

Supplementary Materials

Appendix A

Cohort-defining Medications

Variable	ICD-9-CM codes	ICD-10-CM codes
Diabetes Mellitus	250.xx	E08.xx, E10.xx, E11.xx, E13.xx
AND	Generic names	
On Insulin Therapy	insulin, insulin glargine, insulin degludec, insulin detemir, insulin aspart, insulin lispro, insulin glulisine, insulin isophane, insulin regular, insulin NPH	
Sulfonylureas	acetohexamide, glimepiride, glisoxepide, metahexamide, gliclazide, gliquidone, glipizide, carbutamide, tolazamide, glibornuride, tolbutamide, glyburide, chlorpropamide	
‘Metformin Only’*	Metformin + no other anti-diabetes class medication per RedBook drug class classification	

Outcomes

Variable	ICD-9-CM codes	ICD-10-CM codes
Severe Hypoglycemia	251.0, 251.1, 251.2, 270.3, 962.3 OR 250.8x (and not 259.8, 272.7, 681.xx, 682.xx, 686.9x, 707.1x, 707.2x, 707.8, 707.9, 709.3, 730.0x, 730.1x, 730.2x, 731.8)	E08.641, E08.649, E09.641, E09.649, E10.641, E10.649, E11.641, E11.649, E13.641, E13.649, E15, E16.0, E16.1, E16.2, T38.3X1A, T38.3X1D, T38.3X1S, T38.3X2A, T38.3X2D, T38.3X2S, T38.3X3A, T38.3X3D, T38.3X3S, T38.3X4A, T38.3X4D, T38.3X4S, T38.3X5A, T38.3X5D, T38.3X5S

Subgroups

Variable	Generic Names	
Long-acting Insulin Products	insulin glargine, insulin degludec, insulin detemir, insulin isophane, insulin NPH	
Short Acting Insulin Products	insulin aspart, insulin lispro, insulin glulisine, insulin regular	
Diabetes Type & Severity	ICD-9-CM codes	ICD-10-CM codes
Type I diabetes w/o complications	250.01, 250.03	E10.65, E10.9
Type I diabetes w/ complications	250.x1, 250.x3 except for 250.01, 250.03	E10.xx except for E10.65, E10.9
Type II diabetes w/o complications	250.00, 250.02	E11.9, E11.65
Type II diabetes w/ complications	250.x0, 250.x2 except for 250.00, 250.02	E11.xx except for E11.65, E11.9

Appendix B. ICD-9 and ICD-10 codes for comorbidities

Comorbidity	ICD-9	ICD-10
"DX: Diabetic nephropathy"	250.4x	E11.2x
"DX: Diabetic neuropathy"	250.6x	E11.4x
"DX: Diabetes retinopathy"	250.5x	E11.3x
"DX: Diabetes with peripheral circulatory disorders"	"250.7", "250.70", "250.71", "250.72", "250.73", "443.81"	"E10.51", "E10.52", "E10.59", "E11.51", "E11.52", "E11.59", "E13.51", "E13.52", "E13.59"
DX: Diabetes overall (uncomplicated + complicated; Type I or II)	250.xx	E10.xx, E11.xx, E13.xx
"DX: Hypertension"	401.x, 402.x, 403.xx, 404.xx, 405.xx	"I10", "I110", "I119", "I120", "I129", "I130", "I1310", "I1311", "I132", "I150", "I151", "I152", "I158", "I159", "N262"
"DX: Hypercholesterolemia"	"272.0", "272.2", "272.4"	"E780", "E782", "E784", "E785"

"DX: Stroke"	<p>"430", "431", "433.0", "433.00", "433.01", "433.1", "433.10", "433.11", "433.2", "433.20", "433.21", "433.3", "433.30", "433.31", "433.8", "433.80", "433.81", "433.9", "433.90", "433.91", "434.0", "434.00", "434.01", "434.1", "434.10", "434.11", "434.9", "434.90", "434.91", "436"</p>	<p>"I60.00", "I60.01", "I60.02", "I60.10", "I60.11", "I60.12", "I60.2", "I60.30", "I60.31", "I60.32", "I60.4", "I60.50", "I60.51", "I60.52", "I60.6", "I60.7", "I60.8", "I60.9", "I61.0", "I61.1", "I61.2", "I61.3", "I61.4", "I61.5", "I61.6", "I61.8", "I61.9", "I63.00", "I63.011", "I63.012", "I63.019", "I63.02", "I63.031", "I63.032", "I63.039", "I63.09", "I63.10", "I63.111", "I63.112", "I63.119", "I63.12", "I63.131", "I63.132", "I63.139", "I63.19", "I63.20", "I63.211", "I63.212", "I63.219", "I63.22", "I63.231", "I63.232", "I63.239", "I63.29", "I63.30", "I63.311", "I63.312", "I63.319", "I63.321", "I63.322", "I63.329", "I63.331", "I63.332", "I63.339", "I63.341", "I63.342", "I63.349", "I63.39", "I63.40", "I63.411", "I63.412", "I63.419", "I63.421", "I63.422", "I63.429", "I63.431", "I63.432", "I63.439", "I63.441", "I63.442", "I63.449", "I63.49", "I63.50", "I63.511", "I63.512", "I63.519", "I63.521", "I63.522", "I63.529", "I63.531", "I63.532", "I63.539", "I63.541", "I63.542", "I63.549", "I63.59", "I63.6", "I63.8", "I63.9", "I65.01", "I65.02", "I65.03", "I65.09", "I65.1", "I65.21", "I65.22", "I65.23", "I65.29", "I65.8", "I65.9", "I66.01", "I66.02", "I66.03", "I66.09", "I66.11", "I66.12", "I66.13", "I66.19", "I66.21", "I66.22", "I66.23", "I66.29", "I66.3", "I66.8", "I66.9"</p>
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"DX: Transient Ischemic Attack"	"435", "435.0", "435.1", "435.2", "435.3", "435.8", "435.9"	"G45.0", "G45.1", "G45.2", "G45.8", "G45.9"
"DX: Myocardial Infarction"	"410.0", "410.00", "410.01", "410.02", "410.1", "410.10", "410.11", "410.12", "410.2", "410.20", "410.21", "410.22", "410.3", "410.30", "410.31", "410.32", "410.4", "410.40", "410.41", "410.42", "410.5", "410.50", "410.51", "410.52", "410.6", "410.60", "410.61", "410.62", "410.7", "410.70", "410.71", "410.72", "410.8", "410.80", "410.81", "410.82", "410.9", "410.90", "410.91", "410.92"	"I21.01", "I21.02", "I21.09", "I21.11", "I21.19", "I21.21", "I21.29", "I21.3", "I21.4", "I22.0", "I22.1", "I22.2", "I22.8", "I22.9"
"DX: Old MI"	412	I252
"DX: Heart Failure"	"398.91", "402.01", "402.11", "402.91", "404.01", "404.03", "404.11", "404.13", "404.91", "404.93", "428", "428.0", "428.1", "428.2", "428.20", "428.21", "428.22", "428.23", "428.3", "428.30", "428.31", "428.32", "428.33", "428.4", "428.40", "428.41", "428.42", "428.43", "428.9"	"I09.81", "I11.0", "I13.0", "I13.2", "I50.1", "I50.20", "I50.21", "I50.22", "I50.23", "I50.30", "I50.31", "I50.32", "I50.33", "I50.40", "I50.41", "I50.42", "I50.43", "I50.9"
"DX: Chronic Kidney Condition stage 1-2, stage 3 + dialysis "	"585.1", "585.2", "585.3", "585.4", "585.5", "585.6"	"N18.1", "N18.2", "N18.3", "N18.4", "N18.5", "N18.6"

"DX: Renal insufficiency (non-CKD related)"	"582", "582.0", "582.1", "582.2", "582.4", "582.8", "582.81", "582.89", "582.9", "583", "583.0", "583.1", "583.2", "583.4", "583.6", "583.7", "583.8", "583.81", "583.89", "583.9", "586", "587", "585.9",	"N03.0", "N03.1", "N03.2", "N03.3", "N03.4", "N03.5", "N03.6", "N03.7", "N03.8", "N03.9", "N05.0", "N05.1", "N05.2", "N05.3", "N05.4", "N05.5", "N05.6", "N05.7", "N05.8", "N05.9", "N06.0", "N06.1", "N06.2", "N06.3", "N06.4", "N06.5", "N06.6", "N06.7", "N06.8", "N06.9", "N07.0", "N07.1", "N07.2", "N07.3", "N07.4", "N07.5", "N07.6", "N07.7", "N07.8", "N07.9", "N08", "N14.0", "N14.1", "N14.2", "N14.3", "N14.4", "N15.0", "N15.8", "N15.9", "N16", "N17.1", "N17.2", "N18.9", "N19", "N26.1", "N26.9"
"DX: Stable angina"	"413.0", "413.1", "413.9"	"I20.1", "I20.8", "I20.9", "I25.111", "I25.118", "I25.119", "I25.701", "I25.708", "I25.709", "I25.711", "I25.718", "I25.719", "I25.721", "I25.728", "I25.729", "I25.731", "I25.738", "I25.739", "I25.751", "I25.758", "I25.759", "I25.761", "I25.768", "I25.769", "I25.791", "I25.798", "I25.799"
"DX: Unstable angina "	"411.0", "411.1", "411.8", "411.81", "411.89"	"I20.0", "I24.0", "I24.1", "I24.8", "I24.9", "I25.110", "I25.700", "I25.710", "I25.720", "I25.730", "I25.750", "I25.760", "I25.790"

"DX: Other Ischemic Heart Disease "	"414.0", "414.00", "414.01", "414.02", "414.03", "414.04", "414.05", "414.06", "414.07", "414.1", "414.10", "414.11", "414.12", "414.19", "414.2", "414.3", "414.4", "414.8", "414.9"	"I25.10", "I25.110", "I25.111", "I25.118", "I25.119", "I25.3", "I25.41", "I25.42", "I25.5", "I25.6", "I25.700", "I25.701", "I25.708", "I25.709", "I25.710", "I25.711", "I25.718", "I25.719", "I25.720", "I25.721", "I25.728", "I25.729", "I25.730", "I25.731", "I25.738", "I25.739", "I25.750", "I25.751", "I25.758", "I25.759", "I25.760", "I25.761", "I25.768", "I25.769", "I25.790", "I25.791", "I25.798", "I25.799", "I25.810", "I25.811", "I25.812", "I25.82", "I25.83", "I25.84", "I25.89", "I25.9"
"DX: PVD"	"440.20", "440.21", "440.22", "440.23", "440.24", "440.29", "440.30", "440.31", "440.32", "440.4", "443.9"	I70.2xx-I70.7xx, I70.92, I73.9
"DX: Atrial fibrillation"	"427.3", "427.31", "427.32"	"I48.0", "I48.1", "I48.2", "I48.3", "I48.4", "I48.91", "I48.92"
"DX: Other dysrhythmia"	"427.0", "427.1", "427.2", "427.4", "427.41", "427.42", "427.6", "427.60", "427.61", "427.69", "427.8", "427.81", "427.89", "427.9"	"I46.2", "I46.8", "I46.9", "I47.0", "I47.1", "I47.2", "I47.9", "I48.0", "I48.1", "I48.2", "I48.3", "I48.4", "I48.91", "I48.92", "I49.01", "I49.02", "I49.1", "I49.2", "I49.3", "I49.40", "I49.49", "I49.5", "I49.8", "I49.9", "R00.1"

"DX: Cardiac conduction disorder"	"426.0", "426.1", "426.10", "426.11", "426.12", "426.13", "426.2", "426.3", "426.4", "426.5", "426.50", "426.51", "426.52", "426.53", "426.54", "426.6", "426.7", "426.8", "426.81", "426.82", "426.89", "426.9"	"I44.0", "I44.1", "I44.2", "I44.30", "I44.39", "I44.4", "I44.5", "I44.60", "I44.69", "I44.7", "I45.0", "I45.10", "I45.19", "I45.2", "I45.3", "I45.4", "I45.5", "I45.6", "I45.81", "I45.89", "I45.9"
"DX: Other Cardio Vascular Diseases"	"432.0", "432.1", "432.9", "437.0", "437.1", "437.2", "437.3", "437.4", "437.5", "437.6", "437.7", "437.8", "437.9"	"G45.4", "G46.3", "G46.4", "G46.5", "G46.6", "G46.7", "G46.8", "I62.00", "I62.01", "I62.02", "I62.03", "I62.1", "I62.9", "I67.1", "I67.2", "I67.4", "I67.5", "I67.6", "I67.7", "I67.81", "I67.82", "I67.89", "I67.9", "I68.0", "I68.2", "I68.8", "G46.0", "G46.1", "G46.2", "I67.841", "I67.848"
"DX: Asthma"	"493.0", "493.00", "493.01", "493.02", "493.1", "493.10", "493.11", "493.12", "493.2", "493.20", "493.21", "493.22", "493.8", "493.81", "493.82", "493.9", "493.90", "493.91", "493.92"	"J45.20", "J45.21", "J45.22", "J45.30", "J45.31", "J45.32", "J45.40", "J45.41", "J45.42", "J45.50", "J45.51", "J45.52", "J45.901", "J45.902", "J45.909", "J45.990", "J45.991", "J45.998"
"DX: Chronic Obstructive Pulmonary Disease"	"491.0", "491.1", "491.2", "491.20", "491.21", "491.22", "491.8", "491.9", "492.0", "492.8", "496"	"J41.0", "J41.1", "J41.8", "J42", "J43.0", "J43.1", "J43.2", "J43.8", "J43.9", "J44.0", "J44.1", "J44.9"
"DX: Chronic Pulmonary Disease (includes bronchiectasis)"	491.xx, 492.xx, 494.xx, 496.xx	J41-44, J47

"DX: Obstructive sleep apnea"	"327.23"	"G47.33"
"DX: Pneumonia"	"480.0", "480.1", "480.2", "480.3", "480.8", "480.9", "481", "482.0", "482.1", "482.2", "482.3", "482.30", "482.31", "482.32", "482.39", "482.4", "482.40", "482.41", "482.42", "482.49", "482.8", "482.81", "482.82", "482.83", "482.84", "482.89", "482.9", "483.0", "483.1", "483.8", "484.1", "484.3", "484.5", "484.6", "484.7", "484.8", "485", "486", "487.0", "507.0", "507.1", "507.8"	A22.1", "A37.01", "A37.11", "A37.81", "A37.91", "A48.1", "B25.0", "B44.0", "B77.81", "J10.00", "J10.01", "J10.08", "J11.00", "J11.08", "J12.0", "J12.1", "J12.2", "J12.3", "J12.81", "J12.89", "J12.9", "J13", "J14", "J15.0", "J15.1", "J15.20", "J15.211", "J15.212", "J15.29", "J15.3", "J15.4", "J15.5", "J15.6", "J15.7", "J15.8", "J15.9", "J16.0", "J16.8", "J17", "J18.0", "J18.1", "J18.8", "J18.9", "J69.0", "J69.1", "J69.8"
"DX: Acute renal disease"	"572.4", "580", "580.0", "580.4", "580.8", "580.81", "580.89", "580.9", "584", "584.5", "584.6", "584.7", "584.8", "584.9", "791.2", "791.3"	"K76.7", "N00.0", "N00.1", "N00.2", "N00.3", "N00.4", "N00.5", "N00.6", "N00.7", "N00.8", "N00.9", "N01.0", "N01.1", "N01.2", "N01.3", "N01.4", "N01.5", "N01.6", "N01.7", "N01.8", "N01.9", "N08", "N17.0", "N17.1", "N17.2", "N17.8", "N17.9", "R82.1", "R82.3"

"DX: Chronic renal insufficiency"	"582", "582.0", "582.1", "582.2", "582.4", "582.8", "582.81", "582.89", "582.9", "583", "583.0", "583.1", "583.2", "583.4", "583.6", "583.7", "583.8", "583.81", "583.89", "583.9", "585", "585.1", "585.2", "585.3", "585.4", "585.5", "585.6", "585.9", "586", "587"	"E092.1", "E092.2", "E092.9", "M32.14", "M32.15", "M35.04", "N03.0", "N03.1", "N03.2", "N03.3", "N03.4", "N03.5", "N03.6", "N03.7", "N03.8", "N03.9", "N05.0", "N05.1", "N05.2", "N05.3", "N05.4", "N05.5", "N05.6", "N05.7", "N05.8", "N05.9", "N06.0", "N06.1", "N06.2", "N06.3", "N06.4", "N06.5", "N06.6", "N06.7", "N06.8", "N06.9", "N07.0", "N07.1", "N07.2", "N07.3", "N07.4", "N07.5", "N07.6", "N07.7", "N07.8", "N07.9", "N08", "N14.0", "N14.1", "N14.2", "N14.3", "N14.4", "N15.0", "N15.8", "N15.9", "N16", "N17.1", "N17.2", "N18.1", "N18.2", "N18.3", "N18.4", "N18.5", "N18.6", "N18.9", "N19", "N26.1", "N26.9"
"DX: Edema"	"782.3"	"R60.0", "R60.1", "R60.9"

"DX: Liver disease"	<p> "070.0", "070.1", "070.2", "070.20", "070.21", "070.22", "070.23", "070.3", "070.30", "070.31", "070.32", "070.33", "070.4", "070.41", "070.42", "070.43", "070.44", "070.49", "070.5", "070.51", "070.52", "070.53", "070.54", "070.59", "070.6", "070.7", "070.70", "070.71", "070.9", "456.0", "456.1", "456.2", "456.20", "456.21", "570", "571.0", "571.1", "571.2", "571.3", "571.4", "571.40", "571.41", "571.42", "571.49", "571.5", "571.6", "571.8", "571.9", "572.0", "572.1", "572.2", "572.3", "572.4", "572.8", "573.0", "573.1", "573.2", "573.3", "573.4", "573.5", "573.8", "573.9", , "782.4", "789.5", "789.51", "789.59" </p>	<p> "B15.0", "B15.9", "B16.0", "B16.1", "B16.2", "B16.9", "B17.0", "B17.10", "B17.11", "B17.2", "B17.8", "B17.9", "B18.0", "B18.1", "B18.2", "B18.8", "B18.9", "B19.0", "B19.10", "B19.11", "B19.20", "B19.21", "B19.9", "B25.1", "I85.00", "I85.01", "I85.10", "I85.11", "K70.0", "K70.10", "K70.11", "K70.2", "K70.30", "K70.31", "K70.40", "K70.41", "K70.9", "K71.0", "K71.10", "K71.11", "K71.2", "K71.3", "K71.4", "K71.50", "K71.51", "K71.6", "K71.7", "K71.8", "K71.9", "K72.00", "K72.01", "K72.10", "K72.11", "K72.90", "K72.91", "K73.0", "K73.1", "K73.2", "K73.8", "K73.9", "K74.0", "K74.1", "K74.2", "K74.3", "K74.4", "K74.5", "K74.60", "K74.69", "K75.0", "K75.1", "K75.2", "K75.3", "K75.4", "K75.81", "K75.89", "K75.9", "K76.0", "K76.1", "K76.2", "K76.3", "K76.4", "K76.5", "K76.6", "K76.7", "K76.81", "K76.89", "K76.9", "K77", , , "R17", "R18.0", "R18.8" </p>
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"DX: Hypothyroidism"	"243", "244.0", "244.1", "244.2", "244.3", "244.8", "244.9"	"E00.0", "E00.1", "E00.2", "E00.9", "E01.8", "E02", "E03.0", "E03.1", "E03.2", "E03.3", "E03.8", "E03.9", "E89.0"
"DX: Hyperthyroidism"	"242.1", "242.10", "242.11", "242.3", "242.30", "242.31", "242.9", "242.90", "242.91"	"E051.0", "E051.1", "E052.0", "E052.1", "E059.0", "E059.1"
"DX: Depression"	"293.83", "296.2", "296.20", "296.21", "296.22", "296.23", "296.24", "296.25", "296.26", "296.3", "296.30", "296.31", "296.32", "296.33", "296.34", "296.35", "296.36", "298.0", "300.4", "309.0", "309.1", "309.28", "311", "296.90"	"F06.30", "F06.31", "F06.32", "F06.33", "F06.34", "F32.3", "F32.9", "F33.3", "F34.1", "F43.21", "F43.23"
"DX: Anxiety"	"293.84", "300.0", "300.00", "300.01", "300.02", "300.09", "300.2", "300.20", "300.21", "300.22", "300.23", "300.29", "300.3", "308.0", "309.24", "309.81"	"F06.4", "F40.00", "F40.01", "F40.02", "F40.10", "F40.11", "F40.210", "F40.218", "F40.220", "F40.228", "F40.230", "F40.231", "F40.232", "F40.233", "F40.240", "F40.241", "F40.242", "F40.243", "F40.248", "F40.290", "F40.291", "F40.298", "F40.8", "F40.9", "F41.0", "F41.1", "F41.3", "F41.8", "F41.9", "F43.0", "F43.10", "F43.11", "F43.12", "F43.22"

"DX: sleep disorder"	<p>"307.4", "307.40", "307.41", "307.42", "307.43", "307.44", "307.45", "307.46", "307.47", "307.48", "307.49", "327.0", "327.00", "327.01", "327.02", "327.09", "327.2", "327.20", "327.21", "327.22", "327.23", "327.24", "327.25", "327.26", "327.27", "327.29", "347", "347.0", "347.00", "347.01", "347.1", "347.10", "347.11", "780.5", "780.50", "780.51", "780.52", "780.53", "780.54", "780.55", "780.56", "780.57", "780.58", "780.59",</p>	<p>"F51.01", "F51.02", "F51.03", "F51.04", "F51.05", "F51.09", "F51.11", "F51.12", "F51.19", "F51.3", "F51.4", "F51.5", "F51.8", "F51.9", "G47.01", "G47.09", "G47.411", "G47.419", "G47.421", "G47.429"</p>
"DX: Dementia"	<p>"290.0", "290.1", "290.10", "290.11", "290.12", "290.13", "290.2", "290.20", "290.21", "290.3", "290.4", "290.40", "290.41", "290.42", "290.43", "290.8", "290.9", "294.0", "294.1", "294.10", "294.11", "294.2", "294.20", "294.21", "294.8", "294.9", "330.0", "330.1", "330.2", "330.3", "330.8", "330.9", "331.0", "331.1", "331.11", "331.19", "331.2", "331.3", "331.4", "331.5", "331.6", "331.7", "331.8", "331.81", "331.82", "331.83", "331.89", "331.9"</p>	<p>"E750.0", "E750.1", "E750.2", "E750.9", "E751.0", "E751.1", "E751.9", "E752.3", "E752.5", "E752.9", "E754", "F01.50", "F01.51", "F02.80", "F02.81", "F03.90", "F03.91", "F04", "F05", "F06.0", "F06.1", "F06.8", "F84.2", "G13.2", "G13.8", "G30.0", "G30.1", "G30.8", "G30.9", "G31.01", "G31.09", "G31.1", "G31.2", "G31.81", "G31.82", "G31.83", "G31.84", "G31.85", "G31.89", "G31.9", "G91.0", "G91.1", "G91.2", "G91.3", "G91.4", "G91.8", "G91.9", "G93.7", "G93.89", "G93.9", "G94"</p>

"DX: Psychosis"	<p> "290.8", "290.9", "295.0", "295.00", "295.01", "295.02", "295.03", "295.04", "295.05", "295.1", "295.10", "295.11", "295.12", "295.13", "295.14", "295.15", "295.2", "295.20", "295.21", "295.22", "295.23", "295.24", "295.25", "295.3", "295.30", "295.31", "295.32", "295.33", "295.34", "295.35", "295.4", "295.40", "295.41", "295.42", "295.43", "295.44", "295.45", "295.5", "295.50", "295.51", "295.52", "295.53", "295.54", "295.55", "295.6", "295.60", "295.61", "295.62", "295.63", "295.64", "295.65", "295.7", "295.70", "295.71", "295.72", "295.73", "295.74", "295.75", "295.8", "295.80", "295.81", "295.82", "295.83", "295.84", "295.85", "295.9", "295.90", "295.91", "295.92", "295.93", "295.94", "295.95", "297.0", "297.1", "297.2", "297.3", "297.8", "297.9", "298.0", "298.1", "298.2", "298.3", "298.4", "298.8", "298.9", "299.0", "299.00", "299.01", "299.1", "299.10", "299.11", "299.8", "299.80", "299.81", "299.9", "299.90", "299.91", "780.1" </p>	<p> "F20.0", "F20.1", "F20.2", "F20.3", "F20.5", "F20.81", "F20.89", "F20.9", "F22", "F23", "F24", "F25.0", "F25.1", "F25.8", "F25.9", "F28", "F29", "F32.3", "F33.3", "F44.89", "F84.0", "F84.3", "F84.5", "F84.8", "F84.9", "R44.0", "R44.2", "R44.3" </p>
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"DX: Obesity"	<p>"278.0", "278.00", "278.01", "278.03", "539", "539.0", "539.01", "539.09", "539.8", "539.81", "539.89", "649.1", "649.10", "649.11", "649.12", "649.13", "649.14", "649.2", "649.20", "649.21", "649.22", "649.23", "649.24", "V85.30", "V85.31", "V85.32", "V85.33", "V85.34", "V85.35", "V85.36", "V85.37", "V85.38", "V85.39", "V85.41", "V85.42", "V85.43", "V85.44", "V85.45"</p>	<p>"E660.9", "E661", "E668", "E669", "O99.210", "O99.211", "O99.212", "O99.213", "O99.214", "O99.215", "O99.840", "O99.841", "O99.842", "O99.843", "O99.844", "O99.845", "Z68.30", "Z68.31", "Z68.32", "Z68.33", "Z68.34", "Z68.35", "Z68.36", "Z68.37", "Z68.38", "Z68.39", "Z68.41", "Z68.42", "Z68.43", "Z68.44", "Z68.45"</p>
"DX: smoking"	<p>"305.1", "649.0", "649.00", "649.01", "649.02", "649.03", "649.04", "989.84", "V15.82"</p>	<p>"F17.200", "F17.201", "F17.210", "F17.211", "F17.220", "F17.221", "F17.290", "F17.291", "O99.330", "O99.331", "O99.332", "O99.333", "O99.334", "O99.335", "T65.211A", "T65.212A", "T65.213A", "T65.214A", "T65.221A", "T65.222A", "T65.223A", "T65.224A", "T65.291A", "T65.292A", "T65.293A", "T65.294A", "Z87.891"</p>

"DX: alcohol use"	<p>"291.0", "291.1", "291.2", "291.3", "291.4", "291.5", "291.8", "291.81", "291.82", "291.89", "291.9", "303.0", "303.00", "303.01", "303.02", "303.03", "303.9", "303.90", "303.91", "303.92", "303.93", "305.0", "305.00", "305.01", "305.02", "305.03", "357.5", "425.5", "571.0", "571.1", "571.2", "571.3", "E860.0", "V11.3",</p>	<p>"F10.10", "F10.120", "F10.121", "F10.129", "F10.14", "F10.150", "F10.151", "F10.159", "F10.180", "F10.181", "F10.182", "F10.188", "F10.19", "F10.20", "F10.21", "F10.220", "F10.221", "F10.229", "F10.230", "F10.231", "F10.232", "F10.239", "F10.24", "F10.250", "F10.251", "F10.259", "F10.26", "F10.27", "F10.280", "F10.281", "F10.282", "F10.288", "F10.29", "F10.920", "F10.921", "F10.929", "F10.94", "F10.950", "F10.951", "F10.959", "F10.96", "F10.97", "F10.980", "F10.981", "F10.982", "F10.988", "F10.99", "G62.1", "I42.6", "K70.0", "K70.10", "K70.11", "K70.2", "K70.30", "K70.31", "K70.40", "K70.41", "K70.9", "T51.0X1A", "T51.0X1D", "T51.0X1S"</p>
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"DX: drug abuse"

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"DX: Congenital Anomalies of the Heart and Great Arteries"	745.x, 746.x, 747.0, 747.1x, 747.2x	Q20.x, Q21.x, Q22.x, Q23.x, Q24.x, Q25.x
"DX: Cardiomyopathy"	422.x, 425.x	I40.x, I42.x
"DX: Ventricular arrhythmia"	427.1x, 427.4x, 427.5x	I47.2x, I49.0x, I46.x
"DX: Disorders of Mineral & electrolyte imbalance "	275.*, 276.*	E83.*, E86.*, E87.*
"DX: Diarrhea"	"579.4", "787.91", "564.5", "564.1", "008.45"	"K903", "K197", "K591", "K58", "A047"
"DX: hyperparathyroidism"	"252.0"	"E210", "E211", "E212", "E213"
"DX: Angioneurotic edema"	"995.1"	"T78.3"
"DX: Diseases and dysfunctions of GI/GU"	"455", "456.0", "456.20", "530.1", "530.7", "530.82", "531", "532", "533", "534", "535", "537.83", "562", "568.81", "569.3", "598.5", "578", "593.81", "599.7", "623.8", "626.2", "626.6"	"K64", "I850.1", "I851.1", "K20", "K22.6", "K25", "K26", "K27", "K28", "K29", "K31.811", "K57", "K66.1", "K62.5", "K55.21", "K92.0", "K92.1", "K922", "K31", "N28.0", "N89.8", "N92.0", "N92.1"
"DX: food allergy"	"692.5", "693.1", "995.6", "995.7", "V150"	"L25.4", "L27.2", "T78.0", "T78.1", "Z19.01"
"DX: "Drug Allergy"	"995.27", "692.3", "693.0", "V14"	"L251", "L27.0", "L27.1", "Z88"

"DX: Glaucoma"	"36502"	"H409"
"DX: Myocarditis"	"074.23", "093.82", "391.2", "398.0", "422.0", "422.90", "422.91", "422.92", "422.93", "422.99", "429.0" "	"B33.22", "A52.06", "I01.2", "I09.0", "I40.xx", "I41", "I51.4", "
"DX: Neutropenia"	2880, "28801", "28802", "28803", "28804", "28809", "2881"	"D709", "D700", "D704", "D701", "D702", "D703", "D708", "D71"
"DX: Cancer"	'14','15','16','17','18','19','20','23'	'C','D1','D2','D3','D4'
"DX: Epilepsy"	"34500", "34501", "34510", "34511", "3452", "3453", "34540", "34542", "34550", "34552", "34560", "34561", "34570", "34580", "34581", "34590 34591"	"G40A01", "G40A09", "G40A11", "G40A19", "G40309", "G40311", "G40401", "G40409", "G40411", "G40419", "G40301", "G40201", "G40209", "G40211", "G40219", "G40101", "G40109", "G40111", "G40119", "G40821", "G40822", "G40823", "G40824", "G40501", "G40509", "G40802", "G40804", "G40901", "G40909", "G40911", "G40919"
"DX: HIV"	042	B20*, B22*, B23*, B24*, R75*, Z21*

"DX: Anemias"	280* - 285*	D50* - D64*
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"DX: Any Mental Disorder"

290-319

"F0150", "F0151", "F0280", "F0281",
"F0390", "F0391", "F04", "F05",
"F060", "F061", "F062", "F0630",
"F064", "F068", "F10159", "F10180",
"F10181", "F10182", "F10188",
"F10231", "F10239", "F10259",
"F1027", "F10280", "F10281",
"F10282", "F10288", "F10929",
"F10950", "F10951", "F10959",
"F1096", "F10980", "F10982",
"F1099", "F11159", "F11181",
"F11182", "F11188", "F11222",
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"DX: Bipolar Disorder"	"29600", "29601", "29602", "29603", "29604", "29605", "29606", "29610", "29611", "29612", "29613", "29614", "29615", "29616", "29640", "29641", "29642", "29643", "29644", "29645", "29646", "29650", "29651", "29652", "29653", "29654", "29655", "29656", "29660", "29661", "29662", "29663", "29664", "29665", "29666", "2967", "29680", "29681", "29682", "29689"	"F308", "F3010", "F3011", "F3012", "F3013", "F302", "F303", "F304", "F308", "F3110", "F3111", "F3112", "F3113", "F312", "F313", "F3131", "F3132", "F314", "F315", "F316", "F3161", "F3162", "F3163", "F3164", "F3173", "F3174", "F3175", "F3176", "F3177", "F3178", "F3181", "F319", "F3289"
"DX: Dyskinesia"	"33385"	"G2401"
"DX: Diverticulosis of Intestine"	"56200", "56201", "56202", "56203", "56210", "56211", "56212", "56213"	"K5710", "K5712", "K5711", "K3713", "K5730", "K5732", "K5731", "K5733"
"DX: Pancreatitis"	"5770", "5771"	"K8590", "K8591", "K8592", "K861"
"DX: Osteoarthritis"	"71500", "71504", "71509", "71510", "71511", "71512", "71513", "71514", "71515", "71516", "71517", "71518", "71518", "71520", "71521", "71522", "71523", "71524", "71525", "71526", "71527", "71528", "71530", "71531", "71532", "71533", "71534", "71535", "71536", "71537", "71538", "71580", "71589", "71590", "71591", "71592", "71593", "71594", "71595", "71596", "71597", "71598"	"M150", "M151", "M152", "M153", "M158", "M159", "M1610", "M167", "M169", "M1710", "M175", "M179", "M189", "M19019", "M19029", "M19039", "M19049", "M19079", "M19093", "M19219", "M19229", "M19239", "M19249", "M19279", "M1990", "M1991", "M1993"

"DX: Disc Disorder"	"7220", "72210", "72211", "7222", "72230", "72231", "72232", "72239", "7224", "72251", "72252", "7226", "72270", "72271", "72272", "72273", "72280", "72281", "72282", "72283", "72290", "72291", "72292", "72293"	"M4640", "M4645", "M4647", "M5000", "M5020", "M5124", "M5125", "M5126", "M5030", "M5080", "M5090", "M5104", "M5105", "M5106", "M5127", "M5134", "M5135", "M5136", "M5137", "M5144", "M5145", "M5146", "M5147", "M5184", "M5185", "M5186", "M5197", "M519", "M961"
"DX: Hip Fracture"	"82000", "82001", "82002", "82003", "82009", "82010", "82011", "82012", "82013", "82019", "82020", "82021", "82022", "82030", "82031", "82032", "8208", "8209"	"S72009A", "S72009B", "S72009C", "S72019A", "S72019B", "S72019C", "S72023A", "S7223B", "S72023C", "S72026A", "S72026B", "S72026C", "S72033A", "S72033B", "S72033C", "S72036A", "S72036B", "S72036C", "S72043A", "S72043B", "S72043C", "S72046A", "S72046B", "S72046C", "S72099A", "S72099B", "S72099C", "S72109A", "S72109B", "S72109C", "S72143A", "S72143B", "S72143C", "S72146A", "S72146B", "S72146C", "S7223XA", "S7223XB", "S7223XC", "S7226XA", "S7223XB", "S7223XC"
"DX: Self Harm"	E950-E959	X71-X83