

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
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

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).