

### 3.3 EUROCAT Subgroups of Congenital Anomalies (Version 2014; implemented in EDMP December 2014, used for website prevalence tables from December 2014).

Guide 1.4 is used to code all cases of congenital anomaly and uses ICD10-BPA codes only. The ICD9-BPA codes and the minor anomalies pre-2005 are provided for retrospectively making subgroups pre-2005 when this coding system was used.

EUROCAT Subgroups	ICD10-BPA	ICD9-BPA	Comments	Excluded minor anomalies post-2005	Excluded minor anomalies pre-2005	Subgroup binary variable number (al)
<b>All anomalies *</b>	Q-chapter, D215, D821, D1810*, P350, P351, P371	74, 75, 27910, 2281*, 76076, 76280, 7710, 7711, 77121		Exclude all minor anomalies as specified in Guide 1.4, section 3.2	Exclude all minor anomalies as specified in Guide 1.2 (ICD9 and ICD10)	al1
<b>Nervous system</b>	Q00, Q01, Q02, Q03, Q04, Q05, Q06, Q07	740, 741, 742		Q0461, Q0782		al2
Neural Tube Defects	Q00, Q01, Q05	740, 741, 7420				al3
Anencephalus and similar	Q00	740				al4
Encephalocele	Q01	7420	Exclude if associated with anencephalus subgroup			al5
Spina Bifida	Q05	741	Exclude if associated with anencephalus or encephalocele subgroups			al6
Hydrocephalus	Q03	7423	Exclude hydranencephaly 74232. Exclude association with NTD subgroup			al7
Microcephaly	Q02	7421	Exclude association with NTD subgroup			al8
Arhinencephaly / holoprosencephaly	Q041, Q042	74226				al9
<b>Eye</b>	Q10-Q15	743		Q101-Q103, Q105, Q135	74365	al10
Anophthalmos / microphthalmos	Q110, Q111, Q112	7430, 7431				al11
Anophthalmos	Q110, Q111	7430				al12
Congenital cataract	Q120	74332				al13
Congenital glaucoma	Q150	74320				al14
<b>Ear, face and neck</b>	Q16, Q17, Q18	744		Q170-Q175, Q179, Q180-Q182, Q184-Q187, Q1880, Q189	74411, 74412, 7443, 74491	al15
Anotia	Q160	74401				al16

EUROCAT Subgroups	ICD10-BPA	ICD9-BPA	Comments	Excluded minor anomalies post-2005	Excluded minor anomalies pre-2005	Subgroup binary variable number (al)
<b>Congenital Heart Defects</b>	Q20-Q26	745, 746, 7470-7474	Exclude PDA with GA <37 weeks Exclude peripheral pulmonary artery stenosis with GA < 37 weeks	Q2111, Q250 if GA <37 weeks, Q2541, Q256 if GA<37 weeks, Q261	Q250, 7470 if GA <37 weeks **	al17
Severe CHD	Q200, Q201, Q203, Q204, Q212, Q213, Q220, Q224, Q225, Q226, Q230, Q232, Q233, Q234, Q251, Q252, Q262	74500, 74510, 7452, 7453, 7456, 7461, 7462, 74600, 7463, 7465, 7466, 7467, 7471, 74720, 74742	ICD9-BPA has no code for HRH and double outlet right ventricle			al97
Common arterial truncus	Q200	74500				al18
Double outlet right ventricle	Q201	No code				al109
Transposition of great vessels	Q203	74510				al19
Single ventricle	Q204	7453				al20
VSD	Q210	7454				al21
ASD	Q211	7455		Q2111		al22
AVSD	Q212	7456				al23
Tetralogy of Fallot	Q213	7452				al24
Tricuspid atresia and stenosis	Q224	7461				al25
Ebstein's anomaly	Q225	7462				al26
Pulmonary valve stenosis	Q221	74601				al27
Pulmonary valve atresia	Q220	74600				al28
Aortic valve atresia/stenosis	Q230	7463	ICD9-BPA has no code for atresia			al29
Mitral valve anomalies	Q232, Q233	7465, 7466				al110
Hypoplastic left heart	Q234	7467				al30
Hypoplastic right heart	Q226	No code				al31
Coarctation of aorta	Q251	7471				al32
Aortic atresia / interrupted aortic arch	Q252	74720				al111
Total anomalous pulm venous return	Q262	74742				al33
PDA as <b>only</b> CHD in term infants (GA +37 weeks)	Q250	7470	Livebirths only			al100
<b>Respiratory</b>	Q300, Q32-Q34	7480, 7484, 74850, 74852, 74858, 7486, 7488	Exclude Q336	Q314, Q315, Q320, Q331	Q309, 74819	al34
Choanal atresia	Q300	7480				al35
Cystic adenomatous malf of lung	Q3380	No code				al36

EUROCAT Subgroups	ICD10-BPA	ICD9-BPA	Comments	Excluded minor anomalies post-2005	Excluded minor anomalies pre-2005	Subgroup binary variable number (al)
<b>Oro-facial clefts</b>	Q35-Q37	7490, 7491, 7492	Exclude association with holoprosencephaly or anencephaly subgroups			al101
Cleft lip with or without cleft palate	Q36, Q37	7491, 7492	Exclude association with holoprosencephaly or anencephaly subgroups			al102
Cleft palate	Q35	7490	Exclude association with cleft lip subgroup. Exclude association with holoprosencephaly or anencephaly subgroups			al103
<b>Digestive system</b>	Q38-Q45, Q790	750, 751, 7566		Exclude Q381, Q382, Q3850, Q400, Q401, Q4021, Q430, Q4320, Q4381, Q4382	Q381, Q401, 7500, 7506	al40
Oesophageal atresia with or without trachea-oesophageal fistula	Q390-Q391	75030-75031				al41
Duodenal atresia or stenosis	Q410	75110	Exclude if also annular pancreas subgroup			al42
Atresia or stenosis of other parts of small intestine	Q411-Q418	75111-75112				al43
Ano-rectal atresia and stenosis	Q420-Q423	75121-75124				al44
Hirschsprung's disease	Q431	75130-75133				al45
Atresia of bile ducts	Q442	75165				al46
Annular pancreas	Q451	75172				al47
Diaphragmatic hernia	Q790	75661				al48
<b>Abdominal wall defects</b>	Q792, Q793, Q795	75671, 75670, 75679				al49
Gastroschisis	Q793	75671				al50
Omphalocele	Q792	75670				al51
<b>Urinary</b>	Q60-Q64, Q794	75261, 753, 75672		Q610, Q627, Q633		al52
<i>Bilateral renal agenesis including Potter syndrome</i>	Q601, Q606	75300	Exclude unilateral			al53
Multicystic renal dysplasia	Q6140, Q6141	75316				al54
Congenital hydronephrosis	Q620	75320				al55
Bladder exstrophy and / or epispadia	Q640, Q641	75261, 7535				al56
Posterior urethral valve and / or prune belly	Q6420, Q794	75360, 75672				al57

<b>EUROCAT Subgroups</b>	<b>ICD10-BPA</b>	<b>ICD9-BPA</b>	<b>Comments</b>	<b>Excluded minor anomalies post-2005</b>	<b>Excluded minor anomalies pre-2005</b>	<b>Subgroup binary variable number (al)</b>
<b>Genital</b>	Q50-Q52, Q54-Q56	7520-7524, 75260, 75262, 7527-7529		Q523, Q525, Q527, Q5520, Q5521	Q540, 75260#	al58
Hypospadias	Q54	75260			Q540, 75260	al59
Indeterminate sex	Q56	7527				al60
<b>Limb</b>	Q65-Q74	7543-7548, 755		Q653-Q656, Q662-Q669, Q670-Q678, Q680, Q6810, Q6821, Q683- Q685, Q7400	75432, 75452, 75460, 75473, 75481, 75560	al61
Limb reduction defects	Q71-Q73	7552-7554				al62
Club foot – talipes equinovarus	Q660	75450				al66
Hip dislocation and / or dysplasia	Q650-Q652, Q6580, Q6581	75430				al67
Polydactyly	Q69	7550				al68
Syndactyly	Q70	7551				al69
<b>Other anomalies / syndromes</b>						
Skeletal dysplasias	Q7402, Q77, Q7800, Q782-Q788,	No code				al104
Craniosynostosis	Q750	75600				al75
Congenital constriction bands / amniotic band	Q7980	76280				al76
Situs inversus	Q893	7593				al79
Conjoined twins	Q894	7594				al80
Congenital skin disorders	Q80-Q82	7571, 7573		Q825, Q8280	Q825, Q8280, Q8281, 75731, 75738	al81
VATER/VACTERL	Q8726	759895				al112
Vascular disruption anomalies	Q0435, Q411, Q412, Q418, Q710, Q712, Q713, Q720, Q722, Q723, Q730, Q793, Q795, Q7980, Q7982, Q8706	No code				al113
Laterality anomalies	Q206, Q240, Q3381, Q890, Q893	No code				al114
Teratogenic syndromes with malformations	Q86, P350, P351, P371	No code				al82
Fetal alcohol syndrome	Q860	76076				al83
Valproate syndrome	Q8680	No code				al84
Maternal infections resulting in malformations	P350, P351, P371	7710, 7711, 77121				al86

EUROCAT Subgroups	ICD10-BPA	ICD9-BPA	Comments	Excluded minor anomalies post-2005	Excluded minor anomalies pre-2005	Subgroup binary variable number (al)
Genetic syndromes + microdeletions	Q4471, Q6190, Q7484, Q751, Q754, Q7581, Q87, Q936, D821	75581, 75601, 75604, 7598, 27910	Exclude Associations and sequences Exclude Q8703, Q8704, Q8706, Q8708, Q8724, Q8726 Exclude 759801, 759844, 759895			al105
<b>Chromosomal</b>	Q90-Q92, Q93, Q96-Q99	7580-7583, 7585-7589	Exclude microdeletions Q936			al88
Down syndrome	Q90	7580				al89
Patau syndrome / trisomy 13	Q914-Q917	7581				al90
Edwards syndrome / trisomy 18	Q910-Q913	7582				al91
Turner syndrome	Q96	75860, 75861, 75862, 75869				al92
Klinefelter syndrome	Q980-Q984	7587				al93

\* All Anomalies = ALL cases of congenital anomaly, excluding cases with only minor anomalies as defined in Section 3.2 in Guide 1.4 for cases born post-2005. Cases with more than one anomaly are only counted once in the "All Anomalies" subgroup.

^ ICD10 code D1810 (ICD 9 code 2281) is the code for cystic hygroma

\*\* The additional PDA exclusion (<2500 grams) listed in Guide 1.2 is not applied

# The ICD9 code for hypospadias did not differentiate between the different types of hypospadias therefore minor cases of hypospadias (glandular I) are excluded at local registry level