

Using 3-Digit ICD-9-CM Codes with the Charlson Comorbidity Index		
Cormorbid Condition	Charlson ICD-9-CM codes	Suggested 3-digit ICD-9-CM codes
Myocardial Infarction	410, 412	410, 412
Congestive Heart Failure	398.91 Rheumatic heart failure (congestive) 402.01, 402.11, 402.91 404.01, 404.03, 404.11, 404.13, 404.91, 404.93 425.4-425.9 428 Heart Failure	398 Other rheumatic heart disease 402 Hypertensive heart disease 404 Hypertensive heart & CKD (overlaps with renal disease) 425 Cardiomyopathy 428 Heart Failure
Periphral Vascular Disease	093.0 Aneurysm of aorta, specified as syphilitic 437.3 Cerebral aneurysm, nonruptured 440 Atherosclerosis 441 Aortic aneurysm and dissection 443.1, 443.2, 443.8, 443.9 447.1 Stricture of artery	093 Cardiovascular syphilis 437 Other and ill-defined cerebrovascular disease (overlap with Cerebrovascular Disease) 440 Atherosclerosis 441 Aortic aneurysm and dissection 443 Other peripheral vascular disease 447 Other disorders of arteries and arterioles
	557.1 Chronic vascular insufficiency of intestine 557.9 Unspecified vascular insufficiency of intestine	557 Vascular insufficiency of intestine
	V43.4 Blood vessel replacement	V43 Organ or tissue replaced by other means (includes all types of organs/tissues)
Cerebrovascular Disease	362.34 Transient arterial occlusion 430-438	362 Other retinal disorders 430-438
Dementia	290 Dementias 294.1 Dementia in conditions classified elsewhere 331.2 Senile degeneration of brain	290 Dementias 294 Persistent mental disorders due to conditions classified elsewhere 331 Other cerebral degenerations

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Chronic Pulmonary Disease	416.8, 416.9 490-496, 500-505 506.4 Chronic respiratory conditions due to fumes and vapors 508.1 Chronic and other pulmonary manifestations due to radiation 508.8 Respiratory conditions due to other specified external agents	416 Chronic pulmonary heart disease 490-496, 500-505 506 Respiratory conditions due to chemical fumes and vapors 508 Respiratory conditions due to other and unspecified external agents 508 Respiratory conditions due to other and unspecified external agents
Rheumatic Disease	446.5 Giant cell arteritis 710.0-710.4 714.0-714.2, 714.8 725 Polymyalgia rheumatica	446 Polyarteritis nodosa and allied conditions 710 Diffuse diseases of connective tissue 714 Rheumatoid arthritis and other inflammatory polyarthropathies 725 Polymyalgia rheumatica
Peptic Ulcer Disease	531, 532, 533, 534	531, 532, 533, 534
Mild Liver Disease	070.22, 070.23, 070.32, 070.33, 070.44, 070.54, 070.6, 070.9 570 Acute and subacute necrosis of liver 571 Chronic liver disease and cirrhosis 573.3, 573.4, 573.8, 573.9	070 Viral hepatitis 570 Acute and subacute necrosis of liver 571 Chronic liver disease and cirrhosis 573 Other disorders of liver
	V42.7 Liver transplant	V42 Organ or tissue replaced by transplant (includes all types of organs/tissues)
Diabetes with/without complications	250.x	250 (combine with & without complications)
Paraplegia and Hemiplegia	334.1 Hereditary spastic paraplegia 342 Hemiplegia and hemiparesis 343 Infantile cerebral palsy 344.0-344.6, 344.9	334 Spinocerebellar disease 342 Hemiplegia and hemiparesis 343 Infantile cerebral palsy 344 Other paralytic syndromes

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Renal Disease	403.01, 403.11, 403.91 404.02, 404.03, 404.12, 404.13, 404.92, 404.93 582 Chronic glomerulonephritis 583.0-583.4, 583.6, 583.7 585 Chronic kidney disease (CKD) 586 Renal failure, unspecified 588.0 Renal osteodystrophy V42.0 Kidney transplant V45.1 Renal dialysis status V56 Encounter for dialysis and dialysis catheter care	403 Hypertensive chronic kidney disease 404 Hypertensive heart & CKD (overlaps with CHF) 582 Chronic glomerulonephritis 583 Nephritis and nephropathy, not specified as acute or chronic 585 Chronic kidney disease (CKD) 586 Renal failure, unspecified 588 Disorders resulting from impaired renal function V42 Organ or tissue replaced by transplant V45 Other postprocedural states V56 Encounter for dialysis and dialysis catheter care
Cancer	140-165, 170-172, 174-176, 179-195, 200-208, 238.6	140-165, 170-172, 174-176, 179-195, 200-208, 238
Moderate or Severe Liver Disease	456.0-456.2 572.2-572.4, 572.8	456 Varicose veins of other sites 572 Liver abscess and sequelae of chronic liver disease
Metastatic Cancer	196-199	196-199
HIV/AIDS	042-044	042-044