Supplementary Table 1: Inclusion codes for UK Biobank dystonia cohort

Dystonia subtype	ICD-10 Code	Read Code	Read Code Description
Idiopathic torsion dystonia		F136.	Idiopathic torsion dystonia
		F137.	Symptomatic torsion dystonia
		F137y	Symptomatic torsion dystonia OS
		F137z	Symptomatic torsion dystonia NOS
		F138.	Fragment of torsion dystonia
		F138z	Torsion dystonia fragment NOS
Idiopathic nonfamilial	G24.2		
dystonia			
Idiopathic familial dystonia	G24.1	F1360	Idiopathic familial dystonia
Cervical dystonia	G24.3	F1382	Spasmodic torticollis
diopathic familial dystonia G24.1 ervical dystonia G24.3		16A3.	Torticollis - symptom
		N135.	Torticollis unspecified
		N1350	Intermittent torticollis
Idiopathic nonfamilial dystonia Idiopathic familial dystonia Cervical dystonia Idiopathic Orofacial dystonia Blepharospasm Writer's cramp Myoclonic dystonia Segawa syndrome Other		N135z	Torticollis NOS
Idiopathic Orofacial dystonia	G24.4		
Blepharospasm	G24.5	F1380	Blepharospasm
Writer's cramp		F1383	Organic Writer's cramp
Myoclonic dystonia		F13B.	Myoclonic dystonia
Segawa syndrome		F13C.	Segawa syndrome
Other	G24.8	Fyu24	[X]Other dystonia
Unspecified	G24.9	Fyu2A	[X]Dystonia, unspecified
	familial dystonia ystonia G24.1 Orofacial dystonia pasm G24.5 ramp dystonia rndrome G24.8	F13X.	Dystonia, unspecified
Tremor		1B22.	Has a tremor

Supplementary Table 2: Exclusion codes for UK Biobank cohorts

Clinical Terminology	Read code	ICD-10 code
Dystonia		
Drug induced dystonia	F1312	G24.0
Parkinson's Disease and secondary parkinsonism		
Parkinson's Disease	F12	G20
Parkinson's disease NOS	F12z.	
O/E Parkinson gait	2994.	
O/E - Parkinson posture	2987.	
O/E - Parkinsonian tremor	297A.	
Dementia in Parkinson's disease	Eu023	
FH: Parkinsonism	129Z.	
Secondary parkinsonism due to other external agents	F12W.	G21.2
Parkinsonism secondary to drugs	F121.	G21.1
Malignant neuroleptic syndrome	F122.	G21.0
Postencephalitic parkinsonism	F123.	G21.3
Vascular parkinsonism	F124.	G21.4
Syphilitic parkinsonism	A94y1	
Secondary parkinsonism, unspecified	F12X.	G21.9
Secondary parkinsonism		G21
Other secondary parkinsonism		G21.8
Parkinsonism in diseases EC		G22
History of Parkinson's disease	147F.	
Cerebral degeneration in Parkinson's disease	F11x9	
Huntington's Disease		G10
Huntington's chorea	F134.	
Dementia in Huntington's disease	Eu022	
FH: Huntington's chorea	1291.	
Chorea		
Other choreas	F135.	G255
Hemiballismus	F1350	
Paroxysmal chorea-athetosis	F1351	
Drug-induced chorea	F1352	G254
Other choreas NOS	F135z	
Myoclonus		
Myoclonus	F132.	G253

Ataxia		
Cerebral ataxia	F11y1	
Cerebellar ataxia NOS	, F143.	
Cerebellar ataxia in diseases EC	F144.	
Cerebellar ataxia due to alcoholism	F1440	
Cerebellar ataxia due to myxoedema	F1441	
Cerebellar ataxia due to neoplasia	F1442	
Cerebellar ataxia in disease NOS	F144z	
Congenital nonprogressive ataxia	F145.	
Early onset cerebellar ataxia with hypogonadism	F146.	
Friedreich's ataxia	F140.	
Spinocerebellar disease	F14	
Spinocerebellar disease NOS	F14z.	
Other spinocerebellar diseases	F14y.	
Hereditary ataxia		G11
Degenerative diseases of the basal ganglia		G23
Other basal ganglia degenerative diseases	F130.	
Dejerine-Thomas syndrome	F1300	
Hallervorden-Spatz disease	F1301	G23.0
Striatonigral degeneration	F1302	G23.2
Parkinsonism with orthostatic hypotension	F1303	
Progressive supranuclear ophthalmoplegia	F1304	G23.1
Shy-Drager syndrome	F1305	
Aicardi Goutieres syndrome	F1306	
Other basal ganliga degenerative diseases NOS	F130z	
Steele-Richardson-Olszewski syndrome	F24y2	
Other specified degenerative diseases of basal ganglia	-	G23.8
Degenerative disease of basal ganglia, unspecified		G23.9
Extrapyramidal diseases and movement disorders		
Stiff-man syndrome	F13z1	
Restless leg syndrome	F13z2	
Akinetic rigid syndrome	F13z3	
Hyperekplexia	F13z4	
Neuroferritinopathy	F13z6	
Extrapyramidal disease and abnormal movement disorder NOS	F13zz	
Other/unspecified extrapyramidal/abnormal movement disorders	F139.	
Paroxysmal non-kinesigenic dyskinesia	F1390	

Essential and other specified forms of tremor Drug-induced tremor F1310 F1311 F1312 G251 F1312 G251 F1312 G251 F1312 F1310	Paroxysmal kinesigenic dyskinesia	F1391	
Drug-induced tremor F1312 G25.1 Benign essential tremor F1310 Other cerebral degenerations F110. Alzheimer's disease F110. Alzheimer's disease with early onset F110. Alzheimer's disease with late onset F110. Alzheimer's disease with late onset F110. Senile degeneration of brain F111. Lewy body disease F111. Frontotemporal degeneration F118. Frontotemporal degeneration F119. Hereditary and degeneration F11y2. Hereditary and degenerative diseases of the CNS OS F12. Fragile X associated tremor ataxia syndrome F11y2. Hereditary and degenerative diseases of the central nervous system NOS F12. Demyelinating diseases of the central nervous system NOS F12. Demyelinating diseases of the central nervous system F140. Wilson's disease C3272 Progressive supranuclear palsy F24y0 Wilson's disease C3272 Multiple system atrophy, Parkinson variant F1741 Tisc'it'c disorders F95			
Benign essential tremor Other cerebral degenerations Alzheimer's disease Alzheimer's disease with early onset Alzheimer's disease with late onset Fil10 Alzheimer's disease with late onset Fil10 Fil1		F1312	G25.1
Alzheimer's disease with early onset F1100 Alzheimer's disease with late onset F11101 Pick's disease with late onset F11101 Pick's disease with late onset F11101 Pick's disease F1110 Senile degeneration of brain F1112 Every body disease F1116 Frontotemporal degeneration F1118 Corticobasal degeneration F1118 Corticobasal degeneration F1119 Hereditory and degeneration F1119 Hereditory and degenerative diseases of the CNS OS Fragile X associated tremor ataxia syndrome F1100 Hereditory and degenerative diseases of the central nervous system NOS F12 Dempelinating diseases of the central nervous system NOS F12 Progressive supranuclear palsy F2400 Wilson's disease C3310 Multiple system atrophy, cerebellar variant F1740 G23.3 Multiple system atrophy, cerebellar variant F1740 Multiple system atrophy, cerebellar variant F1740 F175/tic disorders F273 Gilles de la Tourette's disorder E273 Gilles de la Tourette's disorder E273 Tic - symptom 1824 D/f - spasm/tic 1820 Tic - symptom 1824 D/f - spasm/tic 2974 Transiert childhood tic E2722 Transiert childhood tic E2722 [X]Tic disorders E2722 [X]Tic disorder E2722 [X]Tic disorders E2722 [X]Tic disorders E2950 [X]Transiert tic disorder E2951 [X]Cnonic motor or vocal tic disorder E2951	Benign essential tremor	F1310	
Alzheimer's disease with late onset Alzheimer's disease with late onset Fili01 Fili1. Senile degeneration of brain Elwy body disease Fili5. Frontotemporal degeneration Fili8. Corticobasal degeneration Fili9 Frontotemporal degeneration Fili9 Frontotemporal degeneration Fili9 Frene Fili9 Frene Associated tremor ataxia syndrome Fili9 Fragile X associated tremor ataxia syndrome Fili0. Fragile X associated tremor ataxia syndrome Fili0 Frene Fili9 Fragile X associated tremor ataxia syndrome Fili0 Fili0 Fragile X associated tremor ataxia syndrome Fili0 Fili	Other cerebral degenerations		
Alzheimer's disease with late onset F1101 Pick's disease F1112. Senile degeneration of brain F116. Lewy body disease F116. Frontoemporal degeneration F118. Corticobasal degeneration F1192. Hereditory and degenerative diseases of the CNS OS F170. Fragile X associated tremor ataxia syndrome F170. Hereditary and degenerative diseases of the central nervous system NOS F12. Demyelinating diseases of the central nervous system NOS F12. Progressive supranuclear palsy G3272 Progressive supranuclear palsy F1740 Wilsion's disease G3510 Wultiple system atrophy, cerebellar variant F1740 Multiple system atrophy, cerebellar variant F1741 Tics/tic disorders F95 Gilles de la Tourette's disorder F95 Gilles de la Tourette's disorder E952 Tic - symptom 1B24. O/E - spasm/tic 2974. Tic disorder unspecified E2720 Transiet childhood tic E2722 Kl'Transient tic disorder	Alzheimer's disease	F110.	
Pick's disease F111. Senile degeneration of brain F112. Lewy body disease F116. Frontotemporal degeneration F118. Corticobasal degenerative diseases of the CNS OS F11y2 Hereditary and degenerative diseases of the CNS OS F12. Fragile X associated tremor ataxia syndrome F1y0. Hereditary and degenerative diseases of the central nervous system NOS F1z. Demyelinating diseases of the central nervous system NOS F1z. Niemann-Pick disease C3272 Progressive supranuclear palsy F24y0 Wilson's disease C3510 Multiple system atrophy, cerebellar variant F174. Multiple system atrophy, cerebellar variant F1740 G23.3 Multiple system atrophy, Parkinson variant F1741 F95 Tics/tic disorders E2723 [X]Combined vocal and multiple motor tic disorder [de la Tourette'] Eugs2 [X]Combined vocal and multiple motor tic disorder [de la Tourette'] Eugs2 Eugs1 [X]Combined vocal and multiple motor tic disorder E2722 Eugs1 [X]Chronic motor tic disorder E2722 <	Alzheimer's disease with early onset	F1100	
Senile degeneration of brain F112. Lewy body disease F116. Frontotemporal degeneration F118. Corticobasal degeneration F11y2 Hereditary and degenerative diseases of the CNS OS Fragile X associated tremor ataxia syndrome F11y0. Hereditary and degenerative diseases of the central nervous system NOS F12. Demyelinating diseases of the central nervous system NOS F12. Demyelinating diseases of the central nervous system F140. Niemann-Pick disease G3272 Progressive supranuclear palsy F2440 Multiple system atrophy, F174. Multiple system atrophy, cerebellar variant F1740 G23.3 Multiple system atrophy, Parkinson variant F1740 G23.3 Multiple system atrophy, Parkinson variant F1741 Tics/tic disorders F95 Gilles de la Tourette's disorder E2723 X Combined vocal and multiple motor tic disorder [de la Tourette] Eu952 Tic - symptom 1824. O/E - spasm/tic 2974. Tic disorder unspecified E2720 Transiet childhood tic E2721 Transiet childhood tic E2722 Tic NOS E2722 X Transient tic disorder E095	Alzheimer's disease with late onset	F1101	
Lewy body disease F116. Frontoemporal degeneration F118. Corticobasal degeneration F11y2 Hereditary and degenerative diseases of the CNS OS F12. Fragile X associated tremor ataxia syndrome F140. Hereditary and degenerative diseases of the central nervous system NOS F12. Demyelinating diseases of the central nervous system NOS F12. Demyelinating diseases of the central nervous system C3272 Niemann-Pick disease C3272 Wilson's disease C3510 Wultiple system supranuclear palsy F174. Multiple system atrophy, cerebellar variant F1740 G23.3 Multiple system atrophy, Parkinson variant F1741 F95 Gilles de la Tourette's disorder E2723 F95 Gilles de la Tourette's disorder E2723 F95 Xil Combined vocal and multiple motor tic disorder [de la Tourette] Eu952 Tic - symptom 1824	Pick's disease	F111.	
Frontotemporal degeneration F118. Corticobasal degeneration F11y2 Hereditary and degenerative diseases of the CNS OS Fragile X associated tremor ataxia syndrome F1y0. Hereditary and degenerative diseases of the central nervous system NOS F1z. Demyelinating diseases of the central nervous system NOS F1z. Demyelinating diseases of the central nervous system NOS F1z. Demyelinating diseases of the central nervous system NOS F1z. Demyelinating diseases of the central nervous system NOS F1z. Demyelinating diseases of the central nervous system NOS F1z. Demyelinating diseases OS372 F24y0 Wilson's disease C3510 Multiple system atrophy, cerebellar variant F174 Multiple system atrophy, cerebellar variant F174 Multiple system atrophy, Parkinson variant F174 Tics/tic disorders E2723 [X]Combined vocal and multiple motor tic disorder [de la Tourette] E2723 [X]Combined vocal and multiple motor tic disorder [de la Tourette] E2720 Transiet childhood tic E2721 Transiet childhood tic E2722 Tic NOS E2722 [X]Transient tic disorder E2951 [X]Transient tic disorder E2951 [X]Transient tic disorder E2951 [X]Transient tic disorder E2951 [X]Irnolic motor or vocal tic disorder E2951	Senile degeneration of brain	F112.	
Corticobasal degeneration	Lewy body disease	F116.	
Hereditary and degenerative diseases of the CNS OS Fragile X associated tremor ataxia syndrome F1y0. Hereditary and degenerative diseases of the central nervous system NOS F1z. Demyelinating diseases of the central nervous system Niemann-Pick disease C3272 Progressive supranuclear palsy F24y0 Wilson's disease C3510 Wilson's disease C3510 Multiple system atrophy F174. Multiple system atrophy, cerebellar variant F1740 G23.3 Multiple system atrophy, Parkinson variant F1741 F1741 Tics/sic disorders E2723 F95 Gilles de la Tourette's disorder E2723 F95 KIJCombined vocal and multiple motor tic disorder [de la Tourette] Eu952 F174 Tic - symptom 1824. F174 F174 O/E - spasm/tic 2974. F175 F175 Tic disorder unspecified E2720 F175 Transiet childhood tic E2721 F175 Chronic motor tic disorder E2722 F175 KIJTransient tic disorder Eu950 K175 KIJI ron	Frontotemporal degeneration	F118.	
Fragile X associated tremor ataxia syndrome Hereditary and degenerative diseases of the central nervous system NOS Demyelinating diseases of the central nervous system Niemann-Pick disease C3272 Progressive supranuclear palsy F24y0 Wilson's disease C3510 Multiple system atrophy F174 Multiple system atrophy, cerebellar variant F1740 Multiple system atrophy, Parkinson variant F1741 F1741 F175 Gilles de la Tourette's disorder E2723 [X]Combined vocal and multiple motor tic disorder [de la Tourette] Eu952 Tic - symptom O/E - spasm/tic C - 2974 Transiet childhood tic E2720 Transiet childhood tic E2721 Chronic motor tic disorder E2722 [X]Transient tic disorder E2952 [X]Transient tic disorder E2952 [X]Transient tic disorder E2950 [X]Transient tic disorder E2950 [X]Chronic motor or vocal tic disorder E2951 [X]Involuntary excessive blinking Eu953	Corticobasal degeneration	F11y2	
Hereditary and degenerative diseases of the central nervous system NOS Demyelinating diseases of the central nervous system Niemann-Pick disease C3272 Progressive supranuclear palsy F24y0 Wilson's disease C3510 Multiple system atrophy F174. Multiple system atrophy, Cerebellar variant F1740 Multiple system atrophy, Parkinson variant F1741 F1741 F1741 Itics/tic disorders F95 Gilles de la Tourette's disorder E2723 [X]Combined vocal and multiple motor tic disorder [de la Tourette] Eu952 Tic - symptom 1824. O/E - spasm/tic C974. Tic disorder unspecified F2720 Transiet childhood tic E2721 Chronic motor tic disorder E2722 [X]Transient tic disorder E2722 [X]Transient tic disorder E2950 [X]Transient tic disorder E2950 [X]Conic motor or vocal tic disorder E1950 [X]Involuntary excessive blinking	Hereditary and degenerative diseases of the CNS OS		
Demyelinating diseases of the central nervous systemNiemann-Pick diseaseC3272Progressive supranuclear palsyF24y0Wilson's diseaseC3510Multiple system atrophyF174.Multiple system atrophy, cerebellar variantF1740G23.3Multiple system atrophy, Parkinson variantF1741Tics/tic disordersF95Gilles de la Tourette's disorderE2723[X]Combined vocal and multiple motor tic disorder [de la Tourette]Eu952Tic - symptom1824.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722X]Tic disordersE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Fragile X associated tremor ataxia syndrome	F1y0.	
Niemann-Pick disease Progressive supranuclear palsy F24y0 Wilson's disease C3510 Multiple system atrophy Multiple system atrophy, cerebellar variant Multiple system atrophy, Parkinson variant F1740 G23.3 Multiple system atrophy, Parkinson variant F1740 Multiple system atrophy, Parkinson variant F1740 F95 Gilles de la Tourette's disorder E2723 [X]Combined vocal and multiple motor tic disorder [de la Tourette] Eu952 Tic - symptom 1B24. O/E - spasm/tic 2974. Tic disorder unspecified E2720 Transiet childhood tic E2721 Chronic motor tic disorder E2722 [X]Tic idsorders E2722 [X]Tic disorder E2722 [X]Tic disorder E2950 [X]Transient tic disorder Eu950 [X]Transient tic disorder Eu951 [X]Involuntary excessive blinking	Hereditary and degenerative diseases of the central nervous system NOS	F1z	
Progressive supranuclear palsyF24y0Wilson's diseaseC3510Multiple system atrophyF174.Multiple system atrophy, cerebellar variantF1740G23.3Multiple system atrophy, Parkinson variantF1741Tics/tic disordersF95Gilles de la Tourette's disorderE2723[X]Combined vocal and multiple motor tic disorder [de la Tourette]Eu952Tic - symptom1B24.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Transient tic disorderEu951[X]Involuntary excessive blinkingEu953	Demyelinating diseases of the central nervous system		
Wilson's diseaseC3510Multiple system atrophyF174.Multiple system atrophy, cerebellar variantF1740G23.3Multiple system atrophy, Parkinson variantF1741Tics/tic disordersF95Gilles de la Tourette's disorderE2723[X]Combined vocal and multiple motor tic disorder [de la Tourette]Eu952Tic - symptom1824.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Niemann-Pick disease	C3272	
Multiple system atrophyF174.Multiple system atrophy, cerebellar variantF1740G23.3Multiple system atrophy, Parkinson variantF1741Tics/tic disordersF95Gilles de la Tourette's disorderE2723[X]Combined vocal and multiple motor tic disorder [de la Tourette]Eu952Tic - symptom1B24.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Progressive supranuclear palsy	F24y0	
Multiple system atrophy, cerebellar variant Multiple system atrophy, Parkinson variant Tics/tic disorders Gilles de la Tourette's disorder E2723 [X]Combined vocal and multiple motor tic disorder [de la Tourette] Eu952 Tic - symptom D/E - spasm/tic Tic disorder unspecified E2720 Transiet childhood tic E2721 Chronic motor tic disorder E2722 Tic NOS E2722 [X]Tic disorders Eu95. [X]Transient tic disorder Eu950 [X]Chronic motor or vocal tic disorder Eu951 [X]Involuntary excessive blinking	Wilson's disease	C3510	
Multiple system atrophy, Parkinson variantF1741Tics/tic disordersF95Gilles de la Tourette's disorderE2723[X]Combined vocal and multiple motor tic disorder [de la Tourette]Eu952Tic - symptom1824.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Multiple system atrophy	F174.	
Tics/tic disordersF95Gilles de la Tourette's disorderE2723[X]Combined vocal and multiple motor tic disorder [de la Tourette]Eu952Tic - symptom1B24.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Multiple system atrophy, cerebellar variant	F1740	G23.3
Gilles de la Tourette's disorderE2723[X]Combined vocal and multiple motor tic disorder [de la Tourette]Eu952Tic - symptom1B24.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Multiple system atrophy, Parkinson variant	F1741	
[X]Combined vocal and multiple motor tic disorder [de la Tourette]Eu952Tic - symptom1B24.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Tics/tic disorders		F95
Tic - symptom1B24.O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE2722[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Gilles de la Tourette's disorder	E2723	
O/E - spasm/tic2974.Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE272z[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	[X]Combined vocal and multiple motor tic disorder [de la Tourette]	Eu952	
Tic disorder unspecifiedE2720Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE272z[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Tic - symptom	1B24.	
Transiet childhood ticE2721Chronic motor tic disorderE2722Tic NOSE272z[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	O/E - spasm/tic	2974.	
Chronic motor tic disorderE2722Tic NOSE272z[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Tic disorder unspecified	E2720	
Tic NOSE272z[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Transiet childhood tic	E2721	
[X]Tic disordersEu95.[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Chronic motor tic disorder	E2722	
[X]Transient tic disorderEu950[X]Chronic motor or vocal tic disorderEu951[X]Involuntary excessive blinkingEu953	Tic NOS	E272z	
[X]Chronic motor or vocal tic disorder Eu951 [X]Involuntary excessive blinking Eu953	[X]Tic disorders	Eu95.	
[X]Involuntary excessive blinking Eu953	[X]Transient tic disorder	Eu950	
	[X]Chronic motor or vocal tic disorder	Eu951	
[X]Other tic disorders Eu95y	[X]Involuntary excessive blinking	Eu953	
	[X]Other tic disorders	Eu95y	

[X]Tic disorder, unspecified	Eu95z	
Tics	E272.	
Tics of organic origin	F133.	
Other degenerative diseases of nervous system, NEC		G31
Multiple Sclerosis		G35
Other acute disseminated demyelination		G36
Neuromyelitis optica [Devic]		G36.0
Other specified acute disseminated demyelination		G36.8
Acute disseminated demyelination, unspecified		G36.9
Other demyelinating diseases of central nervous system		G37
Infantile cerebral palsy		G80
Spastic cerebral palsy		G80.0
Spastic diplegia		G80.1
Infantile hemiplegia		G80.2
Dyskinetic cerebral palsy		G80.3
Other infantile cerebral palsy		G80.8
Infantile cerebral palsy, unspecified		G80.9

Key: EC; Elsewhere Classified, FH; Family History, NEC; Not Elsewhere Classified, NOS; Not Otherwise Specified, O/E; On Examination

Table 3: Scores for ICD-10 psychiatric components

	Dystonia		Dystonia Cervical Dystonia Blepharospasi		ospasm	sm Tremor			Dystonia, Unspecified		
		P-value		P-value		P-value		P-value		P-value	
CD-10 Diagnoses - Mental and Behavioural Disorc	lers										
chizophrenia, schizotypal and delusional disorder	S										
Paranoid Schizophrenia	2 (0.1%)	1	0	-	0	=	0	=	2 (1.3%)	0.242	16 (0.06%
Catatonic Schizophrenia	1 (0.06%)	1	0	-	1 (0.8%)	0.190	0	-	0	-	1 (0.004%
Schizophrenia Unspecified	5 (0.3%)	1	1 (0.1%)	1	1 (0.8%)	1	0	-	3 (1.9%)	0.037*	27 (0.1%
Delusional Disorder	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	13 (0.05%
Schizoaffective Disorder, manic	1 (0.06%)	1	0		0	-	0	-	1 (0.6%)	0.545	1 (0.004%
Schizoaffective, Unspecified	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	6 (0.02%
Mood [affective] disorders											
Manic episode, unspecified	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	4 (0.02%
Bipolar affective disorder, current hypomanic	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	8 (0.03%
Bipolar Affective Disorder Current, No Psychosis	2 (0.1%)	1	0	-	0	-	0	-	2 (1.3%)	0.089	9 (0.04%
Bipolar Affective Disorder Current with Mild/Moderate Depression	2 (0.1%)	1	0	-	0	-	1 (0.7%)	1	1 (0.6%)	0.815	2 (0.008
Bipolar Affective Current, mixed	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	4 (0.029
Bipolar affective disorder, currently in remission	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	12 (0.05
Bipolar Affective Disorder, Unspecified	16 (1.0%)	0.002**	2 (0.3%)	1	0	-	10 (7.5%)	1	4 (2.6%)	0.044*	67 (0.39
Moderate Depressive episode	5 (0.3%)	0.883	2 (0.3%)	1	0	-	2 (1.5%)	1	0	-	19 (0.08
Severe depressive episode	3 (0.2%)	1	2 (0.3%)	1	0	-	0	-	1 (0.6%)	1	23 (0.09
Severe Depressive episode, psychotic	2 (0.1%)	1	0	-	0	-	0	-	1 (0.6%)	1	30 (0.19
Other Depressive episodes	1 (0.06%)	1	1 (0.1%)	1	0	-	0	-	0	-	2 (0.008
Depressive episode, unspecified	2 (0.1%)	1	0	-	0	-	0	-	1 (0.6%)	1	30 (0.19
Recurrent depressive disorder, current episode mild	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	5 (0.029
Recurrent depressive disorder, current episode moderate	2 (0.1%)	1	0	-	0	-	0	-	1 (0.6%)	1	31 (0.19
Recurrent depressive disorder, unspecified	4 (0.3%)	1	0	-	0	-	0	-	4 (2.6%)	0.005**	37 (0.2
eurotic, stress-related and somatoform disorders											
Specific (isolated) phobias	4 (0.3%)	1	3 (0.4%)	1	0	-	1 (0.7%)	1	0	-	55 (0.29
Other phobic anxiety disorders	1 (0.06%)	1	0	-	1 (0.8%)	0.284	0	-	0	-	2 (0.008
Panic disorder [episodic paroxysmal anxiety]	8 (0.5%)	1	2 (0.3%)	1	1 (0.8%)	1	5 (3.7%)	1	0	-	73 (0.39

Generalised anxiety disorder	2 (0.1%)	1	0	-	0	-	1 (0.7%)	1	1 (0.6%)	1	22 (0.09%)
Mixed Anxiety and Depressive Disorder	12 (0.8%)	1	1 (0.1%)	1	2 (1.5%)	1	5 (3.7%)	1	3 (1.9%)	1	149 (0.6%)
Other specified anxiety disorders	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	1 (0.004%)
Anxiety Disorder, unspecified	44 (2.8%)	0.197	11 (1.4%)	1	5 (3.8%)	1	16 (11.9%)	0.870	12 (7.8%)	7.32x10 ⁻⁴ ***	418 (1.7%)
Obsessive-compulsive disorder, unspecified	2 (0.1%)	1	1 (0.1%)	1	0	-	1 (0.7%)	1	0	-	10 (0.04%)
Acute stress reaction	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	10 (0.04%)
Posttraumatic stress disorder	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	12 (0.05%)
Adjustment Disorder	2 (0.1%)	1	0	-	1 (0.8%)	1	1 (0.7%)	1	0	-	13 (0.05%)
Reaction to severe stress, unspecified	2 (0.1%)	1	0	-	0	-	2 (1.5%)	1	0	-	3 (0.01%)
Dissociative Motor Disorder	3 (0.2%)	1	0	-	0	-	0	-	2 (1.3%)	0.074	8 (0.03%)
Dissociative [conversion] disorder, unspecified	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	6 (0.02%)
Hypochondriacal disorder	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	0.815	2 (0.008%)
Somatoform autonomic dysfunction	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	5 (0.02%)
Other Somatoform Disorder	5 (0.3%)	1	2 (0.3%)	1	0	1	3 (2.2%)	1	0	-	20 (0.08%)
Neurasthenia	1 (0.06%)	1	1 (0.1%)	1	0	-	0	-	0	-	5 (0.02%)
Neurotic disorder, unspecified	1 (0.06%)	1	0	-	1 (0.8%)	0.284	0	-	0		2 (0.008%)
nic, including symptomatic, mental disorders	i										
Dementia in Alzheimer's disease, unspecified	3 (0.2%)	1	0	-	0	-	1 (0.7%)	1	2 (1.3%)	1	41 (0.2%)
Vascular dementia, unspecified	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	18 (0.07%)
Unspecified dementia	4 (0.3%)	1	0	-	3 (2.3%)	0.124	0	-	1 (0.6%)	1	70 (0.3%)
Delirium, unspecified	4 (0.3%)	1	0	-	1 (0.8%)	1	1 (0.7%)	1	2 (1.3%)	1	120 (0.5%)
Mild cognitive disorder	3 (0.2%)	1	2 (0.3%)	1	0	-	1 (0.7%)	1	0	-	20 (0.08%)
tal and behavioural disorders due to psychoa	ctive substance us	е									
Acute intoxication – Alcohol	4 (0.3%)	1	1 (0.1%)	1	0	-	3 (2.2%)	1	0	1	159 (0.6%)
Harmful use - Alcohol	14 (0.9%)	1	4 (0.5%)	1	1 (0.8%)	1	5 (3.7%)	1	4 (2.6%)	1	227 (0.9%)
Dependence syndrome – Alcohol	9 (0.6%)	1	2 (0.3%)	1	1 (0.8%)	1	3 (2.2%)	1	3 (1.9%)	1	118 (0.5%)
Withdrawal state – Alcohol	5 (0.3%)	1	0	-	1 (0.8%)	1	2 (1.5%)	1	2 (1.3%)	1	42 (0.2%)
Withdrawal state with delirium - Alcohol	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	5 (0.02%)
Psychotic disorder due to alcohol use	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	1 (0.004%)
Harmful use - Cannabinoids	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	4 (0.02%)
Dependence syndrome – Hypnotics	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	0.815	2 (0.008%)
Withdrawal state - Hypnotics	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	0.815	2 (0.008%)
Withdrawal state with delirium - hypnotics	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	0.545	1 (0.004%)
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Unspecified mental and behavioural disorder due to hypnotics use	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	1 (0.004%
Acute intoxication - Tobacco	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	1 (0.004%
Harmful use – Tobacco	79 (5.0%)	0.526	26 (3.4%)	1	9 (6.7%)	1	27 (20.1%)	1	17 (11.0%)	0.003 **	903 (3.7%
Dependence syndrome - Tobacco	4 (0.3%)	1	1 (0.1%)	1	1 (0.8%)	1	1 (0.7%)	1	1 (0.6%)	1	52 (0.2%)
Unspecified mental and behavioural	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	0.545	1 (0.004%
disorder due to tobacco use											
Behavioural syndromes associated with physiolog	ical disturbances (and physical fa	ctors								
Anorexia nervosa	1 (0.06%)	1	1 (0.1%)	1	0	-	0	=.	0	-	6 (0.02%)
Bulimia nervosa	1 (0.06%)	1	0	-	0	-	1 (0.7%)	1	0	-	1 (0.004%
Failure of genital response	2 (0.1%)	1	0	-	1 (0.8%)	1	1 (0.7%)	1	0	-	20 (0.08%
Unspecified sexual dysfunction, not caused by organic disorder or disease	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	0.545	1 (0.004%
Disorders of adult personality and behaviour											
Emotionally unstable personality disorder	2 (0.1%)	1	0	-	0	-	0	-	2 (1.3%)	0.298	18
Anxious [avoidant] personality disorder	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	0.545	1 (0.004%
Personality disorder, unspecified	1 (0.06%)	1	0	-	0	-	0	-	1 (0.6%)	1	20 (0.08%
Disorders of psychological development											
Asperger's syndrome	2 (0.1%)	1	0	-	2 (1.5%)	0.003**	0	-	0	-	2 (0.008%
Other behavioural and emotional disorders with o	nset usually occu	rring in childho	ood and adolescence	9							
Stuttering [stammering]	2 (0.1%)	0.725	0	-	0	-	0	-	2 (1.3%)	0.005**	1 (0.004%
Unspecified mental disorder											
Mental disorder, not otherwise specified	2 (0.1%)	1	0	-	1 (0.8%)	1	0	-	1 (0.6%)	1	10 (0.04%

Legend: P-values are all vs control and are represented as post Bonferroni correction for multiple comparisons, *p<0.05; **p<0.001; ***p<0.001. ICD-10: International Classification of Diseases.