

S2. The measurement of excluded conditions and covariates (epilepsy subtypes, severity and comorbidities)

Disorders		ICD-9-CM codes	Measurement
Epilepsy	Generalized nonconvulsive epilepsy or petit mal status	345.0x, 345.2x	The closest epilepsy in- or outpatient diagnosis before index date. Severity: 0: no mention of intractable; 1: intractable; 9: unspecified
	Generalized convulsive epilepsy or grand mal status	345.1x, 345.3x	
	Focal epilepsy	345.4x and 345.5x	
	Other types or unclassified epilepsy	345.6x, 345.7x, 345.8x and 345.9x	
Cerebral palsy		343.xx	Any in- or outpatient claim during the 6-month baseline before index date
Congenital nervous system anomalies		740.xx-742.xx	Any in- or outpatient claim during the 6-month baseline before index date
Autistic Spectrum Disorder, ASD		299.0x, 299.8x or 299.9x	Any in- or outpatient claim during the 6-month baseline before index date
Brain tumor		191.xx or 239.6	Any in- or outpatient claim during the 6-month baseline before index date
Intellectual disabilities		317.xx, 318.xx and 319.xx	Any in- or outpatient claim during the 6-month baseline before index date
Head trauma		959.01	Any in- or outpatient claim during the 6-month baseline before index date
CNS infection		013.xx, 036.xx, 046.xx-049.xx, 052.0, 053.0, 054.3, 055.0, 056.0, 062.xx-064.xx, 072.1, 072.2, 094.xx, 320.xx, 321.xx-323.xx	Any in- or outpatient claim during the 6-month baseline before index date
Schizophrenia and other psychotic disorders		295.xx, 297.xx, and 298.xx	Any in- or outpatient claim during the 6-month baseline before index date
ADHD or adjustment disorders		314, 314.0, 314.00, 314.01, 314.9, 309-309.20, 309.22-309.80, 309.82-309.99, and 313.89	Any in- or outpatient claim during the 6-month baseline before index date
ODD/CD		312-312.29, 312.4x-312.9x, 312.30,	Any in- or outpatient claim during the

	312.34, 312.35, 313, 313.8, 313.81 and 313.9x	6-month baseline before index date
Anxiety	300.0–300.09, 300.2–300.29, 300.3, 309.21, 309.81, 313.0, 313.2x, 308.0, 308.2x-308.9x	Any in- or outpatient claim during the 6-month baseline before index date
Depression	296.2x, 296.3x, 296.82, 300.4 and 311	Any in- or outpatient claim during the 6-month baseline before index date
Bipolar disorder	296.0–296.19, 296.4–296.81, 296.83-296.99, and 301.13	Any in- or outpatient claim during the 6-month baseline before index date
Sleep disorder	307.4x, 347.xx or 780.5x	Any in- or outpatient claim during the 6-month baseline before index date
Substance abuse disorders	ICD-9-CM codes: 291.xx, 292.xx, 303.xx, 304.xx, 305.xx, with NDC codes: 04563330, 51285275, 05550902, 52152105, 18539, 4061170, 16590897, 1672981, 47335326, 60793430, 60793431, 60793433, 60793434, 60793435, 60793437, 63459300, 65757300, 65757301, 51285523, 51285524, 64980171, 64980172, 65473706 124961310, 124961278, 124961202, 124961208, 548685707, 548685750, 636294028, 636294034 10019315, 10019311, 11098311 63481365, 63481368, 63481359, 04091212, 04091215, 04091219, 63481358, 634813771, 52584469, 52584782, 16590556, 63739463, 548682062, 548686259, 60429570, 68387531, 5481469, 5483369,	Any in- or outpatient claim, or pharmacy claim (Campral, Naltrexone, Vivitrol, Disulfiram, Subutex, Suboxone, Nalmefene and Naloxone) during the 6-month baseline before index date

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