 (7.4) |
| Diuretics: thiazide/thiazide-type                   | 18 (2.2) | 64 (7.7) | 149 (18) |
| Diuretics: loop                                     | 6 (0.7) | 36 (4.4) | 114 (13.8) |
| Diuretics: potassium-sparing †                      | 0 (0)   | 6 (0.7)  | 21 (2.5) |
| Peripheral adrenergic neuron antagonist †           | 0 (0)   | 0 (0)    | 0 (0)    |
| Renin inhibitors                                    | 0 (0)   | 0 (0)    | 0 (0)    |
| **Total participants**                              | 37 (4.5) | 87 (10.5) | 139 (16.8) |

**Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB)**

| Classification                                      | 1) any ACE/ARB (1 drug) | 2) any ACE/ARB plus 1 drug (2 drugs) | 3) any ACE/ARB plus 2 drugs (3 drugs) | 4) any ACE/ARB plus ≥3 drugs (4+ drugs) | 1) no ACE/ARB (on 1 drug) | 2) no ACE/ARB (on 2 drugs) | 3) no ACE/ARB (on 3 drugs) | 4) no ACE/ARB (on 4+ drugs) |
|----------------------------------------------------|------------------------|--------------------------------------|--------------------------------------|-----------------------------------------|--------------------------|--------------------------|--------------------------|----------------------------|
| Aldosterone antagonists †                          | 0 (0)                  | 2 (0.2)                              | 20 (2.5)                             | 0 (0)                                   | 2 (0.2)                  | 1 (0.1)                  | 1 (0.1)                  | 1 (0.1)                   |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker) | 2 (0.2)              | 8 (1)                                | 26 (3.2)                             | 1 (0.1)                                 | 4 (0.5)                  | 1 (0.1)                  | 5 (0.6)                  |                             |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 32 (4)                | 121 (15.1)                           | 199 (24.8)                           | 234 (29.2)                              | 0 (0)                    | 0 (0)                    | 0 (0)                    | 0 (0)                     |
| Class                                | Count | Percentage | Count | Percentage | Count | Percentage | Count | Percentage |
|--------------------------------------|-------|------------|-------|------------|-------|------------|-------|------------|
| Arteriolar vasodilators              | 0     | 0.0%       | 12    | 1.5%       | 50    | 6.2%       | 0     | 0.0%       |
| Autonomic ganglionic vasodilators    | 0     | 0.0%       | 0     | 0.0%       | 0     | 0.0%       | 0     | 0.0%       |
| Beta adrenergic blockers (β-blockers)| 17    | 2.1%       | 95    | 11.8%      | 186   | 23.2%      | 21    | 2.6%       |
| Calcium channel blocker (CCB)        | 32    | 4.0%       | 92    | 11.5%      | 191   | 23.8%      | 19    | 2.4%       |
| Central alpha 2 adrenergic agonists  | 2     | 0.2%       | 9     | 1.1%       | 70    | 8.7%       | 1     | 0.1%       |
| Diuretics: thiazide/thiazide-type     | 55    | 6.9%       | 117   | 14.6%      | 148   | 18.5%      | 4     | 0.5%       |
| Diuretics: loop                      | 13    | 1.6%       | 55    | 6.9%       | 129   | 16.1%      | 7     | 0.9%       |
| Diuretics: potassium-sparing†        | 0     | 0.0%       | 8     | 1.0%       | 23    | 2.9%       | 0     | 0.0%       |
| Peripheral adrenergic neuron antagonist†| 0    | 0.0%       | 0     | 0.0%       | 0     | 0.0%       | 0     | 0.0%       |
| Renin inhibitors                     | 0     | 0.0%       | 0     | 0.0%       | 0     | 0.0%       | 0     | 0.0%       |
| **Total participants**               | 32    | 4.0%       | 121   | 15.1%      | 199   | 24.8%      | 234   | 29.2%      |

†Not used alone/used in combination for chronic hypertension treatment.
**Table S4b. Patterns of antihypertensive drug utilization from Medicare Part-D drug coverage in 2007, by 3 arms and added-on drugs (Non-black)**

| Total Non-black Participants: N=4986 | N (%) of antihypertensive drug who received the study class drug | N (%) of antihypertensive drug who did not receive the study trial drug |
|--------------------------------------|---------------------------------------------------------------|---------------------------------------------------------------------|
|                                      | 1) any diuretic (1 drug)                                      | 1) no diuretic (on 1 drug)                                          |
|                                      | 2) any diuretic plus 1 drug (2 drugs)                         | 2) no diuretic (on 2 drugs)                                         |
|                                      | 3) any diuretic plus 2 drugs (3 drugs)                        | 3) no diuretic (on 3 drugs)                                         |
|                                      | 4) any diuretic plus ≥3 drugs (4+ drugs)                      | 4) no diuretic (on 4+ drugs)                                        |
| **Diuretic= Thiazide/thiazide-type**  |                                                               |                                                                     |
| [Randomized to Chlorthalidone in trial: 2243 (45)]           |                                                               |                                                                     |
| Aldosterone antagonists †             | 1 (0)                                                        | 1 (0)                                                              |
| Alpha 1 adrenergic receptor agonist (selective; \( \alpha \)-blocker) | 2 (0.1)                                                      | 6 (0.3)                                                           |
| Angiotensin-converting enzyme (ACE) inhibitor/ Angiotensin II receptor blockers (ARB) | 126 (5.6)                                                    | 218 (9.7)                                                          |
| Arteriolar vasodilators               | 2 (0.1)                                                      | 218 (9.7)                                                          |
| Autonomic ganglionic vasodilators     | 0 (0)                                                        | 0 (0)                                                              |
| Beta adrenergic blockers (\( \beta \)-blockers)              | 48 (2.1)                                                     | 189 (8.4)                                                          |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 17 (0.8)                                                      | 110 (4.9)                                                          |
| Central alpha 2 adrenergic agonists   | 4 (0.2)                                                      | 11 (0.5)                                                           |
| Diuretics: thiazide/thiazide-type     | 50 (2.2)                                                     | 218 (9.7)                                                          |
| Diuretics: loop                       | 4 (0.2)                                                      | 136 (6.1)                                                          |
| Diuretics: potassium-sparing †        | 14 (0.6)                                                     | 49 (2.2)                                                           |
| Peripheral adrenergic neuron antagonist † | 0 (0)                                                         | 2 (0.1)                                                           |
| Renin inhibitors                      | 0 (0)                                                        | 3 (0.1)                                                           |
| **Total participants**                | 50 (2.2)                                                     | 218 (9.7)                                                          |

**Calcium channel blocker (CCB)**

[Randomized to Amlodipine in trial: 1363 (27.3)]

|                                      | 1) any CCB (1 drug)                                         | 1) no CCB (on 1 drug)                                              |
|                                      | 2) any CCB plus 1 drug (2 drugs)                            | 2) no CCB (on 2 drugs)                                             |
|                                      | 3) any CCB plus 2 drugs (3 drugs)                           | 3) no CCB (on 3 drugs)                                             |
|                                      | 4) any CCB plus ≥3 drugs (4+ drugs)                         | 4) no CCB (on 4+ drugs)                                            |
| Category | (2 drugs) | (3 drugs) | (4+ drugs) |
|----------|-----------|-----------|------------|
| Aldosterone antagonists † | 2 (0.1) | 4 (0.3) | 17 (1.2) | 1 (0.1) | 4 (0.3) | 11 (0.8) | 16 (1.2) |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker) | 3 (0.2) | 5 (0.4) | 33 (2.4) | 4 (0.3) | 6 (0.4) | 16 (1.2) | 16 (1.2) |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 72 (5.3) | 135 (9.9) | 223 (16.4) | 70 (5.1) | 185 (13.6) | 148 (10.9) | 63 (4.6) |
| Arteriolar vasodilators | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Autonomic ganglionic vasodilators | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Beta adrenergic blockers (β-blockers) | 36 (2.6) | 86 (6.3) | 202 (14.8) | 53 (3.9) | 107 (7.9) | 143 (10.5) | 68 (5) |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 56 (4.1) | 136 (10) | 183 (13.4) | 242 (17.8) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Central alpha 2 adrenergic agonists | 1 (0.1) | 10 (0.7) | 44 (3.2) | 0 (0) | 3 (0.2) | 11 (0.8) | 11 (0.8) |
| Diuretics: thiazide/thiazide-type | 10 (0.7) | 71 (5.2) | 152 (11.2) | 18 (1.3) | 107 (7.9) | 105 (7.7) | 48 (3.5) |
| Diuretics: loop | 11 (0.8) | 44 (3.2) | 136 (10) | 13 (1) | 66 (4.8) | 75 (5.5) | 53 (3.9) |
| Diuretics: potassium-sparing† | 1 (0.1) | 6 (0.4) | 19 (1.4) | 0 (0) | 6 (0.4) | 11 (0.8) | 7 (0.5) |
| Peripheral adrenergic neuron antagonist† | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 1 (0.1) | 1 (0.1) | 0 (0) |
| Renin inhibitors | 0 (0) | 0 (0) | 2 (0.1) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| **Total participants** | 56 (4.1) | 136 (10) | 183 (13.4) | 242 (17.8) | 159 (11.7) | 244 (17.9) | 175 (12.8) | 70 (5.1) |

**Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB)**

[Randomized to Lisinopril in trial: 1380 (27.7)]

| Category | 1) any ACE/ARB (1 drug) | 2) any ACE/ARB plus 1 drug (2 drugs) | 3) any ACE/ARB plus 2 drugs (3 drugs) | 4) any ACE/ARB plus ≥3 drugs (4+ drugs) |
|-----------|-------------------------|----------------------------------|-------------------------------------|----------------------------------|
| Aldosterone antagonists † | 0 (0) | 5 (0.4) | 43 (3.1) | 3 (0.2) | 8 (0.6) | 11 (0.8) | 5 (0.4) |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker) | 4 (0.3) | 16 (1.2) | 42 (3) | 4 (0.3) | 8 (0.6) | 6 (0.4) | 1 (0.1) |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 94 (6.8) | 261 (18.9) | 327 (23.7) | 294 (21.3) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Medical Category                          | Participants |
|------------------------------------------|--------------|
| Arteriolar vasodilators                  | 1 (0.1) 7 (0.5) 38 (2.8) 1 (0.1) 7 (0.5) 5 (0.4) 4 (0.3) |
| Autonomic ganglionic vasodilators        | 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) 0 (0) |
| Beta adrenergic blockers (β-blockers)    | 75 (5.4) 197 (14.3) 248 (18) 52 (3.8) 66 (4.8) 51 (3.7) 18 (1.3) |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 66 (4.8) 139 (10.1) 217 (15.7) 33 (2.4) 47 (3.4) 44 (3.2) 15 (1.1) |
| Central alpha 2 adrenergic agonists      | 4 (0.3) 20 (1.4) 65 (4.7) 3 (0.2) 9 (0.7) 8 (0.6) 5 (0.4) |
| Diuretics: thiazide/thiazide-type        | 78 (5.7) 145 (10.5) 186 (13.5) 14 (1) 27 (2) 36 (2.6) 14 (1) |
| Diuretics: loop                          | 33 (2.4) 117 (8.5) 174 (12.6) 15 (1.1) 33 (2.4) 37 (2.7) 10 (0.7) |
| Diuretics: potassium-sparing†            | 0 (0) 8 (0.6) 23 (1.7) 1 (0.1) 1 (0.1) 11 (0.8) 6 (0.4) |
| Peripheral adrenergic neuron antagonist† | 0 (0) 0 (0) 3 (0.2) 0 (0) 0 (0) 0 (0) 0 (0) |
| Renin inhibitors                         | 0 (0) 0 (0) 2 (0.1) 1 (0.1) 0 (0) 1 (0.1) 0 (0) |
| **Total participants**                   | 94 (6.8) 261 (18.9) 327 (23.7) 294 (21.3) 127 (9.2) 103 (7.5) 70 (5.1) 19 (1.4) |

†Not used alone/used in combination for chronic hypertension treatment.
Table S4c. Patterns of antihypertensive drug utilization from Medicare Part-D drug coverage in 2007, by 3 arms and added-on drugs (Male)

| Total Male Participants: N=2812 | N (%) of antihypertensive drug who received the study class drug | N (%) of antihypertensive drug who did not receive the study trial drug |
|---------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
|                                 | 1) any diuretic (1 drug) | 2) any diuretic plus 1 drug (2 drugs) | 3) any diuretic plus 2 drugs (3 drugs) | 4) any diuretic plus ≥3 drugs (4+ drugs) |
|                                 | 1) no diuretic (on 1 drug) | 2) no diuretic (on 2 drugs) | 3) no diuretic (on 3 drugs) | 4) no diuretic (on 4+ drugs) |
| **Diuretic= Thiazide/thiazide-type** | [Randomized to Chlorthalidone in trial: 1283 (45.6)] | | | |
| Aldosterone antagonists †        | 1 (0.1) | 2 (0.2) | 17 (1.3) | 0 (0) | 3 (0.2) | 10 (0.8) | 32 (2.5) |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker) | 2 (0.2) | 17 (1.3) | 46 (3.6) | 6 (0.5) | 14 (1.1) | 30 (2.3) | 36 (2.8) |
| Angiotensin-converting enzyme (ACE) inhibitor/ Angiotensin II receptor blockers (ARB) | 57 (4.4) | 143 (11.1) | 180 (14) | 65 (5.1) | 142 (11.1) | 135 (10.5) | 119 (9.3) |
| Arteriolar vasodilators         | 0 (0) | 3 (0.2) | 23 (1.8) | 0 (0) | 1 (0.1) | 11 (0.9) | 33 (2.6) |
| Autonomic ganglionic vasodilators | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Beta adrenergic blockers (β-blockers) | 25 (1.9) | 93 (7.2) | 167 (13) | 49 (3.8) | 107 (8.3) | 131 (10.2) | 119 (9.3) |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 10 (0.8) | 62 (4.8) | 139 (10.8) | 27 (2.1) | 68 (5.3) | 81 (6.3) | 96 (7.5) |
| Central alpha 2 adrenergic agonists | 0 (0) | 7 (0.5) | 38 (3) | 4 (0.3) | 6 (0.5) | 9 (0.7) | 41 (3.2) |
| Diuretics: thiazide/thiazide-type | 32 (2.5) | 104 (8.1) | 176 (13.7) | 202 (15.7) | 0 (0) | 0 (0) | 0 (0) |
| Diuretics: loop | 1 (0.1) | 12 (0.9) | 77 (6) | 11 (0.9) | 57 (4.4) | 88 (6.9) | 114 (8.9) |
| Diuretics: potassium-sparing † | 8 (0.6) | 13 (1) | 31 (2.4) | 0 (0) | 2 (0.2) | 3 (0.2) | 4 (0.3) |
| Peripheral adrenergic neuron antagonist † | 0 (0) | 0 (0) | 1 (0.1) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Renin inhibitors | 0 (0) | 0 (0) | 1 (0.1) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| **Total participants** | 32 (2.5) | 104 (8.1) | 176 (13.7) | 202 (15.7) | 162 (12.6) | 200 (15.6) | 166 (12.9) | 134 (10.4) |

**Calcium channel blocker (CCB)**

[Randomized to Amlodipine in trial: 747 (26.6)]

| Calcium channel blocker (CCB) | 1) any CCB (1 drug) | 2) any CCB plus 1 drug (2 drugs) | 3) any CCB plus 2 drugs (3 drugs) | 4) any CCB plus ≥3 drugs (4+ drugs) |
|-------------------------------|--------------------|---------------------------------|---------------------------------|---------------------------------|
|                               | 1) no CCB (on 1 drug) | 2) no CCB (on 2 drugs) | 3) no CCB (on 3 drugs) | 4) no CCB (on 4+ drugs) |

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† Denotes drugs with a ceiling prescription limit.
| Category                                                                 | 0 (0) | 1 (0.1) | 11 (1.5) | 1 (0.1) | 2 (0.3) | 4 (0.5) | 8 (1.1) |
|-------------------------------------------------------------------------|-------|---------|----------|---------|---------|---------|---------|
| Aldosterone antagonists †                                               |       |         |          |         |         |         |         |
| Alpha 1 adrenergic receptor agonant (selective; α-blocker)              | 4 (0.5) | 6 (0.8) | 29 (3.9) | 4 (0.5) | 9 (1.2) | 20 (2.7) | 19 (2.5) |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 47 (6.3) | 71 (9.5) | 125 (16.7) | 32 (4.3) | 73 (9.8) | 74 (9.9) | 35 (4.7) |
| Arteriolar vasodilators                                                | 0 (0) | 4 (0.5) | 20 (2.7) | 0 (0) | 2 (0.3) | 1 (0.1) | 5 (0.7) |
| Autonomic ganglionic vasodilators                                      | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Beta adrenergic blockers (β-blockers)                                  | 18 (2.4) | 45 (6) | 121 (16.2) | 29 (3.9) | 52 (7) | 60 (8) | 34 (4.6) |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine      | 29 (3.9) | 83 (11.1) | 100 (13.4) | 144 (19.3) | 0 (0) | 0 (0) | 0 (0) |
| Central alpha 2 adrenergic agonants                                   | 1 (0.1) | 7 (0.9) | 32 (4.3) | 0 (0) | 4 (0.5) | 8 (1.1) | 5 (0.7) |
| Diuretics: thiazide/thiazide-type                                      | 9 (1.2) | 35 (4.7) | 93 (12.4) | 9 (1.2) | 54 (7.2) | 51 (6.8) | 21 (2.8) |
| Diuretics: loop                                                        | 3 (0.4) | 26 (3.5) | 74 (9.9) | 9 (1.2) | 18 (2.4) | 41 (5.5) | 30 (4) |
| Diuretics: potassium-sparing†                                          | 1 (0.1) | 5 (0.7) | 12 (1.6) | 0 (0) | 5 (0.7) | 4 (0.5) | 5 (0.7) |
| Peripheral potassium-sparing†                                          | 0 (0) | 0 (0) | 0 (0) | 0 (0) | 1 (0.1) | 1 (0.1) | 0 (0) |
| Renin inhibitors                                                       | 0 (0) | 0 (0) | 1 (0.1) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| **Total participants**                                                 | 29 (3.9) | 83 (11.1) | 100 (13.4) | 144 (19.3) | 84 (11.2) | 110 (14.7) | 88 (11.8) | 37 (5) |

### Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB)

| [Randomized to Lisinopril in trial: 782 (27.8)] |
|-----------------------------------------------|
| 1) any ACE/ARB (1 drug) | 2) any ACE/ARB plus 1 drug | 3) any ACE/ARB plus 2 drugs | 4) any ACE/ARB plus ≥3 drugs | 1) no ACE/ARB (on 1 drug) | 2) no ACE/ARB (on 2 drugs) | 3) no ACE/ARB (on 3 drugs) | 4) no ACE/ARB (on ≥4 drugs) |
| Aldosterone antagonists †                         | 0 (0) | 3 (0.4) | 31 (4) | 2 (0.3) | 6 (0.8) | 8 (1) | 3 (0.4) |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker)               | 6 (0.8) | 22 (2.8) | 44 (5.6) | 5 (0.6) | 12 (1.5) | 5 (0.6) | 4 (0.5) |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 49 (6.3) | 130 (16.6) | 167 (21.4) | 176 (22.5) | 0 (0) | 0 (0) | 0 (0) | 0 (0) |
| Class                          | No. (% of total) | No. (% of total) | No. (% of total) | No. (% of total) | No. (% of total) | No. (% of total) | No. (% of total) | No. (% of total) |
|-------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Arteriolar vasodilators      | 0 (0)            | 7 (0.9)          | 33 (4.2)         | 0 (0)            | 8 (1)            | 6 (0.8)          | 8 (1)            |                  |
| Autonomic ganglionic vasodilators | 0 (0)            | 0 (0)            | 0 (0)            | 0 (0)            | 0 (0)            | 0 (0)            | 0 (0)            | 0 (0)            |
| Beta adrenergic blockers (β-blockers) | 42 (5.4)         | 107 (13.7)       | 148 (18.9)       | 38 (4.9)         | 37 (4.7)         | 25 (3.2)         | 15 (1.9)         |                  |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 38 (4.9)         | 66 (8.4)         | 128 (16.4)       | 16 (2)           | 20 (2.6)         | 24 (3.1)         | 9 (1.2)          |                  |
| Central alpha 2 adrenergic agonists | 2 (0.3)          | 9 (1.2)          | 38 (4.9)         | 2 (0.3)          | 5 (0.6)          | 3 (0.4)          | 7 (0.9)          |                  |
| Diuretics: thiazide/thiazide-type | 32 (4.1)         | 61 (7.8)         | 101 (12.9)       | 7 (0.9)          | 20 (2.6)         | 18 (2.3)         | 9 (1.2)          |                  |
| Diuretics: loop               | 10 (1.3)         | 56 (7.2)         | 105 (13.4)       | 9 (1.2)          | 20 (2.6)         | 21 (2.7)         | 7 (0.9)          |                  |
| Diuretics: potassium-sparing† | 0 (0)            | 3 (0.4)          | 16 (2)           | 0 (0)            | 0 (0)            | 4 (0.5)          | 6 (0.8)          |                  |
| Peripheral adrenergic neuron antagonist† | 0 (0)            | 0 (0)            | 3 (0.4)          | 0 (0)            | 0 (0)            | 0 (0)            | 0 (0)            |                  |
| Renin inhibitors              | 0 (0)            | 0 (0)            | 1 (0.1)          | 1 (0.1)          | 0 (0)            | 0 (0)            | 0 (0)            |                  |
| **Total participants**        | 49 (6.3)         | 130 (16.6)       | 167 (21.4)       | 176 (22.5)       | 80 (10.2)        | 64 (8.2)         | 38 (4.9)         | 16 (2)           |

†Not used alone/used in combination for chronic hypertension treatment.
Table S4d. Patterns of antihypertensive drug utilization from Medicare Part-D drug coverage in 2007, by 3 arms and added-on drugs (Female)

| Total Female Participants: N=5198 | N (%) of antihypertensive drug who received the study class drug | N (%) of antihypertensive drug who did not receive the study trial drug |
|-----------------------------------|---------------------------------------------------------------|---------------------------------------------------------------|
|                                   | 1) any diuretic (1 drug)                                      | 2) any diuretic plus 1 drug (2 drugs)                          |
|                                   | 3) any diuretic plus 2 drugs (3 drugs)                        | 4) any diuretic plus ≥ 3 drugs (4+ drugs)                     |
|                                    | 1) no diuretic (on 1 drug)                                    | 2) no diuretic (on 2 drugs)                                   |
|                                    | 3) no diuretic (on 3 drugs)                                   | 4) no diuretic (on 4+ drugs)                                  |

Diuretic= Thiazide/thiazide-type

[Randomized to Chlorthalidone in trial: 2355 (45.3)]

|                                | N (%) | N (%) |
|--------------------------------|-------|-------|
| Aldosterone antagonists †       | 0 (0) | 5 (0.2) |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker) | 0 (0) | 4 (0.2) |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 145 (6.2) | 289 (12.3) |
| Arteriolar vasodilators         | 2 (0.1) | 8 (0.3) |
| Autonomic ganglionic vasodilators | 0 (0) | 0 (0) |
| Beta adrenergic blockers (β-blockers) | 57 (2.4) | 181 (7.7) |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 24 (1) | 158 (6.7) |
| Central alpha 2 adrenergic agonists | 6 (0.3) | 10 (0.4) |
| Diuretics: thiazide/thiazide-type | 50 (2.1) | 262 (11.1) |
| Diuretics: loop                 | 8 (0.3) | 32 (1.4) |
| Diuretics: potassium-sparing †  | 20 (0.8) | 38 (1.6) |
| Peripheral adrenergic neuron antagonist † | 0 (0) | 1 (0) |
| Renin inhibitors                | 0 (0) | 0 (0) |

Total participants

|                                | N (%) | N (%) | N (%) | N (%) |
|--------------------------------|-------|-------|-------|-------|
|                                | 1) any CCB (1 drug) | 2) any CCB plus 1 drug (2 drugs) | 3) any CCB plus 2 drugs (3 drugs) | 4) any CCB plus ≥ 3 drugs (4+ drugs) |
|                                | 1) no CCB (on 1 drug) | 2) no CCB (on 2 drugs) | 3) no CCB (on 3 drugs) | 4) no CCB (on 4+ drugs) |

Calcium channel blocker (CCB)

[Randomized to Amlodipine in trial: 1443 (27.8)]

|                                | N (%) | N (%) | N (%) | N (%) |
|--------------------------------|-------|-------|-------|-------|
|                                | 1) any CCB (1 drug) | 2) any CCB plus 1 drug (2 drugs) | 3) any CCB plus 2 drugs (3 drugs) | 4) any CCB plus ≥ 3 drugs (4+ drugs) |
|                                | 1) no CCB (on 1 drug) | 2) no CCB (on 2 drugs) | 3) no CCB (on 3 drugs) | 4) no CCB (on 4+ drugs) |
| Category                                         | 1) any ACE/ARB (1 drug) | 2) any ACE/ARB plus 1 drug (2 drugs) | 3) any ACE/ARB plus 2 drugs (3 drugs) | 4) any ACE/ARB plus ≥3 drugs (4+ drugs) | 1) no ACE/ARB (on 1 drug) | 2) no ACE/ARB (on 2 drugs) | 3) no ACE/ARB (on 3 drugs) | 4) no ACE/ARB (on 4+ drugs) |
|--------------------------------------------------|-------------------------|-------------------------------------|--------------------------------------|-----------------------------------------|--------------------------|--------------------------|---------------------------|-----------------------------|
| Aldosterone antagonists †                         | 0 (0)                   | 4 (0.3)                             | 32 (2.3)                             | 1 (0.1)                                 | 4 (0.3)                  | 4 (0.3)                  | 3 (0.2)                   |                             |
| Alpha 1 adrenergic receptor agonist (selective; α-blocker) | 0 (0)                   | 2 (0.1)                             | 24 (1.7)                             | 0 (0)                                   | 0 (0)                    | 2 (0.1)                  | 2 (0.1)                   |                             |
| Angiotensin-converting enzyme (ACE) inhibitor/Angiotensin II receptor blockers (ARB) | 77 (5.5)                | 252 (18)                            | 359 (25.6)                           | 352 (25.1)                             | 0 (0)                    | 0 (0)                    | 0 (0)                     | 0 (0)                      |
| Category                                              | Count (N) |
|-------------------------------------------------------|-----------|
| Arteriolar vasodilators                               | 1 (0.1)   |
|                                                       | 12 (0.9)  |
|                                                       | 55 (3.9)  |
|                                                       | 1 (0.1)   |
|                                                       | 5 (0.4)   |
|                                                       | 6 (0.4)   |
|                                                       | 11 (0.8)  |
| Autonomic ganglionic vasodilators                     | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
| Beta adrenergic blockers (β-blockers)                 | 50 (3.6)  |
|                                                       | 185 (13.2)|
|                                                       | 286 (20.4)|
|                                                       | 35 (2.5)  |
|                                                       | 68 (4.9)  |
|                                                       | 66 (4.7)  |
|                                                       | 20 (1.4)  |
| Calcium channel blocker (CCB)-dihydropyridine/non-dihydropyridine | 60 (4.3)  |
|                                                       | 165 (11.8)|
|                                                       | 280 (20)  |
|                                                       | 36 (2.6)  |
|                                                       | 50 (3.6)  |
|                                                       | 55 (3.9)  |
|                                                       | 21 (1.5)  |
| Central alpha 2 adrenergic agonists                   | 4 (0.3)   |
|                                                       | 20 (1.4)  |
|                                                       | 97 (6.9)  |
|                                                       | 2 (0.1)   |
|                                                       | 10 (0.7)  |
|                                                       | 10 (0.7)  |
|                                                       | 10 (0.7)  |
| Diuretics: thiazide/thiazide-type                      | 101 (7.2) |
|                                                       | 201 (14.4)|
|                                                       | 233 (16.6)|
|                                                       | 11 (0.8)  |
|                                                       | 27 (1.9)  |
|                                                       | 40 (2.9)  |
|                                                       | 16 (1.1)  |
| Diuretics: loop                                       | 36 (2.6)  |
|                                                       | 116 (8.3) |
|                                                       | 198 (14.1)|
|                                                       | 13 (0.9)  |
|                                                       | 32 (2.3)  |
|                                                       | 40 (2.9)  |
|                                                       | 19 (1.4)  |
| Diuretics: potassium-sparing†                          | 0 (0)     |
|                                                       | 13 (0.9)  |
|                                                       | 30 (2.1)  |
|                                                       | 1 (0.1)   |
|                                                       | 2 (0.1)   |
|                                                       | 13 (0.9)  |
|                                                       | 4 (0.3)   |
| Peripheral adrenergic neuron antagonist†               | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
| Renin inhibitors                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 1 (0.1)   |
|                                                       | 0 (0)     |
|                                                       | 0 (0)     |
|                                                       | 1 (0.1)   |
|                                                       | 0 (0)     |

Total participants: 77 (5.5) 252 (18) 359 (25.6) 352 (25.1) 100 (7.1) 99 (7.1) 79 (5.6) 25 (1.8)

†Not used alone/used in combination for chronic hypertension treatment.
Table S5. Cumulative Incidence for morbidity/mortality outcomes between 2007 and 2017 by the changing patterns of antihypertensive drugs as of 2007

| Mortality Outcomes:                                      | 10-year rate per 100 persons in those who received the study trial class drug as of 2007 | 10-year rate per 100 persons in those who did not receive the study trial drug as of 2007 |
|---------------------------------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| Total Participants: N=807                                | 1) any diuretic (1 drug) 2) any diuretic plus 1 drug (2 drugs) 3) any diuretic plus 2 drugs (3 drugs) 4) any diuretic plus ≥3 drugs (4+ drugs) | 1) no diuretic (on 1 drug) 2) no diuretic (on 2 drugs) 3) no diuretic (on 3 drugs) 4) no diuretic (on 4+ drugs) 5) No Drugs |
| Diuretic= Thiazide/thiazide-type                         |                                                                                         |                                                                                         |
| [Randomized to Chlorthalidone in trial: 3637 (45.4)]    |                                                                                         |                                                                                         |
| 1) any diuretic (1 drug)                                 |                                                                                         |                                                                                         |
| 2) any diuretic plus 1 drug (2 drugs)                    |                                                                                         |                                                                                         |
| 3) any diuretic plus 2 drugs (3 drugs)                   |                                                                                         |                                                                                         |
| 4) any diuretic plus ≥3 drugs (4+ drugs)                 |                                                                                         |                                                                                         |
| Mortality Outcomes:                                      |                                                                                         |                                                                                         |
| All-cause mortality                                     | 24.4 22.4 22.4 30.2                                                                     | 25.3 29.5 35.5 48.2 23.5                                                                  |
| CVD mortality                                           | 11.8 10.3 10.1 13.3                                                                     | 11.3 13.6 17.5 27.3 9.5                                                                   |
| CHD mortality                                           | 6.8 4.5 3.8 6.0                                                                        | 3.8 5.4 9.7 14.3 4.7                                                                   |
| Stroke mortality                                         | 1.3 1.9 2.0 2.0                                                                        | 2.2 2.1 2.6 4.1 2.1                                                                    |
| Heart failure mortality                                  | 1.2 0.9 1.2 1.9                                                                        | 1.1 1.7 1.7 2.9 0.5                                                                    |
| Other CVD mortality                                      | 2.9 3.5 3.3 3.9                                                                        | 4.7 5.2 4.5 8.9 2.6                                                                    |
| Non-CVD Mortality                                       | 13.1 13.4 13.6 19.5                                                                     | 15.3 18.2 21.8 28.8 15.4                                                                |
| Cancer                                                  | 4.2 6.2 4.2 6.0                                                                        | 3.8 4.4 4.7 3.7 4.1                                                                    |
| Kidney disease                                          | 1.4 0.6 0.4 1.7                                                                        | 0.8 2.0 2.6 3.9 0.5                                                                    |
| Accident/suicide/homicide                               | 0.0 0.0 0.6 0.9                                                                        | 0.6 0.2 0.6 1.6 0.5                                                                    |
| Other non-CVD disease                                    | 8.0 7.1 8.8 12.0                                                                       | 10.7 12.5 15.4 21.8 10.9                                                                |
| Combined fatal and non-fatal                            |                                                                                         |                                                                                         |
| Hospitalized events:                                    |                                                                                         |                                                                                         |
| CVD                                                     | 29.7 24.7 29.4 38.4                                                                     | 29.1 32.3 42.0 55.3 24.4                                                                |
| CHD                                                     | 12.0 7.4 9.8 12.1                                                                       | 10.3 10.9 16.5 23.0 8.1                                                                  |
| Heart failure                                           | 18.8 18.0 24.1 34.2                                                                     | 23.4 27.0 37.6 51.0 18.8                                                                |
| Stroke                                                  | 8.0 10.1 9.6 11.3                                                                       | 8.4 10.6 11.3 17.1 7.1                                                                  |
| Cancer                                                  | 13.1 11.0 7.9 12.0                                                                       | 8.4 11.6 12.0 12.3 7.4                                                                  |
| Kidney disease/ESRD | 2.7 | 0.9 | 1.6 | 5.5 | 2.4 | 5.6 | 6.5 | 13.0 | 4.4 |
|---------------------|-----|-----|-----|-----|-----|-----|-----|------|-----|

**Calcium channel blocker (CCB)**

[Randomized to Amlodipine in trial: 2189 (27.3)]

| Mortality Outcomes: | 1) any CCB (1 drug) | 2) any CCB plus 1 drug (2 drugs) | 3) any CCB plus 2 drugs (3 drugs) | 4) any CCB plus ≥3 drugs (4+ drugs) | 1) no CCB (on 1 drug) | 2) no CCB (on 2 drugs) | 3) no CCB (on 3 drugs) | 4) no CCB (on 4+ drugs) | 5) No Drugs |
|---------------------|---------------------|-------------------------------|----------------------------------|-----------------------------------|--------------------|--------------------|--------------------|--------------------|------------|
| All-cause mortality | 24.7                | 21.1                          | 29.5                             | 35.0                              | 23.9               | 24.0               | 33.7               | 39.3               | 23.9       |
| CVD mortality       | 12.5                | 6.3                           | 15.0                             | 15.3                              | 9.3                | 10.2               | 17.7               | 23.9               | 11.2       |
| CHD mortality       | 4.6                 | 2.5                           | 4.8                              | 7.4                               | 3.9                | 4.7                | 7.1                | 11.8               | 5.0        |
| Stroke mortality    | 0.0                 | 0.5                           | 2.5                              | 2.1                               | 1.6                | 1.6                | 2.2                | 2.5                | 2.5        |
| Heart failure mortality | 0.0         | 0.5                           | 3.3                              | 2.2                               | 0.4                | 0.6                | 2.2                | 7.4                | 1.8        |
| Other CVD mortality | 8.3                 | 2.9                           | 5.2                              | 4.5                               | 3.6                | 3.5                | 7.3                | 4.5                | 2.4        |
| Non-CVD Mortality   | 13.9                | 15.7                          | 17.1                             | 23.3                              | 16.1               | 15.1               | 19.5               | 20.2               | 14.3       |
| Cancer              | 4.9                 | 5.7                           | 5.3                              | 5.1                               | 5.3                | 4.8                | 5.8                | 5.6                | 5.1        |
| Kidney disease      | 1.2                 | 1.5                           | 1.0                              | 1.8                               | 0.5                | 0.6                | 2.9                | 2.2                | 0.9        |
| Accident/suicide/homicide | 0.0            | 0.0                           | 0.0                              | 0.3                               | 1.4                | 0.3                | 0.6                | 0.0                | 0.0        |
| Other non-CVD disease | 8.4          | 9.3                           | 11.6                             | 17.5                              | 9.6                | 10.0               | 11.5               | 13.6               | 8.8        |

**Combined fatal and non-fatal Hospitalized events:**

| CVD                  | 25.1                | 26.0                          | 36.0                             | 41.6                              | 26.5               | 28.5               | 39.0               | 44.0               | 24.3       |
| CHD                  | 9.3                 | 9.2                           | 14.5                             | 14.9                              | 7.2                | 9.7                | 13.3               | 15.4               | 9.5        |
| Heart failure        | 21.2                | 19.7                          | 30.5                             | 36.3                              | 20.0               | 24.3               | 34.9               | 43.1               | 19.2       |
| Stroke               | 5.6                 | 8.9                           | 12.0                             | 12.5                              | 9.5                | 11.5               | 9.0                | 13.0               | 7.2        |
| Cancer               | 9.3                 | 9.6                           | 9.6                              | 11.8                              | 11.4               | 10.9               | 9.4                | 13.8               | 9.8        |
| Kidney disease/ESRD  | 4.7                 | 2.5                           | 5.4                              | 8.9                               | 4.0                | 2.9                | 4.3                | 6.8                | 4.0        |
| Angiotensin-converting enzyme (ACE) inhibitor/ Angiotensin II receptor blockers (ARB) | 1) any ACE/ARB (1 drug) | 2) any ACE/ARB plus 1 drug (2 drugs) | 3) any ACE/ARB plus 2 drugs (3 drugs) | 4) any ACE/ARB plus ≥3 drugs (4+ drugs) | 1) no ACE/ARB (on 1 drug) | 2) no ACE/ARB (on 2 drugs) | 3) no ACE/ARB (on 3 drugs) | 4) no ACE/ARB (on 4+ drugs) | 5) No Drugs |
|---|---|---|---|---|---|---|---|---|---|
| [Randomized to Lisinopril in trial: 2181 (27.2)] | 21.4 | 22.0 | 30.4 | 35.0 | 27.4 | 33.7 | 32.5 | 34.1 | 21.0 |

**Mortality Outcomes:**

- **All-cause mortality**
  - CVD mortality
  - CHD mortality
  - Stroke mortality
  - Heart failure mortality
  - Other CVD mortality
- **Non-CVD Mortality**
  - Cancer
  - Kidney disease
  - Accident/suicide/homicide
  - Other non-CVD disease
- **Combined fatal and non-fatal Hospitalized events:**
  - CVD
  - CHD
  - Heart failure
  - Stroke
  - Cancer
  - Kidney disease/ESRD
Table S6. Morbidity/mortality outcomes between 2007 and 2017 by the pattern of antihypertensive drug use

| Total Participants: N=8007 | N (%) of having morbidity/mortality outcomes in participants who received the study class drug | N (%) of having morbidity/mortality outcomes in participants who did not receive the study trial drug |
|---------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Diuretic= Thiazide/thiazide-type | 1) any diuretic
(1 drug) | 2) any diuretic plus 1 drug
(2 drugs) | 3) any diuretic plus 2 drugs
(3 drugs) | 4) any diuretic plus ≥3 drugs
(4+ drugs) | 1) no diuretic
(on 1 drug) | 2) no diuretic
(on 2 drugs) | 3) no diuretic
(on 3 drugs) | 4) no diuretic
(on 4+ drugs) | 5) No Drugs |
| [Randomized to Chlorthalidone in trial: 3637 (45.4)] | | | | | | | | | |
| Mortality Outcomes: | | | | | | | | | |
| All-cause mortality | 46 (56.1) | 214 (58.5) | 303 (56.2) | 409 (65.3) | 285 (68.7) | 391 (69.6) | 350 (76.3) | 308 (83) | 157 |
| CVD mortality | 18 (22) | 94 (25.7) | 107 (19.9) | 170 (27.2) | 97 (23.4) | 159 (28.3) | 160 (34.9) | 147 | 61 (28.1) |
| CHD mortality | 8 (9.8) | 36 (9.8) | 42 (7.8) | 87 (13.9) | 41 (9.9) | 60 (10.7) | 78 (17) | 68 (18.3) | 26 (12) |
| Stroke mortality | 3 (3.7) | 15 (4.1) | 18 (3.3) | 21 (3.4) | 17 (4.1) | 24 (4.3) | 18 (3.9) | 18 (4.9) | 11 (5.1) |
| Heart failure mortality | 3 (3.7) | 6 (1.6) | 10 (1.9) | 16 (2.6) | 6 (1.4) | 13 (2.3) | 18 (3.9) | 17 (4.6) | 5 (2.3) |
| Other CVD mortality | 4 (4.9) | 37 (10.1) | 37 (6.9) | 46 (7.3) | 33 (8) | 62 (11) | 46 (10) | 44 (11.9) | 19 (8.8) |
| Non-CVD Mortality | 27 (32.9) | 120 (32.8) | 194 (36) | 237 (37.9) | 186 (44.8) | 229 (40.7) | 190 (41.4) | 161 (43.4) | 94 (43.3) |
| Cancer | 6 (7.3) | 37 (10.1) | 50 (9.3) | 54 (8.6) | 37 (8.9) | 52 (9.3) | 43 (9.4) | 25 (6.7) | 20 (9.2) |
| Kidney disease | 1 (1.2) | 6 (1.6) | 7 (1.3) | 17 (2.7) | 7 (1.7) | 15 (2.7) | 13 (2.8) | 17 (4.6) | 1 (0.5) |
| Accident/suicide/homicide | 1 (1.2) | 3 (0.8) | 7 (1.3) | 8 (1.3) | 10 (2.4) | 5 (0.9) | 5 (1.1) | 8 (2.2) | 3 (1.4) |
| Other non-CVD disease | 19 (23.2) | 74 (20.2) | 130 (24.1) | 158 | 132 | 157 | 129 | 111 | 70 (32.3) |
| Unknown causes of mortality | 1 (1.2) | 0 (0) | 2 (0.4) | 2 (0.3) | 2 (0.5) | 3 (0.5) | 0 (0) | 0 (0) | 2 (0.9) |
| Combined fatal and non-fatal | | | | | | | | | |
**Hospitalized events:**

| Condition         | CHD   | CVD   | Heart failure | Stroke | Cancer | Kidney disease/ESRD |
|-------------------|-------|-------|---------------|--------|--------|---------------------|
|                   | 12 (14.6) | 48 (13.1) | 72 (13.4) | 123 (19.6) | 66 (15.9) | 88 (15.7) | 107 (23.3) | 100 (27) | 33 (15.2) |
|                   | 29 (35.4) | 113 (30.9) | 181 (33.6) | 294 (47) | 146 (35.2) | 214 (38.1) | 231 (50.3) | 230 (62) | 69 (31.8) |
| Heart failure     | 18 (22) | 67 (18.3) | 130 (24.1) | 218 (34.8) | 98 (23.6) | 154 (27.4) | 177 (38.6) | 196 (52.8) | 45 (20.7) |
| Stroke            | 8 (9.8) | 43 (11.7) | 58 (10.8) | 75 (12) | 41 (9.9) | 68 (12.1) | 53 (11.5) | 59 (15.9) | 21 (9.7) |
| Cancer            | 14 (17.1) | 55 (15) | 72 (13.4) | 92 (14.7) | 55 (13.3) | 86 (15.3) | 72 (15.7) | 52 (14) | 27 (12.4) |
| Kidney disease/ESRD | 2 (2.4) | 7 (1.9) | 14 (2.6) | 39 (6.2) | 13 (3.1) | 34 (6) | 28 (6.1) | 46 (12.4) | 9 (4.1) |

**Calcium channel blocker (CCB)**

[Randomized to Amlodipine in trial: 2189 (27.3)]

| Calcium channel blocker (CCB) | 1) any CCB (1 drug) | 2) any CCB plus 1 drug (2 drugs) | 3) any CCB plus 2 drugs (3 drugs) | 4) any CCB plus ≥3 drugs (4+ drugs) | 1) no CCB (on 1 drug) | 2) no CCB (on 2 drugs) | 3) no CCB (on 3 drugs) | 4) no CCB (on 4+ drugs) | 5) No Drugs |
|-------------------------------|---------------------|----------------------------------|----------------------------------|-------------------------------------|-----------------------|------------------------|------------------------|------------------------|-------------|
| [Randomized to Amlodipine in trial: 2189 (27.3)] |                     |                                  |                                  |                                     |                       |                        |                        |                        |             |

**Mortality Outcomes:**

| Outcome Category     | All-cause mortality | CV mortality | CHD mortality | Stroke mortality | Heart failure mortality | Other CVD mortality | Non-CV Mortality | Cancer | Kidney disease | Accident/suicide/homicide |
|----------------------|---------------------|--------------|---------------|------------------|------------------------|---------------------|-----------------|--------|---------------|--------------------------|
|                      | 63 (67.7)           | 25 (26.9)    | 7 (7.5)       | 1 (1.1)          | 1 (1.1)               | 16 (17.2)           | 38 (40.9)     | 10 (10.8) | 4 (4.3)       | 3 (3.2)                   |
|                      | 144 (64.6)          | 46 (20.6)    | 17 (7.6)      | 5 (2.2)          | 3 (1.3)               | 21 (9.4)           | 98 (43.9)     | 26 (11.7) | 5 (2.2)       | 3 (1.3)                   |
|                      | 202 (62.7)          | 97 (30.1)    | 42 (13)       | 14 (4.3)         | 14 (4.3)              | 27 (8.4)           | 105 (32.6)    | 26 (8.1) | 5 (1.6)       | 2 (0.6)                   |
|                      | 323 (68.6)          | 123 (26.1)   | 56 (11.9)     | 15 (3.2)         | 19 (4)                | 33 (7)             | 199 (42.3)    | 39 (8.3) | 14 (3)        | 4 (0.8)                   |
|                      | 158 (69.9)          | 62 (27.4)    | 30 (13.3)     | 8 (3.5)          | 6 (2.7)               | 18 (8)             | 96 (42.5)     | 19 (8.4) | 5 (2.2)       | 4 (1.8)                   |
|                      | 226 (64.6)          | 81 (23.1)    | 33 (9.4)      | 15 (4.3)         | 6 (1.7)               | 27 (7.7)           | 96 (40.9)     | 33 (9.4) | 7 (2)         | 3 (0.9)                   |
|                      | 181 (70.2)          | 82 (31.8)    | 31 (12)       | 11 (4.3)         | 12 (4.7)              | 28 (10.9)          | 98 (38)      | 20 (7.8) | 7 (2)         | 2 (0.8)                   |
|                      | 89 (79.5)           | 41 (36.6)    | 18 (16.1)     | 2 (1.8)          | 12 (10.7)             | 9 (8)              | 48 (42.9)    | 12 (10.7) | 4 (3.6)       | 0 (0)                    |
|                      | 97 (72.4)           | 35 (26.1)    | 16 (11.9)     | 6 (4.5)          | 3 (2.2)               | 10 (7.5)           | 62 (46.3)    | 13 (9.7) | 1 (0.7)       | 1 (0.7)                   |
| Other non-CVD disease | 21 (22.6) | 64 (28.7) | 72 (22.4) | 142 (30.1) | 68 (28.6) | 100 (28.6) | 69 (26.7) | 32 (28.6) | 47 (35.1) |
|----------------------|----------|----------|----------|-----------|----------|-----------|----------|----------|----------|
| Unknown causes of mortality | 0 (0) | 0 (0) | 0 (0) | 1 (0.2) | 0 (0) | 2 (0.6) | 1 (0.4) | 0 (0) | 0 (0) |
| Combined fatal and non-fatal |        |          |          |           |          |           |          |           |          |
| Hospitalized events: |        |          |          |           |          |           |          |           |          |
| CHD | 11 (11.8) | 31 (13.9) | 71 (22) | 90 (19.1) | 37 (16.4) | 49 (14) | 46 (17.8) | 22 (19.6) | 23 (17.2) |
| CVD | 26 (28) | 69 (30.9) | 143 (44.4) | 224 (47.6) | 82 (36.3) | 116 (33.1) | 115 (44.6) | 55 (49.1) | 44 (32.8) |
| Heart failure | 20 (21.5) | 44 (19.7) | 101 (31.4) | 182 (38.6) | 49 (21.7) | 87 (24.9) | 97 (37.6) | 53 (47.3) | 27 (20.1) |
| Stroke | 7 (7.5) | 24 (10.8) | 42 (13) | 58 (12.3) | 25 (11.1) | 47 (13.4) | 27 (10.5) | 12 (10.7) | 12 (9) |
| Cancer | 14 (15.1) | 34 (15.2) | 40 (12.4) | 69 (14.6) | 32 (14.2) | 54 (15.4) | 29 (11.2) | 21 (18.8) | 19 (14.2) |
| Kidney disease/ESRD | 7 (7.5) | 7 (3.1) | 18 (5.6) | 44 (9.3) | 12 (5.3) | 15 (4.3) | 10 (3.9) | 8 (7.1) | 6 (4.5) |

**Angiotensin-converting enzyme (ACE) inhibitor/ Angiotensin II receptor blockers (ARB)**

(Randomized to Lisinopril in trial: 2181 (27.2))

| Mortality Outcomes: | 1) any ACE/ARB (1 drug) | 2) any ACE/ARB plus 1 drug (2 drugs) | 3) any ACE/ARB plus 2 drugs (3 drugs) | 4) any ACE/ARB plus ≥3 drugs (4+ drugs) |
|----------------------|-------------------------|--------------------------------------|---------------------------------------|----------------------------------------|
| All-cause mortality | 82 (65.1) | 225 (58.9) | 355 (67.5) | 370 (70.1) | 125 (69.8) | 117 (71.8) | 85 (72.6) | 30 (73.2) | 85 (71.4) |
| CV mortality | 27 (21.4) | 77 (20.2) | 140 (26.6) | 189 (35.8) | 50 (27.9) | 55 (33.7) | 33 (28.2) | 10 (24.4) | 27 (22.7) |
| CHD mortality | 13 (10.3) | 29 (7.6) | 63 (12) | 78 (14.8) | 22 (12.3) | 23 (14.1) | 21 (17.9) | 5 (12.2) | 9 (7.6) |
| Stroke mortality | 5 (4) | 14 (3.7) | 15 (2.9) | 27 (5.1) | 10 (5.6) | 12 (7.4) | 1 (0.9) | 0 (0) | 3 (2.5) |
| Heart failure mortality | 2 (1.6) | 7 (1.8) | 18 (3.4) | 25 (4.7) | 2 (1.1) | 8 (4.9) | 1 (0.9) | 1 (2.4) | 3 (2.5) |
| Other CVD mortality | 7 (5.6) | 27 (7.1) | 44 (8.4) | 59 (11.2) | 16 (8.9) | 12 (7.4) | 10 (8.5) | 4 (9.8) | 12 (10.1) |
| Category                        | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|--------------------------------|------|------|------|------|------|------|------|
| Non-CV Mortality               |      |      |      |      |      |      |      |
| Cancer                         | 14   | 30   | 56   | 36   | 22   | 14   | 11   |
| Kidney disease                 | 2    | 8    | 12   | 19   | 10   | 7    | 3    |
| Accident/suicide/homicide      | 2    | 8    | 7    | 5    | 3    | 4    | 1    |
| Other non-CVD disease          | 37   | 100  | 139  | 118  | 40   | 37   | 10   |
| Unknown causes of mortality    | 0    | 2    | 1    | 3    | 0    | 0    | 0    |
| Combined fatal and non-fatal   |      |      |      |      |      |      |      |
| Hospitalized events:           |      |      |      |      |      |      |      |
| CHD                            | 21   | 49   | 99   | 25   | 33   | 27   | 7    |
| CVD                            | 38   | 122  | 223  | 262  | 59   | 74   | 50   |
| Heart failure                  | 21   | 89   | 175  | 215  | 36   | 55   | 32   |
| Stroke                         | 15   | 46   | 64   | 73   | 27   | 25   | 9    |
| Cancer                         | 20   | 45   | 84   | 68   | 29   | 24   | 16   |
| Kidney disease/ESRD            | 2    | 15   | 24   | 48   | 15   | 13   | 7    |

*For morbidity, patients may have more than one category of events.*
Table S7a. Adjusted hazard ratio (95% CI) of morbidity and mortality by the end of post-trial (12-31-2017) period by 3 arms

| Total Participants: N=8007 | In trial participants who received the study trial drug | In trial participants who did not receive the study trial drug |
|-----------------------------|---------------------------------------------------------|--------------------------------------------------------------|
|                             | 1) any diuretic                                          | 1) no diuretic                                               |
| **Diuretic= Thiazide/thiazide-type** |                                                        |                                                              |
| [Randomized to Chlorthalidone in trial: 3637 (45.4)] | 1.00 (ref)                                               | 1.24 (1.13-1.35)                                             |
| **Mortality Outcomes:**     |                                                        |                                                              |
| All-cause mortality         | 1.00 (ref)                                               | 1.24 (1.13-1.35)                                             |
| CVD mortality               | 1.00 (ref)                                               | 1.31 (1.14-1.51)                                             |
| CHD mortality               | 1.00 (ref)                                               | 1.30 (1.05-1.60)                                             |
| Stroke mortality            | 1.00 (ref)                                               | 1.27 (0.87-1.84)                                             |
| Heart failure mortality     | 1.00 (ref)                                               | 1.11 (0.70-1.76)                                             |
| Other CVD mortality         | 1.00 (ref)                                               | 1.42 (1.11-1.81)                                             |
| **Non-CVD Mortality**       | 1.00 (ref)                                               | 1.18 (1.05-1.33)                                             |
| Cancer                      | 1.00 (ref)                                               | 1.04 (0.81-1.33)                                             |
| Kidney disease              | 1.00 (ref)                                               | 1.34 (0.82-2.20)                                             |
| Accident/suicide/homicide  | 1.00 (ref)                                               | 1.40 (0.76-2.57)                                             |
| Other non-CVD disease       | 1.00 (ref)                                               | 1.20 (1.05-1.39)                                             |
| **Combined fatal and non-fatal** |                                                        |                                                              |
| Hospitalized events:        | 1.00 (ref)                                               | 1.23 (1.09-1.37)                                             |
| CVD                         | 1.00 (ref)                                               | 1.23 (1.09-1.37)                                             |
| CHD                         | 1.00 (ref)                                               | 1.25 (1.05-1.49)                                             |
| Heart failure               | 1.00 (ref)                                               | 1.31 (1.14-1.49)                                             |
| Stroke                      | 1.00 (ref)                                               | 1.20 (0.97-1.49)                                             |
| Cancer                      | 1.00 (ref)                                               | 1.05 (0.87-1.27)                                             |
|                          | Reference | Hazard Ratio (95% CI) |
|--------------------------|-----------|----------------------|
| Kidney disease/ESRD      | 1.00 (ref)| 1.57 (1.12-2.19)     |
| Calcium channel blocker (CCB) |           |                      |
| [Randomized to Amlodipine in trial: 2189 (27.3)] | 1) any CCB | 1) no CCB            |
| **Mortality Outcomes:**  |           |                      |
| All-cause mortality      | 1.00 (ref)| 1.01 (0.90-1.14)     |
| CVD mortality            | 1.00 (ref)| 1.05 (0.87-1.25)     |
| CHD mortality            | 1.00 (ref)| 1.09 (0.82-1.43)     |
| Stroke mortality         | 1.00 (ref)| 1.26 (0.76-2.09)     |
| Heart failure mortality  | 1.00 (ref)| 1.03 (0.63-1.66)     |
| Other CVD mortality      | 1.00 (ref)| 0.92 (0.67-1.28)     |
| **Non-CVD Mortality**    | 1.00 (ref)| 0.99 (0.85-1.15)     |
| Cancer                   | 1.00 (ref)| 0.95 (0.69-1.31)     |
| Kidney disease           | 1.00 (ref)| 1.08 (0.60-1.95)     |
| Accident/suicide/homicide| 1.00 (ref)| 0.61 (0.23-1.60)     |
| Other non-CVD disease    | 1.00 (ref)| 1.01 (0.85-1.21)     |
| **Combined fatal and non-fatal** | | |
| **Hospitalized events:** |           |                      |
| CVD                      | 1.00 (ref)| 0.91 (0.78-1.05)     |
| CHD                      | 1.00 (ref)| 0.88 (0.70-1.11)     |
| Heart failure            | 1.00 (ref)| 0.92 (0.77-1.09)     |
| Stroke                   | 1.00 (ref)| 1.03 (0.78-1.35)     |
| Cancer                   | 1.00 (ref)| 0.96 (0.75-1.24)     |
| Kidney disease/ESRD      | 1.00 (ref)| 0.91 (0.62-1.35)     |
Angiotensin-converting enzyme (ACE) inhibitor / Angiotensin II receptor blockers (ARB)

[Randomized to Lisinopril in trial: 2181 (27.2)]

| 1) any ACE/ARB | 1) no ACE/ARB |
|----------------|---------------|
| **Mortality Outcomes:** |               |
| All-cause mortality | 1.00 (ref)     | 1.02 (0.90-1.16) |
| CVD mortality       | 1.00 (ref)     | 0.96 (0.79-1.16) |
| CHD mortality       | 1.00 (ref)     | 1.02 (0.76-1.35) |
| Stroke mortality    | 1.00 (ref)     | 0.95 (0.57-1.60) |
| Heart failure mortality | 1.00 (ref) | 0.81 (0.44-1.50) |
| Other CVD mortality | 1.00 (ref)     | 0.92 (0.65-1.32) |
| **Non-CVD Mortality** | 1.00 (ref) | 1.08 (0.92-1.27) |
| Cancer             | 1.00 (ref)     | 1.19 (0.86-1.65) |
| Kidney disease     | 1.00 (ref)     | 1.88 (1.07-3.31) |
| Accident/suicide/homicide | 1.00 (ref) | 1.15 (0.54-2.46) |
| Other non-CVD disease | 1.00 (ref) | 0.96 (0.78-1.18) |

**Combined fatal and non-fatal**

| Hospitalized events: | |
|----------------------|------------------|
| CVD                  | 1.00 (ref)       | 0.85 (0.72-1.01) |
| CHD                  | 1.00 (ref)       | 0.88 (0.69-1.13) |
| Heart failure        | 1.00 (ref)       | 0.75 (0.62-0.92) |
| Stroke               | 1.00 (ref)       | 0.90 (0.66-1.21) |
| Cancer               | 1.00 (ref)       | 1.11 (0.85-1.45) |
| Kidney disease/ESRD  | 1.00 (ref)       | 1.66 (1.12-2.44) |

*hazard did not converge.*

Baseline covariates in the adjusted hazard ratio models include: age (yrs), race (Black/Non-Black), gender, education (yrs), current smoking status, BMI, entry criterion HDL<35, LDL, GFR, history of diabetes, antihypertensive treatment, on pravastatin, SBP; In-trial covariate included: final SBP.
Table S7b. Adjusted hazard ratio (95% CI) of morbidity and mortality by the end of post-trial (12-31-2017) period by post-trial drug uses

| Total Participants: N=8007 | 1) Diuretic only (N=463 [5.8%]) | 2) CCB only (N=685 [8.6%]) | 3) ACE/ARB only (N=1,444 [18.0%]) | 4) 2 or 3 of Diuretic, CCB, or ACE/ARB (N=4,311 [53.8%]) | 5) No Drugs (N=1,104 [13.8%]) |
|---------------------------|---------------------------------|-----------------------------|-----------------------------------|------------------------------------------------|---------------------------------|
| **Mortality Outcomes:**   |                                 |                             |                                   |                                               |                                 |
| All-cause mortality       | 1.00 (ref)                      | 1.20 (1.03-1.41)            | 1.27 (1.10-1.46)                  | 1.06 (0.93-1.21)                              | 1.22 (1.06-1.42)                |
| CVD mortality             | 1.00 (ref)                      | 1.16 (0.91-1.49)            | 1.30 (1.04-1.62)                  | 1.05 (0.86-1.29)                              | 1.17 (0.94-1.47)                |
| CHD mortality             | 1.00 (ref)                      | 1.36 (0.92-2.01)            | 1.41 (0.99-2.01)                  | 1.24 (0.90-1.72)                              | 1.46 (1.02-2.09)                |
| Stroke mortality          | 1.00 (ref)                      | 0.93 (0.48-1.80)            | 1.14 (0.64-2.03)                  | 0.93 (0.56-1.55)                              | 1.03 (0.57-1.87)                |
| Heart failure mortality   | 1.00 (ref)                      | 0.60 (0.27-1.30)            | 0.88 (0.47-1.64)                  | 0.92 (0.53-1.59)                              | 0.84 (0.44-1.59)                |
| Other CVD mortality       | 1.00 (ref)                      | 1.27 (0.83-1.94)            | 1.40 (0.96-2.06)                  | 0.95 (0.67-1.35)                              | 1.06 (0.71-1.59)                |
| **Non-CVD Mortality**     | 1.00 (ref)                      | 1.22 (0.99-1.50)            | 1.24 (1.02-1.49)                  | 1.06 (0.89-1.26)                              | 1.25 (1.03-1.52)                |
| Cancer                    | 1.00 (ref)                      | 1.08 (0.70-1.67)            | 1.22 (0.83-1.78)                  | 1.01 (0.72-1.43)                              | 1.17 (0.79-1.73)                |
| Kidney disease            | 1.00 (ref)                      | 2.81 (1.13-6.95)            | 1.56 (0.63-3.89)                  | 1.46 (0.63-3.37)                              | 2.05 (0.83-5.09)                |
| Accident/suicide/homicide | 1.00 (ref)                      | 0.87 (0.28-2.66)            | 1.14 (0.44-2.94)                  | 0.90 (0.38-2.14)                              | 1.30 (0.50-3.38)                |
| Other non-CVD disease     | 1.00 (ref)                      | 1.19 (0.92-1.53)            | 1.23 (0.98-1.55)                  | 1.06 (0.86-1.31)                              | 1.22 (0.97-1.55)                |
| **Combined fatal and non-fatal** |                             |                             |                                   |                                               |                                 |
| **Hospitalized events:**  |                                 |                             |                                   |                                               |                                 |
| CHD                       | 1.00 (ref)                      | 1.38 (1.00-1.91)            | 1.36 (1.02-1.83)                  | 1.25 (0.95-1.63)                              | 1.29 (0.95-1.74)                |
| CVD                       | 1.00 (ref)                      | 1.37 (1.10-1.70)            | 1.50 (1.23-1.83)                  | 1.30 (1.09-1.56)                              | 1.29 (1.05-1.59)                |
| Heart failure             | 1.00 (ref)                      | 1.54 (1.18-2.00)            | 1.71 (1.34-2.18)                  | 1.47 (1.17-1.83)                              | 1.39 (1.08-1.79)                |
| Stroke                    | 1.00 (ref)                      | 1.15 (0.76-1.72)            | 1.62 (1.13-2.32)                  | 1.27 (0.91-1.77)                              | 1.30 (0.89-1.90)                |
| Cancer                    | 1.00 (ref)                      | 1.03 (0.73-1.44)            | 1.08 (0.80-1.45)                  | 0.91 (0.69-1.18)                              | 1.06 (0.78-1.43)                |
| Kidney disease/ESRD       | 1.00 (ref)                      | 4.31 (2.11-8.78)            | 2.26 (1.10-4.64)                  | 2.15 (1.10-4.21)                              | 3.19 (1.56-6.53)                |

*incalculable