

CMS Chronic Conditions Data Warehouse (CCW)

Other Chronic or Potentially Disabling Condition Algorithms

(rev. 11/2017)

Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
ADHD, Conduct Disorders, and Hyperkinetic Syndrome	DX 312.00, 312.01, 312.02, 312.03, 312.10, 312.11, 312.12, 312.13, 312.20, 312.21, 312.22, 312.23, 312.30, 312.31, 312.32, 312.33, 312.34, 312.35, 312.39, 312.4, 312.81, 312.82, 312.89, 312.9, 314.00, 314.01, 314.1, 314.2, 314.8, 314.9 (any DX on the claim)	DX F63.0, F63.1, F63.2, F63.3, F63.81, F63.89, F63.9, F90.0, F90.1, F90.2, F90.8, F90.9, F91.0, F91.1, F91.2, F91.8, F91.9 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Alcohol Use Disorders	DX 291.0, 291.1, 291.2, 291.3, 291.4, 291.5, 291.8, 291.81, 291.82, 291.89, 291.9, 303.00, 303.01, 303.02, 303.90, 303.91, 303.92, 305.00, 305.01, 305.02, 357.5, 425.5, 535.30, 535.31, 571.0, 571.1, 571.2, 571.3, 760.71, 980.0, V65.42, V79.1, E860.0 ICD-9 Procedure Codes 94.6, 94.61, 94.62, 94.63, 94.67, 94.68, 94.69 (any DX or procedure on the claim)	DX 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, F10.220, 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, K29.20, K29.21, K70.0, K70.10, K70.11, K70.2, K70.30, K70.31, K70.40, K70.41, K70.9, P04.3, Q86.0, T51.0X1A, T51.0X2A, T51.0X3A, T51.0X4A, Z13.89, Z71.41, Z71.42, Z71.51, Z71.52, Z71.6 ICD10 Procedure Codes: HZ2ZZZZ, HZ30ZZZ, HZ31ZZZ, HZ32ZZZ, HZ33ZZZ, HZ34ZZZ, HZ35ZZZ, HZ36ZZZ, HZ37ZZZ, HZ38ZZZ, HZ39ZZZ, HZ3BZZZ, HZ40ZZZ, HZ93ZZZ, HZ96ZZZ (any DX or procedure on the claim)	At least one inpatient claim OR two other non-drug claims of any service type during the two year period Procedure codes require only one claim to qualify

¹ The reference period (# of years) for all algorithms included in this specification document is 2 years.

² ICD-10 codes are effective 10/2015; effective dates for ICD-9 codes vary, but are valid through 09/2015. Researchers may be interested in confirming the code(s) of interest in the accompanying claims data files.

³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of "[CCW Chronic Condition Algorithms](#)."

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

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Anxiety Disorders	DX 293.84, 300.00, 300.01, 300.02, 300.09, 300.10, 300.20, 300.21, 300.22, 300.23, 300.29, 300.3, 300.5, 300.89, 300.9, 308.0, 308.1, 308.2, 308.3, 308.4, 308.9, 309.81, 313.0, 313.1, 313.21, 313.22, 313.3, 313.82, 313.83 (any DX on the claim)	DX 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, F42, F42.2, F42.3, F42.4, F42.8, F42.9, F43.0, F43.10, F43.11, F43.12, F44.9, F45.8, F48.8, F48.9, F93.8, F99, R45.2, R45.5, R45.6, R45.7 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes

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Autism Spectrum Disorders	DX 299.0, 299.00, 299.01, 299.1, 299.11, 299.8, 299.80, 299.81, 299.9, 299.90, 299.91 (any DX on the claim)	DX F84.0, F84.3, F84.5, F84.8, F84.9 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Bipolar Disorder	DX 296.00, 296.01, 296.02, 296.03, 296.04, 296.05, 296.06, 296.10, 296.11, 296.12, 296.13, 296.14, 296.15, 296.16, 296.40, 296.41, 296.42, 296.43, 296.44, 296.45, 296.46, 296.50, 296.51, 296.52,	DX F30.10, F30.11, F30.12, F30.13, F30.2, F30.3, F30.4, F30.8, F30.9, F31.0, F31.10, F31.11, F31.12, F31.13, F31.2, F31.30, F31.31, F31.32, F31.4, F31.5, F31.60, F31.61,	At least 1 inpatient OR 2 other non-drug claims of any

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³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of [“CCW Chronic Condition Algorithms.”](#)

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

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Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
	296.53, 296.54, 296.55, 296.56, 296.60, 296.61, 296.62, 296.63, 296.64, 296.65, 296.66, 296.7, 296.80, 296.81, 296.82, 296.89, 296.90, 296.99 (any DX on the claim)	F31.62, F31.63, F31.64, F31.70, F31.71, F31.72, F31.73, F31.74, F31.75, F31.76, F31.77, F31.78, F31.81, F31.89, F31.9, F33.8, F34.81, F34.89, F34.9, F39 (any DX on the claim)	service type with DX codes
Cerebral Palsy	DX 333.71, 343, 343.0, 343.1, 343.2, 343.3, 343.4, 343.8, 343.9 (any DX on the claim)	DX G80.0, G80.1, G80.2, G80.3, G80.4, G80.8, G80.9 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Cystic Fibrosis and Other Metabolic Developmental Disorders	DX 243, 255.2, 269.2, 270.1, 270.2, 270.3, 270.4, 270.6, 270.7, 271.1, 277.0, 277.00, 277.01, 277.02, 277.03, 277.09, 277.6, 277.81, 277.85 (any DX on the claim)	DX D81.810, D84.1, E00.0, E00.1, E00.2, E00.9, E03.0, E03.1, E25.0, E25.8, E25.9, E56.9, E70.0, E70.1, E70.20, E70.21, E70.29, E70.30, E70.310, E70.311, E70.318, E70.319, E70.320, E70.321, E70.328, E70.329, E70.330, E70.331, E70.338, E70.339, E70.39, E70.5, E70.8, E70.9, E71.0, E71.110, E71.111, E71.118, E71.19, E71.2, E71.41, E71.310, E71.311, E71.312, E71.313, E71.314, E71.318, E71.32, E72.10, E72.11, E72.12, E72.19, E72.20, E72.21, E72.22, E72.23, E72.29, E72.3, E72.4, E72.50, E72.51, E72.59, E72.8, E74.20, E74.21, E74.29, E84.0, E84.11, E84.19, E84.8, E84.9 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes

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³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of [“CCW Chronic Condition Algorithms.”](#)

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

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Depressive Disorders	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, 300.4, 311, V79.0 (any DX on the claim) <i>EXCEPTION: V79.0 requires a second qualifying claim that is not V79.0 (a screening code)</i>	DX F32.0, F32.1, F32.2, F32.3, F32.4, F32.5, F32.89, F32.9, F33.0, F33.1, F33.2, F33.3, F33.8, F33.40, F33.41, F33.42, F33.9, F34.1 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes

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Other Chronic or Potentially Disabling Condition Algorithms

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Drug Use Disorders	<p>DX 292.0, 292.11, 292.12, 292.2, 292.81, 292.82, 292.83, 292.84, 292.85, 292.89, 292.9, 304.00, 304.01, 304.02, 304.10, 304.11, 304.12, 304.2, 304.20, 304.21, 304.22, 304.3, 304.30, 304.31, 304.32, 304.4, 304.40, 304.41, 304.42, 304.5, 304.50, 304.51, 304.52, 304.6, 304.60, 304.61, 304.62, 304.7, 304.70, 304.71, 304.72, 304.8, 304.80, 304.81, 304.82, 304.9, 304.90, 304.91, 304.92, 305.2, 305.20, 305.21, 305.22, 305.3, 305.30, 305.31, 305.32, 305.4, 305.40, 305.41, 305.42, 305.5, 305.50, 305.51, 305.52, 305.6, 305.60, 305.61, 305.62, 305.7, 305.70, 305.71, 305.72, 305.8, 305.80, 305.81, 305.82, 305.9, 305.90, 305.91, 305.92, 648.3, 648.30, 648.31, 648.32, 648.33, 648.34, 655.5, 655.50, 655.51, 655.53, 760.72, 760.73, 760.75, 779.5, 965.0, 965.00, 965.01, 965.02, 965.09, V65.42, E850.0, E850.1, E850.2, E854.1, E935.0, E935.1</p> <p>ICD-9 Procedure Codes 94.6, 94.64, 94.65, 94.66, 94.67, 94.68, 94.69</p> <p>(any DX on the claim)</p>	<p>DX F11.10, F11.120, F11.121, F11.122, F11.129, F11.14, F11.150, F11.151, F11.159, F11.181, F11.182, F11.188, F11.19, F11.20, F11.220, F11.221, F11.222, F11.229, F11.23, F11.24, F11.250, F11.251, F11.259, F11.281, F11.282, F11.288, F11.29, F11.90, F11.920, F11.921, F11.922, F11.929, F11.93, F11.94, F11.950, F11.951, F11.959, F11.981, F11.982, F11.988, F11.99, F12.10, F12.120, F12.121, F12.122, F12.129, F12.150, F12.151, F12.159, F12.180, F12.188, F12.19, F12.20, F12.220, F12.221, F12.222, F12.229, F12.250, F12.251, F12.259, F12.280, F12.288, F12.29, F12.90, F12.920, F12.921, F12.922, F12.929, F12.950, F12.951, F12.959, F12.980, F12.988, F12.99, F13.10, F13.120, F13.121, F13.129, F13.14, F13.150, F13.151, F13.159, F13.180, F13.181, F13.182, F13.188, F13.19, F13.20, F13.220, F13.221, F13.229, F13.230, F13.231, F13.232, F13.239, F13.24, F13.250, F13.251, F13.259, F13.26, F13.27, F13.280, F13.281, F13.282, F13.288, F13.29, F13.90, F13.920, F13.921, F13.929, F13.930, F13.931, F13.932, F13.939, F13.94, F13.950, F13.951, F13.959, F13.96, F13.97, F13.980, F13.981, F13.982, F13.988, F13.99, F14.10, F14.120, F14.121, F14.122, F14.129, F14.14, F14.150, F14.151, F14.159, F14.180, F14.181, F14.182, F14.188, F14.19, F14.20, F14.220, F14.221, F14.222, F14.229, F14.23, F14.24, F14.250, F14.251, F14.259, F14.280, F14.281, F14.282, F14.288, F14.29, F14.90, F14.920, F14.921, F14.922, F14.929, F14.94, F14.950, F14.951, F14.959, F14.980, F14.981, F14.982, F14.988, F14.99, F15.10, F15.120, F15.121, F15.122, F15.129, F15.14, F15.150, F15.151, F15.159, F15.180, F15.181, F15.182, F15.188, F15.19, F15.20, F15.220, F15.221, F15.222, F15.229, F15.23, F15.24, F15.250, F15.251, F15.259, F15.280, F15.281, F15.282, F15.288, F15.29, F15.90, F15.920, F15.921, F15.922, F15.929, F15.93, F15.94, F15.950, F15.951, F15.959, F15.980, F15.981, F15.982, F15.988, F15.99, F16.10, F16.120, F16.121, F16.122, F16.129, F16.14, F16.150, F16.151, F16.159, F16.180, F16.183, F16.188, F16.19, F16.20, F16.220, F16.221, F16.229, F16.24, F16.250, F16.251, F16.259, F16.280, F16.283, F16.288, F16.29, F16.90, F16.920, F16.921, F16.929, F16.94, F16.950, F16.951, F16.959, F16.980, F16.983, F16.988, F16.99, F17.203, F17.208, F17.209, F17.213, F17.218, F17.219, F17.223, F17.228, F17.229, F17.293, F17.298, F17.299, F18.10, F18.120, F18.121, F18.129, F18.14, F18.150, F18.151, F18.159, F18.17, F18.180, F18.188, F18.19, F18.20, F18.220, F18.221, F18.229, F18.24, F18.250, F18.251, F18.259, F18.27, F18.280, F18.288, F18.29, F18.90, F18.920, F18.921, F18.929, F18.94, F18.950, F18.951, F18.959, F18.97, F18.980, F18.988, F18.99, F19.10, F19.120, F19.121, F19.122, F19.129, F19.14, F19.150, F19.151, F19.159, F19.16, F19.17, F19.180, F19.181, F19.182, F19.188, F19.19, F19.20, F19.220, F19.221, F19.222, F19.229, F19.230, F19.231, F19.232, F19.239, F19.24, F19.250, F19.251, F19.259, F19.26, F19.27, F19.280, F19.281, F19.282, F19.288, F19.29, F19.90, F19.920, F19.921, F19.922, F19.929, F19.930, F19.931, F19.932, F19.939, F19.94, F19.950, F19.951, F19.959, F19.96, F19.97, F19.980, F19.981, F19.982, F19.988, F19.99, F55.0, F55.1, F55.2, F55.3, F55.4, F55.8, O35.5XX0, O35.5XX1, O35.5XX2, O35.5XX3, O35.5XX4, O35.5XX5, O35.5XX9, T40.691A, T40.692A, T40.693A, T40.694A, O99.320, O99.321, O99.322, O99.323, O99.324, O99.325, P04.41, P04.49, P96.1, P96.2, T40.0X1A, T40.0X2A, T40.0X3A, T40.0X4A, T40.0X5A, T40.0X5S, T40.1X1A, T40.1X2A, T40.1X3A, T40.1X4A, T40.2X1A, T40.2X2A, T40.2X3A, T40.2X4A, T40.3X1A, T40.3X2A, T40.3X3A, T40.3X4A, T40.3X5A, T40.3X5S, T40.4X1A, T40.4X2A, T40.4X3A, T40.4X4A, T40.7X1A, T40.8X1A, T40.601A, T40.602A, T40.603A, T40.604A, T40.691A, T40.692A, T40.693A, T40.694A, T40.901A, T40.991A, Z71.41, Z71.42, Z71.51, Z71.52, Z71.6</p> <p>ICD10 Procedure Codes: HZ2ZZZZ, HZ30ZZZ, HZ31ZZZ, HZ32ZZZ, HZ33ZZZ, HZ34ZZZ, HZ35ZZZ, HZ36ZZZ, HZ37ZZZ, HZ38ZZZ, HZ39ZZZ, HZ3BZZZ, HZ40ZZZ, HZ93ZZZ, HZ96ZZZ (any DX on the claim)</p>	<p>At least one inpatient claim OR two other non-drug claims of any service type during the two year period</p> <p>Procedure codes require only one claim to qualify</p>

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Epilepsy	DX 345, 345.0, 345.00, 345.01, 345.1, 345.10, 345.11, 345.2, 345.3, 345.4, 345.40, 345.41, 345.5, 345.50, 345.51, 345.6, 345.60, 345.61, 345.7, 345.70, 345.71, 345.8, 345.80, 345.81, 345.9, 345.90, 345.91 (any DX on the claim)	DX G40.001, G40.009, G40.011, G40.019, G40.101, G40.109, G40.111, G40.119, G40.201, G40.209, G40.211, G40.219, G40.301, G40.309, G40.311, G40.319, G40.A01, G40.A09, G40.A11, G40.A19, G40.B01, G40.B09, G40.B11, G40.B19, G40.401, G40.409, G40.411, G40.419, G40.501, G40.509, G40.801, G40.802, G40.803, G40.804, G40.811, G40.812, G40.813, G40.814, G40.821, G40.822, G40.823, G40.824, G40.89, G40.901, G40.909, G40.911, G40.919 (any DX on the claim)	At least one inpatient claim OR two other non-drug claims of any service type during the two year period
Fibromyalgia, Chronic Pain and Fatigue	DX 338.2, 338.21, 338.22, 338.23, 338.29, 338.3, 338.4, 780.7, 780.71, 729.1, 729.2 (any DX on the claim)	DX G89.21, G89.22, G89.28, G89.29, G89.3, G89.4, M54.10, M54.11, M54.12, M54.13, M54.14, M54.15, M54.16, M54.17, M54.18, M60.80, M60.811, M60.812, M60.819, M60.821, M60.822, M60.829, M60.831, M60.832, M60.839, M60.841, M60.842, M60.849, M60.851, M60.852, M60.859, M60.861, M60.862, M60.869, M60.871, M60.872, M60.879, M60.88, M60.89, M60.9, M79.1, M79.2, M79.7, R53.82 (any DX on the claim)	At least one inpatient claim OR two other non-drug claims of any service type during the two year period
Human Immunodeficiency Virus and/or Acquired Immunodeficiency Syndrome (HIV/AIDS)	DX 042, 042.0, 042.1, 042.2, 042.9, 043, 043.1, 043.2, 043.3, 043.9, 044, 044.0, 044.9, 079.53, 795.71, V08 (any DX on the claim) EXCEPTION: 795.71 requires a second qualifying claim that is not 795.71 (a screening code) Medicare DRG Codes (old codes used through 09/2007): 488, 489, 490 MS DRG Codes: 969, 970, 974, 975, 976, 977 HCC Code*: 1 (HIV/AIDS) <i>*CMS Hierarchical Condition Category (HCC) data are obtained from the CMS Integrated Data Repository (IDR). Beneficiaries identified as having this condition due to HCC code will not have an associated "Ever" date.</i>	DX B20, B97.35, R75, Z21 (any DX on the claim) EXCEPTION: R75 requires a second qualifying claim that is not R75(a screening code) MS DRG Codes: 969, 970, 974, 975, 976 HCC Code*: 1 (HIV/AIDS) <i>*CMS Hierarchical Condition Category (HCC) data is obtained from the CMS Integrated Data Repository (IDR). Beneficiaries identified as having this condition due to HCC code will not have an associated "Ever" date.</i>	At least one inpatient claim OR two other non-drug claims of any service type during the two year period
Intellectual Disabilities and Related Conditions	DX 317, 318, 318.0, 318.1, 318.2, 319, 758, 758.0, 758.1, 758.2, 758.3, 758.31, 758.32, 758.33, 758.39, 758.5, 759.7, 759.81, 759.83, 759.89, 760.71 (any DX on the claim)	DX E78.71, E78.72, F70, F71, F72, F73, F78, F79, P04.3, Q86.0, Q87.1, Q87.2, Q87.3, Q87.5, Q87.81, Q87.89, Q89.7, Q89.8, Q90.0, Q90.1, Q90.2, Q90.9, Q91.0, Q91.1, Q91.2, Q91.3, Q91.4, Q91.5, Q91.6, Q91.7, Q92.0, Q92.1, Q92.2, Q92.5, Q92.61, Q92.62, Q92.7, Q92.8, Q92.9, Q93.0, Q93.1, Q93.2, Q93.3, Q93.4, Q93.5, Q93.7, Q93.81, Q93.88, Q93.89, Q93.9, Q95.2, Q95.3, Q99.2 (any DX on the claim)	At least one inpatient claim OR two other non-drug claims of any service type during the two year period
Learning Disabilities	DX 315, 315.01, 315.02, 315.09, 315.1, 315.2, 315.31, 315.32, 315.34, 315.35, 315.39, 315.4 (any DX on the claim)	DX F80.0, F80.1, F80.2, F80.4, F80.81, F80.82, F80.89, F80.9, F81.0, F81.2, F81.81, F81.89, F81.9, F82, H93.25, R48.0 (any DX on the claim)	At least one inpatient claim OR two other non-drug claims of any service type during the two year period

¹ The reference period (# of years) for all algorithms included in this specification document is 2 years.

² ICD-10 codes are effective 10/2015; effective dates for ICD-9 codes vary, but are valid through 09/2015. Researchers may be interested in confirming the code(s) of interest in the accompanying claims data files.

³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of "[CCW Chronic Condition Algorithms](#)."

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

CMS Chronic Conditions Data Warehouse (CCW)

Other Chronic or Potentially Disabling Condition Algorithms

(rev. 11/2017)

Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Leukemias and Lymphomas	DX 200.0, 200.00, 200.01, 200.02, 200.03, 200.04, 200.05, 200.06, 200.07, 200.08, 200.1, 200.10, 200.11, 200.12, 200.13, 200.14, 200.15, 200.16, 200.17, 200.18, 200.2, 200.20, 200.21, 200.22, 200.23, 200.24, 200.25, 200.26, 200.27, 200.28, 200.3, 200.30, 200.31, 200.32, 200.33, 200.34, 200.35, 200.36, 200.37, 200.38, 200.4, 200.40, 200.41, 200.42, 200.43, 200.44, 200.45, 200.46, 200.47, 200.48, 200.5, 200.50, 200.51, 200.52, 200.53, 200.54, 200.55, 200.56, 200.57, 200.58, 200.6, 200.60, 200.61, 200.62, 200.63, 200.64, 200.65, 200.66, 200.67, 200.68, 200.7, 200.70, 200.71, 200.72, 200.73, 200.74, 200.75, 200.76, 200.77, 200.78, 200.8, 200.80, 200.81, 200.82, 200.83, 200.84, 200.85, 200.86, 200.87, 200.88, 201.0, 201.00, 201.01, 201.02, 201.03, 201.04, 201.05, 201.06, 201.07, 201.08, 201.1, 201.10, 201.11, 201.12, 201.13, 201.14, 201.15, 201.16, 201.17, 201.18, 201.2, 201.20, 201.21, 201.22, 201.23, 201.24, 201.25, 201.26, 201.27, 201.28, 201.4, 201.40, 201.41, 201.42, 201.43, 201.44, 201.45, 201.46, 201.47, 201.48, 201.5, 201.50, 201.51, 201.52, 201.53, 201.54, 201.55, 201.56, 201.57, 201.58, 201.6, 201.60, 201.61, 201.62, 201.63, 201.64, 201.65, 201.66, 201.67, 201.68, 201.7, 201.70, 201.71, 201.72, 201.73, 201.74, 201.75, 201.76, 201.77, 201.78, 201.9, 201.90, 201.91, 201.92, 201.93, 201.94, 201.95, 201.96, 201.97, 201.98, 202.0, 202.00, 202.01, 202.02, 202.03, 202.04, 202.05, 202.06, 202.07, 202.08, 202.1, 202.10, 202.11, 202.12, 202.13, 202.14, 202.15, 202.16, 202.17, 202.18, 202.2, 202.20, 202.21, 202.22, 202.23, 202.24, 202.25, 202.26, 202.27, 202.28, 202.4, 202.40, 202.41, 202.42, 202.43, 202.44, 202.45, 202.46, 202.47, 202.48, 202.7, 202.70, 202.71, 202.72, 202.73, 202.74, 202.75, 202.76, 202.77, 202.78, 202.8, 202.80, 202.81, 202.82, 202.83, 202.84, 202.85, 202.86, 202.87, 202.88, 202.9, 202.90, 202.91, 202.92, 202.93, 202.94, 202.95, 202.96, 202.97, 202.98, 203.1, 203.10, 203.11, 203.12, 204.0, 204.00, 204.01, 204.02, 204.1, 204.10, 204.11, 204.12, 204.2, 204.20, 204.21, 204.22, 204.8, 204.80, 204.81, 204.82, 204.9, 204.90, 204.91, 204.92, 205.0, 205.00, 205.01, 205.02, 205.1, 205.10, 205.11, 205.12, 205.2, 205.20, 205.21, 205.22, 205.3, 205.30, 205.31, 205.32, 205.8, 205.80, 205.81, 205.82, 205.9, 205.90, 205.91, 205.92, 206.0, 206.00, 206.01, 206.02, 206.1, 206.10, 206.11, 206.12, 206.2, 206.20, 206.21, 206.22, 206.2, 206.20, 206.21, 206.22, 206.8, 206.80, 206.81, 206.82, 206.9, 206.90, 206.91, 206.92, 207.0, 207.00, 207.01, 207.02, 207.1, 207.10, 207.11, 207.12, 207.2, 207.20, 207.21, 207.22, 207.8, 207.80, 207.81, 207.82, 208.0, 208.00, 208.01, 208.02, 208.1, 208.10, 208.11, 208.12, 208.2, 208.20, 208.21, 208.22, 208.8, 208.80, 208.81, 208.82, 208.9, 208.90, 208.91, 208.92, V10.6, V10.60, V10.61, V10.62, V 10.63, V10.69, V10.7, V10.71, V10.72, V10.79 (any DX on the claim)	DX C81.00, C81.01, C81.02, C81.03, C81.04, C81.05, C81.06, C81.07, C81.08, C81.09, C81.10, C81.11, C81.12, C81.13, C81.14, C81.15, C81.16, C81.17, C81.18, C81.19, C81.20, C81.21, C81.22, C82.23, C81.24, C81.25, C81.26, C81.27, C81.28, C81.29, C81.30, C81.31, C81.32, C82.33, C81.34, C81.35, C81.36, C81.37, C81.38, C81.39, C81.40, C81.41, C81.42, C82.43, C81.44, C81.45, C81.46, C81.47, C81.48, C81.49, C81.70, C81.71, C81.72, C82.73, C81.74, C81.75, C81.76, C81.77, C81.78, C81.79, C81.90, C81.91, C81.92, C82.93, C81.94, C81.95, C81.96, C81.97, C81.98, C81.99, C82.00, C82.01, C82.02, C82.03, C82.04, C82.05, C82.06, C82.07, C82.08, C82.09, C82.10, C82.11, C82.12, C82.13, C82.14, C82.15, C82.16, C82.17, C82.18, C82.19, C82.20, C82.21, C82.22, C82.23, C82.24, C82.25, C82.26, C82.27, C82.28, C82.29, C82.30, C82.31, C82.32, C82.33, C82.34, C82.35, C82.36, C82.37, C82.38, C82.39, C82.40, C82.41, C82.42, C82.43, C82.44, C82.45, C82.46, C82.47, C82.48, C82.49, C82.50, C82.51, C82.52, C82.53, C82.54, C82.55, C82.56, C82.57, C82.58, C82.59, C82.60, C82.61, C82.62, C82.63, C82.64, C82.65, C82.66, C82.67, C82.68, C82.69, C82.80, C82.81, C82.82, C82.83, C82.84, C82.85, C82.86, C82.87, C82.88, C82.89, C82.90, C82.91, C82.92, C82.93, C82.94, C82.95, C82.96, C82.97, C82.98, C82.99, C83.00, C83.01, C83.02, C83.03, C83.04, C83.05, C83.06, C83.07, C83.08, C83.09, C83.10, C83.11, C83.12, C83.13, C83.14, C83.15, C83.16, C83.17, C83.18, C83.19, C83.30, C83.31, C83.32, C83.33, C83.34, C83.35, C83.36, C83.37, C83.38, C83.39, C83.50, C83.51, C83.52, C83.53, C83.54, C83.55, C83.56, C83.57, C83.58, C83.59, C83.70, C83.71, C83.72, C83.73, C83.74, C83.75, C83.76, C83.77, C83.78, C83.79, C83.80, C83.81, C83.82, C83.83, C83.84, C83.85, C83.86, C83.87, C83.88, C83.89, C83.90, C83.91, C83.92, C83.93, C83.94, C83.95, C83.96, C83.97, C83.98, C83.99, C84.00, C84.01, C84.02, C84.03, C84.04, C84.05, C84.06, C84.07, C84.08, C84.09, C84.10, C84.11, C84.12, C84.13, C84.14, C84.15, C84.16, C84.17, C84.18, C84.19, C84.40, C84.41, C84.42, C84.43, C84.44, C84.45, C84.46, C84.47, C84.48, C84.49, C84.60, C84.61, C84.62, C84.63, C84.64, C84.65, C84.66, C84.67, C84.68, C84.69, C84.70, C84.71, C84.72, C84.73, C84.74, C84.75, C84.76, C84.77, C84.78, C84.79, C84.90, C84.91, C84.92, C84.93, C84.94, C84.95, C84.96, C84.97, C84.98, C84.99, C84.A0, C84.A1, C84.A2, C84.A3, C84.A4, C84.A5, C84.A6, C84.A7, C84.A8, C84.A9, C84.Z0, C84.Z1, C84.Z2, C84.Z3, C84.Z4, C84.Z5, C84.Z6, C84.Z7, C84.Z8, C84.Z9, C85.10, C85.11, C85.12, C85.13, C85.14, C85.15, C85.16, C85.17, C85.18, C85.19, C85.20, C85.21, C85.22, C85.23, C85.24, C85.25, C85.26, C85.27, C85.28, C85.29, C85.80, C85.81, C85.82, C85.83, C85.84, C85.85, C85.86, C85.87, C85.88, C85.89, C85.90, C85.91, C85.92, C85.93, C85.94, C85.95, C85.96, C85.97, C85.98, C85.99, C86.0, C86.1, C86.2, C86.3, C86.4, C86.5, C86.6, C88.4, C90.10, C90.11, C90.12, C91.00, C91.01, C91.02, C91.10, C91.11, C91.12, C91.30, C91.31, C91.32, C91.40, C91.41, C91.42, C91.50, C91.51, C91.52, C91.60, C91.61, C91.62, C91.A0, C91.A1, C91.A2, C91.Z0, C91.Z1, C91.Z2, C91.90, C91.91, C91.92, C92.00, C92.01, C92.02, C92.10, C92.11, C92.12, C92.20, C92.21, C92.22, C92.30, C92.31, C92.32, C92.40, C92.41, C92.42, C92.50, C92.51, C92.52, C92.60, C92.61, C92.62, C92.90, C92.91, C92.92, C92.A0, C92.A1, C92.A2, C92.Z0, C92.Z1, C92.Z2, C93.00, C93.01, C93.02, C93.10, C93.11, C93.12, C93.30, C93.31, C93.32, C93.Z0, C93.Z1, C93.Z2, C93.90, C93.91, C93.92, C94.00, C94.01, C94.02, C94.20, C94.21, C94.22, C94.30, C94.31, C94.32, C94.80, C94.81, C94.82, C95.00, C95.01, C95.02, C95.10, C95.11, C95.12, C95.90, C95.91, C95.92, C96.4, C96.9, C96.Z, D45, Z85.231, Z85.6, Z85.71, Z85.79 (any DX on the claim)	At least 1 inpatient OR 2 non-inpatient claims with DX codes

¹ The reference period (# of years) for all algorithms included in this specification document is 2 years.

² ICD-10 codes are effective 10/2015; effective dates for ICD-9 codes vary, but are valid through 09/2015. Researchers may be interested in confirming the code(s) of interest in the accompanying claims data files.

³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of “[CCW Chronic Condition Algorithms.](#)”

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

CMS Chronic Conditions Data Warehouse (CCW)

Other Chronic or Potentially Disabling Condition Algorithms

(rev. 11/2017)

Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Liver Disease, Cirrhosis and Other Liver Conditions (except Viral Hepatitis)	<p>DX 570, 571, 571.0, 571.1, 571.2, 571.3, 571.5, 571.6, 571.8, 571.9, 572, 572.0, 572.1, 572.2, 572.3, 572.4, 572.8, 573, 573.0, 573.4, 573.5, 573.8, 573.9, 576.1, 789.1, V42.7 (any DX on the claim)</p> <p>ICD-9-CM Procedure Codes: 42.91, 44.91, 54.91, 96.06</p>	<p>DX K70.0, K70.10, K70.11, K70.2, K70.30, K70.31, K70.40, K70.41, K70.9, K71.0, K71.11, K71.7, K71.8, K71.9, K72.00, K72.01, K72.10, K72.11, K72.90, K72.91, K74.0, K74.1, K74.2, K74.3, K74.4, K74.5, K74.60, K74.69, K75.0, K75.1, K75.81, K75.89, K75.9, K76.0, K76.1, K76.2, K76.3, K76.5, K76.6, K76.7, K76.81, K76.89, K76.9, K77, K80.30, K80.31, K80.32, K80.33, K80.34, K80.35, K80.36, K80.37, K83.0, R16.0, R16.2, Z48.23, Z94.4 (any DX on the claim)</p> <p>ICD10 Procedure Codes: 06L20ZZ, 06L23ZZ, 06L24ZZ, 06L30ZZ, 06L33ZZ, 06L34ZZ, 0DL57DZ, 0DL58DZ, 0D9S30Z, 0D9S3ZZ, 0D9S40Z, 0D9S4ZZ, 0D9T30Z, 0D9T3ZZ, 0D9T40Z, 0D9T4ZZ, 0D9V30Z, 0D9V3ZZ, 0D9V40Z, 0D9V4ZZ, 0D9W30Z, 0D9W3ZZ, 0D9W40Z, 0D9W4ZZ, 0W9F30Z, 0W9F3ZZ, 0W9F40Z, 0W9F4ZZ, 0W9G30Z, 0W9G3ZZ, 0W9G40Z, 0W9G4ZZ, 0W9J30Z, 0W9J3ZZ</p>	<p>At least 1 inpatient OR 2 non-inpatient claims with DX codes</p> <p>Procedures must have at least one associated liver disease diagnosis on claim.</p>
Migraine and Chronic Headache	<p>DX 339, 339.0, 339.00, 339.01, 339.02, 339.03, 339.04, 339.05, 339.09, 339.1, 339.10, 339.11, 339.12, 339.2, 339.20, 339.21, 339.22, 339.3, 339.4, 339.41, 339.42, 339.43, 339.44, 339.8, 339.81, 339.82, 339.83, 339.84, 339.85, 339.89, 346, 346.0, 346.00, 346.01, 346.02, 346.03, 346.1, 346.10, 346.11, 346.12, 346.13, 346.2, 346.20, 346.21, 346.22, 346.23, 346.3, 346.30, 346.31, 346.32, 346.33, 346.4, 346.40, 346.41, 346.42, 346.43, 346.5, 346.50, 346.51, 346.52, 346.53, 346.6, 346.60, 346.61, 346.62, 346.63, 346.7, 346.70, 346.71, 346.72, 346.73, 346.8, 346.80, 346.81, 346.82, 346.83, 346.9, 346.90, 346.91, 346.92, 346.93 (any DX on the claim)</p>	<p>DX G43.001, G43.009, G43.011, G43.019, G43.101, G43.109, G43.111, G43.119, G43.401, G43.409, G43.411, G43.419, G43.501, G43.509, G43.511, G43.519, G43.601, G43.609, G43.611, G43.619, G43.701, G43.709, G43.711, G43.719, G43.A0, G43.B0, G43.C0, G43.D0, G43.A1, G43.B1, G43.C1, G43.D1, G43.801, G43.809, G43.811, G43.819, G43.821, G43.829, G43.831, G43.839, G43.901, G43.909, G43.911, G43.919, G44.001, G44.009, G44.011, G44.019, G44.021, G44.029, G44.031, G44.039, G44.041, G44.049, G44.051, G44.059, G44.091, G44.099, G44.1, G44.201, G44.209, G44.211, G44.219, G44.221, G44.229, G44.301, G44.309, G44.311, G44.319, G44.321, G44.329, G44.40, G44.41, G44.51, G44.52, G44.53, G44.59, G44.81, G44.82, G44.83, G44.84, G44.85, G44.89 (any DX on the claim)</p>	<p>At least 1 inpatient OR 2 non-inpatient claims with DX codes</p>
Mobility Impairments	<p>DX 334.1, 342.00, 342.01, 342.02, 342.10, 342.11, 342.12, 342.80, 342.81, 342.82, 342.90, 342.91, 342.92, 344, 344.0, 344.00, 344.01, 344.02, 344.03, 344.04, 344.09, 344.1, 344.2, 344.3, 344.30, 344.31, 344.32, 344.4, 344.40, 344.41, 344.42, 344.5, 344.6, 344.60, 344.61, 344.8, 344.81, 344.89, 344.9, 438.20, 438.21, 438.22, 438.30, 438.31, 438.32, 438.40, 438.41, 438.42, 438.50, 438.51, 438.52, 438.53 (any DX on the claim)</p>	<p>DX G04.1, G11.4, G81.00, G81.01, G81.02, G81.03, G81.04, G81.10, G81.11, G81.12, G81.13, G81.14, G81.90, G81.91, G81.92, G81.93, G81.94, G82.20, G82.21, G82.22, G82.50, G82.51, G82.52, G82.53, G82.54, G83.0, G83.10, G83.11, G83.12, G83.13, G83.14, G83.20, G83.21, G83.22, G83.23, G83.24, G83.30, G83.31, G83.32, G83.33, G83.34, G83.4, G83.5, G83.81, G83.82, G83.83, G83.84, G83.89, G83.9, I69.031, I69.032, I69.033, I69.034, I69.039, I69.041, I69.042, I69.043, I69.044, I69.049, I69.051, I69.052, I69.053, I69.054, I69.059, I69.061, I69.062, I69.063, I69.064, I69.065, I69.069, I69.131, I69.132, I69.133, I69.134, I69.139, I69.141, I69.142, I69.143, I69.144, I69.149, I69.151, I69.152, I69.153, I69.154, I69.159, I69.161, I69.162, I69.163, I69.164, I69.165, I69.169, I69.231, I69.232, I69.233, I69.234, I69.239, I69.241, I69.242, I69.243, I69.244, I69.249, I69.251, I69.252, I69.253, I69.254, I69.259, I69.261, I69.262, I69.263, I69.264, I69.265, I69.269, I69.331, I69.332, I69.333, I69.334, I69.339, I69.341, I69.342, I69.343, I69.344, I69.349, I69.351, I69.352, I69.353, I69.354, I69.359, I69.361, I69.362, I69.363, I69.364, I69.365, I69.369, I69.831, I69.832, I69.833, I69.834, I69.839, I69.841, I69.842, I69.843, I69.844, I69.849, I69.851, I69.852, I69.853, I69.854, I69.859, I69.861, I69.862, I69.863, I69.864, I69.865, I69.869, I69.931, I69.932, I69.933, I69.934, I69.939, I69.941, I69.942, I69.943, I69.944, I69.949, I69.951, I69.952, I69.953, I69.954, I69.959, I69.961, I69.962, I69.963, I69.964, I69.965, I69.969 (any DX on the claim)</p>	<p>At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes</p>
Multiple Sclerosis and Transverse Myelitis	<p>DX 340, 341, 341.0, 341.2, 341.20, 341.21, 341.22, 341.8, 341.9 (any DX on the claim)</p>	<p>DX G35, G36.0, G36.1, G36.8, G36.9, G37.1, G37.2, G37.3, G37.4, G37.8, G37.9 (any DX on the claim)</p>	<p>At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes</p>

¹ The reference period (# of years) for all algorithms included in this specification document is 2 years.

² ICD-10 codes are effective 10/2015; effective dates for ICD-9 codes vary, but are valid through 09/2015. Researchers may be interested in confirming the code(s) of interest in the accompanying claims data files.

³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of [“CCW Chronic Condition Algorithms.”](#)

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

CMS Chronic Conditions Data Warehouse (CCW)

Other Chronic or Potentially Disabling Condition Algorithms

(rev. 11/2017)

Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Muscular Dystrophy	DX 359, 359.0, 359.1 (any DX on the claim)	DX G71.0, G71.11, G71.2 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Obesity	DX 278.0, 278.00, 278.01, 278.03, V85.3, V85.30, V85.31, V85.32, V85.33, V85.34, V85.35, V85.36, V85.37, V85.38, V85.39, V85.4, V85.41, V85.42, V85.43, V85.44, V85.45 (any DX on the claim)	DX E66.01, E66.09, E66.1, E66.2, E66.8, E66.9, 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 (any DX on the claim)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Other Developmental Delays	DX 315.5, 315.8, 315.9 (any DX on the claim)	DX F81.9, F82, F88, F89 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Peripheral Vascular Disease (PVD)	DX 440.0, 440.1, 440.2, 440.20, 440.21, 440.22, 440.23, 440.29, 440.4, 443.8, 443.81, 443.82, 443.89, 443.9 (any DX on the claim)	DX E08.51, E08.52, E09.51, E09.52, E10.51, E10.52, E11.51, E11.52, E13.51, E13.52, I70.0, I70.1, I70.201, I70.202, I70.203, I70.208, I70.209, I70.211, I70.212, I70.213, I70.218, I70.219, I70.221, I70.222, I70.223, I70.228, I70.229, I70.231, I70.232, I70.233, I70.234, I70.235, I70.238, I70.239, I70.241, I70.242, I70.243, I70.244, I70.245, I70.248, I70.249, I70.25, I70.291, I70.292, I70.293, I70.298, I70.299, I70.92, I73.81, I73.89, I73.9, I79.1, I79.8 (any DX on the claim)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Personality Disorders	DX 301.0, 301.10, 301.11, 301.12, 301.13, 301.20, 301.21, 301.22, 301.3, 301.4, 301.50, 301.51, 301.59, 301.6, 301.7, 301.81, 301.82, 301.83, 301.84, 301.89, 301.9 (any DX on the claim)	DX F21, F34.0, F34.1, F60.0, F60.1, F60.2, F60.3, F60.4, F60.5, F60.6, F60.7, F60.81, F60.89, F60.9, F68.10, F68.11, F68.12, F68.13, F69 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Post-Traumatic Stress Disorder (PTSD)	DX 309.81 (any DX on the claim)	DX F43.10, F43.11, F43.12 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes

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³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of "[CCW Chronic Condition Algorithms](#)."

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

CMS Chronic Conditions Data Warehouse (CCW)

Other Chronic or Potentially Disabling Condition Algorithms

(rev. 11/2017)

Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
<p>Pressure and Chronic Ulcers</p>	<p>DX 707.0, 707.00, 707.01, 707.02, 707.03, 707.04, 707.05, 707.06, 707.07, 707.09, 707.1, 707.10, 707.11, 707.12, 707.13, 707.14, 707.15, 707.19, 707.2, 707.22, 707.23, 707.24, 707.25, 707.8, 707.9 (any DX on the claim)</p> <p>EXCEPTION: Codes 707.20, 707.22, 707.23, 707.24, 707.25, 707.8, and 707.9 require a qualifying claim from 707.00, 707.01, 707.02, 707.03, 707.04, 707.05, 707.06, 707.07, 707.09</p>	<p>DX I70.231, I70.232, I70.233, I70.234, I70.235, I70.238, I70.239, I70.241, I70.242, I70.243, I70.244, I70.245, I70.248, I70.249, I70.25, I70.331, I70.332, I70.333, I70.334, I70.335, I70.338, I70.339, I70.341, I70.342, I70.343, I70.344, I70.345, I70.348, I70.349, I70.35, I70.431, I70.432, I70.433, I70.434, I70.435, I70.438, I70.439, I70.441, I70.442, I70.443, I70.444, I70.445, I70.448, I70.449, I70.45, I70.531, I70.532, I70.533, I70.534, I70.535, I70.538, I70.539, I70.541, I70.542, I70.543, I70.544, I70.545, I70.548, I70.549, I70.55, I70.631, I70.632, I70.633, I70.634, I70.635, I70.638, I70.639, I70.641, I70.642, I70.643, I70.644, I70.645, I70.648, I70.649, I70.65, I70.731, I70.732, I70.733, I70.734, I70.735, I70.738, I70.739, I70.741, I70.742, I70.743, I70.744, I70.745, I70.748, I70.749, I70.75, L89.000, L89.001, L89.002, L89.003, L89.004, L89.009, L89.010, L89.011, L89.012, L89.013, L89.014, L89.019, L89.020, L89.021, L89.022, L89.023, L89.024, L89.029, L89.100, L89.101, L89.102, L89.103, L89.104, L89.109, L89.110, L89.111, L89.112, L89.113, L89.114, L89.119, L89.120, L89.121, L89.122, L89.123, L89.124, L89.129, L89.130, L89.131, L89.132, L89.133, L89.134, L89.139, L89.140, L89.141, L89.142, L89.143, L89.144, L89.149, L89.150, L89.151, L89.152, L89.153, L89.154, L89.159, L89.200, L89.201, L89.202, L89.203, L89.204, L89.209, L89.210, L89.211, L89.212, L89.213, L89.214, L89.219, L89.220, L89.221, L89.222, L89.223, L89.224, L89.229, L89.300, L89.301, L89.302, L89.303, L89.304, L89.309, L89.310, L89.311, L89.312, L89.313, L89.314, L89.319, L89.320, L89.321, L89.322, L89.323, L89.324, L89.329, L89.40, L89.41, L89.42, L89.43, L89.44, L89.45, L89.500, L89.501, L89.502, L89.503, L89.504, L89.509, L89.510, L89.511, L89.512, L89.513, L89.514, L89.519, L89.520, L89.521, L89.522, L89.523, L89.524, L89.529, L89.600, L89.601, L89.602, L89.603, L89.604, L89.609, L89.610, L89.611, L89.612, L89.613, L89.614, L89.619, L89.620, L89.621, L89.622, L89.623, L89.624, L89.629, L89.810, L89.811, L89.812, L89.813, L89.814, L89.819, L89.890, L89.891, L89.892, L89.893, L89.894, L89.899, L89.90, L89.91, L89.92, L89.93, L89.94, L89.95, L97.101, L97.102, L97.103, L97.104, L97.105, L97.106, L97.108, L97.109, L97.111, L97.112, L97.113, L97.114, L97.115, L97.116, L97.118, L97.119, L97.121, L97.122, L97.123, L97.124, L97.125, L97.126, L97.128, L97.129, L97.201, L97.202, L97.203, L97.204, L97.205, L97.206, L97.208, L97.209, L97.211, L97.212, L97.213, L97.214, L97.215, L97.216, L97.218, L97.219, L97.221, L97.222, L97.223, L97.224, L97.225, L97.226, L97.228, L97.229, L97.301, L97.302, L97.303, L97.304, L97.305, L97.306, L97.308, L97.309, L97.311, L97.312, L97.313, L97.314, L97.315, L97.316, L97.318, L97.319, L97.321, L97.322, L97.323, L97.324, L97.325, L97.326, L97.328, L97.329, L97.401, L97.402, L97.403, L97.404, L97.405, L97.406, L97.408, L97.409, L97.411, L97.412, L97.413, L97.414, L97.415, L97.416, L97.418, L97.419, L97.421, L97.422, L97.423, L97.424, L97.425, L97.426, L97.428, L97.429, L97.501, L97.502, L97.503, L97.504, L97.505, L97.506, L97.508, L97.509, L97.511, L97.512, L97.513, L97.514, L97.515, L97.516, L97.518, L97.519, L97.521, L97.522, L97.523, L97.524, L97.525, L97.526, L97.528, L97.529, L97.801, L97.802, L97.803, L97.804, L97.805, L97.806, L97.808, L97.809, L97.811, L97.812, L97.813, L97.814, L97.815, L97.816, L97.818, L97.819, L97.821, L97.822, L97.823, L97.824, L97.825, L97.826, L97.828, L97.829, L97.901, L97.902, L97.903, L97.904, L97.905, L97.906, L97.908, L97.909, L97.911, L97.912, L97.913, L97.914, L97.915, L97.916, L97.918, L97.919, L97.921, L97.922, L97.923, L97.924, L97.925, L97.926, L97.928, L97.929, L98.411, L98.412, L98.413, L98.414, L98.415, L98.416, L98.418, L98.419, L98.421, L98.422, L98.423, L98.424, L98.425, L98.426, L98.428, L98.429, L98.491, L98.492, L98.493, L98.494, L98.495, L98.496, L98.498, L98.499 (any DX on the claim)</p>	<p>At least 1 inpatient OR 2 non-inpatient claims with DX codes</p>

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CMS Chronic Conditions Data Warehouse (CCW)

Other Chronic or Potentially Disabling Condition Algorithms

(rev. 11/2017)

Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Schizophrenia	DX 295.00, 295.01, 295.02, 295.03, 295.04, 295.05, 295.10, 295.11, 295.12, 295.13, 295.14, 295.15, 295.20, 295.21, 295.22, 295.23, 295.24, 295.25, 295.30, 295.31, 295.32, 295.33, 295.34, 295.35, 295.40, 295.41, 295.42, 295.43, 295.44, 295.45, 295.50, 295.51, 295.52, 295.53, 295.54, 295.55, 295.60, 295.61, 295.62, 295.63, 295.64, 295.65, 295.70, 295.71, 295.72, 295.73, 295.74, 295.75, 295.80, 295.81, 295.82, 295.83, 295.84, 295.85, 295.90, 295.91, 295.92, 295.93, 295.94, 295.95 (any DX on the claim)	DX F20.0, F20.1, F20.2, F20.3, F20.5, F20.81, F20.89, F20.9, F25.0, F25.1, F25.8, F25.9 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Schizophrenia and Other Psychotic Disorders	DX 293.81, 293.82, 295.00, 295.01, 295.02, 295.03, 295.04, 295.05, 295.10, 295.11, 295.12, 295.13, 295.14, 295.15, 295.20, 295.21, 295.22, 295.23, 295.24, 295.25, 295.30, 295.31, 295.32, 295.33, 295.34, 295.35, 295.40, 295.41, 295.42, 295.43, 295.44, 295.45, 295.50, 295.51, 295.52, 295.53, 295.54, 295.55, 295.60, 295.61, 295.62, 295.63, 295.64, 295.65, 295.70, 295.71, 295.72, 295.73, 295.74, 295.75, 295.80, 295.81, 295.82, 295.83, 295.84, 295.85, 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 (any DX on the claim)	DX F06.0, F06.2, F20.0, F20.1, F20.2, F20.3, F20.5, F20.81, F20.89, F20.9, F21, F22, F23, F24, F25.0, F25.1, F25.8, F25.9, F28, F29, F32.3, F33.3, F44.89 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Sensory - Blindness and Visual Impairment	DX 369, 369.0, 369.00, 369.01, 369.02, 369.03, 369.04, 369.05, 369.06, 369.07, 369.08, 369.1, 369.10, 369.11, 369.12, 369.13, 369.14, 369.15, 369.16, 369.17, 369.18, 369.2, 369.20, 369.21, 369.22, 369.23, 369.24, 369.25, 369.3, 369.4 (any DX on the claim)	DX H54.0, H54.0X33, H54.0X34, H54.0X35, H54.0X43, H54.0X44, H54.0X45, H54.0X53, H54.0X54, H54.0X55, H54.10, H54.11, H54.1131, H54.1132, H54.1141, H54.1142, H54.1151, H54.1152, H54.12, H54.1213, H54.1214, H54.1215, H54.1223, H54.1224, H54.1225, H54.2, H54.2X11, H54.2X12, H54.2X21, H54.2X22, H54.3, H54.8 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Sensory – Deafness and Hearing Impairment	DX 389, 389.1, 389.10, 389.11, 389.12, 389.13, 389.14, 389.15, 389.16, 389.17, 389.18, 389.2, 389.20, 389.21, 389.22, 389.7, 389.8, 389.9 (any DX on the claim)	DX H90.3, H90.41, H90.42, H90.5, H90.6, H90.71, H90.72, H90.8, H90.A21, H90.A22, H90.A31, H90.A32, H91.01, H91.02, H91.03, H91.09, H91.3, H91.8X1, H91.8X2, H91.8X3, H91.8X9, H91.90, H91.91, H91.92, H91.93 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Spina Bifida and Other Congenital Anomalies of the Nervous System	DX 740.0, 740.1, 740.2, 741, 741.0, 741.00, 741.01, 741.02, 741.03, 741.9, 741.90, 741.91, 741.92, 741.93, 742.0, 742.1, 742.2, 742.3, 742.4, 742.5, 742.51, 742.53, 742.59, 742.8, 742.9 (any DX on the claim)	DX G90.1, Q00.0, Q00.1, Q00.2, Q01.0, Q01.1, Q01.2, Q01.8, Q01.9, Q02, Q03.0, Q03.1, Q03.8, Q03.9, Q04.0, Q04.1, Q04.2, Q04.3, Q04.4, Q04.5, Q04.6, Q04.8, Q04.9, Q05.0, Q05.1, Q05.2, Q05.3, Q05.4, Q05.5, Q05.6, Q05.7, Q05.8, Q05.9, Q06.0, Q06.1, Q06.2, Q06.3, Q06.4, Q06.8, Q06.9, Q07.00, Q07.01, Q07.02, Q07.03, Q07.8, Q07.9 (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes

¹ The reference period (# of years) for all algorithms included in this specification document is 2 years.

² ICD-10 codes are effective 10/2015; effective dates for ICD-9 codes vary, but are valid through 09/2015. Researchers may be interested in confirming the code(s) of interest in the accompanying claims data files.

³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of “[CCW Chronic Condition Algorithms](#).”

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

CMS Chronic Conditions Data Warehouse (CCW)

Other Chronic or Potentially Disabling Condition Algorithms

(rev. 11/2017)

Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Spinal Cord Injury	DX 349.39, 806.00, 806.01, 806.02, 806.03, 806.04, 806.05, 806.06, 806.07, 806.08, 806.09, 806.10, 806.11, 806.12, 806.13, 806.14, 806.15, 806.16, 806.17, 806.18, 806.19, 806.20, 806.21, 806.22, 806.23, 806.24, 806.25, 806.26, 806.27, 806.28, 806.29, 806.30, 806.31, 806.32, 806.33, 806.34, 806.35, 806.36, 806.37, 806.38, 806.39, 806.4, 806.5, 806.60, 806.61, 806.62, 806.69, 806.70, 806.71, 806.72, 806.79, 806.8, 806.9, 907.2, 952.00, 952.01, 952.02, 952.03, 952.04, 952.05, 952.06, 952.07, 952.08, 952.09, 952.10, 952.11, 952.12, 952.13, 952.14, 952.15, 952.16, 952.17, 952.18, 952.19, 952.2, 952.3, 952.4, 952.8, 952.9 (any DX on the claim)	DX G96.11, S12.000A, S12.001A, S12.100A, S12.101A, S12.200A, S12.201A, S12.300A, S12.301A, S12.400A, S12.401A, S12.500A, S12.501A, S12.600A, S12.601A, S12.9XXA, S12.000B, S12.001B, S12.100B, S12.101B, S12.200B, S12.201B, S12.300B, S12.301B, S12.400B, S12.401B, S12.500B, S12.501B, S12.600B, S12.601B, S14.0XXA, S14.0XXS, S14.101A, S14.102A, S14.103A, S14.104A, S14.105A, S14.106A, S14.107A, S14.108A, S14.109A, S14.111A, S14.112A, S13.113A, S14.114A, S14.115A, S14.116A, S14.117A, S14.118A, S14.119A, S14.121A, S14.122A, S14.123A, S14.124A, S14.125A, S14.126A, S14.127A, S14.128A, S14.129A, S14.131A, S14.132A, S14.133A, S14.134A, S14.135A, S14.136A, S14.137A, S14.138A, S14.139A, S14.141A, S14.142A, S14.143A, S14.144A, S14.145A, S14.146A, S14.147A, S14.148A, S14.149A, S14.151A, S14.152A, S14.153A, S14.154A, S14.155A, S14.156A, S14.157A, S14.158A, S14.159A, S14.101S, S14.102S, S14.103S, S14.104S, S14.105S, S14.106S, S14.107S, S14.108S, S14.109S, S14.111S, S14.112S, S14.113S, S14.114S, S14.115S, S14.116S, S14.117S, S14.118S, S14.119S, S14.121S, S14.122S, S14.123S, S14.124S, S14.125S, S14.126S, S14.127S, S14.128S, S14.129S, S14.131S, S14.132S, S14.133S, S14.134S, S14.135S, S14.136S, S14.137S, S14.138S, S14.139S, S14.141S, S14.142S, S14.143S, S14.144S, S14.145S, S14.146S, S14.147S, S14.148S, S14.149S, S14.151S, S14.152S, S14.153S, S14.154S, S14.155S, S14.156S, S14.157S, S14.158S, S14.159S, S22.009A, S22.019A, S22.029A, S22.039A, S22.049A, S22.059A, S22.069A, S22.079A, S22.089A, S22.009B, S22.019B, S22.029B, S22.039B, S22.049B, S22.059B, S22.069B, S22.079B, S22.089B, S24.0XXA, S24.101A, S24.102A, S24.103A, S24.104A, S24.109A, S24.111A, S24.112A, S24.113A, S24.114A, S24.119A, S24.131A, S24.132A, S24.133A, S24.134A, S24.139A, S24.141A, S24.142A, S24.143A, S24.144A, S24.149A, S24.151A, S24.152A, S24.153A, S24.154A, S24.159A, S24.0XXS, S24.101S, S24.102S, S24.103S, S24.104S, S24.109S, S24.111S, S24.112S, S24.113S, S24.114S, S24.119S, S24.131S, S24.132S, S24.133S, S24.134S, S24.139S, S24.141S, S24.142S, S24.143S, S24.144S, S24.149S, S24.151S, S24.152S, S24.153S, S24.154S, S24.159S, S32.009A, S32.019A, S32.029A, S32.039A, S32.049A, S32.059A, S32.009B, S32.019B, S32.029B, S32.039B, S32.049B, S32.059B, S32.10XA, S32.2XXA, S32.10XB, S32.2XXB, S34.01XA, S34.02XA, S34.101A, S34.102A, S34.103A, S34.104A, S34.105A, S34.109A, S34.111A, S34.112A, S34.113A, S34.114A, S34.115A, S34.119A, S34.121A, S34.122A, S34.123A, S34.124A, S34.125A, S34.129A, S34.131A, S34.132A, S34.139A, S34.3XXA, S34.01XS, S34.02XS, S34.101S, S34.102S, S34.103S, S34.104S, S34.105S, S34.109S, S34.111S, S34.112S, S34.113S, S34.114S, S34.115S, S34.119S, S34.121S, S34.122S, S34.123S, S34.124S, S34.125S, S34.129S, S34.131S, S34.132S, S34.139S (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Tobacco Use	DX 305.1, 649.00, 649.01, 649.02, 649.03, 649.04, 989.84 (any DX on the claim) HCPCS Codes: 99406, 99407	DX F17.200, F17.201, F17.203, F17.208, F17.209, F17.210, F17.211, F17.213, F17.218, F17.219, F17.220, F17.221, F17.223, F17.228, F17.229, F17.290, F17.291, F17.293, F17.298, F17.299, 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 (any DX on the claim) HCPCS Codes: 99406, 99407	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes OR 1 HCPCS code claim of any type

¹ The reference period (# of years) for all algorithms included in this specification document is 2 years.

² ICD-10 codes are effective 10/2015; effective dates for ICD-9 codes vary, but are valid through 09/2015. Researchers may be interested in confirming the code(s) of interest in the accompanying claims data files.

³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of "[CCW Chronic Condition Algorithms](#)."

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).

CMS Chronic Conditions Data Warehouse (CCW)

Other Chronic or Potentially Disabling Condition Algorithms

(rev. 11/2017)

Algorithms ¹	Valid ICD-9 / MS DRG / HCPCS Codes ²	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Traumatic Brain Injury and Nonpsychotic Mental Disorders due to Brain Damage	DX 310, 310.0, 310.1, 310.2, 310.8, 310.81, 310.89, 907, 907.0, 907.1 (any DX on the claim)	DX F07.0, F07.81, F07.89, F48.2, S04.011S, S04.012S, S04.019S, S04.02XS, S04.031S, S04.032S, S04.039S, S04.041S, S04.042S, S04.049S, S04.10XS, S04.11XS, S04.12XS, S04.20XS, S04.21XS, S04.22XS, S04.30XS, S04.31XS, S04.32XS, S04.40XS, S04.41XS, S04.42XS, S04.50XS, S04.51XS, S04.52XS, S04.60XS, S04.61XS, S04.62XS, S04.70XS, S04.71XS, S04.72XS, S04.811S, S04.812S, S04.819S, S04.891S, S04.892S, S04.899S, S04.9XXS, S06.0X0S, S06.0X1S, S06.0X2S, S06.0X3S, S06.0X4S, S06.0X5S, S06.0X6S, S06.0X7S, S06.0X8S, S06.0X9S, S06.1X0S, S06.1X1S, S06.1X2S, S06.1X3S, S06.1X4S, S06.1X5S, S06.1X6S, S06.1X7S, S06.1X8S, S06.1X9S, S06.2X0S, S06.2X1S, S06.2X2S, S06.2X3S, S06.2X4S, S06.2X5S, S06.2X6S, S06.2X7S, S06.2X8S, S06.2X9S, S06.300S, S06.301S, S06.302S, S06.303S, S06.304S, S06.305S, S06.306S, S06.307S, S06.308S, S06.309S, S06.310S, S06.311S, S06.312S, S06.313S, S06.314S, S06.315S, S06.316S, S06.317S, S06.318S, S06.319S, S06.320S, S06.321S, S06.322S, S06.323S, S06.324S, S06.325S, S06.326S, S06.327S, S06.328S, S06.329S, S06.330S, S06.331S, S06.332S, S06.333S, S06.334S, S06.335S, S06.336S, S06.337S, S06.338S, S06.339S, S06.340S, S06.341S, S06.342S, S06.343S, S06.344S, S06.345S, S06.346S, S06.347S, S06.348S, S06.349S, S06.350S, S06.351S, S06.352S, S06.353S, S06.354S, S06.355S, S06.356S, S06.357S, S06.358S, S06.359S, S06.360S, S06.361S, S06.362S, S06.363S, S06.364S, S06.365S, S06.366S, S06.367S, S06.368S, S06.369S, S06.370S, S06.371S, S06.372S, S06.373S, S06.374S, S06.375S, S06.376S, S06.377S, S06.378S, S06.379S, S06.380S, S06.381S, S06.382S, S06.383S, S06.384S, S06.385S, S06.386S, S06.387S, S06.388S, S06.389S, S06.4X0S, S06.4X1S, S06.4X2S, S06.4X3S, S06.4X4S, S06.4X5S, S06.4X6S, S06.4X7S, S06.4X8S, S06.4X9S, S06.5X0S, S06.5X1S, S06.5X2S, S06.5X3S, S06.5X4S, S06.5X5S, S06.5X6S, S06.5X7S, S06.5X8S, S06.5X9S, S06.6X0S, S06.6X1S, S06.6X2S, S06.6X3S, S06.6X4S, S06.6X5S, S06.6X6S, S06.6X7S, S06.6X8S, S06.6X9S, S06.810S, S06.811S, S06.812S, S06.813S, S06.814S, S06.815S, S06.816S, S06.817S, S06.818S, S06.819S, S06.820S, S06.821S, S06.822S, S06.823S, S06.824S, S06.825S, S06.826S, S06.827S, S06.828S, S06.829S, S06.890S, S06.891S, S06.892S, S06.893S, S06.894S, S06.895S, S06.896S, S06.897S, S06.898S, S06.899S, S06.9X0S, S06.9X1S, S06.9X2S, S06.9X3S, S06.9X4S, S06.9X5S, S06.9X6S, S06.9X7S, S06.9X8S, S06.9X9S (any DX on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Viral Hepatitis (General) ⁴ , including:	DX 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, 070.49, 070.5, 070.51, 070.52, 070.53, 070.54, 070.59, 070.6, 070.7, 070.70, 070.71, 070.9, V02.6, V02.60, V02.61, V02.62, V02.69 (any DX on the claim)	DX 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, Z22.50, Z22.51, Z22.52, Z22.59 (any DX on the claim)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Hepatitis A ⁴	DX 070.0, 070.1 (any DX on the claim)	DX B15.0, B15.9 (any DX on the claim)	
Hepatitis B (acute or unspecified) ⁴	DX 070.2, 070.20, 070.21, 070.23, 070.3, 070.30, 070.31 (any DX on the claim)	DX B16.0, B16.1, B16.2, B16.9, B19.10, B19.11 (any DX on the claim)	
Hepatitis B (chronic) ⁴	DX 070.22, 070.23, 070.32, 070.33, V02.61 (any DX on the claim)	DX B18.0, B18.1, Z22.51 (any DX on the claim)	
Hepatitis C (acute) ⁴	DX 070.41, 070.51 (any DX on the claim)	DX B17.10, B17.11 (any DX on the claim)	
Hepatitis C (chronic) ⁴	DX 070.44, 070.54, V02.62 (any DX on the claim)	DX B18.2, Z22.52 (any DX on the claim)	
Hepatitis C (unspecified) ⁴	DX 070.7, 070.70, 070.71 (any DX on the claim)	DX B19.20, B19.21 (any DX on the claim)	
Hepatitis D ⁴	DX 070.21, 070.23, 070.31, 070.33, 070.42, 070.52 (any DX on the claim)	DX B16.0, B16.1, B17.0, B18.0 (any DX on the claim)	
Hepatitis E ⁴	DX 070.43, 070.53 (any DX on the claim)	DX B17.2 (any DX on the claim)	

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³ When 2 claims are required, they must occur at least one day apart. Note that the claims inclusion rules for these algorithms differ somewhat from the rules for the set of "CCW Chronic Condition Algorithms."

⁴ The Viral Hepatitis (General) condition includes all other types of hepatitis covered; the variables for each specific type of hepatitis are not included in the Master Beneficiary Summary File (MBSF).