

APPENDIX J - PERINATAL MORTALITY CLASSIFICATIONS – QUICK REFERENCE SHEET

PSANZ-PDC

1 Congenital Anomaly

- 1.1 Structural anomaly
 - 1.11 Nervous system
 - 1.12 Cardiovascular system
 - 1.13 Genitourinary system
 - 1.14 Gastrointestinal system
 - 1.15 Musculoskeletal
 - 1.151 Congenital diaphragmatic hernia
 - 1.152 Gastroschisis/omphalocele
 - 1.16 Respiratory system (include congenital pulmonary airway malformation (CPAM))
 - 1.17 Haematological
 - 1.18 Multiple Congenital anomaly (no chromosomal/genetic cause or not tested)
 - 1.19 Other congenital abnormality
 - 1.192 Idiopathic hydrops fetalis
 - 1.193 Fetal tumour (include sacro-coccygeal teratoma)
 - 1.198 Other specified
 - 1.199 Congenital anomaly, unspecified
- 1.2 Chromosomal anomaly
 - 1.21 Down syndrome (trisomy 21)
 - 1.22 Edward syndrome and Patau syndrome (trisomy 18, trisomy 13)
 - 1.23 Other trisomies and partial trisomies of the autosomes, not elsewhere classified (includes pathogenic duplications, unbalanced translocations and insertions)
 - 1.24 Monosomies and deletions from the autosomes, not elsewhere classified (includes pathogenic deletions e.g. 22q11.2 deletion syndrome (diGeorge syndrome), Wolff-Hirschorn syndrome, Cri-du-chat syndrome)
 - 1.25 Turner syndrome (monosomy X)
 - 1.26 Other sex chromosome abnormalities (e.g. Klinefelter syndrome)
 - 1.28 Other chromosomal abnormalities, not elsewhere specified (includes Fragile X syndrome, imprinting syndromes, triploidy)
 - 1.29 Unspecified
- 1.3 Genetic anomaly
 - 1.31 Genetic condition, specified (e.g. Tay-Sachs disease; includes inborn errors of metabolism)
 - 1.32 Syndrome/association with demonstrated chromosomal/gene anomaly.
 - 1.39 Genetic condition, unspecified

2 Perinatal Infection

- 2.1 Bacterial
 - 2.11 Group B Streptococcus
 - 2.12 E coli
 - 2.13 Listeria monocytogenes
 - 2.14 Spirochaeta e.g. Syphilis
 - 2.18 Other bacterial
 - 2.19 Unspecified bacterial
- 2.2 Viral
 - 2.21 Cytomegalovirus
 - 2.22 Parvovirus
 - 2.23 Herpes simplex virus
 - 2.24 Rubella virus
 - 2.25 Zika virus
 - 2.28 Other viral
 - 2.29 Unspecified viral
- 2.3 Protozoal e.g. Toxoplasma
- 2.5 Fungal
- 2.8 Other specified organism
- 2.9 Other unspecified organism

3 Hypertension

- 3.1 Chronic hypertension: essential

- 3.2 Chronic hypertension: secondary, e.g. renal disease
- 3.3 Chronic hypertension: unspecified
- 3.4 Gestational hypertension
- 3.5 Pre-eclampsia
- 3.6 Pre-eclampsia superimposed on chronic hypertension
- 3.9 Unspecified hypertension

4 Antepartum Haemorrhage (APH)

- 4.1 Placental abruption
- 4.2 Placenta praevia
- 4.3 Vasa praevia
- 4.9 APH of undetermined origin

5 Maternal Conditions

- 5.1 Termination of pregnancy for maternal psychosocial indications
- 5.2 Diabetes
 - 5.21 Gestational diabetes
 - 5.22 Pre-existing diabetes
- 5.3 Maternal injury
 - 5.31 Accidental
 - 5.32 Non-accidental
- 5.4 Maternal sepsis
- 5.5 Antiphospholipid syndrome
- 5.6 Obstetric cholestasis
- 5.8 Other specified maternal conditions
 - 5.31 Maternal suicide
 - 5.32 Other specified maternal medical or surgical conditions

6 Complications of multiple pregnancy

- 6.1 Monochorionic twins
 - 6.11 Twin to twin transfusion syndrome (TTTS)
 - 6.12 Selective fetal growth restriction (FGR) (i.e. affecting only one twin)
 - 6.13 Monoamniotic twins (including cord entanglement)
 - 6.18 Other
 - 6.19 Unknown or unspecified
- 6.2 Dichorionic twins
 - 6.21 Early fetal death in a multiple pregnancy (<20 weeks gestation)
 - 6.22 Selective fetal growth restriction (FGR)
 - 6.28 Other
 - 6.29 Unknown or unspecified
- 6.3 Complications of higher order multiples (3 or more fetuses)
 - 6.31 Twin to twin transfusion syndrome (TTTS)
 - 6.32 Selective fetal growth restriction (FGR)
 - 6.33 Monoamniotic multiples (including cord entanglement)
 - 6.34 Early fetal death in a multiple pregnancy (<20 weeks gestation)
 - 6.38 Other
 - 6.39 Unknown or unspecified
- 6.4 Complications where chorionicity is unknown
- 6.8 Other
- 6.9 Unspecified

7 Specific perinatal conditions

- 7.1 Fetomaternal haemorrhage
- 7.2 Antepartum cord or fetal vessel complications (excludes monochorionic twins or higher order multiples)
 - 7.21 Cord vessel haemorrhage
 - 7.22 Cord occlusion (True knot with evidence of occlusion or other)
 - 7.28 Other cord complications
 - 7.29 Unspecified cord complications
- 7.3 Uterine abnormalities
 - 7.31 Developmental anatomical abnormalities (e.g. bicornuate uterus)
 - 7.38 Other
 - 7.39 Unspecified
- 7.4 Alloimmune disease
 - 7.41 Rhesus isoimmunisation
 - 7.42 Other red cell antibody

- 7.43 Alloimmune thrombocytopenia
- 7.48 Other
- 7.49 Unspecified
- 7.5 Fetal antenatal intracranial injury
 - 7.51 Subdural haematoma
 - 7.52 Fetal antenatal ischaemic brain injury
 - 7.53 Fetal antenatal haemorrhagic brain injury
- 7.6 Other specific perinatal conditions
 - 7.61 Complications of antenatal, diagnostic or therapeutic procedures:
 - 7.611 Complications of prenatal diagnostic procedures (e.g. amniocentesis, chorionic villus sampling,) (e.g. rupture of membranes after amniocentesis)
 - 7.612 Complications of fetal ultrasound guided needle interventions (e.g. FBS/fetal transfusion, thoracocentesis, vesicocentesis, fetal cardiac valvoplasty, division of amniotic bands, fetal skin biopsy, unipolar/bipolar diathermy, RFA procedures)
 - 7.613 Complications of fetal shunt interventions (e.g. pleuroamniotic shunt, vesicoamniotic shunt)
 - 7.614 Complications of minimally invasive fetoscopic interventions (e.g. fetoscopic laser surgery for TTTS, FETO for CDH, laser ablation of posterior urethral valves)
 - 7.615 Complications of open maternal fetal surgery (e.g. open maternal fetal surgery for spina bifida)
 - 7.618 Other
 - 7.62 Termination of pregnancy for suspected but unconfirmed congenital anomaly.
 - 7.63 Amniotic band
 - 7.68 Other
- 7.9 Unspecified

8 Hypoxic peripartum death

- 8.1 With intrapartum complications (sentinel events)
 - 8.11 Uterine rupture
 - 8.12 Cord prolapse
 - 8.13 Shoulder dystocia
 - 8.14 Complications of breech presentation
 - 8.15 Birth trauma
 - 8.16 Intrapartum haemorrhage
 - 8.18 Other
- 8.2 Evidence of significant fetal compromise (excluding other complications)
- 8.3 No intrapartum complications recognised and no evidence of significant fetal compromise identified
- 8.9 Unspecified hypoxic peripartum death

9 Placental dysfunction or causative placental pathology

- 9.1 Maternal vascular malperfusion
- 9.2 Fetal vascular malperfusion
- 9.3 High grade villitis of unknown etiology (VUE)
- 9.4 Massive perivillous fibrin deposition/maternal floor infarction
- 9.5 Severe chronic intervillitis (Histiocytic intervillitis)
- 9.6 Placental hypoplasia
- 9.7 No causal placental pathology demonstrated, with antenatal evidence of poor placental function identified (such as abnormal fetal umbilical artery Doppler)
- 9.8 Placental pathological examination was not performed, with antenatal evidence of poor placental function identified (such as abnormal fetal umbilical artery Doppler)
- 9.9 Other placental pathology (e.g. multiple pathologies with evidence of loss of placental function leading to death)

10 Spontaneous preterm labour or rupture of membranes (<37 weeks gestation)

- 10.1 Spontaneous preterm
 - 10.11 With histological chorioamnionitis
 - 10.12 Without histological chorioamnionitis
 - 10.13 With clinical evidence of chorioamnionitis, no examination of placenta
 - 10.17 No clinical signs of chorioamnionitis, no examination of placenta
 - 10.19 Unspecified or not known whether placenta examined

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10.2 Spontaneous preterm preceded by premature cervical shortening

11 Unexplained antepartum fetal death

- 11.1 Unexplained antepartum fetal death despite full investigation
- 11.2 Unclassifiable antepartum fetal death with incomplete investigation
- 11.3 Unclassifiable antepartum fetal death due to unknown level of investigation

12 Neonatal death without obstetric antecedent

- 12.1 Neonatal death with no obstetric antecedent factors despite full investigation
- 12.2 Neonatal death unclassifiable as to obstetric antecedent with incomplete investigation
- 12.3 Neonatal death unclassifiable as to obstetric antecedent due to unknown level of investigation

PSANZ-NDC

1 Congenital Anomaly (Please refer to PSANZ PDC)

2 Periviable infants (typically <24 weeks)

- 2.1 Not resuscitated (including infants where there is an antenatal plan for no resuscitation at birth or in the circumstance of re-directed care)
- 2.2 Unsuccessful resuscitation
- 2.9 Unspecified or not known whether resuscitation attempted

3 Cardio-respiratory disorders

- 3.1 Hyaline membrane disease / Respiratory distress syndrome (RDS)
- 3.2 Meconium aspiration syndrome
- 3.3 Primary persistent pulmonary hypertension
- 3.4 Pulmonary hypoplasia
- 3.5 Pulmonary haemorrhage
- 3.6 Air leak syndromes
 - 3.61 Pneumothorax
 - 3.62 Pulmonary interstitial emphysema
 - 3.68 Other
- 3.7 Patent ductus arteriosus
- 3.8 Chronic neonatal lung disease (typically, bronchopulmonary dysplasia)
- 3.9 Other
 - 3.91 Neonatal anaemia/hypovolaemia

4 Neonatal infection

- 4.1 Congenital/Perinatal bacterial infection (early onset<48 hrs)
 - 4.11 Blood stream infection/septicaemia
 - 4.111 Positive culture of a pathogen
 - 4.112 Clinical signs of sepsis + ancillary evidence but culture negative
 - 4.12 Bacterial meningitis
 - 4.13 Bacterial pneumonia
 - 4.15 Multiple site bacterial infection
 - 4.18 Other congenital bacterial infection e.g. gastroenteritis, osteomyelitis, cerebral abscess
 - 4.19 Unspecified congenital infection
- 4.2 Congenital/Perinatal viral infection
- 4.3 Congenital fungal, protozoan, parasitic infection
- 4.4 Acquired bacterial infection (late onset>48hrs).
 - 4.41 Blood stream infection/septicaemia
 - 4.411 Positive culture of a pathogen
 - 4.412 Clinical signs of sepsis + ancillary evidence but culture negative
 - 4.42 Bacterial meningitis
 - 4.43 Bacterial pneumonia
 - 4.48 Other acquired bacterial infection e.g. gastroenteritis, osteomyelitis
 - 4.49 Unspecified acquired infection
- 4.5 Acquired viral infection
- 4.6 Acquired fungal, protozoan, parasitic infection

5 Neurological

- 5.1 Hypoxic ischaemic encephalopathy/Perinatal asphyxia
- 5.2 Cranial haemorrhage
 - 5.21 Intraventricular Haemorrhage
 - 5.22 Subgaleal Haemorrhage
 - 5.23 Subarachnoid Haemorrhage
 - 5.24 Subdural Haemorrhage
 - 5.28 Other intracranial haemorrhage
- 5.3 Post haemorrhagic hydrocephalus
- 5.4 Periventricular leukomalacia
- 5.8 Other

6 Gastrointestinal

- 6.1 Necrotising enterocolitis (NEC)
- 6.2 Short gut syndrome
- 6.3 Gastric or intestinal perforation (excluding NEC)
- 6.4 Gastrointestinal haemorrhage
- 6.8 Other

7 Other

- 7.1 Sudden unexpected death in infancy (SUDI)
 - 7.11 Sudden Infant Death Syndrome (SIDS)
 - 7.112 SIDS Category IA: Classic features of SIDS present and completely documented.
 - 7.113 SIDS Category IB: Classic features of SIDS present but incompletely documented.
 - 7.114 SIDS Category II: Infant deaths that meet category I except for one or more features.
 - 7.12 Unclassified Sudden Infant Death in the neonatal period
 - 7.121 Bed sharing
 - 7.122 Not bed sharing
 - 7.19 Unknown/Undetermined
- 7.2 Multisystem failure
 - 7.21 Secondary to intrauterine growth restriction
 - 7.28 Other specified
 - 7.29 Unspecified/undetermined primary cause or trigger event
- 7.3 Trauma
 - 7.31 Accidental
 - 7.32 Non accidental
 - 7.39 Unspecified
- 7.4 Treatment complications
 - 7.41 Surgical
 - 7.42 Medical
- 7.5 Unsuccessful resuscitation in infants of 28 weeks gestation or more without an obvious sentinel event
- 7.8 Other specified

PSANZ ASSOCIATED CONDITIONS

Associated conditions for both stillbirths and neonatal deaths

Categories 1 -11 PSANZ PDC

13 Genetic testing results not diagnostic

- 13.1 Copy number variant of unknown or uncertain significance
- 13.2 No mutation identified matching phenotype
- 13.3 Tested for genetic mutations but failed
- 13.4 Not tested or not known if tested for genetic mutations

14 Associated placental pathology

- 14.1 Delayed villous maturation
- 14.2 Large chorioangioma
- 14.3 Early bleeding often leading to preterm prelabour ROM
- 14.8 Other associated placental pathology

15 Associated cord pathology

- 15.1 True knot (excluding histological evidence of causation)

- 15.2 Hypercoiled cord
- 15.3 Tethered cord
- 15.4 Velamentous insertion
- 15.8 Other cord associated cord pathology

16 Fetal Growth Restriction

- 16.1 Autopsy evidence (brain:liver ratio equal to or greater than 4:1)
- 16.2 Antenatal ultrasound evidence of FGR
- 16.3 Clinical examination of the baby (by paediatrician, pathologist)
- 16.4 Birthweight (less than 10th centile for gestational age)
 - 16.41 Customised centiles
 - 16.42 Population centiles

17 Maternal risk factors (optional category)

- 17.1 Smoking
- 17.2 Substance use
- 17.3 High BMI
- 17.4 Maternal mental health disorder
- 17.5 Socioeconomic deprivation
- 17.6 Refugee or asylum seeker

Associated conditions for neonatal deaths only

NDC Categories 1- 6

In addition to the above for associated maternal/fetal conditions the NDC Categories 1- 6 can be used to assign associated neonatal conditions