

27 Chronic Condition Algorithms

Algorithms	Reference Time Period (# of years)	Valid ICD-9/CPT4/HCPCS Codes ¹	Number/Type of Claims to Qualify ²	Exclusions
Acquired Hypothyroidism	1 year	DX 244.0, 244.1, 244.2, 244.3, 244.8, 244.9, (any DX on the claim)	At least 1 inpatient, SNF, HHA or 2 HOP or Carrier claims with DX codes during the 1-yr period	Managed Care patients
Acute Myocardial Infarction	1 year	DX 410.01, 410.11, 410.21, 410.31, 410.41, 410.51, 410.61, 410.71, 410.81, 410.91 (ONLY first or second DX on the claim)	At least 1 inpatient claim with DX codes during the 1-yr period	
Alzheimer's Disease	3 years	DX 331.0 (any DX on the claim)	At least 1 inpatient, SNF, HHA, HOP or Carrier claim with DX codes during the 3-yr period	
Alzheimer's Disease and Related Disorders or Senile Dementia	3 years	DX 331.0, 331.11, 331.19, 331.2, 331.7, 290.0, 290.10, 290.11, 290.12, 290.13, 290.20, 290.21, 290.3, 290.40, 290.41, 290.42, 290.43, 294.0, 294.10, 294.11, 294.8, 797 (any DX on the claim)	At least 1 inpatient, SNF, HHA, HOP or Carrier claim with DX codes during the 3-yr period	
Anemia	1 year	DX 280.0, 280.1, 280.8, 280.9, 281.0, 281.1, 281.2, 281.3, 281.4, 281.8, 281.9, 282.0, 282.1, 282.2, 282.3, 282.41, 282.42, 282.49, 282.5, 282.60, 282.61, 282.62, 282.63, 282.64, 282.68, 282.69, 282.7, 282.8, 282.9, 283.0, 283.10, 283.11, 283.19, 283.2, 283.9, 284.01, 284.09, 284.1, 284.2, 284.81, 284.89, 284.9, 285.0, 285.1, 285.21, 285.22, 285.29, 285.3, 285.8, 285.9 (any DX on the claim)	At least 1 inpatient, SNF, HHA, OP or Carrier claim from any source (inpatient, home health, skilled nursing facility, outpatient or Part B with DX codes during the 1-year time period	Managed Care patients
Asthma	1 year	DX 493.00, 493.01, 493.02, 493.10, 493.11, 493.12, 493.20, 493.21, 493.22, 493.81, 493.82, 493.90, 493.91, 493.92, (any DX on the claim)	At least 1 inpatient, SNF, HHA or 2 HOP or Carrier claims with DX codes during the 1-yr period	Managed Care patients
Atrial Fibrillation	1 year	DX 427.31 (ONLY first or second DX on the claim)	At least 1 inpatient claim or 2 HOP or Carrier claims with DX code during the 1-yr period	
Benign Prostatic Hyperplasia	1 year	DX 600.00, 600.01, 600.10, 600.11, 600.20, 600.21, 600.3, 600.90, 600.91 (any DX on the claim)	At least 1 inpatient, SNF, HHA or 2 HOP or Carrier claims with DX codes during the 1-yr period	If any of the qualifying claims also have a diagnosis of 222.2, then EXCLUDE and Managed Care patients
Cataract	1 year	DX 366.01, 366.02, 366.03, 366.04, 366.09, 366.10, 366.12, 366.13, 366.14, 366.15, 366.16, 366.17, 366.18, 366.19, 366.20, 366.21, 366.22, 366.23, 366.30, 366.45, 366.46, 366.50, 366.51, 366.52, 366.53, 366.8, 366.9, 379.26, 379.31, 379.39, 743.30, 743.31, 743.32, 743.33, V43.1, (ONLY principal DX on the claim)	At least 1 HOP or Carrier claim with DX codes during the 1-yr period	
Chronic Kidney Disease	2 years	DX 016.00, 016.01, 016.02, 016.03, 016.04, 016.05, 016.06, 095.4, 189.0, 189.9, 223.0, 236.91, 249.40, 249.41, 250.40, 250.41, 250.42, 250.43, 271.4, 274.10, 283.11, 403.01, 403.11, 403.91, 404.02, 404.03, 404.12, 404.13, 404.92, 404.93, 440.1, 442.1, 572.4, 580.0, 580.4, 580.81, 580.89, 580.9, 581.0, 581.1, 581.2, 581.3, 581.81, 581.89, 581.9, 582.0, 582.1, 582.2, 582.4, 582.81, 582.89, 582.9, 583.0, 583.1, 583.2, 583.4, 583.6, 583.7, 583.81, 583.89, 583.9, 584.5, 584.6, 584.7, 584.8, 584.9, 585, 585.1, 585.2, 585.3, 585.4, 585.5, 585.6, 585.9, 586, 587, 588.0, 588.1, 588.81, 588.89, 588.9, 591, 753.12, 753.13, 753.14, 753.15, 753.16, 753.17, 753.19, 753.20, 753.21, 753.22, 753.23, 753.29, 794.4 (any DX on the claim)	At least 1 inpatient, SNF or HHA claim or 2 HOP or Carrier claims with DX codes during the 2-yr period+E3	

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Chronic Obstructive Pulmonary Disease and Bronchiectasis	1 year	DX 490, 491.0, 491.1, 491.8, 491.9, 492.0, 492.8, 491.20, 491.21, 491.22, 494.0, 494.1, 496 (any DX on the claim)	At least 1 inpatient, SNF, HHA or 2 HOP or Carrier claims with DX codes during the 1-yr period	
Depression	1 year	DX 296.20, 296.21, 296.22, 296.23, 296.24, 296.25, 296.26, 296.30, 296.31, 296.32, 296.33, 296.34, 296.35, 296.36, 296.51, 296.52, 296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.89, 298.0, 300.4, 309.1, 311 (any DX on the claim)	At least 1 inpatient, SNF, HHA, HOP or Carrier claim with DX codes during the 1-yr period	
Diabetes	2 years	DX 249.00, 249.01, 249.10, 249.11, 249.20, 249.21, 249.30, 249.31, 249.40, 249.41, 249.50, 249.51, 249.60, 249.61, 249.70, 249.71, 249.80, 249.81, 249.90, 249.91, 250.00, 250.01, 250.02, 250.03, 250.10, 250.11, 250.12, 250.13, 250.20, 250.21, 250.22, 250.23, 250.30, 250.31, 250.32, 250.33, 250.40, 250.41, 250.42, 250.43, 250.50, 250.51, 250.52, 250.53, 250.60, 250.61, 250.62, 250.63, 250.70, 250.71, 250.72, 250.73, 250.80, 250.81, 250.82, 250.83, 250.90, 250.91, 250.92, 250.93, 357.2, 362.01, 362.02, 362.03, 362.04, 362.05, 362.06, 366.41 (any DX on the claim)	At least 1 inpatient, SNF or HHA claim or 2 HOP or Carrier claims with DX codes during the 2-yr period	
Glaucoma	1 year	DX 362.85, 365.00, 365.01, 365.02, 365.03, 365.04, 365.10, 365.11, 365.12, 365.13, 365.15, 365.20, 365.21, 365.22, 365.23, 365.24, 365.31, 365.32, 365.41, 365.42, 365.43, 365.51, 365.52, 365.59, 365.60, 365.61, 365.62, 365.63, 365.64, 365.65, 365.81, 365.82, 365.83, 365.89, 365.9, 377.14 (ONLY principal DX on the claim)	At least 1 Carrier claim with DX codes during the 1-yr period	
Heart Failure	2 years	DX 398.91, 402.01, 402.11, 402.91, 404.01, 404.11, 404.91, 404.03, 404.13, 404.93, 428.0, 428.1, 428.20, 428.21, 428.22, 428.23, 428.30, 428.31, 428.32, 428.33, 428.40, 428.41, 428.42, 428.43, 428.9 (any DX on the claim)	At least 1 inpatient, HOP or Carrier claim with DX codes during the 2-yr period	
Hip/Pelvic Fracture	1 year	DX 733.14, 733.15, 733.96, 733.97, 733.98, 808.0, 808.1, 808.2, 808.3, 808.41, 808.42, 808.43, 808.49, 808.51, 808.52, 808.53, 808.59, 808.8, 808.9, 820.00, 820.01, 820.02, 820.03, 820.09, 820.10, 820.11, 820.12, 820.13, 820.19, 820.20, 820.21, 820.22, 820.30, 820.31, 820.32, 820.8, 820.9 (any DX on the claim)	At least 1 inpatient or SNF claim with DX code during the 1-yr period	
Hyperlipidemia	1 year	DX 272.0, 272.1, 272.2, 272.3, 272.4 (any DX on the claim)	At least 1 inpatient, SNF, HHA or 2 HOP or Carrier claims with DX codes during the 1-yr period	Managed Care patients
Hypertension	1 year	DX 362.11, 401.0, 401.1, 401.9, 402.00, 402.01, 402.10, 402.11, 402.90, 402.91, 403.00, 403.01, 403.10, 403.11, 403.90, 403.91, 404.00, 404.01, 404.02, 404.03, 404.10, 404.11, 404.12, 404.13, 404.90, 404.91, 404.92, 404.93, 405.01, 405.09, 405.11, 405.19, 405.91, 405.99, 437.2 (any DX on the claim)	At least 1 inpatient, SNF, HHA or 2 HOP or Carrier claims with DX codes during the 1-yr period	Managed Care patients
Ischemic Heart Disease	2 years	DX 410.00, 410.01, 410.02, 410.10, 410.11, 410.12, 410.20, 410.21, 410.22, 410.30, 410.31, 410.32, 410.40, 410.41, 410.42, 410.50, 410.51, 410.52, 410.60, 410.61, 410.62, 410.70, 410.71, 410.72, 410.80, 410.81, 410.82, 410.90, 410.91, 410.92, 411.0, 411.1, 411.81, 411.89, 412, 413.0, 413.1, 413.9, 414.00, 414.01, 414.02, 414.03, 414.04, 414.05, 414.06, 414.07, 414.12, 414.2, 414.3, 414.8, 414.9 (any DX on the claim)	At least 1 inpatient, SNF, HHA, HOP or Carrier claim with DX codes during the 2-yr period	

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Osteoporosis	1 year	DX 733.00, 733.01, 733.02, 733.03, 733.09 (any DX on the claim)	At least 1 inpatient, SNF, HHA or 2 HOP or Carrier claims with DX codes during the 1-yr period	
RA/OA (Rheumatoid Arthritis/ Osteoarthritis)	2 years	DX 714.0, 714.1, 714.2, 714.30, 714.31, 714.32, 714.33, 715.00, 715.04, 715.09, 715.10, 715.11, 715.12, 715.13, 715.14, 715.15, 715.16, 715.17, 715.18, 715.20, 715.21, 715.22, 715.23, 715.24, 715.25, 715.26, 715.27, 715.28, 715.30, 715.31, 715.32, 715.33, 715.34, 715.35, 715.36, 715.37, 715.38, 715.80, 715.89, 715.90, 715.91, 715.92, 715.93, 715.94, 715.95, 715.96, 715.97, 715.98, 720.0, 721.0, 721.1, 721.2, 721.3, 721.90, 721.91 (any DX on the claim)	At least 2 inpatient, SNF, HHA, HOP or Carrier claim with DX codes during the 2-yr period Any combination of claims at least one day apart.	
Stroke / Transient Ischemic Attack	1 year	DX 430, 431, 433.01, 433.11, 433.21, 433.31, 433.81, 433.91, 434.00, 434.01, 434.10, 434.11, 434.90, 434.91, 435.0, 435.1, 435.3, 435.8, 435.9, 436, 997.02 (any DX on the claim)	At least 1 inpatient claim or 2 HOP or Carrier claims with DX codes during the 1-yr period	If any of the qualifying claims have: 800 <= DX Code <= 804.9, 850 <= DX Code <= 854.1 in any DX position OR DX V57xx as the principal DX code, then EXCLUDE
Female/Male Breast Cancer	1 year	DX 174.0, 174.1, 174.2, 174.3, 174.4, 174.5, 174.6, 174.8, 174.9, 175.0, 175.9, 233.0, V10.3 (any DX on the claim)	At least 1 inpatient, SNF or 2 HOP or Carrier claims with DX codes during the 1-year time period (Any combination of 2 HOP/Carrier claims at least one day apart)	
Colorectal Cancer	1 year	DX 153.0, 153.1, 153.2, 153.3, 153.4, 153.5, 153.6, 153.7, 153.8, 153.9, 154.0, 154.1, 230.3, 230.4, V10.05, V10.06 (any DX on the claim)	At least 1 inpatient, SNF or 2 HOP or Carrier claims with DX codes during the 1-year time period (Any combination of 2 HOP/Carrier claims at least one day apart)	
Prostate Cancer	1 year	DX 185, 233.4, V10.46 (any DX on the claim)	At least 1 inpatient, SNF or 2 HOP or Carrier claims with DX codes during the 1-year time period (Any combination of 2 HOP/Carrier claims at least one day apart)	
Lung Cancer	1 year	DX 162.2, 162.3, 162.4, 162.5, 162.8, 162.9, 231.2, V10.11 (any DX on the claim)	At least 1 inpatient, SNF or 2 HOP or Carrier claims with DX codes during the 1-year time period (Any combination of 2 HOP/Carrier claims at least one day apart)	
Endometrial Cancer	1 year	DX 182.0, 233.2, V10.42 (any DX on the claim)	At least 1 inpatient, SNF or 2 HOP or Carrier claims with DX codes during the 1-year time period (Any combination of 2 HOP/Carrier claims at least one day apart)	
¹ Effective dates of these codes vary. Researchers may be interested in confirming the code(s) of interest in accompanying claims or assessment data files. ² Carrier claims refers to RIC "O" claims (not DMERC RIC "M" claims), and excludes any claims for which line item Berenson-Eggers Type of Service [BETOS] variable equals D1A, D1B, D1C, D1D, D1E, D1F, D1G, or O1A. The categories with D1 in the first two positions are DME categories. The O1A category includes ambulance services. The intent of the algorithm is to exclude claims where the services do not require a licensed health care professional. SNF refers to skilled nursing facility; HHA refers to home health agency; HOP refers to hospital outpatient.				