

PSANZ-PDC and PSANZ-NDC Classification 2018 (PSANZ Classification System for Stillbirths and Neonatal Deaths - <https://psanz.com.au/guidelines>)

PSANZ-PDC Classification

(Complete for all Perinatal Deaths)

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 anomaly
 - 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-Hirschhorn 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

- 1.29 Unspecified
- 1.3 Genetic condition
 - 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 Spirochaetal 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 or no organism identified

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

- 5.81 Maternal suicide
- 5.88 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 Rupture of membranes after amniocentesis
- 7.62 Termination of pregnancy for suspected but unconfirmed congenital anomaly.
- 7.63 Amniotic band
- 7.68 Other

7.8 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)

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- 8.3 No intrapartum complications 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 (small for gestation placenta)
 - 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 was 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
 - 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 Classification (Complete for all Neonatal Deaths)

- 1 Congenital anomaly (Refer to PDC)**
- 2 Periviable infants (typically <24 weeks)**
 - 2.1 Not resuscitated (including infants where there is an antenatal plan for no resuscitation at birth)
 - 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
 - 3.7.1 Pneumothorax
 - 3.7.2 Pulmonary interstitial emphysema
 - 3.7.3 Other
 - 3.7 Patent ductus arteriosus
 - 3.8 Chronic neonatal lung disease (typically, bronchopulmonary dysplasia)
 - 3.9 Other
 - 3.9.1 Neonatal anaemia/hypovolaemia
- 4 Neonatal infection**
 - 4.1 Congenital/Perinatal bacterial infection** (early onset<48 hrs)
 - 4.1.1 Blood stream infection/septicaemia
 - 4.1.1.1 Positive culture of a pathogen
 - 4.1.1.2 Clinical signs of sepsis + ancillary evidence but culture negative
 - 4.1.2 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].
 - 4.4.1 Blood stream infection/septicaemia
 - 4.4.1.1 Positive culture of a pathogen
 - 4.4.1.2 Clinical signs of sepsis + ancillary evidence but culture negative
 - 4.4.2 Bacterial meningitis
 - 4.4.3 Bacterial pneumonia
 - 4.4.8 Other acquired bacterial infection e.g. gastroenteritis, osteomyelitis
 - 4.4.9 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**
 - 5.2.1 Intraventricular Haemorrhage
 - 5.2.2 Subgaleal Haemorrhage
 - 5.2.3 Subarachnoid Haemorrhage
 - 5.2.4 Subdural Haemorrhage
 - 5.2.8 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)**
 - 7.1.1 Sudden Infant Death Syndrome (SIDS)**
 - 7.1.1.2 SIDS Category IA: Classic features of SIDS present and completely documented.
 - 7.1.1.3 SIDS Category IB: Classic features of SIDS present but incompletely documented.
 - 7.1.1.4 SIDS Category II: Infant deaths that meet category I except for one or more features.
 - 7.1.3 Unclassified Sudden Infant Death in the neonatal period**
 - 7.1.3.1 Bed sharing/unsafe sleep
 - 7.1.3.2 Not bed sharing
 - 7.1.9 Unknown/Undetermined
 - 7.2 Multisystem failure**
 - 7.2.1 Secondary to intrauterine growth restriction
 - 7.2.8 Other specified
 - 7.2.9 Unspecified/undetermined primary cause or trigger event
 - 7.3 Trauma**
 - 7.3.1 Accidental
 - 7.3.2 Non accidental
 - 7.3.9 Unspecified
 - 7.4 Treatment complications**
 - 7.4.1 Surgical
 - 7.4.2 Medical
 - 7.5 Unsuccessful resuscitation in infants of 28 weeks gestation or more without an obvious sentinel event
 - 7.8 Other specified