

CMS Chronic Conditions Data Warehouse (CCW)

CCW Condition Algorithms *(rev. 06/2019)*

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
ADHD, Conduct Disorders, and Hyperkinetic Syndrome	2 Years	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, F91.3, 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	2 Years	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, Z71.41, Z71.42 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
Anxiety Disorders	2 Years	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
Autism Spectrum Disorders	2 Years	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

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Bipolar Disorder	2 Years	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, 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)	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, 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)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Cerebral Palsy	2 Years	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	2 Years	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
Depressive Disorders	2 Years	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

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Drug Use Disorders	2 Years	<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 (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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¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some years.

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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.”](#)

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Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Epilepsy	2 Years	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	2 Years	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, M79.10, M79.11, M79.12, M79.18, 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)	2 Years	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	2 Years	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, Q93.51, Q93.529, 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	2 Years	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 CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Leukemias and Lymphomas	2 Years	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, C81.23, C81.24, C81.25, C81.26, C81.27, C81.28, C81.29, C81.30, C81.31, C81.32, C81.33, C81.34, C81.35, C81.36, C81.37, C81.38, C81.39, C81.40, C81.41, C81.42, C81.43, C81.44, C81.45, C81.46, C81.47, C81.48, C81.49, C81.70, C81.71, C81.72, C81.73, C81.74, C81.75, C81.76, C81.77, C81.78, C81.79, C81.90, C81.91, C81.92, C81.93, 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
Liver Disease, Cirrhosis and Other	2 Years	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,	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,	At least 1 inpatient OR 2

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Liver Conditions (except Viral Hepatitis)		573.0, 573.4, 573.5, 573.8, 573.9, 576.1, 789.1, V42.7 (any DX on the claim) ICD-9-CM Procedure Codes: 42.91, 44.91, 54.91, 96.06	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) 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	non-inpatient claims with DX codes Procedures must have at least one associated liver disease diagnosis on claim.
Migraine and Chronic Headache	2 Years	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)	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)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Mobility Impairments	2 Years	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)	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)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Multiple Sclerosis and Transverse Myelitis	2 Years	DX 340, 341, 341.0, 341.2, 341.20, 341.21, 341.22, 341.8, 341.9 (any DX on the claim)	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)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX codes
Muscular Dystrophy	2 Years	DX 359, 359.0, 359.1 (any DX on the claim)	DX G71.0, G71.00, G71.01, G71.02, G71.09, 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	2 Years	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
Opioid Use Disorder (OUD) #1	2 Years	Any positive result from Indicators OUD#2, OUD#3 or OUD#4, below.	Any positive result from Indicators OUD#2, OUD#3 or OUD#4, below.	
OUD #2 - Diagnosis- and Procedure-code basis for OUD	2 Years	DX 304.0, 304.00, 304.01, 304.02, 304.7, 304.70, 304.71, 304.72, 305.5, 305.50, 305.51, 305.52, 760.72, 965.0, 965.00, 965.01, 965.02, 965.09, E85.00, E85.01, E85.02, E93.50, E93.51 (any DX on the claim)	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, 11.288, 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, T40.0X1A, T40.0X2A, T40.0X3A, T40.0X4A, 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, T40.4X1A, T40.4X2A, T40.4X3A, T40.4X4A, T40.601A, T40.602A, T40.603A, T40.604A, T40.691A, T40.692A, T40.693A, T40.694A ICD-10 procedure codes: HZ81ZZZ, HZ84ZZZ, HZ85ZZZ, HZ86ZZZ, HZ91ZZZ, HZ94ZZZ, HZ95ZZZ, HZ96ZZZ (any position on the claim)	At least 1 inpatient OR 2 other non-drug claims of any service type with DX (or ICD-10-PCS procedure) codes

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
OUD #3 - Opioid-related Hospitalizations/ED Visits	2 Years	DX 304.00, 304.01, 304.02, 304.70, 304.71, 304.72, 305.50, 305.51, 305.52, 965.00, 965.01, 965.02, 965.09, 970.1, E85.00, E85.01, E85.02, E93.50, E93.51, E93.52, E94.01 (any DX on the claim)	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, T40.0X1A, T40.0X1D, T40.0X1S, T40.0X2A, T40.0X2D, T40.0X2S, T40.0X3A, T40.0X3D, T40.0X3S, T40.0X4A, T40.0X4D, T40.0X4S, T40.0X5A, T40.0X5D, T40.0X5S, T40.1X1A, T40.1X1D, T40.1X1S, T40.1X2A, T40.1X2D, T40.1X2S, T40.1X3A, T40.1X3D, T40.1X3S, T40.1X4A, T40.1X4D, T40.1X4S, T40.2X1A, T40.2X1D, T40.2X1S, T40.2X2A, T40.2X2D, T40.2X2S, T40.2X3A, T40.2X3D, T40.2X3S, T40.2X4A, T40.2X4D, T40.2X4S, T40.2X5A, T40.2X5D, T40.2X5S, T40.3X1A, T40.3X1D, T40.3X1S, T40.3X2A, T40.3X2D, T40.3X2S, T40.3X3A, T40.3X3D, T40.3X3S, T40.3X4A, T40.3X4D, T40.3X4S, T40.3X5A, T40.3X5D, T40.3X5S, T40.4X1A, T40.4X1D, T40.4X1S, T40.4X2A, T40.4X2D, T40.4X2S, T40.4X3A, T40.4X3D, T40.4X3S, T40.4X4A, T40.4X4D, T40.4X4S, T40.4X5A, T40.4X5D, T40.4X5S, T40.601A, T40.601D, T40.601S, T40.602A, T40.602D, T40.602S, T40.603A, T40.603D, T40.603S, T40.604A, T40.604D, T40.604S, T40.605A, T40.605D, T40.605S, T40.691A, T40.691D, T40.691S, T40.692A, T40.692D, T40.692S, T40.693A, T40.693D, T40.693S, T40.694A, T40.694D, T40.694S, T40.695A, T40.695D, T40.695S (any position on the claim)	One inpatient claim OR one emergency department (ED) claim

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
<p> </p>	2 Years	Same as ICD-10 cell	<p> HCPCS codes for MAT: J0571, J0572, J0573, J0574, J0575, S0109, J1230, J2315 National Drug Codes (NDC) for Buprenorphine: 54017613, 54017713, 54018813, 54018913, 93537856, 93537956, 93572056, 93572156, 228315303, 228315403, 228315473, 228315503, 228315573, 228315603, 378092393, 378092493, 406192303, 406192403, 490005100, 490005130, 490005160, 490005190, 12496120201, 12496120203, 12496120401, 12496120403, 12496120801, 12496120803, 12496121201, 12496121203, 12496127802, 12496128302, 12496130602, 12496131002, 16590066605, 16590066630, 16590066705, 16590066730, 16590066790, 23490927003, 23490927006, 23490927009, 35356000407, 35356000430, 35356055530, 35356055630, 42291017430, 42291017530, 43063018407, 43063018430, 49999039507, 49999039515, 49999039530, 49999063830, 49999063930, 50383028793, 50383029493, 50383092493, 50383093093, 52959030430, 52959074930, 53217013830, 4123011430, 54123091430, 54123092930, 54123095730, 54123098630, 54569573900, 54569573901, 54569573902, 54569639900, 54569640800, 54569657800, 54868570700, 54868570701, 54868570702, 54868570703, 54868570704, 54868575000, 55045378403, 55700014730, 55700018430, 55700030230, 55700030330, 59385001201, 59385001230, 59385001401, 59385001430, 59385001601, 59385001630, 63629402801, 63629403401, 63629403402, 63629403403, 63629409201, 63874108403, 63874108503, 63874117303, 65162041503, 65162041603, 66336001630, 68071138003, 68071151003, 68258299103, 68258299903, 68308020230, 68308020830 NDCs for Naltrexone (see exclusion criteria, below): 56001122, 56001130, 56001170, 56007950, 56008050, 185003901, 185003930, 406009201, 406009203, 406117001, 406117003, 55509020, 555090202, 16729008101, 16729008110, 42291063230, 43063059115, 47335032683, 47335032688, 50436010501, 51224020630, 51224020650, 51285027501, 51285027502, 52152010502, 52152010504, 52152010530, 54868557400, 63459030042, 65694010003, 65694010010, 65757030001, 65757030202, 68084029111, 68084029121, 68094085362, 68115068030 Exclude beneficiaries with NDC for Naltrexone, if the CCW Alcohol use disorder indicator = Yes and Opioid use disorder DX indicator (from measure #2 OUD using diagnoses) = No; or CCW Drug use disorder indicator = Yes and Opioid use DX disorder = No </p>	<p> One or more drug claim (Medicare Part B, Medicare Part D, and/or Medicaid) with an NDC for opioid-MAT OR one or more non-drug claim (Medicare Part B or Medicaid non-drug claim) with a HCPCS code. (Note: Naltrexone NDCs are excluded if there is evidence of an alcohol or other drug use disorder where opioid DX [OUD #2] is not present.) </p>
Other Developmental Delays	2 Years	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)	2 Years	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

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Personality Disorders	2 Years	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)	2 Years	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

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Pressure and Chronic Ulcers	2 Years	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) 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	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)	At least 1 inpatient OR 2 non-inpatient claims with DX codes

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Schizophrenia	2 Years	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	2 Years	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	2 Years	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	2 Years	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
Sickle Cell Disease	5 Years	282.60, 282.61, 282.62, 282.63, 282.64, 282.68, 282.69, 282.41, 282.42,	D57.00, D57.01, D57.02, D57.1, D57.20, D57.211, D57.212, D57.219, D57.40, D57.411, D57.412, D57.419, D57.80, D57.811, D57.812, D57.819	3 or more non-drug claims of any service type with DX codes
Spina Bifida and Other Congenital Anomalies of the Nervous System	2 Years	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 CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Spinal Cord Injury	2 Years	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	2 Years	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, Z72.0 (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 CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Traumatic Brain Injury and Nonpsychotic Mental Disorders due to Brain Damage	2 Years	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

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Viral Hepatitis (General) ³ , including:	2 Years	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 ³	2 Years	DX 070.0, 070.1 (any DX on the claim)	DX B15.0, B15.9 (any DX on the claim)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Hepatitis B (acute or unspecified) ³	2 Years	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)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Hepatitis B (chronic) ³	2 Years	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)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Hepatitis C (acute) ³	2 Years	DX 070.41, 070.51 (any DX on the claim)	DX B17.10, B17.11 (any DX on the claim)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Hepatitis C (chronic) ³	2 Years	DX 070.44, 070.54, V02.62 (any DX on the claim)	DX B18.2, Z22.52 (any DX on the claim)	At least 1 inpatient OR 2 non-inpatient claims with DX codes

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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).

Algorithms	Reference Period (# of Years) ¹	Valid ICD-9 / MS DRG / HCPCS Codes	Valid ICD-10 Codes ²	Number/Type of Claims to Qualify ³
Hepatitis D ³	2 Years	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)	At least 1 inpatient OR 2 non-inpatient claims with DX codes
Hepatitis E ³	2 Years	DX 070.43, 070.53 (any DX on the claim)	DX B17.2 (any DX on the claim)	At least 1 inpatient OR 2 non-inpatient claims with DX codes

¹ CCW data begins in 1999. When working with condition files prior to 2003, conditions with a reference period of 2-5 years will not have a sufficient length of data to fully meet the condition criteria in some 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).