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Major revisions for 2014

New data items

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<thead>
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<th>Code</th>
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<tr>
<td>CPAP</td>
<td>Nasal CPAP</td>
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<tr>
<td>MV</td>
<td>Ongoing mechanical ventilation</td>
</tr>
<tr>
<td>BWtg</td>
<td>Baby regained birth weight</td>
</tr>
<tr>
<td>Left_IVH</td>
<td>Maximum grade of left sided periventricular haemorrhage</td>
</tr>
<tr>
<td>Right_IVH</td>
<td>Maximum grade of right sided periventricular haemorrhage</td>
</tr>
<tr>
<td>CerebellarHaem</td>
<td>Cerebellar haemorrhage</td>
</tr>
<tr>
<td>VentricleSize</td>
<td>Ventricle size</td>
</tr>
<tr>
<td>Left_Cysts</td>
<td>Cerebral cysts (left)</td>
</tr>
<tr>
<td>Right_Cysts</td>
<td>Cerebral cysts (right)</td>
</tr>
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</table>

Modified data items

<table>
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<tr>
<td>LastRespSupp</td>
<td>Date of final added respiratory support (oxygen therapy or airway support)</td>
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<tr>
<td>USd6wk</td>
<td>Date of late head ultrasound</td>
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Discontinued data items

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<th>Description</th>
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<tr>
<td>IVH</td>
<td>Maximum grade of intraventricular haemorrhage</td>
</tr>
<tr>
<td>Ventricles</td>
<td>Ventricle size</td>
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<tr>
<td>VI6wk</td>
<td>Ventricular index</td>
</tr>
<tr>
<td>Cysts</td>
<td>Cerebral cystic formations</td>
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</table>
2014 Data Dictionary
Registration criteria for high-risk neonates

**Admin. status:** CURRENT 01/01/1994

**Identifying and definitional attributes**

**Knowledgebase ID:** Version number: 1

**Data element type:** DATA ELEMENT CONCEPT

**Definition:** All live born babies who are admitted to a participating hospital during the first 28 days of life, or who are transferred from a labour ward with the intention of admission to the unit who are also:

- Born at less than 32 completed weeks' gestation, or
- Less than 1500 grams birth weight, or
- Receive assisted ventilation (intermittent positive pressure ventilation or continuous positive airways pressure or high flow) for four or more consecutive hours (or die while ventilated) or
- Receive major surgery or
- Receive therapeutic hypothermia

**Context:** High-risk babies admitted for intensive care.

**Guide for use:** This applies only to the first hospitalisation of the baby. If the baby is born at home, the first hospitalisation commences on admission to hospital for the first time.

*The ANZNN cohort year is based on date of birth, not date of admission.*

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection
Registration hospital

Admin. status: CURRENT 01/01/1998

Identifying and definitional attributes

Knowledgebase ID: Version number: 2

Data element type: DATA ELEMENT

Definition: The hospital of registration for a baby is the first level III neonatal intensive care unit that the baby remained in for four or more hours during the first 28 days of life.

Context: High-risk babies admitted for intensive care.

Relational and representational attributes

Data type: Character  Field size: Min. 2  Max. 8  Layout: CCCCCCCC

Data Domain: Characters representing the registration hospital code.

Guide for use: Babies who received their entire care in a level II hospital or who were not transferred to a level III neonatal intensive care unit during the first 28 days of life are registered to the first level II centre that they remained in for 4 or more hours.

If baby is transferred, she/he is considered to be in the next hospital from the time that the specialist retrieval team (NETS) arrives to collect her/him.

If a baby is transferred from one level III hospital to another level III hospital and NETS arrives at or before 4 hours, then the baby belongs to the second level III hospital. Both hospitals should not provide data to the ANZNN. If there is any uncertainty, audit officers should contact the other hospital to clarify the situation.

If the baby dies within four hours, she/he is registered to unit where she/he dies.

Related metadata:

Supersedes previous registration hospital given in ‘definitions 01/01/1994’

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

Comments: This information is coded. Release of information governed by Confidentiality Guidelines.

ANZNN label — ‘Hospital’
Maternal age

**Admin. status:** CURRENT 1/01/1994

**Identifying and definitional attributes**

**Knowledgebase ID:**

**Version number:** 1

**Metadata type:** DERIVED DATA ELEMENT

**Definition:** Age in completed years of the woman giving birth on the date of the baby's birth.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric

**Field size:** Min. 2 Max. 2

**Layout:** NN

**Data domain:** Number representing the number of completed years,

- 0 - not stated, unknown

**Verification rules:** Must be ≥ 10 and ≤ 60

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘MoAge’**
Previous preterm birth

Admin. status: CURRENT 1/01/1994

Identifying and definitional attributes

Knowledgebase ID:          Version number: 1

Metadata type: DATA ELEMENT

Definition: This mother has had a previous birth that was at less than 37 completed weeks gestation and more than 20 completed weeks, regardless of outcomes.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric          Field size: Min. 1 Max. 2 Layout: NN

Data domain:

0  No previous preterm birth
-1  Yes, there was a previous preterm birth
  99  Unknown

Administrative attributes

Source organisation: ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Unit’s Data Collection.

ANZNN label — ‘Prevprem’
Previous perinatal death

Admin. status: CURRENT 1/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: This mother has had a previous perinatal loss. A perinatal loss is when a baby with a birth weight of more than 400 grams or a gestational age of greater than 20 completed weeks died during the first 28 days of life.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:

0 No previous perinatal death
-1 Yes, has had a previous perinatal death
99 Unknown

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘PrevPnd’
Assisted conception in this pregnancy

**Admin. status:** CURRENT 1/01/1994

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Date element type:** DATA ELEMENT

**Definition:** Type of infertility treatment, if any used during the conception or used to conceive this pregnancy.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 1  
**Layout:** N

**Data domain:**

0  **Unknown** – information not available.
1  **None** – no infertility treatment used for this pregnancy.
2  **Hyperovulation** – any hormone therapy used to stimulate ovulation.
3  **IVF/GIFT etc.** – any method of in-vitro fertilisation. Includes in-vitro fertilisation, gamete intra- fallopian transfer, zygote intra fallopian transfer, etc.
4  **Other** – other infertility treatment not mentioned above, including artificial insemination.

**Guide for use:** Disregard any treatment for a previous pregnancy.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘AssistConc’
Ethnicity of mother

Admin. status: CURRENT 1/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Ethnic origin of the mother of the baby, as identified by the mother.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 1  Layout: N

Data domain:

0 Unknown – information not available

1 Aboriginal – a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which she lives. If yes, must answer ‘Indigenous Status’

2 Asian – all whose ethnic background originates from the countries of Asia, South East Asia and Indian subcontinent. For example, Fijian Indian

3 Caucasian – all of Caucasoid heritage, including European, Russian, Middle Eastern and Arabic.

4 Other – includes African Negroes, American Blacks and Indians and Inuit. There is a separate category for Pacific Islander and Maori.

5 Pacific Islander – all from Pacific Islander background, including Samoan, Cook Islands Maori, Niuean, Tokelauan, and other Pacific Islands groups e.g., Hawaiian, Tahitian. Excludes Maori.

6 Maori – a person of New Zealand Maori descent who identifies as Maori.


Related metadata: Is supplemented by Indigenous status

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Ethnicity’
**Indigenous status**

**Admin. status:** CURRENT 1/07/2000 (1/01/2001)

**Identifying and definitional attributes**

Knowledgebase ID: 00001  
Version number: 3

**Date element type:** DATA ELEMENT

**Definition:** An Aboriginal or Torres Strait Islander is a person of Aboriginal or Torres Strait Islander descent who identifies as an Aboriginal or Torres Strait Islander and is accepted as such by the community in which she lives.

**Context:** High-risk babies admitted for intensive care. Given the gross inequalities in health status between indigenous and non-indigenous people of Australia, the size of the Aboriginal and Torres Strait Islander populations and their historical and political context, there is a strong case for ensuring that the information on indigenous status is collected for planning and services delivery purposes and for monitoring Aboriginal and Torres Strait Islander health.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 1  
**Layout:** N

**Data domain:**

<table>
<thead>
<tr>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Unknown – information not available.</td>
</tr>
<tr>
<td>1</td>
<td>Aboriginal but not Torres Strait Islander origin</td>
</tr>
<tr>
<td>2</td>
<td>Torres Strait Islander not Aboriginal origin</td>
</tr>
<tr>
<td>3</td>
<td>Aboriginal and Torres Strait Islander origin</td>
</tr>
<tr>
<td>4</td>
<td>Neither Aboriginal nor Torres Strait Islander origin</td>
</tr>
</tbody>
</table>

**Guide for use:** There are three components to the definition: Descent, Self identification, Community acceptance.

The classification for ‘Indigenous status’ has a hierarchical structure of two levels. There are four categories at the detailed level of the classification, which are grouped into two categories at the broad level. There is one supplementary category for ‘not stated’ responses. The classification is as follows:

**Indigenous**

- Aboriginal but not Torres Strait islander Origin
- Torres Strait Islander not Aboriginal origin
- Both Aboriginal and Torres Strait Islander origin

**Non-Indigenous**

- Neither Aboriginal nor Torres Strait Islander origin

**Not stated**

**Related data:** Supplements Ethnicity of Mother.

**Administrative attributes**


**ANZNN label — ‘Indig’**
Source of referral to registration hospital

**Admin. status:** CURRENT 1/01/1994

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Source of the most recent referral to the neonatal intensive care unit where baby is registered.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 1 Max. 1  **Layout:** N

**Data domain:**

0  **Unknown** – Information not available

1  **Booked at tertiary obstetric hospital** – Mother booked into a hospital with a neonatal intensive care unit and was not transferred during the most recent admission

2  **In-utero transfer from obstetric hospital** – Mother transferred during most recent admission, baby in utero

3  **Ex-utero retrieval** – Baby transferred from any other hospital by a retrieval team with specialist neonatal training, using appropriate equipment. This includes transfers by NETS and WANTS

4  **Ex-utero transfer** – Baby transferred from any other hospital, by a non-specialist transfer method. This includes transport by ambulance

5  **Other** – Includes born in transit, not booked

6  **Booked at this level II unit** – Mother booked into this non-tertiary hospital, no neonatal intensive care unit (for level II units only)

7  **In-utero transfer to this level II unit** – Mother transferred during most recent admission, baby in utero (for level II units only)

8  **Ex-utero retrieval to this level II unit** – Baby retrieved from any other hospital by a specialist neonatal transport retrieval team using appropriate equipment (for level II units only)

9  **Ex-utero transfer to this level II unit** – Baby transferred from any other hospital, by a non-specialist transfer method. This includes transport by ambulance (for level II units only)

**Guide for use:** If there is more than one source of referral, the most recent is to be used.

Items 6 to 9 are for babies registered to non-tertiary hospitals.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label** — ‘ReferSource’
Presenting antenatal problem

**Admin. status:** CURRENT 1/01/1998

**Identifying and definitional attributes**

**Knowledgebase ID:** Version number: 2

**Metadata type:** DATA ELEMENT

**Definition:** The antenatal complication that the mother presented with in this pregnancy that started the train of events that led to this baby's birth.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 1  
**Layout:** N

**Data domain:**

0 **Unknown** – Presenting problem is unknown

1 **Preterm pre-labour rupture of membranes** – Confirmed spontaneous rupture of membranes (ROM) occurring prior to the onset of labour, and before 37 completed weeks' gestation. ROM is defined as the obvious gush of clear amniotic fluid from the vagina, or (if fluid is available) by differentiation with urine and vaginal secretions

2 **Preterm labour** – The presence of regular painful contractions, leading to progressive effacement and dilatation of the cervix, eventually leading to the birth of the baby, and commencing before 37 completed weeks' gestation

3 **Hypertension in Pregnancy** – A systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg, or a rise in systolic blood pressure ≥ 25 mmHg and/or a rise in diastolic blood pressure ≥ 15 mmHg from blood pressure reading before conception or in the first trimester (confirmed by two readings six hours apart)

4 **Antepartum haemorrhage** – Significant haemorrhage in the time from 20 weeks gestation to the end of second stage of labour. Excludes a ‘show’

5 **Suspected intrauterine growth restriction** – a condition where this fetus fails to reach its genetically predetermined full growth potential due to intrinsic or extrinsic factors. Based on more than one obstetric ultrasound

6 **Fetal compromise** – Any ‘distress’ of this fetus leading to intervention by the obstetric team

7 **Other** – Other significant antenatal complication, not specified

8 **None** – No presenting problem. Baby must be born at term

9 **Antenatal diagnosis of fetal malformation** – fetal malformation diagnosed prior to birth by any method. This prenatal diagnosis may or may not be confirmed after birth
Guide for use:

Only one complication to be selected here other complications of pregnancy are listed under Antenatal complications. If the baby is preterm there must be a presenting problem, eg. Preterm labour.

In cases of babies from multiple births, complication relates to this baby only. Multiple pregnancy is not a presenting antenatal problem, it is coded under ‘plurality’.

Fetal distress is not confined to cardiotocography. It includes evidence of fetal compromise provided by measurement of umbilical or middle cerebral artery blood flow.

Related metadata:

Supersedes previous presenting problem – version 3 - 01/01/1994

Administrative attributes

Source documents:

- Keirse MJNC, Ohlsson A, Treffers PE, Humphrey HH & Kanhai HHH 1989,

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘PresentingProb’
Antenatal complications

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID:
Version number: 2

Metadata type: DATA ELEMENT

Definition: The presence of any antenatal complications during this pregnancy including that chosen as the presenting antenatal problem.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric
Field size: Min. 1 Max. 2
Layout: NN

Data domain:

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<th>Description</th>
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<td>No antenatal complications present</td>
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<tr>
<td>-1</td>
<td>Yes, antenatal complications were present</td>
</tr>
<tr>
<td>99</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

Guide for use: This is intended to be a summary of the list of specific antenatal complications
- preterm labour
- hypertension in pregnancy
- antepartum haemorrhage
- suspected intrauterine growth restriction
- fetal compromise
- other antenatal complications

Note: The presenting antenatal problem is included.
Note: It does not include antenatal steroids or MgSO4.

Related metadata: Supersedes previous antenatal complications – version 1 - 01/01/1994, changes 1/1/2011. Variable name has changed from ‘Other prob’ to ‘Other_prob’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Other_prob’
Prolonged rupture of membranes (discontinued)

Admin. status: 1/01/1994 – 31/12/2011

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Confirmed spontaneous membrane rupture for more than 24 hours before birth of the baby. Rupture of the membranes is diagnosed by the obvious gush of clear amniotic fluid from the vagina, or (if fluid is available) by differentiation with urine and vaginal secretions.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:
0 No, membranes not ruptured or ruptured for less than 24 hours
-1 Yes, membranes ruptured for more than 24 hours
99 Unknown

Administrative attributes


Source organisation: ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘PROM’
Preterm labour

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The presence of regular painful contractions during this pregnancy; leading to the progressive effacement and dilatation of the cervix, eventually leading to the birth of this baby and commencing before 37 completed weeks gestation.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min.1 Max. 2 Layout: NN

Data domain:
0 No, labour did not commence in the preterm period
-1 Yes, labour commenced in the preterm period
99 Unknown

Administrative attributes


Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘PTL’
Hypertension in pregnancy

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Hypertension in pregnancy is defined as:
- a systolic blood pressure ≥140 mmHg and/or a diastolic blood pressure ≥ 90 mmHg or
- a rise in systolic blood pressure ≥ 25 mmHg and/or a rise in diastolic blood pressure ≥ 15 mmHg from blood pressure reading before conception or in the first trimester (confirmed by two readings six hours apart).

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:
0  No hypertension in pregnancy detected
-1  Yes, hypertension in pregnancy diagnosed
99  Unknown

Administrative attributes


Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘PET’
Antepartum haemorrhage

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Significant haemorrhage during this pregnancy occurring in the time from 20 weeks gestation to the end of second stage of labour. This excludes a 'show'.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  
Field size: Min.1 Max. 2
Layout: NN

Data domain:
0 No antepartum haemorrhage noted
-1 Yes antepartum haemorrhage diagnosed
99 Unknown

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘APH’
Suspected intrauterine growth restriction

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Suspected intrauterine growth restriction of this fetus. A condition of the fetus in which it fails to reach its genetically predetermined full growth potential due to intrinsic or extrinsic factors, and is based on more than one obstetric ultrasound.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:
- 0 No intrauterine growth restriction present or suspected
- -1 Yes, intrauterine growth restriction was present or suspected
- 99 Unknown

Administrative attributes


Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘IUGR’
Fetal Compromise

Admin. status: CURRENT 01/01/2011

Identifying and definitional attributes

Knowledgebase ID: Version number: 3

Metadata type: DATA ELEMENT

Definition: Any ‘distress’ of this fetus leading to intervention by the obstetric team. The term “fetal distress” has been replaced by “fetal compromise”:

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:

0 No intervention necessary
-1 Yes, obstetric intervention required for fetal compromise
99 Unknown

Guide for use: This includes a decision to deliver because of a concern about umbilical or middle cerebral arterial blood flow on Doppler as well as a decision to deliver on the basis of a non reassuring CTG or abnormal scalp pH.

Related metadata: Supersedes previous “fetal distress” version 1 – 01/01/1994
Supersedes previous “fetal distress” version 2 – 01/01/2006

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘F_distress’
Other antenatal complications

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Other significant antenatal complication noted for this baby, not specified.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min.1 Max. 2  Layout: NN

Data domain:

0  No other significant antenatal complication
-1  Yes, other significant antenatal complication
99  Unknown

Guide for use: This includes any maternal medical illness which might impact on the pregnancy such as diabetes, epilepsy, thyroid disease, ITP, or infection such as Hepatitis C, Hepatitis B, or HIV. Maternal Varicella within 72 hours of birth is an important antenatal complication. Positive maternal group B streptococcal colonisation should be included.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Other’
**Antenatal diagnosis of fetal malformation**

**Admin. status:** CURRENT 01/01/1998

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** A malformation of this fetus was diagnosed prior to birth by any method. This diagnosis may or may not be confirmed after birth.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Datatype:** Numeric  
**Field size:** Min. 1 Max. 2  
**Layout:** NN

**Data domain:**
- 0 No fetal malformation detected prior to birth
- -1 Yes, fetal malformation detected prior to birth
- 99 Unknown

**Related metadata:** Variable name has changed from ‘ANDiag?’ to ‘ANDiag_’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘ANDiag_’**
Date of Rupture of membranes

Admin. status: CURRENT  01/01/2006

Identifying and definitional attributes

Knowledgebase ID: Version number: 2

Metadata type: DATA ELEMENT

Definition: Confirmed spontaneous or induced rupture of membranes. Rupture of the membranes is diagnosed by the obvious gush of clear amniotic fluid from the vagina, or (if fluid is available) by differentiation with urine and vaginal secretions. This includes a hind water leak, even if the leak subsequently closes off.

Context: Collection of this information provides a substantially improved capacity for analysis of the relation between duration of membrane rupture and morbidity.

Relational and representational attributes

Data type: Numeric  Field size: Min. 10  Max. 10  Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: There is often some uncertainty about the exact date and time of membrane rupture. It is preferable to provide a “best guess” response to this data item than leave it blank.

Verification rules: This field must be less than or equal to date of birth, be consistent with diagnoses and procedure codes, for records to be grouped, otherwise resulting in fatal error.

Related metadata: Used in conjunction with the time of rupture of membranes. Variable name has changed from ‘PROMDATE’ to ‘ROMDATE’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘ROMDATE’
Time of Rupture of membranes

Admin. status: CURRENT 01/01/2006

Identifying and definitional attributes

Knowledgebase ID: Version number: 2

Metadata type: DATA ELEMENT

Definition: The time of confirmed, spontaneous or induced rupture of membranes. Rupture of the membranes is diagnosed by the obvious gush of clear amniotic fluid from the vagina, or (if fluid is available) by differentiation with urine and vaginal secretions.

Context: Collection of this information provides a substantially improved capacity for analysis of the relation between duration of membrane rupture and morbidity.

Relational and representational attributes

Data type: Numeric  Field size: Min. 5 Max. 5  Layout: hh:mm (24 hour clock)

Data domain: Valid time

Guide for use: There is often some uncertainty about the exact time of membrane rupture. It is preferable to provide a "best guess" response to this data item than leave it blank.

Verification rules: This field must be less than or equal to date and time of birth, be consistent with diagnoses and procedure codes, for records to be grouped, otherwise resulting in fatal error.

Related metadata: Used in conjunction with date of rupture of membranes. Variable name has changed from ‘PROMTIME’ to ‘ROMTIME’ from 1/1/2012.

 Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘ROMTIME’
Antenatal

**Systemic antibiotics given to mother within 48 hours of birth**

*Admin. status:* CURRENT 01/01/2006

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

*Metadata type:* DATA ELEMENT

*Definition:* Antibiotic treatment is provided to the mother within the 48 hour period prior to birth with the intent of treating the fetus.

*Context:* High-risk babies admitted for intensive care. Fetal sepsis is associated with poor long term outcome.

**Relational and representational attributes**

*Data type:* Numeric  
*Field size:* Min. 1 Max. 2  
*Layout:* N

*Data domain:*

- 0 No antibiotic given
- -1 Yes, antibiotic given
- 99 Unknown – Information not available

*Guide for use:* This includes the prophylactic use of penicillin or ampicillin as treatment of Group B Streptococcus. It does not include the prophylactic use of antibiotics to reduce the risk of postoperative wound infection following caesarean section.

**Administrative attributes**

*Source organisation:* ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**ANZNN label — ‘MomAntib’**
Antenatal corticosteroids for fetal lung enhancement

Admin. status: CURRENT  1/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Corticosteroids given antenatally via any route to the mother at a time likely to enhance fetal lung maturation. Excludes steroids given for other reasons.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 1  Layout: N

Data domain:

0 Unknown – Information not available
1 None – Corticosteroids not ever given during this pregnancy at a time likely to enhance fetal lung maturation.
2 Incomplete, less than 24 hours – First dose given at less than 24 hours prior to this baby's birth.
3 Complete – More than one dose of corticosteroids given, and first dose was given more than 24 hours and the last dose less than 8 days before baby's birth.
4 More than 7 days – Steroids given more than 7 days before the baby's birth. If two courses given and one is 'complete', use complete.

Guide for use: If two courses given, and one fulfils the 'complete' criteria, use 'complete'. If the information of the time of doses given is not available, but two doses are known to have been given appropriately, also use 'complete'.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘Steroids’
MgSO4 given to mother within 6 hours of birth

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: MgSO4 is provided to the mother during the 6 hours immediately before birth, either because of maternal preeclampsia or specifically for fetal neuro-protection.

Context: Babies < 32 weeks gestation are at risk of neurologic injury during labour and immediately after birth. MgSO4 has been demonstrated to provide neuro-protection and is recommended be given to the mother during the six hours immediately preceding birth in pregnancies in which the infant(s) are < 30 weeks gestation. An infusion of 4 hours is optimal but a loading dose and shorter course still provides useful prophylaxis.

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: N

Data domain:
1  MgSO4 not given at all
2  MgSO4 course finished > 6 hrs before birth (likely to be ineffective)
3  MgSO4 given as IM injection within 6 hrs of birth
4  MgSO4 given for < 4 hours within 6 hr time slot (incomplete course)
5  MGSO4 given by infusion over 4 hrs or more within 6 hrs of birth (complete course)
6  MgSO4 given but details not known
7  Unknown − Information not available

Guide for use: The minimum dose is 4G infused IV over 20 minutes but a complete course of treatment is 4 hours. A short IV infusion or an intramuscular injection given within the 6 hour window is likely to be effective but less so than a 4 hour infusion.

Administrative attributes

Source organisation: ANZNN Advisory Committee

ANZNN label – ‘MgSO4’
Birth plurality

**Admin. status:** CURRENT 01/07/1996

**Identifying and definitional attributes**

| Knowledgebase ID: | 000020 | **Version number:** 1 |

**Metadata type:** DATA ELEMENT

**Definition:** The total number of births resulting from this pregnancy.

**Context:** multiple pregnancy increases the risk of complications during pregnancy, labour and birth and is associated with higher risk of perinatal morbidity and mortality.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 1  
**Layout:** N

**Data domain:**
- **Singleton** – Only one baby born
- **Twins** – Two babies
- **Triplets** – Three babies
- **Quads** – Four babies
- **Quintuplets** – Five babies
- **Sextuplets** – Six babies
- **Other**
- **99 Not stated**

**Guide for use:** Plurality of a pregnancy is determined by the number of live births or by the number of fetuses that remain in-utero at 20 weeks’ gestation and that are subsequently born separately. In multiple pregnancies or, if gestational age is unknown, only live births of any birth weight or gestational age, or fetuses weighing 400 g or more are taken into account in determining plurality.

Fetuses aborted before 20 completed weeks or fetuses compressed in the placenta at 20 or more weeks are excluded.

**Related metadata:** Is qualified by Birth order, version 2

Supersedes previous version 01/01/1994

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**ANZNN label — ‘Plurality’**
Birth order

Admin. status: CURRENT 01/07/1996

Identifying and definitional attributes

Knowledgebase ID: 000019 Version number: 1

Metadata type: DATA ELEMENT

Definition: The order of each baby of a multiple birth.

Context: Perinatal: required to analyse pregnancy outcome according to birth order and identify the individual baby resulting from a multiple birth pregnancy. Multiple births have higher risks of perinatal mortality and morbidity. Multiple birth pregnancies are often associated with obstetric complications, labour and delivery complications, higher rates of neonatal morbidity, low birth weight and a higher perinatal death rate.

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain: A single digit numeric field representing the birth order.

- 0 Singleton
- 1 First of a multiple birth
- 2 Second of a multiple birth
- 3 Third of a multiple birth
- 4 Fourth of a multiple birth
- 5 Fifth of a multiple birth
- 6 Sixth of a multiple birth
- 7 Other
- 99 Not stated

Related metadata: Is qualified by Birth plurality, version 1 Supersedes previous version; 01/01/1994

Administrative attributes

Source organisation: National Perinatal Data Development Committee.

National minimum data set: Perinatal

ANZNN label — ‘BrthOrd’
Establishment number

**Admin. status:** CURRENT 01/01/2011

**Identifying and definitional attributes**

**Knowledgebase ID:** 000377 **Version number:** 4

**Metadata type:** DATA ELEMENT

**Definition:** The number which identifies an individual baby, allocated at source hospital and provided to ANZNN.

**Context:** Admitted patient care:
- Admitted patient palliative care:
- Admitted patient mental health care:
- Alcohol and other drug treatment services:
- Emergency department waiting times:
- Perinatal:
- Public hospital establishment:

**Relational and representational attributes**

**Datatype:** Numeric **Field size:** Min. 14 Max. 14 **Layout:** NNNNNNNNNNNNN

**Data domain:** Valid establishment number.

**Related metadata:** Is a composite part of Establishment identifier,
- Version 3 supersedes previous establishment number, version 2 (01/01/1997)
- Version 4 supersedes previous establishment number, version 3 (01/07/2007)

**Administrative attributes**

**Source organisation:** National Health Data Committee.
- National Minimum data set: Perinatal

**Comments:** This data element supports the provision of unit record and / or summary data by State and Territory health authorities as part of the Emergency Department Waiting Time National Minimum Data Set.

**ANZNN label — ‘BabyCODE’**
Date of birth

Admin. status: CURRENT 01/07/1996

Identifying and definitional attributes

Knowledgebase ID: 00036 Version number: 4

Metadata type: DATA ELEMENT

Definition: Date of birth of the person.

Context: Required to derive age for demographic analyses, for analysis by age at a point of time and for use to derive Diagnosis Related Group (admitted patients). This also assists in the unique identification of babies as ANZNN has de-identified data, and required for the derivation of other data elements.

Relational and representational attributes

Data type: Numeric Field size: Min. 10 Max. 10 Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: If the date of birth is not known provision should be made to collect age (in years) and a date of birth derived from age.

Verification rules: For the provision of State and Territory hospital data to Commonwealth agencies this field must:
- Be ≤ Admission date, otherwise resulting in fatal error
- Not be null
- Be consistent with diagnoses and procedure codes, for records to be grouped, otherwise resulting in fatal error.

Related metadata: Is qualified by time of birth
Supersedes previous date of birth version 3 - 01/01/1994

Administrative attributes

Source organisation: National Health Data Committee.
National Minimum data set: Perinatal

ANZNN label — ‘DOB’
Time of birth

**Admin. status:** CURRENT 01/01/2006

**Identifying and definitional attributes**

**Knowledgebase ID:**

**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** Time of birth of the person.

**Context:** Required to derive age for demographic analyses, for analysis by age at a point of time and use to derive Diagnosis Related Group (admitted patients).

Diurnal variations in hospital death rates are well documented in the neonatal literature by using birth registration data and more recently, with risk-adjusted admission data. Most of these studies have only compared mortality between night and day, regardless of public holidays and weekends, which are times presumably similar to night hours in terms of staffing and access to diagnostic and therapeutic services including obstetrics, anaesthesiology and radiology. Any circadian variation in mortality or morbidity has important implications for the organization and delivery of care services because millions of births take place after office hours throughout the world. Reasons for this variation are widely perceived to be due to lower levels and expertise of staffing including support personnel and reduced access to diagnostic and therapeutic services after working hours. Other reasons may include errors of judgment related to physical and mental fatigue from night shifts and overwork.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 5 Max. 5  
**Layout:** hh:mm (24 hour clock)

**Data domain:** Valid time

**Guide for use:** Should be before the time of admission

**Verification rules:**  
For the provision of State and Territory hospital data to Commonwealth agencies this field must:  
- Be ≤ Admission date, otherwise resulting in fatal error  
- Not be null  
- Be consistent with other data, for records to be grouped

**Related metadata:** Is qualified by date of birth

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**ANZNN label — ‘DOBTime’**
Admission date

Admin. status: CURRENT 01/07/1996

Identifying and definitional attributes

Knowledgebase ID: 000008  Version number: 4

Metadata type: DATA ELEMENT

Definition: The date on which the baby was admitted to the tertiary hospital responsible for documentation of care.

Context: Required to identify period in which the admitted patient episode and hospital stay occurred and for derivation of length of stay.

Relational and representational attributes

Data type: Numeric  Field size: Min. 10 Max. 10  Layout: DD/MM/YYYY

Data domain: Valid date

Verification rules: Right justified and zero filled.
Admission date ≤ separation date.
Admission date ≥ date of birth.

Related data: Is qualified by time of admission
Supersedes previous date of admission version 3 - 01/01/1994

Administrative attributes

Source organisation: National Health Data Committee.

Comment: Also used to date the length of treatments. This admission date refers to the first admission to a registration hospital.

ANZNN label — ‘DOA’
Time of Admission

*Admin. status:*  CURRENT  01/01/2006

**Identifying and definitional attributes**

**Knowledgebase ID:**  
**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** The time on which the baby was admitted to the tertiary hospital responsible for documentation of care.

**Context:** Required to identify the time of commencement of the episode or hospital stay, and for derivation of length of stay.

Diurnal variations in hospital death rates are well documented in the neonatal literature by using birth registration data and more recently, with risk-adjusted admission data. Most of these studies have only compared mortality between night and day, regardless of public holidays and weekends, which are times presumably similar to night hours in terms of staffing and access to diagnostic and therapeutic services including obstetrics, anaesthesiology and radiology. Any circadian variation in mortality or morbidity has important implications for the organization and delivery of care services because millions of births take place after office hours throughout the world. Reasons for this variation are widely perceived to be due to lower levels and expertise of staffing including support personnel and reduced access to diagnostic and therapeutic services after working hours. Other reasons may include errors of judgment related to physical and mental fatigue from night shifts and overwork.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 5  Max. 5  
**Layout:** hh:mm (24 hour clock)

**Data domain:** Expressed as hours and minutes using 24 hour clock

**Verification rules:** Should be >time of birth.  
Is used in conjunction with admission date

**Related metadata:**  
Is qualified by time of birth

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**Comment:** Also used to find the length of treatments. This admission time refers to the first admission to the registration hospital.

**ANZNN label — ‘DOATime’**
**Sex**

**Admin. status:** CURRENT 01/07/1998

**Identifying and definitional attributes**

Knowledgebase ID: 000149  
Version number: 3

**Metadata type:** DATA ELEMENT

**Definition:** The sex of the person.

**Context:** Required for analyses of service utilisation, needs for services and epidemiological studies.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 1  
**Layout:** N

**Data domain:**
- 0 *Unknown* – Information not available
- 1 *Male*
- 2 *Female*
- 3 *Ambiguous* – or indeterminate

**Guide for use:** An indeterminate sex category may be necessary for situations such as the classification of perinatal statistics when it is not possible for the sex to be determined.

**Related metadata:**
Supersedes previous data element Sex version 2 - 01/01/1994

**Administrative attributes**


**Source organisation:** National Health Data Committee.

**National Minimum data sets:** Perinatal

**ANZNN label — ‘SEX’**
Infant Birthweight - neonate

Admin. status: CURRENT 1/07/1997

Identifying and definitional attributes

Knowledgebase ID: 000010  Version number: 3

Metadata type: DATA ELEMENT

Definition: The first weight of the live born or stillborn baby obtained after birth

Context: Birth weight is an important indicator of pregnancy outcome, is major risk factor for neonatal morbidity and mortality and is required to analyse perinatal services for high-risk infants.

Relational and representational attributes

Data type: Numeric  Field size: Min. 3 Max. 4  Layout: NNNN

Data domain: 3 - 4 digit field representing the birthweight in grams

Guide for use: For live births, birth weight should preferably be measured within the first hour of life before significant postnatal weight loss has occurred. While statistical tabulations include 500g groupings for birth weight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy to which it is measured.

Verification rules: For provision of State and Territory hospital data to Commonwealth agencies this field must be consistent with diagnoses and procedure codes for valid grouping.

Related data: Is used in derivation of Diagnosis related group, version 1
Supersedes previous data element birth weight version 2 – 01/01/1994

Administrative attributes

Source organisation: National Perinatal Data Development Committee.
National Minimum data sets: Perinatal

ANZNN label — ‘Wght’
**Gestational age in Weeks**

*Admin. status:* CURRENT  1/07/1996

**Identifying and definitional attributes**

Knowledgebase ID: 000060  
Version number: 2  

*Metadata type:* DATA ELEMENT

**Definition:** The estimated gestation of the baby at birth in completed weeks.

**Context:** The first day of the last menstrual period (LMP) is required to estimate gestational age, which is a key outcome of pregnancy and an important risk factor for neonatal outcomes. Although the date of the LMP may not be known, or may sometimes be erroneous, estimation of gestational age based on antenatal ultrasound and post birth clinical assessment also has limitations.

**Relational and representational attributes**

*Data type:* Numeric  
*Field size:* Min. 2 Max. 2  
*Layout:* NN

*Data domain:* Number representing the number of completed weeks, or 99 for not stated or unknown.

*Guide for use:* This is derived from clinical assessment when accurate information on the date of the last menstrual period (LMP) is not available for this pregnancy. If dates are certain these should be accepted as defining gestational age at birth.

Antenatal ultrasound is extremely accurate at 8-10 weeks gestation (+/- 3 days), but at 18-20 weeks it is about as accurate as post birth clinical assessment (+/- 2 weeks). A decision should be based on the information that is most likely to be accurate. Late ultrasound and post birth clinical assessment should generally be reserved for situations where either the dates are uncertain or there is no early antenatal ultrasound (< 12 weeks).

*Related metadata:* Relates to concept Gestational age, version 1. This is calculated using the first day of the last menstrual period, version 1

**Administrative attributes**


*Source organisation:* National Perinatal Data Development Committee.  
National Minimum data sets: Perinatal

**ANZNN label — ‘Gest’**
**Gestational age in Days**

*Admin. status:* CURRENT 1/01/2011

**Identifying and definitional attributes**

Knowledgebase ID: 000060  
Version number: 3

**Metadata type:** DATA ELEMENT

**Definition:** The number of days of the non-completed week.

**Context:** The first day of the last menstrual period (LMP) is required to estimate gestational age, which is a key outcome of pregnancy and an important risk factor for neonatal outcomes.

At the borderline of viability expressing gestation in weeks plus days provides an enhanced level of accuracy. Whilst this is almost certainly fallacious for the individual baby it is valid for collection of population data.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 2 Max. 2  
**Layout:** NN

**Data domain:** Number representing the number of completed days.

**Guide for use:** This is derived from clinical assessment when accurate information on the date of the last menstrual period (LMP) is not available for this pregnancy. If dates are certain these should be accepted as defining gestational age at birth.

Antenatal ultrasound is extremely accurate at 8-10 weeks gestation (+/- 3 days), but at 18-20 weeks it is about as accurate as post birth clinical assessment (+/- 2 weeks). A decision should be based on the information that is most likely to be accurate. Late ultrasound and post birth clinical assessment should generally be reserved for situations where either the dates are uncertain or there is no early antenatal ultrasound (< 12 weeks). Estimates of gestation based on late ultrasound (18-20 wks) or post birth clinical assessment are not sufficiently accurate for this purpose and such gestations should generally be expressed as completed weeks only.

**Related metadata:** Relates to concept Gestational age, version 1. This is calculated using the first day of the last menstrual period, version 1  
Supersedes previous data element birth weight version 2 – 01/01/1996

**Administrative attributes**

**Source document:** International Classification of Diseases and Related Health Problems, 10th Revision, WHO, 1992.

**Source organisation:** National Perinatal Data Development Committee.

**National Minimum data sets:** Perinatal

**ANZNN label — ‘Gestdays’**
Place of birth

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The actual place where the birth occurred

Context: High-risk babies admitted for intensive care. Used to analyse risk factors and perinatal outcomes by place of birth. While most deliveries occur within hospitals, an increasing number of births now occur in other settings.

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 1 Layout: N

Data domain:
- 0 Unknown – Information not available
- 1 Non tertiary hospital – Born in a hospital without a level III neonatal intensive care nursery.
- 2 Tertiary hospital – Born in a hospital with a level III neonatal intensive care nursery.
- 3 Home birth – Birth planned for and occurred at home.
- 4 Born before arrival – Born at home (unplanned event), or in an ambulance, or any other area outside a hospital with obstetric facilities.

Administrative attributes

Source organisation: ANZNN Advisory Committee, derived from NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘PlBrth’
Hospital of birth

Admin. status: CURRENT  1/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Name of the Hospital of baby’s birth

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Character  Field size: Min. 8 Max. 8  Layout: CCCCCCCC

Data Domain: Characters representing the registration hospital code or the name.

Guide for use: Initially, the hospital of birth is nominated to allow tracking and merging of baby’s data. When the registration unit’s data is complete, only the codes for participating hospitals remain. If the baby is Born at home (unplanned event), or in an ambulance, or any other area outside a hospital with obstetric facilities, then the first hospital of admission should be used.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘PBTH’
Presentation at birth

**Admin. status:** CURRENT 01/07/1996

**Identifying and definitional attributes**

**Knowledgebase ID:** 000133  **Version number:** 2

**Metadata type:** DATA ELEMENT

**Definition:** Presenting part of the fetus (at lower segment of the uterus) at birth.

**Context:** Presentation types other than vertex are associated with higher rates of caesarean section, instrumental delivery, perinatal mortality and neonatal morbidity.

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 1 Max. 1  **Layout:** N

**Data domain:**

- 0 *Unknown* – (perinatal dataset – 9)
- 1 *Cephalic* – (1, 3 and 4 of perinatal dataset)
- 2 *Breech*
- 3 *Other* – (perinatal dataset – 8)

**Related metadata:**

Used in conjunction with Method of Birth, version 1
Supersedes previous presentation at birth - 01/01/1994, 01/01/1996

**Administrative attributes**

**Source document:** Adapted from National Health Data Dictionary

**Source organisation:** ANZNN Advisory Committee.

**ANZNN label** — ‘Present_n’
Method of birth

*Admin. status:* CURRENT 01/01/2006

**Identifying and definitional attributes**

Knowledgebase ID: 000093  
Version number: 2

**Metadata type:** DATA ELEMENT

**Definition:** The method of complete expulsion or extraction from its mother of a product of conception.

**Context:** High-risk babies admitted for intensive care: The method of birth may affect the health status of the mother and the baby at birth and during the postpartum period.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 1  
**Layout:** N

**Data domain:**

1. *Unknown* – Information not available (Perinatal dataset – 9)
2. *Vaginal* – Vaginal birth, includes vaginal breech. (Perinatal dataset 1 & 3)
3. *Instrument* – Vaginal birth using instrument. Includes forceps, rotations, and vacuum extractions. (Perinatal dataset 2 & 5)
4. *Caesarean section in labour* – Caesarean performed after the commencement of labour (regular painful contractions, leading to progressive effacement and dilatation of cervix, eventually leading to the birth of the baby).
5. *Caesarean section, no labour* – Caesarean section performed prior to labour commencing.

**Guide for use:** Instrumental birth [2] describes vaginal births only. “Emergency Caesarean Section” and “Elective Caesarean Section” should not be used for this data item because those words are misleading. Eg. A mother could have an emergency CS for APH when she is not in labour.

**Related metadata:**

Used in conjunction with Presentation at birth  
Supersedes previous method of birth - version 1 – 01/01/1994

**Administrative attributes**

**Source document:** Adapted from National Health Data Dictionary

**Source organisation:** ANZNN Advisory Committee.

**ANZNN label — ‘Delivery’**
Apgar score at 1 minute

Admin. status: CURRENT 1/07/1997

Identifying and definitional attributes

Knowledgebase ID: 000344  Version number: 2

Metadata type: DATA ELEMENT

Definition: Numerical score to evaluate the baby's condition at 1 minute after birth.

Context: Required to analyse pregnancy outcome, particularly after complications of pregnancy, labour and birth. The Apgar score is an indicator of the health of a baby.

Relational and representational attributes

Data type: Numeric  Field size: Min. 1  Max. 2  Layout: NN

Data domain: Apgar score (0 –10) or 99 (not stated)

Guide for use: The score is based on the five characteristics of heart rate, respiratory condition, muscle tone, reflexes and colour. The maximum or best score is 10.

Related metadata: Is a qualifier for Status of the baby, Supersedes previous data element Apgar score version 1- 01/01/1997

Administrative attributes

Source organisation: National Perinatal Data Development Committee.
Apgar score at 5 minutes

Admin. status: CURRENT 01/07/1997

Identifying and definitional attributes

Knowledgebase ID: 000344 Version number: 2

Metadata type: DATA ELEMENT

Definition: Numerical score to evaluate the baby’s condition at 5 minutes after birth.

Context: Required to analyse pregnancy outcome, particularly after complications of pregnancy, labour and birth. The Apgar score is an indicator of the health of a baby.

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain: Apgar score (0 –10) or 99 (not stated)

Guide for use: The score is based on the five characteristics of heart rate, respiratory condition, muscle tone, reflexes and colour. The maximum or best score is 10.

Related metadata: Is a qualifier for Status of the baby, Supersedes previous data element Apgar score version - 01/01/1997

Administrative attributes

Source organisation: National Perinatal Data development Committee.

ANZNN label — ‘Apg5’
**Intubated at resuscitation**

*Admin. status:* CURRENT 1/01/1994

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

*Metadata type:* DATA ELEMENT

*Definition:* An active measure taken shortly after birth and while in labour ward to establish independent respiration and heart rate or to treat depressed respiratory effort by endotracheal intubation.

*Context:* High-risk babies admitted for intensive care

**Relational and representational attributes**

*Data type:* Numeric  
*Field size:* Min. 1 Max. 2  
*Layout:* NN

*Data domain:*

- 0  No, intubation not necessary in labour ward
- -1 Yes, intubation necessary in labour ward
- 99 Unknown

*Guide for use:* This does not include intubation for tracheal aspiration or intubation for ongoing respiratory care either in the labour ward or in the neonatal intensive care unit after resuscitation has been completed.

**Administrative attributes**

*Source organisation:* ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘Intubated’**
Presence of congenital anomaly

**Admin. status:** CURRENT 01/01/1994

**Identifying and definitional attributes**

**Knowledgebase ID:** Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Structural abnormalities (including deformations) that are present at birth and diagnosed prior to separation from care (discharge to home).

**Context:** Admitted patient care: required to monitor trends in the reported incidence of congenital anomalies, to detect new drug and environmental teratogens to analyse possible causes in epidemiological studies, and to determine survival rates and the utilisation of paediatric services.

**Relational and representational attributes**

**Data type:** Numeric

**Field size:** Min. 1 Max. 2

**Layout:** NN

**Data domain:**

- 0 No, congenital anomaly not found
- -1 Yes, congenital anomaly found
- 99 Unknown

**Related data:** Used in conjunction with congenital anomalies, specify. Name change from ‘malformation’ to ‘anomaly’ 1/1/2012.

**Administrative attributes**

**Source document:** International Statistical Classification of Diseases and Related Health Problems, 10th Revision, Australian Modification, 2nd edition (July 2000)

National Centre for Classification of Health

**Source organisation:** National Perinatal Data Advisory Committee

**ANZNN label — ‘Anom’**
Congenital anomalies, specify

Admin. status: CURRENT 01/07/1998

Identifying and definitional attributes

Knowledgebase ID: 000030
Version number: 2

Metadata type: DATA ELEMENT

Definition: Structural abnormalities (including deformations) that are present at birth and diagnosed prior to separation from care (discharge to home).

Context: Admitted patient care: required to monitor trends in the reported incidence of congenital anomalies, to detect new drug and environmental teratogens, to analyse possible causes in epidemiological studies, and to determine survival rates and the utilisation of paediatric services.

Relational and representational attributes

Data type: Alphanumeric
Field size: Min. 3 Max. 7
Layout: NNN.NN

Data domain: ICD-10-AM (2nd edition)

Guide for use: Coding to the disease classification of ICD-10-AM (2nd edition) is the preferred method of coding admitted patients. Multiple congenital anomalies should be recorded in a separate table where possible as outlined below.

<table>
<thead>
<tr>
<th>BabyCODE</th>
<th>AnomCode (ICD-10 code)</th>
<th>Anomdesc</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Related metadata:
Use in conjunction with “presence of congenital malformations”. Name change from ‘malformation’ to ‘anomaly’ 1/1/2012.

Administrative attributes

Source organisation: National Perinatal Data Advisory Committee

Temperature on admission

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Temperature on admission to neonatal intensive care unit or soonest to admission to registration unit. Use rectal temperature or, if not available, temperature per axillae.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 2 Max. 4  Layout: NN.N

Data domain: Number representing temperature measured in degrees Celsius, correct to 1 decimal place, or 0.0 missing or unknown.

Guide for use: If the baby is transported from a peripheral area by a specialist neonatal retrieval team, admission (for the purpose of this audit) is considered to commence when the specialist retrieval team arrives at the baby’s bedside.

If the baby is more than twelve hours old at admission to the registration unit or when the specialist neonatal team arrives (whichever is earlier), use “0.0” to denote ‘missing data’. If an admission temperature is not recorded, also use “0.0”.

Administrative attributes


ANZNN label — ‘Temp’
Worst base excess

**Admin. status:** CURRENT 01/01/1994

**Identifying and definitional attributes**

**Knowledgebase ID:** 

**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** Worst base deficit (mml/l) recorded between admission to neonatal intensive care and 12 hours after birth.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  

**Field size:** Min. 2 Max. 4  

**Layout:** NN.N

**Data domain:** Number representing the worst base excess in mmol per litre correct to one decimal place. May have negative values and if value is unknown or missing use 99.

**Guide for use:** If the baby is transported from a peripheral area by a specialist neonatal retrieval team, admission (for the purpose of this audit) is considered to commence when the specialist retrieval team arrives at the baby’s bedside.

If the baby is more than twelve hours old at admission to the registration unit or when the specialist neonatal team arrives (whichever is earlier), use “99” to denote ‘missing data’.

If no base excess is recorded, and the baby was well and in less than 40% oxygen during the first 12 hours, then record “0.0” for normal base excess.

If no base excess is recorded, and the baby was unwell, then record “99” for missing.

**Related metadata:** Variable name has changed from ‘Worst BE’ to ‘Worst_BE’ from 1/1/2012.

**Administrative attributes**


**Comment:** This data is used for the calculation of the Critical Risk Index for Babies (CRIB) score.

**ANZNN label — ‘Worst_BE’**
Main respiratory diagnosis

Admin. status: CURRENT 01/01/2011

Identifying and definitional attributes

Knowledgebase ID: Version number: 4

Metadata type: DATA ELEMENT

Definition: Main indication for respiratory support for the baby.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:

0 Unknown – Information not available

1 Normal – No respiratory disease noted; no respiratory support given

2 Non-specific – Any non-specific respiratory distress in term or preterm babies requiring support (includes superseded categories of Transient tachypnoea of the newborn [02], Immature lung [07]) and aspiration of amniotic fluid or blood.

3 Hyaline membrane disease – Increasing respiratory distress or oxygen requirements, or need for ventilator support from the first six hours of life with a chest x-ray showing generalised reticulo-granular pattern, with or without air bronchogram. This is normally a five day illness and babies who are treated with surfactant who have no respiratory illness beyond 24 hours of age probably did not have HMD in the first place and should be coded as having non specific respiratory distress.

4 Meconium aspiration – Respiratory distress presenting from immediately after birth to twelve hours of age. Hypoxia, tachypnoea, gasping respirations, and often signs of underlying asphyxia. Chest x-ray shows over-expansion of lungs with widespread coarse, fluffy infiltrates. Infants who require respiratory support for < less than 24 hours should not be coded as MAS. They should be coded as non specific respiratory disease.

5 Pneumonia – Respiratory distress with proven or suspected infection (toxic blood count), and chest x-ray showing persisting opacities.

6 Persistent primary pulmonary hypertension (without co-existing lung disease) – Echo cardiac (shunting) or clinical evidence, oxygen requirement unexplained by chest x-ray or loud P2, or differential pre and post-ductal TCPO2.

7 Superseded

8 Apnoea – Recurrent pauses in breathing of more than 20 seconds, or for less than 20 seconds and associated with bradycardia (heart rate < 100) or desaturation requiring intervention.
9 **Congenital malformation** – Congenital malformation was the primary reason for respiratory distress, e.g. diaphragmatic hernia - must also be listed under congenital anomaly field.

10 **Other** – Unspecified other respiratory disease.

11 **Peri-surgical** – Indication for respiratory support is surgical intervention. Must also be listed under Neonatal surgery field.

12 **Newborn encephalopathy / Hypoxic ischaemic encephalopathy** – A clinically defined syndrome of disturbed neurological function in an baby with difficulties in initiating and maintaining respiration, depression of tone and reflexes, subnormal level of consciousness and often with seizures. Birth asphyxia should be included here. Metabolic Encephalopathy +/- seizures due to metabolic disturbance such as hypoglycaemia, hyponatraemia, hypernatraemia, hypocalcaemia or CNS infection (meningitis or encephalitis) should not be included it should be coded as ‘10’.

**Guide for use:** For a diagnosis other than 'normal' the baby must have received some form of respiratory support (supplemental oxygen therapy and / or assisted ventilation for four or more consecutive hours, or died prior to four hours).

If more than one diagnosis is possible, use the respiratory condition that was most serious. For example, severe hyaline membrane disease (HMD) requiring surfactant replacement and mechanical ventilation plus later apnoea requiring continuous positive airways pressure would be coded as ‘3’. However, diaphragmatic hernia with mild HMD would be coded as ‘9’. Asphyxiated babies in receipt of respiratory support because of their encephalopathy should be coded as ‘12’, unless they have a significant respiratory illness such as MAS.

**Related metadata:**
Supersedes previous “main respiratory diagnosis” versions 1 01/01/1994
Supersedes previous “main respiratory diagnosis” versions 2 02/04/1995
Supersedes previous “main respiratory diagnosis” versions 3 01/01/1998

**Administrative attributes**


**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘Resp’**
Exogenous surfactant

Admin. status: CURRENT 01/01/2006

Identifying and definitional attributes

Knowledgebase ID: Version number: 3

Metadata type: DATA ELEMENT

Definition: A dose of any type of exogenous surfactant was used to treat this baby.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min.1 Max.1  Layout: N

Data domain:

0 Unknown – Information not available
1 None – No artificial surfactant ever given to this baby.
2 Exosurf – Any treatment using ‘Exosurf’.
3 Survanta – Any treatment using ‘Survanta’.
4 Both – Any combination of surfactant.
5 Other – Use of other surfactant
6 Curosurf - use of curosurf
7 Curosurf and Survanta

Guide for use: Includes incomplete administration.

Related metadata:
Supersedes previous “Exogenous surfactant” version 1 01/01/1994
Supersedes previous “Exogenous surfactant” version 2 01/06/2005

Administrative attributes

Source organisation: ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Surf’
Date surfactant first given

Admin. status: CURRENT 01/01/2006

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The date of any type of exogenous surfactant given via an endotracheal tube to treat this baby.

Context: Required to identify the date of commencement of the treatment. Prophylactic administration is generally considered the most effective approach in infants < 28 weeks gestation.

Relational and representational attributes

Data type: Numeric Field size: Min. 10 Max. 10 Layout: DD/MM/YYYY

Data domain: Valid date

Verification rules: Should be >= date of birth.

Guide for use:
Surfactant may be administered before (e.g., Labour Ward), at the same time or anytime following initiating of ongoing mechanical ventilation.

Infants who receive surfactant and do not satisfy the ANZNN registration criteria (birth weight or gestation criteria or managed without either mechanical ventilation by ETT or nasal CPAP for 4 hours or more) should not be included in the dataset.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Surfdate’
Time surfactant first given

Admin. status: CURRENT 01/01/2006

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The time of any type of exogenous surfactant given via an endotracheal tube to treat this baby.

Context: Administration of surfactant is most effective if given within the first 8 hours of life. Prophylactic administration is generally considered the most effective approach in infants < 28 weeks gestation.

Guide for use: Surfactant may be administered before (e.g., Labour Ward), at the same time or anytime following initiating of ongoing mechanical ventilation.

Infants who receive surfactant but do not satisfy the ANZNN registration criteria (birth weight or gestation criteria or managed without either mechanical ventilation by ETT or nasal CPAP for 4 hours or more) should not be included in the dataset.

Relational and representational attributes

Data type: Numeric  Field size: Min. 5  Max. 5  Layout: hh:mm (24 hour clock)

Data domain: Expressed as hours and minutes using 24 hour clock

Verification rules: Should be >time of birth.
Is used in conjunction with the date of first surfactant given

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘SurfTime’
Air leak requiring drainage

Admin. status: CURRENT  01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The presence of any form of air leak requiring drainage (either transient or continuous drainage).

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: NN

Data domain:
- 0  No air leak requiring drainage present
- -1 Yes, air leak requiring drainage present
- 99 Unknown

Guide for use: Pulmonary air leaks may include pneumothorax, pulmonary interstitial emphysema, pneumomediastinum, pneumopericardium, pneumoperitoneum, and subcutaneous or surgical emphysema. Exclude prophylactic insertion of chest drain in association with thoracotomy (surgery).

Related metadata: Variable name has changed from ‘ALleak’ to ‘ALLeak’ from 1/1/2012.

Administrative attributes


Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘ALLeak’
**Date of first drainage of pulmonary air leak**

**Admin. status:** CURRENT 01/01/2007

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Date of any form of pulmonary air leak requiring drainage (by needle or drain). Include pneumothorax, pneumomediastinum or pneumopericardium.

**Context:** High-risk babies admitted for intensive care. Air leak may occur early in association with or as a consequence of resuscitation at birth, or it may occur spontaneously in association with respiratory illness or it may occur in association with mechanical ventilation. Each of these has potentially a different aetiology and time of onset.

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 10 Max. 10  **Layout:** DD/MM/YYYY

**Data domain:** Valid date

**Verification rules:** This field must be >=date of birth, be consistent with diagnoses and procedure codes, for records to be grouped.

**Guide for use:** Air leak managed conservatively with ambient oxygen is not recorded.

**Related metadata:** Variable name has changed from ‘ALdate’ to ‘ALDate’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘ALDate’**
Time of first drainage of pulmonary air leak

Admin. status: CURRENT  01/01/2007

Identifying and definitional attributes

Knowledgebase ID:  Version number: 1

Metadata type: DATA ELEMENT

Definition: The time of any form of pulmonary air leak requiring drainage (by needle or drain). Include pneumothorax, pneumomediastinum or pneumopericardium.

Context: High-risk babies admitted for intensive care. Air leak may occur early in association with or as a consequence of resuscitation at birth, or it may occur spontaneously in association with respiratory illness or it may occur in association with mechanical ventilation. Each of these has potentially a different aetiology and time of onset.

Relational and representational attributes

Data type: Numeric  Field size: Min. 5  Max. 5  Layout: hh:mm (24 hour clock)

Data domain: Valid time

Verification rules: This field must be >=date of birth, be consistent with diagnoses and procedure codes, for records to be grouped.

Guide for use: Air leak managed conservatively with ambient oxygen is not recorded.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘ALTime’
Nitric oxide

Admin. status: CURRENT 01/01/1996

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Nitric Oxide used in any form or dose for respiratory support of the baby.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: NN

Data domain:
     0  Nitric oxide therapy never used
     -1  Yes, nitric oxide therapy used
     99  Unknown

Verification rules: Hours of intermittent positive pressure ventilation must be > 0.

Related metadata: Variable name has changed from ‘NO?’ to ‘NO_’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘NO_’
Extracorporeal membrane oxygenation (ECMO)

Admin. status: CURRENT  01/01/1996

Identifying and definitional attributes

Knowledgebase ID:  Version number: 1

Metadata type: DATA ELEMENT

Definition: An extracorporeal circuit established to divert baby's blood to a membrane lung for oxygenation (ECMO) initiated for the baby.

Context: High-risk babies admitted for intensive care.

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: NN

Data domain:

0  ECMO never initiated
-1  Yes, ECMO initiated
99  Unknown

Verification rules: Hours of intermittent positive pressure ventilation must be > 0.

Related metadata: Variable name has changed from ‘ECMO?’ to ‘ECMO_’ from 1/1/2012.

Administrative attributes


Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘ECMO_’
Nasal CPAP

**Admin. status:** CURRENT 01/01/2013

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Use of ongoing nasal CPAP. This does not include the use of CPAP for resuscitation or during transport from the delivery room unless the CPAP is continued thereafter in the NICU. CPAP provided for less than four hours, for the purpose of immediate peri-operative care should be excluded.

**Context:** Early treatment of RDS could be managed in different ways;
- Intubation within an hour of birth and administration of surfactant, followed by extubation and Nasal CPAP. Sometimes this approach is followed by later reintubation and commencement of ongoing mechanical ventilation
- Early nasal CPAP, sometimes associated with late endotracheal intubation for administration of surfactant +/- commencement of ongoing mechanical ventilation
- Commencement of ongoing mechanical ventilation immediately following resuscitation and intubation, +/- surfactant

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 2  
**Layout:** NN

**Data domain:**
- 0 Nasal CPAP was never initiated
- -1 Yes, Nasal CPAP was used for at least 4 hours
- 99 Unknown

**Guide for use:** Is not related to the CPAP given at delivery room only for the resuscitation. The 4 hour rule does not apply. An infant who is placed on CPAP at 30 minutes of age and is subsequently intubated at 2 hours of age should be recorded as having commenced CPAP at 30 minutes.

**Verification rules:** Is used in conjunction with hours of CPAP given to the baby  
Is used in conjunction with date and time of commencement of CPAP

**Related metadata:** Is qualified by date of commencement of CPAP

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**ANZNN label — ‘CPAP’**
**Date of initiation of Nasal CPAP**

**Admin. status:** CURRENT 01/01/2007

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Date of commencement of ongoing nasal CPAP. This does not include the use of CPAP for resuscitation or during transport from the delivery room unless the CPAP is continued thereafter in the NICU. CPAP provided for less than four hours, for the purpose of immediate peri-operative care should be excluded.

**Context:** Early treatment of RDS could be managed in different ways;
- Intubation within an hour of birth and administration of surfactant, followed by extubation and Nasal CPAP. Sometimes this approach is followed by later reintubation and commencement of ongoing mechanical ventilation
- Early nasal CPAP, sometimes associated with late endotracheal intubation for administration of surfactant +/- commencement of ongoing mechanical ventilation
- Commencement of ongoing mechanical ventilation immediately following resuscitation and intubation, +/- surfactant

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 10 Max 10  
**Layout:** DD/MM/YYYY

**Data domain:** Valid date

**Guide for use:** Is not related to the CPAP given at delivery room only for the resuscitation. The 4 hour rule does not apply. An infant who is placed on CPAP at 30 minutes of age and is subsequently intubated at 2 hours of age should be recorded as having commenced CPAP at 30 minutes.

**Verification rules:**
- Is used in conjunction with hours of CPAP given to the baby
- Is used in conjunction with time of commencement of CPAP

**Related metadata:** Is qualified by time of commencement of CPAP

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**ANZNN label — ‘StartCPAPDate’**
Time of initiation of Nasal CPAP

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Time of commencement of ongoing nasal CPAP. This does not include the use of CPAP for resuscitation or during transport from the delivery room unless the CPAP is continued thereafter in the NICU. CPAP provided for less than four hours, for the purpose of immediate perioperative care should be excluded.

Context: High-risk babies admitted for intensive care. Approaches to the early treatment of RDS include:

- Intubation within an hour of birth and administration of surfactant, followed by extubation and Nasal CPAP. Sometimes this approach is followed by later reintubation and commencement of ongoing mechanical ventilation.
- Early nasal CPAP, sometimes associated with late endotracheal intubation for administration of surfactant +/- commencement of ongoing mechanical ventilation.
- Commencement of ongoing mechanical ventilation immediately following resuscitation and intubation, +/- surfactant.

Relational and representational attributes

Data type: Numeric  Field size: Min. 5 Max. 5  Layout: hh:mm (24 hour clock)

Data domain: Valid time

Guide for use: Use 24 hour clock. This is not related to the CPAP given at delivery room only for the resuscitation. The 4 hour rule does not apply. An infant who is placed on CPAP at 30 minutes of age and is subsequently intubated at 2 hours of age should be recorded as having commenced CPAP at 30 minutes of age.

Verification rules: Is used in conjunction with hours of CPAP given to the baby
Is used in conjunction with date of CPAP

Related metadata: Is qualified by time of birth. Variable name has changed from ‘StartCPAPtime’ to ‘StartCPAPT ime’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘StartCPAPT ime’
Date of final cessation of Nasal CPAP

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date of final cessation of nasal CPAP prior to discharge home. CPAP provided for less than four hours, for the purpose of immediate perioperative care should be excluded.

Context: High-risk babies admitted for intensive care. CPAP is often provided intermittently and the number of CPAP hours may not adequately document the overall duration of therapy.

Relational and representational attributes

Data type: Numeric  
Field size: Min. 10 Max 10  
Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: The last date of the final episode of CPAP should be recorded

Verification rules: Is used in conjunction with hours of CPAP given to the baby  
Is used in conjunction with date and time of commencement of CPAP

Related metadata: Is qualified by date and time of commencement of CPAP

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘CeaseCPAPDate’
Time of final cessation of Nasal CPAP

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Time of final cessation of nasal CPAP prior to discharge home. CPAP provided for less than four hours, for the purpose of immediate perioperative care should be excluded.

Context: High-risk babies admitted for intensive care. CPAP is often provided intermittently and the number of CPAP hours may not adequately document the overall duration of therapy.

Relational and representational attributes

Data type: Numeric Field size: Min. 5 Max. 5 Layout: hh:mm (24 hour clock)

Data domain: Valid time

Guide for use: The last time of the final episode of CPAP should be recorded

Verification rules: Is used in conjunction with hours of CPAP given to the baby Is used in conjunction with final date of CPAP

Related metadata: is qualified by date and time of commencement of CPAP. Variable name has changed from ‘CeaseCPAPtime’ to ‘CeaseCPAPTime’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘CeaseCPAPTime’
**Hours of continuous positive airways pressure**

**Admin. status:** CURRENT 01/01/2002

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Total number of hours of continuous positive airways pressure (CPAP) via nasal or nasopharyngeal ventilation.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 5 Max. 5  
**Layout:** NNNNN

**Data domain:** Number representing total hours of continuous positive airways pressure.

**Guide for use:** The number of hours of any form of continuous positive airways pressure therapy is summed for all instances of this therapy. If continuous positive airways pressure is given intermittently, this counts as 24 hours (per day) of continuous positive airways pressure.

For periods up to 96 hours, use the exact number of hours. The usual rounding up and down will apply, e.g. 1 hour 20 minutes is recorded as one hour, and 1 hour 30 minutes is recorded as 2 hours. For periods of greater than 96 hours, use the closest 24-hour period.

Midnight on the date of the last day of CPAP is taken as cessation of the episode. Recommenement of CPAP after a non CPAP day represents a new episode.

The overall duration of CPAP is calculated by the addition of hours counted in each episode.

For practical use, a converter chart is provided below:

<table>
<thead>
<tr>
<th>Days</th>
<th>5</th>
<th>6</th>
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<th>8</th>
<th>9</th>
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<th>18</th>
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<table>
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<th>23</th>
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<td>864</td>
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<td>912</td>
<td>936</td>
<td>960</td>
<td>984</td>
<td>1008</td>
<td>1032</td>
<td>1056</td>
<td>1080</td>
<td>1104</td>
<td>1128</td>
<td>1152</td>
<td>1172</td>
</tr>
</tbody>
</table>

**Related data:** Supersedes previous “Days of continuous positive airways pressure” - version 1 – 01/01/1994

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee.

**ANZNN label – CPAPhrs**
Hours of Nasal CPAP

Admin. status: CURRENT 01/01/2013

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Total number of hours of non invasive continuous positive airways pressure (CPAP) ie: via nasal, nasopharyngeal or face mask. Excludes nasopharyngeal or face mask ventilation.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 5 Max. 5 Layout: NNNNN

Data domain: Number representing total hours of continuous positive airways pressure

Guide for use: The number of hours of non invasive continuous positive airways pressure therapy is summed for all instances of this therapy. If continuous positive airways pressure is given intermittently, this counts as 24 hours (per day) of continuous positive airways pressure.

For periods up to 96 hours, use the exact number of hours. The usual rounding up and down will apply, e.g. 1 hour 20 minutes is recorded as one hour, and 1 hour 30 minutes is recorded as 2 hours. For periods of greater than 96 hours, use the closest 24-hour period.

Midnight on the date of the last day of CPAP is taken as cessation of the episode. Recommencement of CPAP after a non CPAP day represents a new episode.

The overall duration of CPAP is calculated by the addition of hours counted in each episode.

Related data: New item in 2013 to distinguish nasal CPAP hrs from nasopharyngeal ventilation hours: as collected in the new item "Hours of nasal / non-invasive ventilation".

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘nCPAPhrs’
Hours of Nasal / Non Invasive Ventilation

Admin. status: CURRENT 01/01/2013

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Total number of hours of nasal/non-invasive ventilation ie: via nasal, nasopharyngeal or face mask. This includes all forms of ventilation including high frequency. This excludes nasopharyngeal or face mask CPAP.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 5 Max. 5 Layout: NNNNN

Data domain: Number representing total hours of non-invasive ventilation.

Guide for use: The number of hours of non invasive positive pressure ventilation is summed for all instances of this therapy.

The overall duration of nasal ventilation is calculated by the addition of hours counted in each episode.

Related metadata: CPAPhrs.

New item in 2013 to distinguish nasal CPAP hrs from nasal or non-invasive ventilation hours.

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘NVenthrs’
**Nasal High Flow**

*Admin. status:* CURRENT 01/01/2009

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

*Metadata type:* DATA ELEMENT

*Definition:* Blended Air and Oxygen mix with a delivery flow > 1 L/min through any High Flow Device with humidification.

*Context:* High-risk babies admitted for intensive care.

**Relational and representational attributes**

*Data type:* Numeric  
*Field size:* Min. 1 Max. 2  
*Layout:* NN

*Data domain:*

- 0 Nasal high flow was never initiated
- -1 Yes, Nasal high flow was used for at least 4 hours
- 99 Unknown

*Guide for use:* Device specifically designed to deliver high intranasal flow which has been shown to be associated with some air pressure.

**Administrative attributes**

*Source organisation:* ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘HiFlo’**
Minimum Nasal High Flow

Admin. status: CURRENT 01/01/2009

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Minimum flow rate (greater than 1L / min) with air and oxygen mix delivered through a high flow device during the entire treatment period.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 2 Max. 4 Layout: NN.N

Data domain: Number representing the minimum nasal high flow in litres (L) per minute correct to one decimal place. If unknown or missing then use 99.

Guide for use: Device specifically designed to deliver high intranasal flow which has been shown to be associated with some air pressure.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘MinHiFlo’
Maximum Nasal High Flow

**Admin. status:** CURRENT  01/01/2009

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Maximum flow rate (in L / min) with air and oxygen mix delivered through a high flow device during the entire treatment period.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 2 Max. 4  **Layout:** NN.N

**Data domain:** Number representing the maximum nasal high flow in litres (L) per minute correct to one decimal place. If unknown or missing then use 99.

**Guide for use:** Device specifically designed to deliver high intranasal flow which has been shown to be associated with some air pressure.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘MaxHiFlo’
**Date of initiation of Nasal High flow**

**Admin. status:** CURRENT 01/01/2009

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Date of first commencing air and oxygen mix delivered through a High Flow Device.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 10 Max 10  **Layout:** DD/MM/YYYY

**Data domain:** Valid date

**Guide for use:** The use of a device specifically designed to deliver high intranasal flow which has been shown to be associated with some air pressure.

**Verification rules:**

- Is used in conjunction with hours of Nasal High Flow given to the baby.
- Is used in conjunction with time of commencement of Nasal High Flow.

**Related metadata:** Is qualified by time of commencement of Nasal High Flow.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**ANZNN label** — ‘StartHiFloDate’
**Time of initiation of Nasal High Flow**

*Admin. status:* CURRENT 01/01/2009

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

*Metadata type:* DATA ELEMENT

*Definition:* Time of first commencing air and oxygen mix delivered through a High Flow Device.

*Context:* High-risk babies admitted for intensive care

**Relational and representational attributes**

*Data type:* Numeric  
*Field size:* Min. 5 Max. 5  
*Layout:* hh:mm (24 hour clock)

*Data domain:* Valid time

*Guide for use:* Use a 24 hour clock. The use of a device specifically designed to deliver high intranasal flow which has been shown to be associated with some air pressure.

*Verification rules:*
- Is used in conjunction with hours of Nasal High Flow given to the baby
- Is used in conjunction with date of Nasal High Flow.

*Related metadata:* Is qualified by time of birth. Variable name has changed from ‘StartHiFloTime’ to ‘StartHiFloTime’ from 1/1/2012.

**Administrative attributes**

*Source organisation:* ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**ANZNN label — ‘StartHiFloTime’**
Date of final cessation of Nasal High Flow

Admin. status: CURRENT 01/01/2009

Identifying and definitional attributes
Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date of ceasing air and oxygen mix delivered through a High Flow Device.

Context: High-risk babies admitted for intensive care.

Relational and representational attributes

Data type: Numeric Field size: Min. 10 Max 10 Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: Last date of the final episode of Nasal High Flow should be recorded.

Verification rules:
- Is used in conjunction with hours of Nasal High Flow given to the baby
- Is used in conjunction with date and time of commencement of Nasal High Flow

Related metadata: Is qualified by date and time of commencement of Nasal High Flow

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘CeaseHiFloDate’
Time of final cessation of Nasal High Flow

**Admin. status:** CURRENT 01/01/2009

**Identifying and definitional attributes**

**Knowledgebase ID:** 

**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** Time of ceasing air and oxygen mix delivered through a High Flow Device

**Context:** High-risk babies admitted for intensive care.

**Relational and representational attributes**

**Data type:** Numeric  

**Field size:** Min. 5 Max. 5  

**Layout:** hh:mm (24 hour clock)

**Data domain:** Valid time

**Guide for use:** Last date and time of the final episode of Nasal High Flow should be recorded

**Verification rules:**
- Is used in conjunction with hours of Nasal High Flow given to the baby
- Is used in conjunction with final date of Nasal High Flow.

**Related metadata:** Is qualified by date and time of commencement of Nasal High Flow. Variable name has changed from ‘CeaseHiFloTime’ to ‘CeaseHiFloTime’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

---

**ANZNN label — ‘CeaseHiFloTime’**
**Hours of Nasal High Flow**

**Admin. status:** CURRENT 01/01/2009

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Total number of hours of air and oxygen mix delivered through a High Flow Device in hours

**Context:** High-risk babies admitted for intensive care.

**Relational and representational attributes**

**Data type:** Numeric

**Field size:** Min. 5 Max. 5

**Layout:** NNNNN

**Data domain:** Number representing total hours of Nasal High Flow.

**Guide for use:** The number of hours of any form of Nasal High flow therapy is summed for all instances of this therapy. If Nasal High Flow is given intermittently, this counts as 24 hours (per day) of Nasal High Flow. For periods up to 96 hours, use the exact number of hours. The usual rounding up and down will apply, e.g. 1 hour 20 minutes is recorded as one hour, and 1 hour 30 minutes is recorded as 2 hours. For periods of greater than 96 hours, use the closest 24-hour period.

Midnight on the date of the last day of Nasal High Flow is taken as cessation of the episode.

The overall duration of Nasal High Flow is calculated by the addition of hours counted in each episode.

For practical use, a converter chart is provided below:

<table>
<thead>
<tr>
<th>Days</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>120</td>
<td>144</td>
<td>168</td>
<td>192</td>
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<td>336</td>
<td>360</td>
<td>384</td>
<td>408</td>
<td>432</td>
<td>456</td>
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</table>

<table>
<thead>
<tr>
<th>Days</th>
<th>20</th>
<th>21</th>
<th>22</th>
<th>23</th>
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<th>31</th>
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</thead>
<tbody>
<tr>
<td>Hours</td>
<td>480</td>
<td>504</td>
<td>528</td>
<td>552</td>
<td>576</td>
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<td>720</td>
<td>744</td>
<td>768</td>
<td>792</td>
<td>816</td>
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</table>

<table>
<thead>
<tr>
<th>Days</th>
<th>35</th>
<th>36</th>
<th>37</th>
<th>38</th>
<th>39</th>
<th>40</th>
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<th>46</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
<td>840</td>
<td>864</td>
<td>888</td>
<td>912</td>
<td>936</td>
<td>960</td>
<td>984</td>
<td>1008</td>
<td>1032</td>
<td>1056</td>
<td>1080</td>
<td>1104</td>
<td>1128</td>
<td>1152</td>
<td>1172</td>
</tr>
</tbody>
</table>

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

**ANZNN label — ‘HiFlohrs’**
Ongoing mechanical ventilation

Admin. status: CURRENT 01/01/2013

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Intubation for ongoing mechanical ventilation in babies receiving IPPV / IMV / HFOV for 4 or more hours. However babies who are ventilated for <4 hours but die are included.

Context: High-risk babies admitted for intensive care. Approaches to the early treatment of RDS include:

- Intubation within an hour of birth and administration of surfactant, followed by extubation and Nasal CPAP. Sometimes this approach is followed by later reintubation and commencement of ongoing mechanical ventilation.
- Early nasal CPAP, sometimes associated with late endotracheal intubation for administration of surfactant +/- commencement of ongoing mechanical ventilation.
- Commencement of ongoing mechanical ventilation immediately following resuscitation and intubation, +/- surfactant.
- Mechanical ventilation without surfactant

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: NN

Data domain:
0  Ongoing mechanical ventilation was never initiated
-1  Yes, Mechanical ventilation was used for at least 4 hours
99  Unknown

Guide for use: Is not related to the intubation at delivery room only for resuscitation.

Related metadata: Is used in conjunction with hours of IPPV given to the baby
Is used in conjunction with date and time of intubation

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘MV’
Date of first intubation for ongoing mechanical ventilation

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date of intubation for ongoing mechanical ventilation in babies receiving IPPV / IMV / HFOV for 4 or more hours. However babies who are ventilated for <4 hours but die are included.

Context: High-risk babies admitted for intensive care. Approaches to the early treatment of RDS include:

- Intubation within an hour of birth and administration of surfactant, followed by extubation and Nasal CPAP. Sometimes this approach is followed by later reintubation and commencement of ongoing mechanical ventilation.
- Early nasal CPAP, sometimes associated with late endotracheal intubation for administration of surfactant +/- commencement of ongoing mechanical ventilation.
- Commencement of ongoing mechanical ventilation immediately following resuscitation and intubation, +/- surfactant.
- Mechanical ventilation without surfactant

Relational and representational attributes

Data type: Numeric  Field size: Min. 10 Max 10  Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: Is not related to the intubation at delivery room only for resuscitation.

Verification rules: Should be ≥ date of birth.
Is qualified by Ongoing Mechanical Ventilation, Date of Birth and Time of Intubation

Related metadata: Is used in conjunction with hours of IPPV given to the baby
Is used in conjunction with time of intubation

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘MVDate’
Time of first intubation for ongoing mechanical ventilation

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Time of intubation for ongoing mechanical ventilation in babies receiving IPPV / IMV / HFOV for 4 or more hours. However babies who are ventilated for <4 hours but die are included.

Context: High-risk babies admitted for intensive care. Approaches to the early treatment of RDS include:

- Intubation within an hour of birth and administration of surfactant, followed by extubation and Nasal CPAP. Sometimes this approach is followed by later reintubation and commencement of ongoing mechanical ventilation.
- Early nasal CPAP sometimes associated with late endotracheal intubation for administration of surfactant +/- commencement of ongoing mechanical ventilation.
- Commencement of ongoing mechanical ventilation immediately following resuscitation and intubation, +/- surfactant.
- Mechanical ventilation without surfactant

Relational and representational attributes

Data type: Numeric  Field size: Min. 5 Max. 5  Layout: hh:mm (24 hour clock)

Data domain: Valid time

Guide for use: Use 24 hour clock. It is not related to the intubation at delivery room only for resuscitation.

Verification rules: Is qualified by time of birth

Related metadata: Is used in conjunction with hours of IPPV given to the baby
Is used in conjunction with date of intubation

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘MVTime’
**Hours of invasive ventilatory support (via ETT)**

**Admin. status:** CURRENT 01/01/2013

**Identifying and definitional attributes**

**Knowledgebase ID:**  
**Version number:** 3

**Metadata type:** DATA ELEMENT

**Definition:** Total number of hours of intermittent positive pressure ventilation (IPPV) or CPAP given via an endotracheal tube (ETT).

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 5 Max. 5  
**Layout:** NNNNN

**Data domain:** Number representing total hours of intermittent positive pressure ventilation or CPAP via an endotracheal tube.

**Guide for use:**
The number of hours of any form of assisted ventilation therapy via an endotracheal tube is summed for all instances of this therapy. For periods up to 96 hours, use the exact number of hours. The usual rounding up and down will apply, e.g. 1 hour 20 minutes is recorded as one hour, and 1 hour 30 minutes is recorded as 2 hours.

For periods of greater than 96 hours, use the closest 24-hour period. For practical use, a converter chart is provided below:

<table>
<thead>
<tr>
<th>Days</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<th>11</th>
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<td>hours</td>
<td>120</td>
<td>144</td>
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<td>1172</td>
</tr>
</tbody>
</table>

**Related metadata:**
Supersedes previous “Days of intermittent positive pressure ventilation” – version 1 - 1/01/1994
Supersedes previous “Hours of intermittent positive pressure ventilation” – version 2 – 01/01/2001

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘IPPVhrs’**
High Frequency Oscillatory Ventilation (HFOV)

**Admin. status:** CURRENT 01/01/1996

**Identifying and definitional attributes**

**Knowledgebase ID:**

**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** Assisted mechanical ventilation via an endotracheal tube at high frequency (i.e. where small tidal volumes are presented at frequencies more than 4 Hz (240 per minute) given as respiratory support for this baby.

**Context:** High-risk babies admitted for intensive care.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 2  
**Layout:** NN

**Data domain:**

0 High frequency oscillatory ventilation never initiated.  
-1 Yes, high frequency oscillatory ventilation was initiated.  
99 Unknown

**Related metadata:** Variable name has changed from ‘HFOV?’ to ‘HFOV’ from 1/1/2012.

**Administrative attributes**


**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘HFOV’**
Date of initiation of High Frequency Oscillatory Ventilation (HFOV)

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date of initiation of high frequency oscillatory ventilation (> 4 Hz) via an endotracheal tube, provided the HFOV is given for 30 minutes or more.

Context: High-risk babies admitted for intensive care. The time of initiation of high frequency oscillatory ventilation and the percentage of mechanical ventilation hours attributed to high frequency provide a guide as to whether this mode of ventilation was used prophylactically or as a form of rescue therapy.

Relational and representational attributes

Data type: Numeric  Field size: Min. 10 Max 10  Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: >30 minutes of HFOV should be recorded

Verification rules: Is used in conjunction with hours of HFOV given to the baby
Is used in conjunction with time of commencement of HFOV

Related metadata: Variable name has changed from ‘HFOVdate’ to ‘HFOVDate’ from 1/1/2012

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘HFOVDate’
**Time of initiation of High Frequency Oscillatory Ventilation (HFOV)**

**Admin. status:** CURRENT 01/01/2007

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Time of initiation of high frequency oscillatory ventilation (> 4 Hz) via an endotracheal tube, provided the HFOV is given for 30 minutes or more.

**Context:** High-risk babies admitted for intensive care. The time of initiation of high frequency oscillatory ventilation and the percentage of mechanical ventilation hours attributed to high frequency provide a guide as to whether this mode of ventilation was used prophylactically or as a form of rescue therapy.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 5 Max. 5  
**Layout:** hh:mm (24 hour clock)

**Data domain:** Valid time

**Verification rules:** Is used in conjunction with hours of HFOV given to the baby  
Is used in conjunction with date of initiation of HFOV

**Related metadata:** Is qualified by date of commencement of HFOV. Variable name has changed from ‘HFOVtime’ to ‘HFOVTime’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection

---

**ANZNN label — ‘HFOVTime’**
**Hours of High Frequency Oscillatory Ventilation**

**Admin. status:** CURRENT 01/01/2007

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Total number of hours of high frequency oscillatory ventilation given via an endotracheal tube, at >4Hz.

**Context:** High-risk babies admitted for intensive care. High frequency oscillatory ventilation is used variably by different practitioners. It is sometimes used prophylactically but often it is used for rescue. Very few infants who are mechanically ventilated with high frequency are managed with this form of ventilation alone.

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 1 Max. 4  **Layout:** NNNN

**Data domain:** Number representing total hours of high frequency oscillatory ventilation.

**Guide for use:** There is no 4 hour rule. However episodes of < 30 minutes are not counted unless the infant dies. If a baby is managed with 30 minutes of high frequency oscillatory ventilation this should be recorded, and this is rounded up to 1 hour.

**Related metadata:** Use in conjunction with date & time of HFOV given

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘HFOVhrs’
Date of final added oxygen therapy (discontinued)

Admin. status: 01/01/1994 – 31/12/2010

Identifying and definitional attributes
Knowledgebase ID: Version number: 1
Metadata type: DATA ELEMENT
Definition: Date that supplemental oxygen was finally ceased for initial respiratory disease
Context: High-risk babies admitted for intensive care

Relational and representational attributes
Data type: Numeric   Field size: Min. 10 Max. 10   Layout: DD/MM/YYYY
Data domain: valid dates
Verification rules: Must be ≥ Date of birth.
                            Must be ≥ Date of admission
Guide for use: Four consecutive hours in any one 24-hour period constitutes a day. Any route of oxygen administration is used. If oxygen is ceased, and the baby then required respiratory support for the same illness, use final day of all the days that supplemental oxygen was used.

Do not include days of respiratory support for subsequent illnesses such as that required after surgery, RSV etc. If the baby never received respiratory support leave blank.

If the baby received only, 5 hours of oxygen on the date of birth, use that date.

If the baby received supplemental oxygen after discharge from hospital, use the date of discharge for the final day of oxygen therapy.

Related data: Used in conjunction with data element Home oxygen
                          Used in conjunction with data element Chronic lung disease
                          Superseded by “date of final added respiratory support (oxygen therapy or airway support)

Administrative attributes
Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘LastO2’
**Date of final added respiratory support (oxygen therapy or airway support)**

**Admin. status:** CURRENT 01/01/2011

**Identifying and definitional attributes**

- **Knowledgebase ID:**
- **Version number:** 3

**Metadata type:** DATA ELEMENT

**Definition:** Date that supplemental oxygen, high flow, CPAP or mechanical ventilation was finally ceased for initial respiratory disease or as a consequence of complications of it. This is confined to infants < 32 wks gestation.

**Context:** High-risk babies admitted for intensive care.

**Relational and representational attributes**

- **Data type:** Numeric
- **Field size:** Min. 10 Max. 10
- **Layout:** DD/MM/YYYY
- **Data domain:** Valid date

**Verification rules:** Must be ≥ Date of birth. Must be ≥ Date of admission

**Guide for use:** Four consecutive hours in any one 24-hour period constitutes a day. Any mode of respiratory support may be used. If respiratory support is ceased, and then the baby required respiratory support for the same illness, use final day of all the days that respiratory support was used.

- If the baby received only say, 5 hours of respiratory support, on the date of birth, use that date.
- If the baby never received respiratory support leave blank
- If the baby received supplemental oxygen after discharge from hospital, use the discharge date for the final day of respiratory support.
- If the baby has respiratory support terminated but subsequently reinstated and the reason is fundamentally related to the initial perinatal respiratory illness, ie it is chronic lung disease and not an inter-current problem such as a viral infection, the date of final respiratory support should reflect this.

Do not include days of respiratory support for subsequent illnesses such as that required after surgery, RSV etc. If the baby requires respiratory support because of stridor secondary to subglottic stenosis which evolved as a consequence of intubation +/- some chronic lung disease, regarding this as an extension of the initial respiratory illness is debatable. However, it is clearly a consequence of intubation related to the initial respiratory illness, and should be regarded as such. If the baby becomes oxygen dependent following RSV, this should be regarded as a consequence of the RSV + chronic lung disease, and excluded. If the baby is discharged on oxygen, this will be documented separately.

**Related data:** Used in conjunction with the data elements Home oxygen and Chronic lung disease.

Supersedes previous "date of final added oxygen therapy" version 1 01/01/1994. Variable name has changed from ‘LastO2’ to ‘LastRespSupp’ from 1/1/2013.

**Administrative attributes**

- **Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘LastRespSupp’**
Chronic lung disease

Admin. status: CURRENT 01/01/1999

Identifying and definitional attributes
Knowledgebase ID: Version number: 1

Metadata type: DERIVED DATA ELEMENT

Definition: The baby received any respiratory support (supplemental oxygen or intermittent positive pressure ventilation (IPPV) or continuous positive airways pressure (CPAP) or high flow) for a chronic pulmonary disorder on the day the baby reached 36 weeks’ postmenstrual age. This item is for babies born at less than 32 weeks gestation only.

Context: High-risk babies admitted for intensive care.

Clinical indicator

Relational and representational attributes
Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:

- 0 No chronic lung disease.
- -1 Yes, the baby did have chronic lung disease.
- 99 Unknown

Verification rules: Date of final added respiratory support must be > Date of birth
Main respiratory diagnosis must be > 1.

Guide for use: Four consecutive hours in any one 24-hour period constitutes the use of supplemental oxygen or respiratory support on that day.

If respiratory support is ceased, and then the baby required more respiratory support for the same illness or another illness that relates to initial perinatal illness, use final day of all the days that respiratory support was provided. Hence if the baby is receiving respiratory support for their initial and now chronic pulmonary disorder on the day before and the day after the baby turns 36 weeks’ postmenstrual age, then record “yes”.

The day the baby reaches 36 weeks’ postmenstrual age is considered to be the infant’s gestational age (completed weeks + days) plus chronological age in days. For example, a baby born at 28 weeks’ and four days’ gestation on January 1st, is 36 weeks’ postmenstrual age on 22nd February.

This item is for babies born at less than 32 weeks’ gestation only.

Related metadata: Use in conjunction with data element Date of final added respiratory support, Hours of IPPV, Hours of CPAP and Hours of high flow. Variable name has changed from ‘O2_36wk?’ to ‘O2_36wk_’ from 1/1/2012.

Administrative attributes
Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘O2_36wk_’
Post-natal steroids for chronic lung disease

Admin. status: CURRENT 01/01/2013

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The infant was treated with systemic corticosteroids by any route post natally for chronic lung disease.

Context: High-risk babies admitted for intensive care. Systemic corticosteroids use in the treatment of evolving chronic lung disease or for the purpose of its prevention. Chronic lung disease has been associated with adverse neurodevelopmental outcome

Relational and representational attributes

Data type: Numeric

Field size: Min. 1 Max. 2

Layout: NN

Data domain:

0 No systemic post-natal steroids for chronic lung disease.
-1 Yes, the baby did have post-natal steroids for chronic lung disease.
99 Unknown

Guide for use: Corticosteroid used with the objectives of treatment of evolving chronic lung disease at any stage or to prevent development of chronic lung disease. It must not include corticosteroid use for the treatment of conditions such as post-extubation subglottic oedema or in the use for hypotension or any forms of corticosteroid deficiency.

Administrative attributes

Source organisation: ANZNN Advisory Committee, complies with NSW Neonatal Intensive Care Units Data Collection

ANZNN Label — ‘SystCSCLD’
Home oxygen therapy

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The baby used supplemental oxygen at home after discharge from hospital.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  
Field size: Min. 1 Max. 2  
Layout: NN

Data domain:
- 0  No supplemental oxygen used at home.
- -1  Yes, home oxygen therapy.
- 99  Unknown

Verification rules: Date of final respiratory support = Date of Discharge to home or death. Main respiratory diagnosis must be > 1.

Guide for use: Must have required supplemental oxygen in hospital.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘HmeO2’
Proven necrotising enterocolitis

**Admin. status:** CURRENT 01/01/1994

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:**
1. Diagnosis at surgery or post mortem, or
2. Radiological diagnosis, a clinical history plus
   - pneumatosis intestinalis, or
   - portal vein gas, or
   - a persistent dilated loop on serial X-rays, or
3. Clinical diagnosis, a clinical history plus abdominal wall cellulitis and palpable abdominal mass.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric **Field size:** Min. 1 Max. 2 **Layout:** NN

**Data domain:**
-0 No necrotising enterocolitis proven
-1 Yes, necrotising enterocolitis proven
99 Unknown

**Related metadata:** Variable name has changed from ‘NEC?’ to ‘NEC_’ from 1/1/2012.

**Administrative attributes**

**Source documents:**

**Source organisation:** ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘NEC_’**
Spontaneous Intestinal Perforation NOT NEC associated

**Admin. status**: CURRENT 01/01/2013

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type**: DATA ELEMENT

**Definition**: The infant sustained an intestinal perforation not associated with NEC nor with any bowel abnormality (obstruction / atresia) nor with any mechanical trauma (e.g. nasogastric tube).

**Context**: High-risk babies admitted for intensive care. Spontaneous intestinal perforations occur sometimes of unknown cause, sometimes associated with a patent ductus arteriosus or with treatment for same, and sometimes associated with corticosteroid treatment. Co-existence with NEC is regarded as exceptional.

**Relational and representational attributes**

**Data type**: Numeric **Field size**: Min. 1 Max. 2 **Layout**: NN

**Data domain**:

- 0 No, the baby did not have spontaneous intestinal perforation
- -1 Yes, the baby did have spontaneous intestinal perforation
- 99 Unknown

**Guide for use**: SIP, usually a single perforation, without any radiological signs of NEC and/or without surgical diagnosis of NEC.

**Administrative attributes**

**Source organisation**: ANZNN Advisory Committee.

**ANZNN Label** — ‘SIP’
Number of episodes of proven infection (discontinued)

Admin. status: 1/01/1996 – 01/01/2011

Identifying and definitional attributes

Knowledgebase ID: Version number: 2

Date element type: DATA ELEMENT

Definition: The total number of separate episodes of proven bacteria, fungal or viral systemic infections for this baby during the entire hospital admission.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: NN

Data domain: Number representing the number of episodes of proven infection.

Guide for use: Systemic sepsis is defined as a clinical picture consistent with sepsis and either a positive bacterial or fungal culture of blood and/or cerebrospinal fluid, or a positive urine culture by sterile collection only.
Infections with coagulase − negative staphylococci, and other potential contaminants, or group β streptococcal antigen detected in urine should be included only if the baby is considered clinically septic and there is supporting evidence such as raised white cell count or thrombocytopenia.
Viral infections must be proven by culture and/or haematological results consistent with infection.

Related metadata:
Supersedes previous episodes of infection version 1 - 01/01/1994

Administrative attributes


Source organisation: ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Infn’
**Bacterial, fungal or viral infection present**

*Admin. status:* CURRENT 01/01/2012

**Identifying and definitional attributes**

**Knowledgebase ID:**  
**Version number:** 1

**Date element type:** DATA ELEMENT

**Definition:** The presence of proven systemic bacterial or fungal sepsis or late onset nosocomial viral infection for this baby

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 2  
**Layout:** NN

**Data domain:**
- 0  No, the baby did not have a proven bacterial, fungal or viral infection noted
- -1 Yes, the baby did have a proven bacterial, fungal or viral infection noted
- 99 Unknown

**Guide for use:**
Systemic sepsis is defined as a clinical picture consistent with sepsis, and either a positive bacterial or fungal culture of blood and/or cerebrospinal fluid. For each episode of sepsis, the following conditions must apply:
- Isolation of an organism from at least one blood or CSF culture or identification via PCR in CSF and,
- After consideration of clinical and laboratory evidence, a decision is made to give the patient antibiotics with therapeutic intent against this organism.

For each episode of infection, the following conditions must not apply:
- Mixed coagulase negative staphylococcus or other skin flora contaminant episode.
- Clinical features consistent with viral infection
- Isolation or identification of an organism by PCR, immunofluorescence or similar technology from an appropriate body fluid eg mouth swab/saliva, rectal swab/faeces, nasopharyngeal aspirate, endotracheal aspirate, CSF, or other relevant tissues eg skin lesion
- Asymptomatic colonisation with rotavirus should be excluded.

**Administrative attributes**


**Source organisation:** ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection. ANZNN ANDS Reference Group.

**ANZNN label — ‘Infection_’**
**Type of infection**

**Admin. status:** CURRENT 01/01/2012

**Identifying and definitional attributes**

**Knowledgebase ID:** Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** The type of the proven systemic bacterial or fungal infection or nosocomial viral infection present.

**Context:** High risk babies admitted for intensive care.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 2  
**Layout:** NN

**Data domain:**
-1 Early infection (bacterial or fungal infection) – The presence of systemic bacterial or fungal sepsis with initial symptoms occurring prior to 48 hours after birth
0 Late infection (bacterial or fungal infection) – The presence of blood or CSF infection with initial symptoms occurring from 48 hours after birth
2 Viral infection – The presence of at least one episode of viral infection with initial symptoms occurring following 48 hours after birth

**Guide for use:** Must be coded as “yes” for ‘Bacterial, fungal or viral infection present’.

**Early infection (bacterial or fungal infection)** –
For each episode of congenital sepsis, the following conditions must apply:
- Isolation of an organism from at least one blood or CSF culture or identification *via* PCR in CSF and,
- After consideration of clinical and laboratory evidence, a decision is made to give the patient antibiotics with therapeutic intent against this organism.

For each episode of infection, the following conditions must not apply:
- Mixed coagulase negative staphylococcus or other skin flora contaminant episode.

**Late infection (bacterial or fungal infection)** –
- Isolation of an organism from at least one blood or CSF culture or PCR identification in CSF and,
- After consideration of the clinical and laboratory evidence, a decision is made to treat with antibiotics with therapeutic intent against this organism.

The following conditions must not apply:
- Mixed coagulase negative staphylococci or other skin flora contaminant.
- Same organism isolated from blood or CSF during previous 14 days-repeat isolate.

**Viral infection** –
- Clinical features consistent with viral infection
- Isolation or identification of an organism by PCR, immunofluorescence or similar technology from an appropriate body fluid eg mouth swab/saliva, rectal swab/faeces, nasopharyngeal aspirate, endotracheal aspirate, CSF, or other relevant tissues eg skin lesion
- Asymptomatic colonisation with rotavirus should be excluded.
Multiple episodes of infection should be recorded in a separate table where possible as outlined below.

<table>
<thead>
<tr>
<th>BabyCODE</th>
<th>Infection_Type (Early or late sepsis, or viral infection)</th>
<th>Date_Inf (date of infection)</th>
<th>Name_Inf (organism)</th>
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</table>

**Related metadata:**
Is used in conjunction with ‘Name of organism identified by blood or CSF culture of systemic sepsis/ nosocomial viral infection’ and ‘Date of collection positive blood or CSF culture for systemic sepsis or date of onset of nosocomal viral infection occurring after 48 hours of birth’.
Supersedes Early onset bacterial or fungal sepsis – version 2 – 01/01/2006
Supersedes Number of late-onset bacterial or fungal sepsis – version 1 – 01/01/2006
Supersedes Episodes of nosocomial viral infection – version 1 – 01/01/2012

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee. ANZNN ANDS Reference Group.

ANZNN label — ‘Infection_Type1’, ‘Infection_Type2’, ‘Infection_Type3’, ‘Infection_Type4’
Name of organism identified by blood or CSF culture of systemic sepsis/nosocomial viral infection

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The name of the organism identified by blood or CSF culture causing systemic sepsis or virus causing nosocomial infection.

Context: High risk babies admitted for intensive care

Relational and representational attributes

Data type: Text Field size: Min. 10 Max. 40 Layout: cccccc

Guide for use: Must be coded as “yes” for ‘Bacterial, fungal or viral infection present’.

For each episode of sepsis, the following conditions must apply:

- Isolation of an organism from at least one blood or CSF culture or PCR identification in CSF and,
- After consideration of the clinical and laboratory evidence, a decision is made to treat with antibiotics with therapeutic intent against this organism.

The following conditions must not apply:

- Mixed coagulase negative staphylococci or other skin flora contaminant.
- Same organism isolated from blood or CSF during previous 14 days-repeat isolate.

A list of commonly found organisms is provided in appendix (as used by NICUS).

Viral infection should only be considered if initial symptoms occurred after 48 hours of birth.

- Clinical features consistent with viral infection
- Isolation or identification of an organism by PCR, immunofluorescence or similar technology from an appropriate body fluid eg mouth swab/saliva, rectal swab/faeces, nasopharyngeal aspirate, endotracheal aspirate, CSF, or other relevant tissues eg skin lesion
- Asymptomatic colonisation with rotavirus should be excluded.

Related metadata:
Is used in conjunction with ‘Type of infection’ and ‘Date of collection of positive blood or CSF culture for systemic sepsis or date of onset of nosocomial viral infection occurring after 48 hours of birth’.

Supersedes ‘Name of organism identified by blood or CSF culture of early onset sepsis’ – version 1 – 01/01/2007. Supersedes ‘Name of organism identified by blood or CSF culture of late onset sepsis’ – version 1 – 01/01/2007. Supersedes ‘Name of virus identified as cause of nosocomial viral infection’ – version 1 – 01/01/2012.

Administrative attributes


ANZNN label — ‘Name_Inf1’, ‘Name_Inf2’, ‘Name_Inf3’, ‘Name_Inf4’
Date of collection of positive blood or CSF culture for systemic sepsis or date of onset of nosocomial viral infection occurring after 48 hours of birth

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes
Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The date of the collection of blood or CSF culture for each episode of systemic sepsis, or the date of the onset of clinical illness caused by each episode of viral infection, with initial symptoms occurring after 48 hours of birth.

Context: High risk babies admitted for intensive care.

Relational and representational attributes

Data type: Numeric  Field size: Min. 10 Max. 10  Layout: DD/MM/YYYY

Data Domain: Valid date

Guide for use: Must be coded as “yes” for ‘Bacterial, fungal or viral infection present’. Leave blank when corresponding “Type of infection” is coded as “Early infection”.

For each episode of late onset sepsis, the following conditions must apply:
- Isolation of an organism from at least one blood or CSF culture or PCR identification in CSF and,
- After consideration of the clinical and laboratory evidence, a decision is made to treat with antibiotics with therapeutic intent against this organism.

The following conditions must not apply:
- Mixed coagulase negative staphylococci or other skin flora contaminant.
- Same organism isolated from blood or CSF during previous 14 days-repeat isolate.

A list of commonly found organisms is provided in appendix (as used by NICUS).

For each episode of nosocomial viral infection, the following conditions must apply:
- Clinical features consistent with viral infection
- Isolation or identification of an organism by PCR, immunofluorescence or similar technology from an appropriate body fluid eg mouth swab/saliva, rectal swab/faeces, nasopharyngeal aspirate, endotracheal aspirate, CSF, or other relevant tissues eg skin lesion
- Asymptomatic colonisation with rotavirus should be excluded

Related metadata: Use in conjunction with ‘Type of infection’ and ‘Name of organism identified by blood or CSF culture of systemic sepsis/ nosocomial viral infection’.
Supersedes ‘Date of collection of positive blood or CSF culture for each episode of late onset sepsis’ – version 1 – 01/01/2007.
Supersedes ‘Date of onset of each episode of nosocomial viral infection’ – version 1 – 01/01/2012.

Administrative attributes

ANZNN label — ‘Date_Inf1’, ‘Date_Inf2’, ‘Date_Inf3’, ‘Date_Inf4’
Early onset bacterial or fungal sepsis (discontinued)

Admin. status: 01/01/2006 – 31/12/2011

Identifying and definitional attributes

Knowledgebase ID: Version number: 2

Metadata type: DATA ELEMENT

Definition: The presence of systemic bacterial or fungal sepsis with initial symptoms occurring prior to 48 hours after birth.

Context: Isolation of an organism from at least one blood or CSF culture and, after consideration of the clinical and laboratory evidence, a decision is made to treat with antibiotics with therapeutic intent against this organism.

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: NN

Data domain:
0 No congenital fungal or bacterial infection noted
-1 Yes, congenital fungal or bacterial infection noted
99 Unknown

Guide for use: For each episode of congenital sepsis, the following conditions must apply: Isolation of an organism from at least one blood or CSF culture or identification via PCR in CSF and after consideration of clinical and laboratory evidence, a decision is made to give the patient antibiotics with therapeutic intent against this organism.

For each episode of infection, the following conditions must not apply:
Mixed coagulase negative staphylococcus or other skin flora – contaminant episode

Related metadata:
Supersedes previous early infection – version 1 – 01/01/2002
Previous item included septicaemias only

Administrative attributes

Source organisation: ANZNN Advisory Committee

ANZNN label — ‘Early infection’
Number of episodes of late-onset bacterial or fungal sepsis (discontinued)

Admin. status: 01/01/2006 – 31/12/2011

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The presence of at least one episode of blood or CSF infection with initial symptoms occurring from 48 hours after birth.

Context: High-risk babies admitted for intensive care

Clinical indicator

Relational and representational attributes

Data type: Numeric

Field size: Min. 1 Max. 2

Layout: NN

Data domain: Number representing total number of episodes of late onset septicaemia or meningitis.

Guide for use:
- Isolation of an organism from at least one blood or CSF culture or PCR identification in CSF and,
- After consideration of the clinical and laboratory evidence, a decision is made to treat with antibiotics with therapeutic intent against this organism.

The following must not apply:
- Mixed coagulase negative staphylococci or other skin flora contaminant.
- Same organism isolated from blood or CSF during previous 14 days-repeat isolate.

Related metadata: Supersedes previous late onset sepsis which included only septicaemias – version 1 – 01/01/2002

Administrative attributes


Source organisation: ANZNN Advisory Committee

ANZNN label — ‘Late infection’
Name of organism identified by blood or CSF culture of early onset sepsis (discontinued)

**Admin. status:** 01/01/2007 – 31/12/2011

**Identifying and definitional attributes**

**Knowledgebase ID:** Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** The name of the bacteria or fungus causing systemic sepsis with initial symptoms occurring prior to 48 hours after birth.

**Context:** The profile of organisms causing early onset sepsis has changed over the years and continues to evolve. The profile should be monitored.

**Relational and representational attributes**

**Data type:** Text    **Field size:** Min. 10 Max. 40    **Layout:** cccccccc

**Guide for use:** For each episode of congenital BACTERIAL OR FUNGAL sepsis, the following conditions must apply: Isolation of an organism from at least one blood or CSF culture or identification via CSF PCR and after consideration of clinical and laboratory evidence, a decision is made to give the patient antibiotics with therapeutic intent against this organism.

For each episode of infection, the following conditions must not apply:
Mixed coagulase negative staphylococcus or other skin flora – contaminant episode
A list of commonly found organisms is provided in appendix. (used by NICUS)

**Related metadata:** Supersedes previous early infection – version 1 – 01/01/2002
Previous item included septicaemias only

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee

**ANZNN label** — ‘Name_Einf’
Name of organism identified by blood or CSF culture of late onset sepsis (discontinued)

Admin. status: 01/01/2007 – 31/12/2011

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The name of the bacteria or fungus causing systemic sepsis with initial symptoms occurring after 48 hours of birth.

Context: The profile of organisms causing late onset sepsis has changed over the years and continues to evolve. The profile should be monitored.

Relational and representational attributes

Data type: Text  Field size: Min. 10 Max. 40  Layout: cccccc

Guide for use: For each episode of late onset sepsis, the following conditions must apply:
Isolation of an organism from at least one blood or CSF culture or identification of PCR CSF and after consideration of clinical and laboratory evidence, a decision is made to give the patient antibiotics with therapeutic intent against this organism.

For each episode of infection, the following conditions must not apply:
Mixed coagulase negative staphylococcus or other skin flora – contaminant episode
A list of commonly found organisms is provided in appendix. (As used by NICUS)

Related metadata: Supersedes previous late infection – version 1 – 01/01/2002
Previous item included septicaemias only

Administrative attributes

Source organisation: ANZNN Advisory Committee

ANZNN label — ‘Name_Linf1’, ‘Name_Linf2’
Date of collection of positive blood or CSF culture for each episode of late onset sepsis (discontinued)

Admin. status: 01/01/2007 – 31/12/2011

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The date of the collection of blood or CSF culture for each episode of systemic sepsis with initial symptoms occurring after 48 hours of birth.

Context: The profile of organisms causing late onset sepsis has changed over the years and continues to evolve. The profile should be monitored. It was suggested that the majority of late onset infections occur during the first 5 weeks of life.

Relational and representational attributes

Data type: Numeric    Field size: Min. 10 Max. 10   Layout: DD/MM/YYYY

Data Domain: Valid date

Guide for use: For each episode of late onset sepsis, the following conditions must apply: Isolation of an organism from at least one blood or CSF culture or identification via CSF PCR and after consideration of clinical and laboratory evidence, a decision is made to give the patient antibiotics with therapeutic intent against this organism.

For each episode of infection, the following conditions must not apply: Mixed coagulase negative staphylococcus or other skin flora – contaminant episode A list of commonly found organisms is provided in appendix (used by NICUS).

Related metadata: Use in conjunction with late infection and name of infection

Administrative attributes

Source organisation: ANZNN Advisory Committee

ANZNN label — ‘Date_Linf1’, ‘Date_Linf2’
Episodes of nosocomial viral infection (discontinued)

Admin. status: 01/01/2012 – 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The presence of at least one episode of viral infection with initial symptoms occurring after 48 hours of birth.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric    Field size: Min. 1 Max. 2    Layout: NN

Data domain: Number representing total number of episodes of nosocomial viral infection.

Guide for use:
- Clinical features consistent with viral infection
- Isolation or identification of an organism by PCR, immunofluorescence or similar technology from an appropriate body fluid eg mouth swab/saliva, rectal swab/faeces, nasopharyngeal aspirate, endotracheal aspirate, CSF, or other relevant tissues eg skin lesion
- Asymptomatic colonisation with rotavirus should be excluded

Administrative attributes

Source organisation: ANZNN Advisory Committee

Related metadata: Use in conjunction with the date of onset of nosocomial viral infection and name of virus identified.

Source organisation: ANZNN Advisory Committee

ANZNN label — ‘Lviralinf’
Name of virus identified as cause of nosocomial viral infection (discontinued)

**Admin. status:** 01/01/2012 – 01/01/2012

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** The name of the virus causing infection with initial symptoms occurring after 48 hours of birth.

**Context:** The profile of organisms causing late onset viral infection is broadly understood but it is not infrequently a serious nosocomial problem. The profile should be monitored.

**Relational and representational attributes**

**Data type:** Text **Field size:** Min. 10 Max. 40 **Layout:** cccccccc

**Guide for use:**
- Clinical features consistent with viral infection
- Isolation or identification of an organism by PCR, immunofluorescence or similar technology from an appropriate body fluid eg mouth swab/saliva, rectal swab/faeces, nasopharyngeal aspirate, endotracheal aspirate, CSF, or other relevant tissues eg skin lesion
- Asymptomatic colonisation with rotavirus should be excluded

**Related metadata:** Use in conjunction with the date of onset of nosocomial viral infection and name of virus identified.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee

**Related metadata:** Use in conjunction with nosocomial viral infection and date of nosocomial viral infection

**ANZNN label** — ‘Name_Lviralinf1’, ‘Name_Lviralinf2’
Date of onset of each episode of nosocomial viral infection (discontinued)

**Admin. status:** 01/01/2012 – 01/01/2012

**Identifying and definitional attributes**

**Knowledgebase ID:** Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** The date of onset of clinical illness with initial symptoms occurring after 48 hours of birth.

**Context:** The profile of organisms causing late onset viral infection is broadly understood but it is not infrequently a serious nosocomial problem. The profile should be monitored.

**Relational and representational attributes**

**Data type:** Numeric

**Field size:** Min. 10 Max. 10

**Layout:** DD/MM/YYYY

**Data Domain:** Valid date

**Guide for use:**
- Clinical features consistent with viral infection
- Isolation or identification of an organism by PCR, immunofluorescence or similar technology from an appropriate body fluid eg mouth swab/saliva, rectal swab/faeces, nasopharyngeal aspirate, endotracheal aspirate, CSF, or other relevant tissues eg skin lesion
- Asymptomatic colonisation with rotovirus should be excluded

**Related metadata:** Use in conjunction with nosocomial viral infection and name of virus identified.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee

ANZNN label — ‘Date_Lviralinf’1’, ‘Date_Lviralinf2’
Neonatal Major surgery

**Admin. status:** CURRENT  01/01/1995

**Identifying and definitional attributes**

Knowledgebase ID:  Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** This baby had surgery which involved opening a body cavity during this admission.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 1 Max. 2  **Layout:** NN

**Data domain:**
- 0  No neonatal surgery
- -1  Yes, major surgery took place during this admission
- 99  Unknown

**Related metadata:** Variable name has changed from ‘Surgery?’ to ‘Surgery_’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘Surgery_’**
ICD 10 code for each episode of major Neonatal surgery

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: This baby had surgery which involved opening a body cavity during this admission. Names of the surgical procedures that this baby underwent, should be given.

Context: High-risk babies admitted for intensive care
The range of major surgical interventions should be recorded. Documentation is also a cross check on the validity of the coding process.

Relational and representational attributes

Data type: Text Field size: Min. 10 Max. 40 Layout: ccccccccc

Guide for use: Must be coded as “yes” for Neonatal major surgery.

A list of commonly used ICD 10 codes (as used by NICUS) is attached in appendix. Multiple episodes of surgery should be recorded in a separate table where possible, as outlined below.

<table>
<thead>
<tr>
<th>BabyCODE</th>
<th>Surg_Desc (name of operation)</th>
<th>Surg_code (ICD10code)</th>
<th>Surg_BlockCode (block number)</th>
<th>DateSurg</th>
<th>SurgHosp (Hospital where surgery took place)</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
</tbody>
</table>

Related metadata: Variable name has changed from ‘namesurg1’ to ‘Surg_Desc1’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

Date of each episode of major Neonatal surgery

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: This baby had surgery which involved opening a body cavity during this admission. Dates of the surgical procedures that this baby underwent should be given.

Context: High-risk babies admitted for intensive care. The dates of major surgical interventions should be recorded. Documentation is also a cross check on the validity of the coding process.

Relational and representational attributes

Data type: Numeric Field size: Min. 10 Max. 10 Layout: DD/MM/YYYY

Guide for use: Date for each episode of surgery should be provided and recorded in a separate surgery table.

Data domain: Valid dates

Related metadata: Variable name has changed from ‘dateSurg1’ to ‘DateSurg1’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

Hospital of Surgery

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Specify the name of each hospital to which the baby was transferred/admitted for surgery

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Text  Field size: Min. 1 Max. 2  Layout: NN

Data domain: Characters representing the registration hospital code.

Guide for use: This item is for babies undergoing major surgery during this hospital admission. Surgery requiring readmission from home is not recorded by ANZNN.

Related metadata: Variable name has changed from ‘SurgHosp’ to ‘SurgHosp1’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee.

Parenteral Nutrition

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Intravenous infusion of a nutrient solution consisting of a minimum of dextrose and protein but generally providing a complete nutrient infusion including electrolytes, calcium, phosphorus, zinc, trace elements, vitamins and fat.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: NN

Data domain:

0  Parenteral nutrition never initiated
-1  Yes parenteral nutrition initiated
99  Unknown

Guide for use: This item is only for babies born at less than 32 weeks gestation or with a birth weight of less than 1500 grams.

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘PNS’
**Date of Initiation of Parenteral Nutrition**

*Admin. status:* CURRENT 01/01/2012

**Identifying and definitional attributes**

**Knowledgebase ID:**

**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** Date of initiation of parenteral nutrition.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric

**Field size:** Min. 10 Max 10

**Layout:** DD/MM/YYYY

**Data domain:** Valid date

**Guide for use:** This item is only for babies born at less than 32 weeks gestation or with a birth weight of less than 1500 grams.

**Verification rules:**
- Is used in conjunction with time of initiation of parenteral nutrition
- Is used in conjunction with hours of parenteral nutrition given to the baby

**Related metadata:** Is qualified by date of birth

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee.

---

**ANZNN label — ‘StartPNSDate’**
Time of Initiation of Parenteral Nutrition

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Time of initiation of parenteral nutrition.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 5 Max 5  Layout: hh:mm (24 hour clock)

Data domain: Valid time

Guide for use: This item is only for babies born at less than 32 weeks gestation or with a birth weight of less than 1500 grams.

Verification rules:
- Is used in conjunction with date of initiation of parenteral nutrition
- Is used in conjunction with hours of parenteral nutrition given to the baby

Related metadata: Is qualified by date of birth

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘StartPNSTime’
Date of Cessation of Parenteral Nutrition

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date of cessation of parenteral nutrition.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 10 Max 10 Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: This item is only for babies born at less than 32 weeks gestation or with a birth weight of less than 1500 grams.

Verification rules:
- Is used in conjunction with date of initiation of parenteral nutrition
- Is used in conjunction with hours of parenteral nutrition given to the baby

Related metadata: Is qualified by date of initiation of parenteral nutrition

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘CeasePNSDate’
**Time of Cessation of Parenteral Nutrition**

*Admin. status:* CURRENT 01/01/2012

**Identifying and definitional attributes**

Knowledgebase ID:  
Version number: 1

*Metadata type:* DATA ELEMENT

*Definition:* Time of cessation of parenteral nutrition.

*Context:* High-risk babies admitted for intensive care

**Relational and representational attributes**

*Data type:* Numeric  
*Field size:* Min. 5 Max 5  
*Layout:* hh:mm (24 hour clock)

*Data domain:* Valid time

*Guide for use:* This item is only for babies born at less than 32 weeks gestation or with a birth weight of less than 1500 grams.

*Verification rules:*
- Is used in conjunction with date of initiation of parenteral nutrition
- Is used in conjunction with hours of parenteral nutrition given to the baby

*Related metadata:* Is qualified by date of birth

**Administrative attributes**

*Source organisation:* ANZNN Advisory Committee.

**ANZNN label — ‘CeasePNSTime’**
Hours of Parenteral Nutrition

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Total number of hours of parenteral nutrition.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min 5 Max 5 Layout: NNNNN

Data domain: Number representing total hours of parenteral nutrition

Guide for use: This item is only for babies born at less than 32 weeks gestation or with a birth weight of less than 1500 grams.

The number of hours of parenteral nutrition is summed for all instances of this therapy. If parenteral nutrition is given intermittently, 12 or more hours in any one day counts as a full 24 hour day. For periods up to 96 hours use the exact number of hours. The usual rounding up and down will apply, e.g. 1 hour 20 minutes is recorded as one hour, and 1 hour 30 minutes is recorded as two hours. For periods of greater than 96 hours, use the closest 24-hour period.

For practical use a converter chart is provided:

<table>
<thead>
<tr>
<th>Days</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<th>14</th>
<th>15</th>
<th>16</th>
<th>17</th>
<th>18</th>
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<tbody>
<tr>
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<td>768</td>
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<table>
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<td>91</td>
<td>93</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Days</th>
<th>35</th>
<th>36</th>
<th>37</th>
<th>38</th>
<th>39</th>
<th>40</th>
<th>41</th>
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<th>44</th>
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<th>46</th>
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<th>49</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hours</td>
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<td>4</td>
<td>8</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>4</td>
<td>8</td>
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<td>6</td>
<td>0</td>
<td>4</td>
<td>8</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘PNShrs’
Home Gavage feeding

Admin. status: CURRENT 01/012012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The baby was discharged home with a nasogastric tube in place to allow gavage / infusion feeding at home.

Context: Some babies are discharged home on gavage feeds. This practice is increasing and has the potential to impact on duration of stay by gestation data so it is important for it to be monitored. When calculating the duration of hospital stay by gestation for benchmarking purposes, the data should be presented in a manner that enables such babies to be identified.

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:
0 No, not discharged with gavage tube
-1 Yes, discharged to home with a gavage tube
99 Unknown

Guide for use: Must have required gavage feeding in hospital. Babies who have gavage or infusion feeds commenced following their first discharge to home because of poor growth should be excluded.

Administrative attributes

Source organisation: ANZNN Advisory Committee

ANZNN label — ‘Hmegavage’
Therapeutic Hypothermia

Admin. status: CURRENT  01/01/2007

Identifying and definitional attributes

Knowledgebase ID:          Version number: 1

Metadata type: DATA ELEMENT

Definition: Intentional cooling of an infant of any gestational age to a core temperature <35°C (generally 33-34°C).

Context: High-risk babies admitted for intensive care. The evidence in support for controlled hypothermia as a means of limiting the reperfusion injury that follows perinatal asphyxia in term infants has been evolving over the last 10 years. Several multi centre randomized controlled trials have provided evidence which supports this approach in moderately asphyxiated term infants. Some units will choose to offer this therapy. Hypothermia does have potential for harm and its use should be carefully monitored.

Relational and representational attributes

Data type: Numeric

Field size: Min. 1 Max. 2

Layout: NN

Data domain:

0  No
-1  Yes
99  Unknown

Administrative attributes

Source organisation: ANZNN Advisory Committee

ANZNN label — ‘hypotherm’
Date of Initiation of Hypothermia

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date of commencement of therapeutic hypothermia.

Context: High-risk babies admitted for intensive care.

Relational and representational attributes

Data type: Numeric  Field size: Min. 10 Max 10  Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: Cooling is normally for 72 hours + period of up to 6 hours of rewarming. Hypothermia begins at the onset of cooling and ends at the onset of warming.

Verification rules:

- Is used in conjunction with time of initiation of therapeutic hypothermia

Related metadata: Is qualified by date of cessation of therapeutic hypothermia

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘StartCoolDate’
Time of Initiation of Therapeutic Hypothermia

**Admin. status:** CURRENT 01/01/2012

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Time of commencement of therapeutic hypothermia.

**Context:** High-risk babies admitted for intensive care.

**Relational and representational attributes**

**Data type:** Numeric

**Field size:** Min. 5 Max 5

**Layout:** hh:mm (24 hour clock)

**Data domain:** Valid time

**Guide for use:** Cooling is normally for 72 hours + period of up to 6 hours of rewarming. Hypothermia begins at the onset of cooling and ends at the onset of warming.

**Verification rules:**
- Is used in conjunction with date of initiation of therapeutic hypothermia

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee.

**ANZNN label — ‘StartCoolTime’**
**Date of Cessation of Therapeutic Hypothermia**

**Admin. status:** CURRENT 01/01/2012

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Date of cessation of therapeutic hypothermia.

**Context:** High-risk babies admitted for intensive care.

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 10 Max 10  **Layout:** DD/MM/YYYY  

**Data domain:** Valid date

**Guide for use:** Cooling is normally for 72 hours + period of up to 6 hours of rewarming. Hypothermia begins at the onset of cooling and ends at the onset of warming.

**Verification rules:**
- Is used in conjunction with time of cessation of therapeutic hypothermia

**Related metadata:** Is qualified by date of commencement of therapeutic hypothermia

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee.

ANZNN label — ‘CeaseCoolDate’
**Time of Cessation of Therapeutic Hypothermia**

*Admin. status:* CURRENT 01/01/2012

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

*Metadata type:* DATA ELEMENT

*Definition:* Time of cessation of cessation of therapeutic hypothermia

*Context:* High-risk babies admitted for intensive care

**Relational and representational attributes**

*Data type:* Numeric  
*Field size:* Min. 5 Max 5  
*Layout:* hh:mm (24 hour clock)

*Data domain:* Valid time

*Guide for use:* Cooling is normally for 72 hours + period of up to 6 hours of rewarming. Hypothermia begins at the onset of cooling and ends at the onset of warming.

*Verification rules:*
- Is used in conjunction with date of cessation of therapeutic hypothermia

**Administrative attributes**

*Source organisation:* ANZNN Advisory Committee.

**ANZNN label — ‘CeaseCoolTime’**
Principal reason for non completion of full 72 hours of hypothermia

Admin. status: CURRENT 01/01/2012

Identifying and definitional attributes

Knowledgebase ID:  Version number: 1

Metadata type: DATA ELEMENT

Definition: The principal reason why therapeutic hypothermia was terminated early / before 72 hours of treatment had been completed.

Context: High-risk babies admitted for intensive care.

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 1  Layout: N

Data domain:

0  Not ceased before 72 hours (default)
1  Palliation
2  Recognised as not fulfilling standard criteria for cooling
3  Fulfilled standard criteria for cooling but clinical improvement suggests no need
4  Qualification equivocal with change of clinical decision making
5  Severe coagulopathy not responding to blood products
6  Severe PPHN refractory to iNO
7  Hypotension not responding to inotrope
8  Severe PPHN refractory to iNO
9  Arrhythmia

Guide for use: Cooling is normally for 72 hours + period of up to 6 hours of rewarming. If this is not achieved a reason should be given. Hypothermia begins at the onset of cooling and ends at the onset of warming. Distinguishing between options 2, 3 and 4 is likely to be difficult as it requires careful case note documentation. If this is the case, record as unknown.

Administrative attributes

Source organisation: ANZNN Advisory Committee, derived from NSW Neonatal Intensive Care Units Data Collection

ANZNN label — ‘Hypothermceased’
Date of usual two month immunisation

Admin. status: CURRENT 01/01/2007

Identifying and definitional attributes

Knowledgebase ID: Version number: 2

Metadata type: DATA ELEMENT

Definition: The date when the usual 2 month vaccination is given.

Context: High-risk babies admitted for intensive care. Immunisation is important. Delays in immunisation are common because of concerns for adverse reaction, particularly in extremely preterm infants.

Clinical indicator

Relational and representational attributes

Data type: Numeric  Field size: Min. 10 Max. 10  Layout: DD/MM/YYYY

Data domain: Valid date

Guide for use: If not vaccinated prior to discharge leave blank.

Related Metadata: Supersedes previous “immunisation status” version 1 – 01/01/2003. Variable name has changed from ‘dateImmun’ to ‘DateImmun’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee

ANZNN label — ‘DateImmun’
Early breast milk feeding

Admin. status: CURRENT 01/01/2003

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Date element type: DATA ELEMENT

Definition: Mother provided breast milk for baby at initiation of enteral feeding.

Context: High-risk babies admitted for intensive care

Clinical indicator

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 2  Layout: NN

Data domain:

- 0 No breast milk given
- 1 Yes mother provided breast milk for baby at initiation of enteral feeding
- 99 Unknown

Guide for use: This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only.

It is not necessary for the breast milk to be the first feed or for breast milk to be the only milk used. A combination of breast milk and formula is often necessary. The key issue is that mothers expressed breast milk is provided to the infant during the first weeks as feeding is progressively established.

Related metadata: Used in conjunction with breast milk feeding at discharge. Variable name has changed from 'BMonset' to 'Bmonset' from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘Bmonset’
Breast milk feeding at discharge

Admin. status: CURRENT 1/1/2003

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Date element type: DATA ELEMENT

Definition: Mother still providing breast milk for baby at discharge from hospital.

Context: High-risk babies admitted for intensive care.

Clinical indicator

Relational and representational attributes

Data type: Numeric Field siz.: Min. 2 Max: 2 Layout: NN

Data domain:
0  No baby not receiving breast milk
-1  Mother still providing breast milk for her baby at discharge from hospital
99  Unknown

Guide for use: This item is for babies born at less than 32 weeks’ gestation or with a birth weight <1500 grams only.

Related data: Used in conjunction with early breast feeding

Related metadata: Variable name has changed from ‘BMdischarge’ to ‘Bmdischarge’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee

ANZNN label — ‘Bmdischarge’
**Date Full Enteral feeding achieved (discontinued)**

**Admin. status:** 01/01/2007 – 01/01/2011

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** The date the infant reached enteral feeds of 150 ml/kg/day or lower if on a restricted fluid intake as full feed, for example for cardiac conditions with or without nutritional additives.

**Context:** High-risk babies admitted for intensive care. The postnatal age at which full enteral feeding is achieved varies with different feeding practices.

**Clinical indicator**

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 10 Max. 10  
**Layout:** DD/MM/YYYY

**Data domain:** Valid date

**Guide for use:** This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only.

It is not uncommon for a central venous line to be left in place for a day or two after parenteral nutrition has been ceased. Enteral feeding only, is defined by the removal of this source of IV fluid and / or nutrition.

**Guide for use:** A large variation in enteral feed volume as the final full feed volume or at the time TPN is ceased. Considerable number of infants may receive intravenous medication with infusion of KVO. Enteral feed volume of 150 mls/kg/day appears to be a reasonable common ground of ceasing TPN before further grading up of feeds to varying final volume (up to 200ml/kg/day or higher). Some babies may be fluid restricted to 100 or 120 ml/kg/day for medical reasons and grade up nutrition intake with caloric supplements instead of volume.

**Related metadata:** Supersedes the previous “breast feeding at discharge” version 1- 01/01/2003. Superseded by TPN variables.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee.

**ANZNN label — ‘Datefullfeed’**
Baby regained birth weight

Admin. status: CURRENT 01/01/2013

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Birth weight regained and maintained before discharge to home.

Context: The postnatal age at which weight is regained is influenced by intravenous and oral feeding practices which are not standard.

Relational and representational attributes

Data type: Numeric Field siz.: Min. 2 Max: 2 Layout: NN

Data domain:

0 No baby did not regain birth weight before discharge to home
-1 Baby regained birth weight before discharge to home
99 Unknown

Guide for use: This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only.

Related metadata: Is used in conjunction with Birth Weight and Date Baby Regained Birth Weight.

Administrative attributes

Source organisation: ANZNN Advisory Council.

ANZNN label — ‘BWtg’
**Date baby regained birth weight**

*Admin. status:* CURRENT 01/01/2007

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** The date when birth weight is regained and maintained.

**Context:** The postnatal age at which weight is regained is influenced by intravenous and oral feeding practices which are not standard.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 10 Max 10  
**Layout:** DD/MM/YYYY

**Data domain:** Valid date

**Guide for use:** This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only.

It is not uncommon for sick infants to be weighed less frequently than every day. The best estimate should therefore be provided if this is the case.

**Related metadata:** Is used in conjunction with birth weight. Variable name has changed from ‘dateBWtg’ to ‘DateBWtg’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘DateBWtg’**
Maximum grade of left sided periventricular haemorrhage

**Admin. status:** CURRENT 01/01/2014

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** Worst grade of periventricular haemorrhage seen on the left side of the head by imaging or post mortem examination during the first 14 days of life.

**Context:** High-risk babies admitted for intensive care. Bilateral IVH is associated with worse outcome than unilateral; and extensive periventricular haemorrhagic infarct (PVHI) with higher mortality and adverse outcomes.

**Relational and representational attributes**

**Data type:** Numeric  **Field size:** Min. 1 Max. 1  **Layout:** N

**Data domain:**
- 0 *None* – Ultrasound / post mortem shows no haemorrhage.
- 1 *Grade 1* – Subependymal germinal matrix haemorrhage.
- 2 *Grade 2* – Intraventricular haemorrhage.
- 3 *Grade 3* – Intraventricular haemorrhage with ventricle *distended with blood*.
- 4 *Grade 4 – Localised* intraparenchymal haemorrhage
- 5 *Grade 4 – Extensive* intraparenchymal haemorrhage
- 9 *Not examined* – by ultrasound or by post mortem examination.

**Related metadata:** Supersedes previous IVH – version 2 - 01/01/1996

**Guide for use:** This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only. Early ventricular dilatation may occur with or without haemorrhages. Mild ventricular dilatation *without intra-ventricular blood distension is excluded* (not Grade 3).

Localised intraparenchymal haemorrhage / haemorrhagic infarction is defined as being solitary and mainly confined to one of the following territories:

- Anterior Frontal:
- Posterior Frontal:
- Parietal:
- Occipital:
- Temporal:
- Thalamus:

Extensive intraparenchymal haemorrhage / haemorrhagic infarction is defined as involving two or more of the territories. Note: exclude echodensity which resolves within 10 days.
Administrative attributes

Source documents:
Maitre NL et al. 2009, Neurodevelopmental outcome of Infants with unilateral or bilateral periventricular hemorrhagic infarction. Pediatrics 124;e1153.
Bassan H et al 2007, Neurodevelopmental outcome in survivors of periventricular haemorrhagic infarction Pediatrics 120;785-792.

Source organisation: ANZNN Advisory Council

ANZNN label — ‘Left_IVH’
Maximum grade of right sided periventricular haemorrhage

Admin. status: CURRENT 01/01/2014

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Worst grade of periventricular haemorrhage seen on the right side of the head by imaging or post mortem examination during the first 14 days of life.

Context: High-risk babies admitted for intensive care. Bilateral IVH is associated with worse outcome than unilateral; and extensive periventricular haemorrhagic infarct (PVHI) with higher mortality and adverse outcomes.

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 1 Layout: N

Data domain:
0 None – Ultrasound / post mortem shows no haemorrhage.
1 Grade 1 – Subependymal germinal matrix haemorrhage.
2 Grade 2 – Intraventricular haemorrhage.
3 Grade 3 – Intraventricular haemorrhage with ventricle distended with blood.
4 Grade 4 – Localised intraparenchymal haemorrhage
5 Grade 4 – Extensive intraparenchymal haemorrhage
9 Not examined – by ultrasound or by post mortem examination.

Related metadata: Supersedes previous IVH – version 2 - 01/01/1996

Guide for use: This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only. Early ventricular dilatation may occur with or without haemorrhages. Mild ventricular dilatation without intra-ventricular blood distension is excluded (not Grade 3).

Localised intraparenchymal haemorrhage / haemorrhagic infarction is defined as being solitary and mainly confined to one of the following territories:

Anterior Frontal:
Posterior Frontal:
Parietal:
Occipital:
Temporal:
Thalamus:

Extensive intraparenchymal haemorrhage / haemorrhagic infarction is defined as involving two or more of the territories. Note: exclude echodensity which resolves within 10 days.
**Administrative attributes**

**Source documents:**

**Source organisation:** ANZNN Advisory Council

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**ANZNN label — ‘Right_IVH’**
Cerebellar Haemorrhage

Admin. status: CURRENT 01/01/2014

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Most extensive cerebellar haemorrhage noted by imaging or post mortem examination during the first 14 days of life.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 1  Layout: N

Data domain:
0  No cerebellar haemorrhage – Mastoid ultrasound views undertaken and no cerebellar haemorrhage / post mortem shows no cerebellar haemorrhage
1  Left hemisphere haemorrhage only
2  Right hemisphere haemorrhage only
3  Haemorrhage in vermis only
4  Bilateral hemisphere haemorrhage
5  Haemorrhage in either or both hemispheres AND vermis
9  Not examined – No ultrasound mastoid view and no post mortem examination.

Guide for use:
This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only. Mastoid view is required for this detection. Findings from the usual cranial ultrasound via anterior fontanel are not reliable.

Administrative attributes

Source document:

Source organisation: ANZNN Advisory Council

ANZNN label — ‘CerebellarHaem’
Date of late head ultrasound

Admin. status: CURRENT 01/01/1996

Identifying and definitional attributes

Knowledgebase ID: Version number: 2

Metadata type: DATA ELEMENT

Definition: Date of the cerebral ultrasound scan nearest to six weeks of age, provided it is between 4 and 8 weeks of age. Results of this scan are listed in related fields of ventricular dilatation or cysts observed within this period. If worst dilation is different to worst cysts on late scan then date of scan should be worst cysts date as for a higher order of significance.

Context: High-risk babies admitted for intensive care

Relational and representationa
tional attributes

Data type: Numeric Field size: Min. 10 Max. 10 Layout: DD/MM/YYYY

Data domain: Valid date

Verification rules: Date must be ≥ date of birth. Check if > 365 days and age must be ≥ 4 weeks and ≤ 8 weeks. Accept verification if transferred to a level II unit at age >= 3 weeks and < 4 weeks.

Related data: used in conjunction with data element Ventricle size; used in conjunction with data element Cerebral Cyst formation.
Supersedes previous version 1 - 1/01/1994

Guide for use:
This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only. Data is confined to ultrasounds performed between 4 and 8 weeks of age. Accept finding if transferred to Level II units between 3 to 4 weeks of age.

If the infant is transferred to a level II unit prior to 4 weeks of age and it is not practicable to obtain an ultrasound within the defined range, data will be accepted from an ultrasound performed between 3-4 weeks. However, it must be noted that there is a small risk that significant leukomalacia will be missed if the ultrasound is done before 4 weeks of age.

If date of the worst dilatation is different to the date of the worst cyst then use date of worst cyst.

Administrative attributes

Source organisation: ANZNN Advisory Council

ANZNN label — ‘USd6wk’
Ventricle size

Admin. status: CURRENT 1/01/2014

Identifying and definitional attributes

Knowledgebase ID: Version number: 3

Metadata type: DATA ELEMENT

Definition: Ventricle size measured by the ultrasound scan closest to six weeks (4-8 weeks) of age, as the largest measurement from either ventricle.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min 2 Max 2 Layout: NN.N

Data domain: Record the measurement to the nearest 0.1mm. Record 0 for not distended but not measured.

Guide for use: This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only. Record the measurement for the largest ventricle. Some asymmetry of ventricles is common.

Verification rule: If date of late ultrasound is not missing, ventricular size measurement is not missing.

The lateral ventricle measurement is taken at the mid body in the coronal view at the level of the foramen of Monroe.

The normal range for this measurement is 0 – 2.9mm (95% CL) and is independent of gestational age and postnatal age up to 42 weeks corrected age.

Related data: used in conjunction with data element Date of late head ultrasound
Supersedes version 2 - 1/01/1996

Administrative attributes


Source organisation: ANZNN Advisory Council

ANZNN label — ‘VentricleSize’
Cerebral cysts (left)

**Admin. status:** CURRENT 1/01/2014

**Identifying and definitional attributes**

**Knowledgebase ID:**

**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** Cystic change in left cerebral hemisphere measured by the ultrasound scan closest to six weeks of age. *Record worst cystic periventricular leukomalacia severity (extensive or localised) if more cystic changes seen in 4 to 8 week scans*

**Context:** High-risk babies admitted for intensive care; extensive cystic leukomalacia has worse outcome. Specific localised site outcome is not consistently reported.

**Relational and representational attributes**

**Datatype:** Numeric

**Field size:** Min. 1 Max. 1

**Layout:** N

**Data domain:**

0  **No cysts** — No cystic lesions seen on ultrasound
1  **Porencephalic cyst(s)**
2  **Periventricular leukomalacia primarily confined to one of the regions: anterior frontal, posterior frontal, parietal, temporal or occipital region** (same as defined for periventricular haemorrhage)
3  **Extensive leukomalacia involving two or more of the above regions**
9  **Unknown** — Information not available, includes not scanned.

**Related data:** used in conjunction with data element Date of late head ultrasound

Supersedes Cerebral cystic formations version 1 - 1/01/1994.

**Guide for use:** This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only.

Note: ependymal cysts, cysts of the choroid plexus and conatal cysts are considered normal variants and are excluded. If any of these are present score as no cysts.

Note: periventricular leukomalacia regions: (see figure for periventricular haemorrhage).

**Administrative attributes**


**Source organisation:** ANZNN Advisory Council

**ANZNN label — ‘Left_Cysts**
Cerebral cysts (right)

Admin. status: CURRENT 1/01/2014

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Cystic change in right cerebral hemisphere measured by the ultrasound scan closest to six weeks of age. Record worst cystic periventricular leukomalacia severity (extensive or localised) if more cystic changes seen in 4 to 8 week scans

Context: High-risk babies admitted for intensive care; extensive cystic leukomalacia has worse outcome. Specific localised site outcome is not consistently reported.

Relational and representational attributes

Datatype: Numeric Field size: Min. 1 Max. 1 Layout: N

Data domain:

- 0 No cysts – No cystic lesions seen on ultrasound
- 1 Porencephalic cyst(s)
- 2 Periventricular leukomalacia primarily confined to one of the regions: anterior frontal, posterior frontal, parietal, temporal or occipital region (same as defined for periventricular haemorrhage)
- 3 Extensive leukomalacia involving two or more of the above regions
- 9 Unknown – Information not available, includes not scanned.

Related data: used in conjunction with data element Date of late head ultrasound

Supersedes Cerebral cystic formations version 1 - 1/01/1994

Guide for use: This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only.

Note: ependymal cysts, cysts of the choroid plexus and conatal cysts are considered normal variants and are excluded. If any of these are present score as no cysts.

Note: periventricular leukomalacia regions: (see figure for periventricular haemorrhage)

Administrative attributes


Source organisation: ANZNN Advisory Council

ANZNN label — ‘Right_Cysts’
Maximum grade of intraventricular haemorrhage (discontinued)

**Admin. status:** 01/01/1996 – 31/12/2013

**Identifying and definitional attributes**

**Knowledgebase ID:** Version number: 2

**Metadata type:** DATA ELEMENT

**Definition:** Worst grade of intraventricular haemorrhage seen on either side of the head by imaging or post mortem examination during the first ten days of life.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 1  
**Layout:** N

**Data domain:**
- **0** None – Ultrasound / post mortem shows no haemorrhage.
- **1** Grade 1 – Subependymal germinal matrix haemorrhage.
- **2** Grade 2 – Intraventricular haemorrhage with no ventricular distension.
- **3** Grade 3 – Intraventricular haemorrhage with ventricle distended with blood.
- **4** Grade 4 – Intraparenchymal haemorrhage.
- **5** Not examined – by ultrasound or by post mortem examination.

**Related metadata:**
- Supersedes previous IVH – version 1 - 01/01/1994
- Superseded by Maximum grade of left sided periventricular haemorrhage and Maximum grade of right sided periventricular haemorrhage

**Administrative attributes**


**Source organisation:** ANZNN Advisory Committee; Complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label** — ‘IVH’
Ventricle size (discontinued)

Admin. status: 1/01/1996 – 31/12/2013

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Ventricular size measured by the ultrasound scan closest to six weeks (4-8 weeks) of age.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 1 Layout: N

Data domain:
0 Unknown – Information not available, includes not scanned.
1 No dilatation – Ventricle size is less than or equal to 97th centile.
2 Dilatation – Ventricle size > 97th centile for gestation, but <= to 4 mm
3 Hydrocephalus – Ventricle size is > 4 mm (larger than 97th centile for gestation) or hydrocephalus present that required a shunt or any form of drainage (permanent or transient).

Guide for use: This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only.

Ventricular index is measured (in mm) as the furthest lateral extent of each ventricle from the midline measured at the level of Foramen of Monro.

Related data: Used in conjunction with data element Date of late head ultrasound
          Supersedes previous version 1 - 1/01/1994

Administrative attributes


Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Ventricles’
Ventricular index (discontinued)

Admin. status: 1/01/1999 – 31/12/2013

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Size of the lateral ventricle measured by the ultrasound scan closest to six weeks (4-8 weeks) of age.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric

Field size: Min. 2 Max. 2

Layout: NN

Data domain: Number representing the ventricular index in millimetres, 0 for missing or unknown.

Guide for use: This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only.

To be recorded when ventricular dilatation thought likely (i.e. 'dilatation' for item 'ventricle size'). Ventricular index is measured (in mm) as the furthest lateral extent of each ventricle from the midline measured at the level of Foramen of Monro.

Related data: Used in conjunction with data element Date of late head ultrasound

Administrative attributes


Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘VI6wk’
Cerebral cystic formations (discontinued)

**Admin. status:** 1/01/1996 – 31/12/2013

**Identifying and definitional attributes**

**Knowledgebase ID:**

**Version number:** 2

**Metadata type:** DATA ELEMENT

**Definition:**

Changes in brain parenchyma measured by the ultrasound scan closest to six weeks of age.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Datatype:** Numeric

**Field size:** Min. 1 Max. 1

**Layout:** N

**Data domain:**

0 **Unknown** – Information not available, includes not scanned.

1 **No cysts** – No cystic lesions seen on ultrasound.

2 **Porencephalic cyst(s)** – Parenchymal lesions corresponding to grade 4 intraventricular haemorrhage

3 **Periventricular leukomalacia** – Refers to the ischaemic brain injury affecting the periventricular white matter in the boundary zones supplied by terminal branches of the both the centripetal and centrifugal arteries

4 **Encephaloclastic porencephaly** – relatively late development of extensive echo-dense and cystic lesions involving the periphery of the cerebrum

**Related data:** Used in conjunction with data element ‘Date of late head ultrasound’

Supersedes previous version 1 - 1/01/1994

Superseded by Cerebral cysts (left) and Cerebral cysts (right)

**Guide for use:** This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only.

**Administrative attributes**


**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘Cysts’**
Baby meets local criteria for eye examination

Admin. status: CURRENT 1/01/2001

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The baby meets the local criteria for examining the eyes for retinopathy of prematurity at hospital to which the baby is registered.

Context: High-risk babies admitted for intensive care

Guide for use: This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only.

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:

0 No, baby did not meet local criteria for an examination of eyes.
-1 Yes, did meet local criteria for an examination for retinopathy of prematurity.
99 Unknown

Related data: Used in conjunction with Retinopathy of prematurity

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘ROPeligibleExam’
ROP followed until retinal full vascularisation

**Admin. status:** CURRENT 01/01/2007

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

**Metadata type:** DATA ELEMENT

**Definition:** The Ophthalmic follow up is complete with documentation of either no retinopathy or resolution of retinopathy with the worst stage being recorded.

**Context:** High-risk babies admitted for intensive care. A number of infants have incomplete follow up and this creates a serious ascertainment bias.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 2  
**Layout:** NN

**Data domain:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>-1</td>
<td>Yes</td>
</tr>
<tr>
<td>99</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

**Related metadata:** Used in conjunction with retinopathy of prematurity

**Guide for use:** This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only.

This can include those babies discharged home and followed post discharge until full retinal vascularisation – may be up to two months. It is anticipated that infants will be followed to full vascularisation including after discharge from hospital.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘Retmaturity’**
Retinopathy of prematurity

Admin. status: CURRENT 1/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Worst stage of retinopathy of prematurity seen in either eye.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric  Field size: Min. 1 Max. 1  Layout: N

Data domain:
0  None — yes examined, no changes seen.
1  Stage I – Demarcation line separating avascular from vascular retinal regions.
2  Stage II – Ridge – demarcation line increased in volume to extend out of the plane of the retina.
3  Stage III – Ridge with extra retinal fibrovascular proliferation. May be continuous with posterior edge of ridge or posterior but disconnected from the ridge, or into the vitreous.
4  Stage IV – Retinal detachment. In Stage IV the detachment is subtotal, and for Stage V there is total detachment.
5  Not examined – No eye examination performed.

Related data: Used in conjunction with Baby meets local criteria for eye examination

Guide for use: This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only.

The worst stage should be recorded. Sometimes this is after discharge from the primary hospital or even after discharge to home. Every effort should be made to achieve this assessment outcome.

Administrative attributes


Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘ROP’
Surgical Therapy for retinopathy of prematurity

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Any surgical therapy used to treat retinopathy of prematurity. Includes, laser or cryotherapy.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:

- 0 No surgical therapy for retinopathy of prematurity received.
- -1 Yes, surgical therapy given for retinopathy of prematurity.
- 99 Unknown

Related data: Used in conjunction with Retinopathy of prematurity. Stage of treatment may vary with new treatment criteria.

Guide for use: This item is for babies born at less than 32 weeks' gestation or with birth weight < 1500 grams only.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘ROPRx’
Medical (VEGF inhibition) Therapy for retinopathy of prematurity

**Admin. status:** CURRENT 01/01/2012

**Identifying and definitional attributes**

**Knowledgebase ID:**

**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** Medical treatment of ROP with a Vascular endothelial growth factor (VEGF) inhibitor.

**Context:** Vascular endothelial growth factor (VEGF) inhibitors have the capacity to abort the evolution of ROP. Bevacizumab is one of several antibody blockers with this potential and is likely to be used for the treatment of severe ROP. In general it is used for zone 2 disease and usually following failed laser.

There is concern that angiogenesis inhibitors such as bevacizumab may have deleterious effects on developing neonatal vascular beds elsewhere in treated neonates, so it is important to document its use.

**Relational and representational attributes**

**Data type:** Numeric  

**Field size:** Min. 1 Max.  

**Layout:** NN

**Data domain:**

- 0  No (VEGF) inhibitor therapy not used  
-1  Yes (VEGF) inhibitor therapy given for retinopathy of prematurity.  
99  Unknown

**Related data:** Used in conjunction with retinopathy of prematurity

**Guide for use:** This item is for babies born at less than 32 weeks’ gestation or with birth weight < 1500 grams only.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘ROP_VEGF’
Death

Died

Admin. status: CURRENT 1/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The death of a live born baby occurring prior to discharge from hospital.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:
0 No, survived to discharge to home.
-1 Yes, died during first hospitalisation.
99 Unknown

Related data: Used in conjunction with Date of death

Related metadata: Variable name has changed from ‘Died?’ to ‘Died_’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Died_’
Death

Date of death

Admin. status: CURRENT 1/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date of death of the baby.

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 10 Max. 10 Layout: DD/MM/YYYY

Data domain: Valid date

Verification rules: Date must be ≥ date of birth. If died in hospital, must equal to date of discharge. Check if > 365 days.

Related data: Used in conjunction with Died

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘DiedDate’
**Post mortem**

*Admin. status:* CURRENT 01/01/1994

**Identifying and definitional attributes**

Knowledgebase ID: Version number: 1

*Metadata type:* DATA ELEMENT

*Definition:* A post mortem examination was performed.

*Context:* High-risk babies admitted for intensive care

**Relational and representational attributes**

*Data type:* Numeric  
*Field size:* Min. 1 Max. 2  
*Layout:* NN

*Data domain:*

- 0  No post mortem was performed.
- -1  Yes, a post mortem was performed.
- 99  Unknown

*Related data:* Used in conjunction with Died

*Related metadata:* Variable name has changed from ‘Autopsy?’ to ‘Autopsy_’ from 1/1/2012.

**Administrative attributes**

*Source organisation:* ANZNN Advisory Committee; derived from NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘Autopsy_’
Immediate cause of death

**Admin. status:** CURRENT 1/01/1996

**Identifying and definitional attributes**

**Knowledgebase ID:** Version number: 2

**Metadata type:** DATA ELEMENT

**Definition:** Immediate cause of death described in morbid anatomical terms.

**Context:** High-risk babies admitted for intensive care

**Relational and representational attributes**

**Data type:** Character  
**Field size:** Min. 10 Max. 100  
**Layout:** CCCCCC

**Data domain:** Unspecified free field representing the immediate cause of death.

**Guide for use:** Must be coded as “yes” for Died. Multiple causes of death and ICD-10 codes should be recorded in a separate table where possible as outlined below.

<table>
<thead>
<tr>
<th>BabyCODE</th>
<th>CauseCode</th>
<th>Cause_Death</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Related metadata:** Used in conjunction with Died  
Supersedes previous version 1 - 01/01/1994  
Variable name has changed from ‘Cause Death’ to ‘Cause_Death’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee.

**ANZNN label — ‘Cause_Death1’, ‘Cause_Death2’, ‘Cause_Death3’, ‘Cause_Death4’**
Death due to congenital malformation

Admin. status: CURRENT 01/01/1997

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: The death of the baby may be directly attributed to a congenital malformation(s).

Context: High-risk babies admitted for intensive care

Relational and representational attributes

Data type: Numeric Field size: Min. 1 Max. 2 Layout: NN

Data domain:

0  No
-1  Yes, death is attributable to congenital malformation.
99  Unknown

Guide for use: Must be coded as “yes” for Congenital malformation and “yes” for Died.

Verification rules: Congenital malformation must be listed in the ‘congenital malformation field’.

Related data: Used in conjunction with Congenital malformation
Used in conjunction with Died

Related metadata: Variable name has changed from ‘CongAbnmDeath?’ to ‘CongAbnmDeath’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee.

ANZNN label — ‘CongAbnmDeath’
Transferred to another hospital

**Admin. status:** CURRENT 1/01/1994

**Identifying and definitional attributes**

**Knowledgebase ID:**  
**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** The baby was transferred to another hospital nursery before going home.

**Context:** High-risk babies admitted for intensive care

**Context:** Analysis of transfer details is important for service planning.

**Relational and representational attributes**

**Data type:** Numeric  
**Field size:** Min. 1 Max. 2  
**Layout:** NN

**Data domain:**
- 0 No, never transferred.
- -1 Yes, transferred.
- 99 Unknown

**Related metadata:** Variable name has changed from ‘T/fer?’ to ‘T_fer_’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with the NSW Neonatal Intensive Care Units data collection.

**ANZNN label — ‘T_fer_’**
Specify hospital of transfer

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Specify the name of the hospital to which the baby was transferred. This is the hospital referred to in “date of transfer”.

Context: High-risk babies admitted for intensive care.

This information is used to trace the progress of the baby and to monitor its movement so that her / his outcome can be noted. The type or level of hospital of transfer is important information re levels of care, and for service planning.

Relational and representational attributes

Data type: Character Field size: Min. 10 Max. 100 Layout: CCCCCC

Data domain: Free field representing the hospital of transfer.

Guide for use: Must be coded as “yes” for Transferred to another hospital. If the baby is transferred many times please record receiving hospital and date of each transfer. A separate table can be used for all transfers as outlined below, provided appropriate identifiers (BabyCODE) are included.

<table>
<thead>
<tr>
<th>BabyCODE</th>
<th>T_ferHosp (hospital of transfer)</th>
<th>T_ferDate (date of transfer)</th>
<th>NursLevel (level of transfer unit receiving baby)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Related metadata: Variable name has changed from ‘T/ferHosp’ to ‘T_ferHosp’ from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

Level of transfer unit receiving baby

**Admin. status:** CURRENT 01/01/1994

**Identifying and definitional attributes**

**Knowledgebase ID:**

**Version number:** 1

**Metadata type:** DATA ELEMENT

**Definition:** Specify the level of care of the hospital to which the baby was transferred. This is the hospital referred to in “specify hospital of transfer”.

**Context:** High-risk babies admitted for intensive care

This information is used to monitor the baby’s movement so that her/his outcome can be noted. The type of nursery or level of hospital of transfer is important information re levels of care, and for service planning.

**Relational and representational attributes**

**Data type:** Numeric  

**Field size:** Min. 1 Max. 1  

**Layout:** NN

**Data domain:**

1. Level I type of care
2. Level II type of care
3. Level III type of care (NICU or Children’s Hospital)

**Guide for use:** Must be coded as “yes” for Transferred to another hospital. If the baby is transferred many times, for example to another hospital for surgery and then back, or for specialist assessment, and then is transferred to a peripheral hospital record all transfers in the separate ‘transfer table’.

**Level I** care is for normal healthy term babies, some of whom may need short-term observation during the first few hours of life.

**Level II** care refers to a nursery that generally has babies born at 32-36 weeks gestation weighing around 1500 to 2500 grams at birth. It includes care for babies who require intravenous therapy or antibiotics, and/or those who are convalescing after intensive care, and/or those who need their heart rate or breathing monitored, and/or those who need short-term oxygen therapy.

**Level III** or intensive care refers to the care of newborn infants who require more specialised care and treatment. It includes most babies born at less than 32 weeks gestation or less than 1500 grams birth weight, and others who may require such interventions as intravenous feeding, and/or surgery, and/or cardiorespiratory monitoring for the management of apnoea or seizures, and/or require assisted ventilation, and/or supplemental oxygen over 40% or long-term oxygen.

**Related metadata:** Variable name has changed from ‘NursLevel’ to ‘NursLevel1’ from 1/1/2012.

**Administrative attributes**

**Source organisation:** ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

**ANZNN label — ‘NursLevel1’, ‘NursLevel2’, ‘NursLevel3’, ‘NursLevel4’**
Date of transfer

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date on which a newborn baby completes an episode of care in the hospital of registration. Formal separation is the administrative process by which a hospital records the completion of treatment and/or care and accommodation of a patient.

Context: High-risk babies admitted for intensive care

This information is used to trace the progress of the baby and to monitor its movement so that her / his outcome can be noted. Required to identify a period in which an inpatient or same-day episode occurred and for derivation of length of stay.

Relational and representational attributes

Data type: Numeric           Field size: Min. 10 Max. 10           Layout: DD/MM/YYYY

Guide for use: Date must be ≥ date of birth. Please include all transfers.

Data domain: Valid dates

Verification rules: Must be ≥ Date of birth. Check if > 365 days.

Related metadata: Variable name has changed from 'T/ferDate' to 'T_ferDate' from 1/1/2012.

Administrative attributes

Source organisation: ANZNN Advisory Committee; complies with NSW Neonatal Intensive Care Units Data Collection.

ANZNN label — ‘T_ferDate1’, ‘T_ferDate2’, ‘T_ferDate3’, ‘T_ferDate4’
Discharge date

Admin. status: CURRENT 01/01/1994

Identifying and definitional attributes

Knowledgebase ID: Version number: 1

Metadata type: DATA ELEMENT

Definition: Date on which an admitted patient completes an episode of care and is discharged to home.

Context: High-risk babies admitted for intensive care

Required to identify period in which an admitted patient hospital stay or episode occurred and for derivation of length of stay.

Relational and representational attributes

Data type: Numeric Field size: Min. 10 Max. 10 Layout: DD/MM/YYYY

Data domain: Valid date

Verification rules: Must be ≥ Date of birth. Check if > 365 days.

Administrative attributes


Comment: All data collection ceases when the baby is discharged to home.

ANZNN label — ‘HomeDate’
Appendices
### Appendix A: Minor congenital anomalies (to be excluded)

<table>
<thead>
<tr>
<th>Skin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accessory nipple</td>
</tr>
<tr>
<td>Benign skin neoplasms</td>
</tr>
<tr>
<td>Birth mark</td>
</tr>
<tr>
<td>Cafe au lait spots</td>
</tr>
<tr>
<td>Cutis marmorata</td>
</tr>
<tr>
<td>Lanugo excessive or persistent</td>
</tr>
<tr>
<td>Mongolian spots</td>
</tr>
<tr>
<td>Nevus flammeus</td>
</tr>
<tr>
<td>Non calvernous, single small haemangioma</td>
</tr>
<tr>
<td>Pilonidal or sacral dimple</td>
</tr>
<tr>
<td>Scalp defects, cutis aplasia</td>
</tr>
<tr>
<td>Skin cysts</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Skull</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brachycephaly, dolicephaly, plagiocephaly</td>
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<tr>
<td>Craiotabes</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Face</th>
</tr>
</thead>
<tbody>
<tr>
<td>Facial asymmetry</td>
</tr>
<tr>
<td>Facial palsy</td>
</tr>
<tr>
<td>Flat or wide nasal bridge</td>
</tr>
<tr>
<td>Head asymmetry</td>
</tr>
<tr>
<td>Large, small or absent fontanelles</td>
</tr>
<tr>
<td>Macrocephaly</td>
</tr>
<tr>
<td>Micrognathia</td>
</tr>
<tr>
<td>Minor nose malformation</td>
</tr>
<tr>
<td>Upturned nose</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Mouth, tongue &amp; palate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bifid uvula</td>
</tr>
<tr>
<td>Big, wide or small lips</td>
</tr>
<tr>
<td>Cleft palate</td>
</tr>
<tr>
<td>High-arched palate</td>
</tr>
<tr>
<td>Macroglossia</td>
</tr>
<tr>
<td>Microglossia</td>
</tr>
<tr>
<td>Natal teeth</td>
</tr>
<tr>
<td>Ranula</td>
</tr>
<tr>
<td>Tongue cyst</td>
</tr>
<tr>
<td>Tongue-tie</td>
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</table>

<table>
<thead>
<tr>
<th>Ears</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bat, cauliflower, elfin, lop ears</td>
</tr>
<tr>
<td>Darwin’s tubercle</td>
</tr>
<tr>
<td>Ear tags</td>
</tr>
<tr>
<td>Macrotia</td>
</tr>
<tr>
<td>Pointed, posteriorly rotated or low-set ears</td>
</tr>
<tr>
<td>Preauricular sinus, cyst or pit</td>
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</table>

<table>
<thead>
<tr>
<th>Eyes</th>
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<tbody>
<tr>
<td>Blue sclera</td>
</tr>
<tr>
<td>Brushfield spots</td>
</tr>
<tr>
<td>Epicanthal folds</td>
</tr>
<tr>
<td>Esotropia, exotropia strabismus</td>
</tr>
<tr>
<td>Eye slant (upward / downward)</td>
</tr>
</tbody>
</table>
### Appendix A: Minor congenital malformations

<table>
<thead>
<tr>
<th><strong>Narrow palpebral fissures</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Nasolacrimal duct obstruction /dacryostenosis</strong></td>
</tr>
<tr>
<td><strong>Nystagmus</strong></td>
</tr>
</tbody>
</table>

#### Neck
- Brachial cleft or sinus
- Redundant neck skin folds
- Short neck
- Webbing of neck

#### Cardiovascular system
- Cardiomegaly
- Dextroposition of the heart
- Foramen ovale (GA < 37 weeks or BW < 1500g)
- Heart block
- Mild, trivial or physiological valvular regurgitation
- Patent ductus arteriosis (GA < 37 weeks or BW < 1500g)
- Persistent fetal circulation
- Single umbilical artery

#### Urogenital system
- Chordee
- Cyst of vagina, canal of Nuck or ovary
- Ectopic kidney
- Fusion of vulva
- Hydrocele
- Imperforate hymen
- Patent urachus or urachal cyst
- Prominent clitoris
- Small penis
- Undescended testes (GA<37 wks /BW <2500 g)
- Vaginal or hymenal tags

#### Gastrointestinal system
- Hepatomegaly
- Splenomegaly
- Merkel's diverticulum
- Anal tags, Anal or rectal fissures
- Inguinal hernia in males
- Inguinal hernia female (BW< 2500g)
- Umbilical hernia (skin covered)

#### Respiratory system
- Hypoplastic lungs (GA <37wks)
- Laryngeal stridor
- Laryngomalacia

#### Limbs
- Brachydactyly, unspecified
- Camptodactyly
- Cervical rib, other extra ribs
- Clinodactyly
- Dislocation or subluxation of knee
- Enlarged or hypertrophic nails
- Flexion deformity of digits
- Genu valgum, varum /recurvatum
- Hallux valgus
- Hallux varus
- Hip subluxation, clicky hips
**Appendix A: Minor congenital anomalies**

| Long fingers and toes                      |
| Nail hypoplasia                            |
| Overlapping toes                           |
| Partial syndactyly of toe, webbing of toe  |
| Rocker-bottom feet                         |
| Simian or Sydney lines, abnormal palmar creases |
| Skin tags on hands and feet                |
| Talipes calcaneovalgus or equinovarus      |
| Tibial torsion or bowing                   |
| Widely spaced 1st and 2nd toes             |

**Other conditions**

| Balanced autosomal translocations          |
| Birth injuries                             |
| Cephalhaemotoma                            |
| Cystic fibrosis                            |
| Enzyme deficiencies                        |
| Hydrops fetalis                            |
| Meconium ileus                             |
| Metabolic disorder                         |
| Pyloric stenosis                           |
| Sternomastoid tumour                       |
| Torticollis                                |
| Volvulus                                   |
Appendix B: Concepts used

Birth weight

**Admin. status:** CURRENT 1/07/1996

**Identifying and definitional attributes**
Knowledgebase ID: 000021  
Version number: 1

**Metadata type:** DATA ELEMENT CONCEPT

**Definition:** The first weight of the foetus or baby obtained after birth. The World Health Organisation further defines the following categories:
- Extremely low birth weight: < 1000 grams (up to and including 999 g)
- Very low birth weight: < 1500 grams (up to and including 1499 g).
- Low birth weight: < 2500 grams (up to and including 2499 g).

**Context:** Perinatal:

**Administrative attributes**

**Source document:** International Classification of Diseases and Related Health Problems, 10th Revision, WHO, 1992.

**Source organisation:** National Perinatal Data Development Committee.

**Comments:** The definitions of 'low', 'very low' and 'extremely low' birth weight do not constitute exclusive categories. Below the set limits they are all-inclusive and therefore overlap (i.e. low includes very low and extremely low; while very low includes extremely low).

For live births, birth weight should preferably be measured within the first hour of life before significant postnatal weight loss has occurred. While statistical tabulations include 500g groupings for birth weight, weights should not be recorded in those groupings. The actual weight should be recorded to the degree of accuracy to which it is measured.

---

**Gestational age**

**Admin. status:** CURRENT 1/07/1996

**Identifying and definitional attributes**
Knowledgebase ID: 000059  
Version number: 1

**Metadata type:** DATA ELEMENT CONCEPT

**Definition:** The duration of gestation is measured from the first day of the last normal menstrual period. Gestational age is expressed in completed days or weeks (e.g. events occurring 280 to 286 completed days after the onset of the last normal menstrual period are considered to have occurred at 40 weeks of gestation).

WHO defines the following categories:

Preterm: Less than 37 completed weeks (less than 259 days) of gestation.
Term: From 37 completed weeks to less than 42 completed weeks (259 to 293 days) of gestation.
Post-term: 42 completed weeks or more (294 days or more) of gestation.
Context: Perinatal:

Relational and representational attributes
Related Data: relates to Gestational age, version 1

Administrative attributes

Source organisation: National Perinatal Data Development Committee.

---

Live birth

Admin. status: CURRENT 1/07/1995

Identifying and definitional attributes
Knowledgebase ID: 000083 Version number: 1

Relational and representational attributes
Metadata type: DATA ELEMENT CONCEPT

Definition: A live birth is defined by the World Health Organisation to be the complete expulsion or extraction from the mother of a product of conception, irrespective of the duration of the pregnancy which, after such separation, breathes or shows any other evidence of life, such as beating of the heart, pulsation of the umbilical cord, or definite movement of the voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered live born.

Context: Perinatal

Administrative attributes

Source organisation: National Health Data Committee, National Perinatal Data Development Committee.
Intensive care unit

Admin. status: CURRENT 1/07/1997

Identifying and definitional attributes
Knowledgebase ID: 000078 Version number: 1

Relational and representational attributes
Metadata type: DATA ELEMENT CONCEPT

Definition: An intensive care unit (ICU) is a designated ward of a hospital which is specially staffed and equipped to provide observation, care and treatment to patients with actual or potential life-threatening illnesses, injuries or complications, from which recovery is possible. The ICU provides special expertise and facilities for the support of vital functions and utilizes the skills of medical, nursing and other staff trained and experienced in the management of these problems.

Context: admitted patient care

Comments: There are five different types and levels of ICU defined according to three main criteria: the nature of the facility, the care process and the clinical standards and staffing requirements. All levels and types of ICU must be separate and self-contained facilities in hospitals and, for clinical standards and staffing requirements, substantially conform to relevant guidelines of the Australian Council on Healthcare Standards. The five types of ICU are briefly described below:

Neonatal intensive care unit, level 3: must be capable of providing complex, multisystem life support for an indefinite period. It must be capable of providing mechanical ventilation and invasive cardiovascular monitoring; or care of a similar nature.

Source organisation: National Intensive Care Working Group
# Appendix C: ICD codes for common surgical procedures

This list is a guide only; please refer to the relevant resources for further descriptions, exclusions and additional procedure codes.

<table>
<thead>
<tr>
<th>Body System</th>
<th>Surgery Description</th>
<th>ICD-10 Code</th>
<th>Block Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nervous</td>
<td>Insertion of external ventricular drain</td>
<td>39015-00</td>
<td>3</td>
</tr>
<tr>
<td>Nervous</td>
<td>Insertion of ventricular reservoir</td>
<td>39015-01</td>
<td>3</td>
</tr>
<tr>
<td>Nervous</td>
<td>Insertion of ventriculoperitoneal shunt</td>
<td>40003-02</td>
<td>5</td>
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<tr>
<td>Nervous</td>
<td>Repair of encephalocele</td>
<td>40109-00</td>
<td>22</td>
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<tr>
<td>Nervous</td>
<td>Repair of spinal meningocele</td>
<td>40100-00</td>
<td>55</td>
</tr>
<tr>
<td>Nervous</td>
<td>Repair of myelomeningocele</td>
<td>40103-00</td>
<td>55</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Open tracheostomy; temporary</td>
<td>41881-00</td>
<td>536</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Open tracheostomy; permanent</td>
<td>41883-01</td>
<td>536</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Closure of tracheo-oesophageal fistula; via thoracotomy</td>
<td>43852-00</td>
<td>539</td>
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<tr>
<td>Respiratory</td>
<td>Closure of tracheo-oesophageal fistula - Division of trachea-oesophageal fistula without anastomosis</td>
<td>43900-00</td>
<td>539</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Segmental resection of lung</td>
<td>38438-00</td>
<td>551</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Wedge resection of lung</td>
<td>38440-00</td>
<td>551</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Lobectomy of lung</td>
<td>38438-01</td>
<td>552</td>
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<tr>
<td>Respiratory</td>
<td>Exploratory thoracotomy</td>
<td>38418-00</td>
<td>561</td>
</tr>
<tr>
<td>Respiratory</td>
<td>Reopening of thoracotomy or sternotomy site</td>
<td>38656-01</td>
<td>562</td>
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<tr>
<td>Respiratory</td>
<td>Repair of chest wall</td>
<td>90176-00</td>
<td>566</td>
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<tr>
<td>Cardiovascular</td>
<td>Intra-atrial transposition of venous return - Atrial switch procedure</td>
<td>38745-00</td>
<td>603</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Repair of transposition of great vessels - Arterial switch</td>
<td>90224-00</td>
<td>603</td>
</tr>
<tr>
<td>Cardiovascular</td>
<td>Left ventricular myectomy</td>
<td>38763-00</td>
<td>610</td>
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<tr>
<td>Cardiovascular</td>
<td>Right ventricular myectomy</td>
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<td>610</td>
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<tr>
<td>Cardiovascular</td>
<td>Closure of atrial septal defect</td>
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<tr>
<td>Cardiovascular</td>
<td>Closure of ventricular septal defect</td>
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</tr>
<tr>
<td>Cardiovascular</td>
<td>Atrial septectomy or septostomy</td>
<td>38739-00</td>
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<tr>
<td>Cardiovascular</td>
<td>Percutaneous balloon aortic valvuloplasty</td>
<td>38270-01</td>
<td>622</td>
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<tr>
<td>Cardiovascular</td>
<td>Open valvotomy of pulmonary valve</td>
<td>38456-01</td>
<td>636</td>
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<tr>
<td>Cardiovascular</td>
<td>Percutaneous balloon pulmonary valvuloplasty</td>
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### Cardiovascular

<table>
<thead>
<tr>
<th>Procedure</th>
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<th>Section</th>
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</thead>
<tbody>
<tr>
<td>Repair of aortic arch and ascending thoracic aorta</td>
<td>38559-00</td>
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<tr>
<td>Closure of patent ductus arteriosus</td>
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<tr>
<td>Repair of aorta</td>
<td>38706-00</td>
<td>693</td>
</tr>
<tr>
<td>Repair of aorta with anastomosis</td>
<td>38706-01</td>
<td>693</td>
</tr>
<tr>
<td>Repair of aortic interruption</td>
<td>38712-00</td>
<td>693</td>
</tr>
<tr>
<td>Banding of main pulmonary artery</td>
<td>38715-00</td>
<td>717</td>
</tr>
<tr>
<td>Creation of systemic pulmonary shunt</td>
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### Digestive

<table>
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<th>Procedure</th>
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<td>Repair of oesophageal atresia</td>
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<tr>
<td>Repair of oesophageal atresia with repair of distal tracheo-oesophageal fistula</td>
<td>43843-01</td>
<td>866</td>
</tr>
<tr>
<td>Repair of oesophageal atresia with repair of proximal or multiple tracheo-oesophageal fistula</td>
<td>43843-02</td>
<td>866</td>
</tr>
<tr>
<td>- Repair of oesophageal atresia with repair of multiple distal tracheo-oesophageal fistula</td>
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<td></td>
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<tr>
<td>Gastrostomy</td>
<td>30375-07</td>
<td>881</td>
</tr>
<tr>
<td>Fundoplasty, abdominal approach</td>
<td>30527-02</td>
<td>886</td>
</tr>
<tr>
<td>- Nissen's fundoplication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fundoplasty, abdominal approach, with closure of diaphragmatic hiatus</td>
<td>30527-03</td>
<td>886</td>
</tr>
<tr>
<td>- Nissen's fundoplication with closure of diaphragmatic hiatus</td>
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<tr>
<td>Resection of small intestine with formation of stoma</td>
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<td>895</td>
</tr>
<tr>
<td>Resection of small intestine with anastomosis</td>
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<tr>
<td>- Excision of Meckel's diverticulum with resection of small intestine with anastomosis</td>
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<td>Excision of Meckel's diverticulum</td>
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<td>Formation of ileostomy reservoir</td>
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<td>Temporary ileostomy</td>
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<tr>
<td>- Loop ileostomy</td>
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<tr>
<td>Duodenoduodenostomy</td>
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</tr>
<tr>
<td>Closure of loop ileostomy</td>
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<td>899</td>
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<tr>
<td>- Closure of temporary ileostomy</td>
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<tr>
<td>Closure of ileostomy with restoration of bowel continuity, without resection</td>
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<tr>
<td>Repair of small intestine; with single anastomosis</td>
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<tr>
<td>Repair of small intestine; with multiple anastomoses</td>
<td>43810-01</td>
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<tr>
<td>Closure of fistula of small intestine</td>
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<td>Right hemicolecotomy with anastomosis</td>
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<td>Sub-total colectomy with formation of stoma</td>
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<tr>
<td>Subtotal colectomy with anastomosis</td>
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<td>Permanent colostomy</td>
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<tr>
<td>Procedure</td>
<td>Code</td>
<td>ICD-10</td>
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<tr>
<td>Temporary colostomy</td>
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<td>915</td>
</tr>
<tr>
<td>Correction of malrotation of intestine</td>
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<tr>
<td>Closure of loop colostomy</td>
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<td>917</td>
</tr>
<tr>
<td>Delayed primary closure of exomphalos following creation of prosthetic pouch</td>
<td>43873-02</td>
<td>924</td>
</tr>
<tr>
<td>Repair of exomphalos, major</td>
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</tr>
<tr>
<td>Repair of exomphalos, minor</td>
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<tr>
<td>Creation of prosthetic pouch for exomphalos</td>
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<tr>
<td>Appendicectomy</td>
<td>30571-00</td>
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<tr>
<td>Definitive intestinal resection and pull-through anastomosis</td>
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<td>Soave endorectal pull-through procedure</td>
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<td>Exploratory laparotomy</td>
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<tr>
<td>Staging laparotomy</td>
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</tr>
<tr>
<td>Division of abdominal adhesions</td>
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<td>986</td>
</tr>
<tr>
<td>Repair of inguinal hernia, unilateral</td>
<td>30614-02</td>
<td>990</td>
</tr>
<tr>
<td>Repair of inguinal hernia, bilateral</td>
<td>30614-03</td>
<td>990</td>
</tr>
<tr>
<td>Repair of diaphragmatic hernia, abdominal approach</td>
<td>30601-00</td>
<td>998</td>
</tr>
<tr>
<td>Repair of diaphragmatic hernia, thoracic approach</td>
<td>30601-01</td>
<td>998</td>
</tr>
<tr>
<td>Repair of diaphragmatic hernia with use of body wall flap or insertion of prosthetic patch</td>
<td>43837-02</td>
<td>998</td>
</tr>
<tr>
<td>Primary repair of gastroschisis involving skin</td>
<td>43864-00</td>
<td>1003</td>
</tr>
<tr>
<td>Primary repair of gastroschisis involving skin, muscle and fascia</td>
<td>43864-01</td>
<td>1003</td>
</tr>
<tr>
<td>Creation of prosthetic pouch for gastroschisis</td>
<td>43867-00</td>
<td>1003</td>
</tr>
<tr>
<td>- Creation of silo for gastroschisis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second stage procedure for gastroschisis with removal of prosthesis and closure</td>
<td>43867-01</td>
<td>1003</td>
</tr>
</tbody>
</table>
Appendix D: Organisms commonly found causing infections in babies admitted to NICUs/SCBUs

<table>
<thead>
<tr>
<th>Organism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Streptococci: Group B</td>
</tr>
<tr>
<td>Streptococci: other</td>
</tr>
<tr>
<td>Staph aureus-meth sensitive</td>
</tr>
<tr>
<td>Staph aureus-MRSA</td>
</tr>
<tr>
<td>Staph epidermidis-meth sensitive</td>
</tr>
<tr>
<td>Staph epidermis-MRSE</td>
</tr>
<tr>
<td>Other coag neg staph</td>
</tr>
<tr>
<td>Listeria</td>
</tr>
<tr>
<td>Enterococcus (Strep D)</td>
</tr>
<tr>
<td>Other gram positive bacteria</td>
</tr>
<tr>
<td>E coli</td>
</tr>
<tr>
<td>Enterobacter species</td>
</tr>
<tr>
<td>Pseudomonas</td>
</tr>
<tr>
<td>Haemophilus species</td>
</tr>
<tr>
<td>Acinetobacter</td>
</tr>
<tr>
<td>Gardnerella vaginalis</td>
</tr>
<tr>
<td>Neisseria gonorrhoea</td>
</tr>
<tr>
<td>Other gram negative bacteria</td>
</tr>
<tr>
<td>Bacteroides</td>
</tr>
<tr>
<td>Other anaerobes</td>
</tr>
<tr>
<td>Mycoplasma</td>
</tr>
<tr>
<td>Ureaplasma</td>
</tr>
<tr>
<td>Candida: albicans</td>
</tr>
<tr>
<td>Candida: non-albicans</td>
</tr>
<tr>
<td>Other fungal infection</td>
</tr>
<tr>
<td>RSV</td>
</tr>
<tr>
<td>CMV</td>
</tr>
<tr>
<td>Rubella</td>
</tr>
<tr>
<td>Herpes</td>
</tr>
<tr>
<td>Rotavirus</td>
</tr>
<tr>
<td>HIV</td>
</tr>
<tr>
<td>Other Virus</td>
</tr>
<tr>
<td>Toxoplasmosis</td>
</tr>
<tr>
<td>Syphilis</td>
</tr>
<tr>
<td>Chlamydia</td>
</tr>
<tr>
<td>Streptococci: fecalis</td>
</tr>
<tr>
<td>Klebsiella</td>
</tr>
<tr>
<td>Proteus M</td>
</tr>
</tbody>
</table>