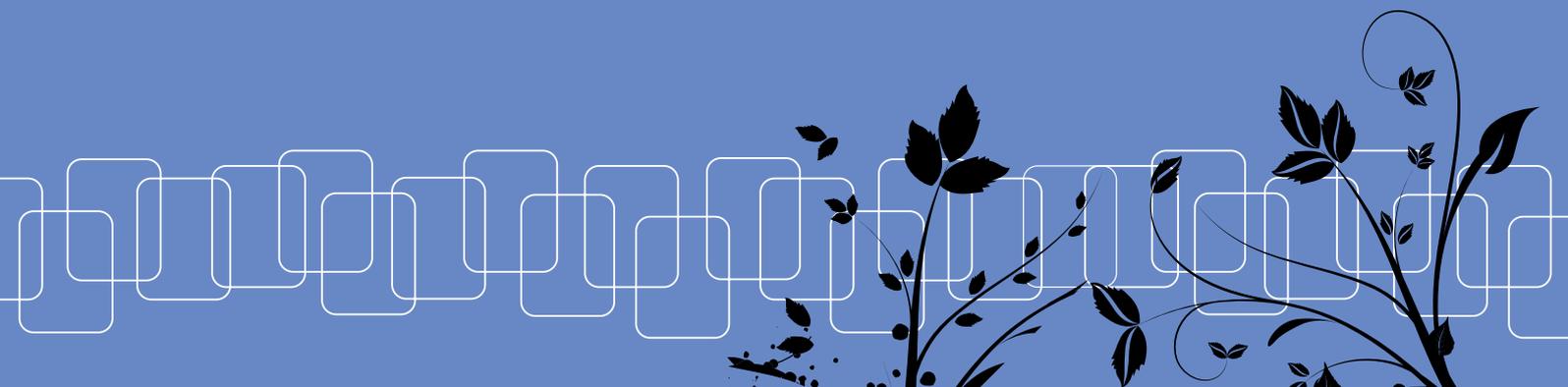


# Defining levels of care for Victorian newborn services





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*Defining levels of care for Victorian newborn services, 2015 replaces Neonatal Service Guidelines, defining levels of care in Victorian hospitals, 2005*

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# About this document

*Defining levels of care for Victorian newborn services* guides health services on the delivery of best-quality newborn care.

The newborn or neonatal period commences at birth and ends 28 days after completed birth (corrected for prematurity). Victoria defines a neonate or newborn as a live birth less than 28 days old. Infants may be cared for in a newborn service for more than 28 days, depending on their clinical needs.

This document classifies newborn services across the state according to six levels of care, and identifies the workforce, infrastructure and clinical support services recommended for each level of service to deliver safe, effective and appropriate care to newborns.

Specifically:

- levels 1 and 2 provide primary newborn services, caring for low-risk, uncomplicated newborns
- levels 3, 4 and 5 provide secondary newborn services, caring for moderate to selected high-risk newborns in a special care nursery
- level 6 (A and B) provides tertiary newborn services, caring for newborns requiring continuous life support and comprehensive multidisciplinary care in a neonatal intensive care unit. Level 6B also provides surgical services.

*Defining levels of care for Victorian newborn services* replaces *Neonatal Service Guidelines, defining levels of care in Victorian hospitals* (2005). Implementation of the new levels of care will not change a service's current capabilities. Rather, it will provide greater granularity to the current service offered and map to the existing levels as follows:

Current classification	New classification
<b>Level 1</b>	Levels 1 and 2 Provide primary newborn services, caring for low risk, uncomplicated newborns
<b>Level 2</b>	Levels 3, 4 and 5 Provide secondary newborn services, caring for moderate to selected high risk newborns in a special care nursery
<b>Level 3</b>	Levels 6A and B Provide tertiary newborn services, caring for newborns requiring continuous life support and comprehensive multidisciplinary care in a neonatal intensive care unit. Level 6B also provides surgical services

Like its companion document, the *Capability framework for maternity and newborn services* (Department of Health 2010), this document also categorises newborn services according to six levels. However, the classifications for newborn services do not directly correlate to the classifications for maternity services.

Some services may classify their newborn service at a different level to their maternity service. When determining the most clinically appropriate location for a woman to receive care, it is important to consider both the needs of the woman and the anticipated needs of the baby.

This document does not prescribe how services should operate – it is designed to support planning, monitoring and delivery of newborn services. Services may not meet every requirement initially, but they should aspire to this, and should implement measures to mitigate risks.

Services should also consider collecting data to monitor service delivery including data on workforce and service capability, for example respiratory support capability.

Decisions about patient care should be based on sound clinical judgement, taking into account the local context as well as the newborn system as a whole. Care should reflect the needs of the baby and family, and encompass principles of effective team-based healthcare. Every effort should be made to keep the mother and baby together.

The Department of Health and Human Services (the department) has developed this document in consultation with a range of stakeholders including:

- Maternity and Newborn Clinical Network
- members of the Perinatal Services Advisory Committee and associated working group
- representatives from metropolitan, rural and regional health services
- maternity and newborn professional groups.

A review of current approaches to defining and classifying newborn care (via academic literature and documented interstate and international approaches) was undertaken during the development of this document. This information was used to shape the final document, which makes every attempt to align definitions and classifications stated in the literature and used in other jurisdictions.

# Defining six levels of care

This document classifies newborn services across the state according to six levels of care and identifies the workforce, infrastructure, and clinical support services recommended for each level of service to deliver safe, effective and appropriate care to newborns.

## Level 1

Service overview	
Provides care for well, uncomplicated, term newborns (postnatal care only)	
<ul style="list-style-type: none"> <li>- care of newborn <math>\geq 37 + 0</math> weeks gestation</li> <li>- usually correlating to newborn birthweight <math>\geq 2,500</math> grams<sup>1</sup></li> </ul>	
Complexity of care	
<b>Emergency care</b>	Provides resuscitation and emergency stabilisation prior to transfer for unplanned births
<b>Respiratory</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)
<b>Surgical</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)
<b>Medical</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)
<b>Critical care/special care</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)
<b>Ophthalmology</b>	Established referral pathways to ophthalmology services
Workforce	
<b>Nursing/midwifery</b>	Staffing in accordance with the <i>Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015</i> or in the case of the private sector, the relevant enterprise agreement and statutory requirement  Staff with appropriate competence and qualifications on site 24 hours a day Staff with competence in neonatal resuscitation and emergency stabilisation
<b>Allied health</b>	Established referral pathways to allied health disciplines
Clinical support services	
<b>Diagnostic imaging</b>	Established referral pathways to imaging services
<b>Pharmacy</b>	Access to pharmacy services locally
<b>Retrieval and transfer</b>	Established pathways with Paediatric Infant Perinatal Emergency Retrieval (PIPER) for specialist consultation, referral and transfer  Established policies and infrastructure for retrieval and transfer (including stabilisation, transfer and receipt of back-transfer)
<b>Lactation support</b>	Referral pathway to lactation advice and referral services*  *Not discipline specific and may not be on site
Infrastructure	
<b>Nursery</b>	Facilities for stabilisation prior to retrieval, in accordance with:  <i>Australasian health facility guidelines: intensive care – neonatal / special care nursery</i> (Australasian Health Infrastructure Alliance 2014)

<sup>1</sup> Recommended gestational age and birth weight are indicative only, and largely relate to decisions regarding prenatal admission. A number of other factors may contribute to the overall presentation of the mother and newborn. Recommended birthweights have been deduced from national birthweight percentiles by gestational age (Dobbins et al. 2012).

## Level 2

As for level 1, plus:

Service overview		
<p>Provides care for mildly unwell, uncomplicated newborns at birth or during immediate postnatal period</p> <ul style="list-style-type: none"> <li>- care of newborn <math>\geq 37 + 0</math> weeks gestation</li> <li>- usually correlating to newborn birthweight <math>\geq 2,500</math> grams</li> </ul> <p>May accept care of newborns marginally below the gestational age/birthweight listed above, when clinically appropriate or following specialist consultation with emergency retrieval or tertiary service</p>		
Complexity of care		
<b>Emergency care</b>	Provides resuscitation and emergency stabilisation prior to transfer	
<b>Respiratory</b>	Provides short term oxygen therapy $\leq 30$ per cent, $\leq 6$ hours	
<b>Surgical</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)	
<b>Medical</b>	<p>Provides care for minor conditions not requiring additional nursing or specialist medical treatment, for example</p> <ul style="list-style-type: none"> <li>- short-term incubator care (<math>\leq 6</math> hours)</li> <li>- short-term, simple phototherapy (physiological jaundice)</li> <li>- short-term gavage feeding</li> <li>- short-term continuous cardiorespiratory/pulse oxymetry monitoring</li> <li>- simple convalescence</li> </ul>	
<b>Critical care/special care</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)	
<b>Ophthalmology</b>	Established referral pathways to ophthalmology services	
Workforce		
<b>Emergency response</b>	Rapid response system (for example Code Blue or equivalent) team on site 24 hours a day to respond immediately to newborn emergencies (birth suite, nursery, emergency department)	
<b>Medical</b>	Paediatrics	n/a (see 'Retrieval and transfer' for advice on referral pathways)
	General practice	Access to general practitioner(s) with competence in resuscitation and emergency stabilisation of newborns
<b>Nursing/midwifery</b>	<p>Staffing in accordance with the <i>Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015</i> or in the case of the private sector, the relevant enterprise agreement and statutory requirement</p> <p>Staff with appropriate competence and qualifications on site 24 hours a day</p> <p>Staff with competence in neonatal resuscitation and emergency stabilisation</p>	
<b>Allied health</b>	Established referral pathways to child protection services, pastoral care and allied health disciplines	

Clinical support services	
<b>Pathology</b>	Access to basic pathology services <sup>2</sup> 24 hours a day. For example, personnel capable of determining blood type and cross matching blood.
<b>Diagnostic imaging</b>	Access to imaging services locally
<b>Pharmacy</b>	Access to pharmacy services locally
<b>Retrieval and transfer</b>	Established pathways with PIPER for specialist consultation, referral and transfer – as required Established policies and infrastructure (including stabilisation, transfer and back-transfer)
<b>Lactation support</b>	Referral pathway to lactation advice and referral services* *Not discipline specific and may not be on site
Infrastructure	
<b>Nursery</b>	Facilities for stabilisation prior to retrieval, in accordance with: <i>Australasian health facility guidelines: intensive care – neonatal / special care nursery</i> 'Transfer: guide to nursery capability', <i>Neonatal ehandbook</i> (Department of Health 2014)

<sup>2</sup> Basic pathology services may include blood cross matching, blood sugar level monitoring, basic haematology and biochemistry

## Level 3

As for level 2, plus:

Service overview					
<p>Provides care for mild-moderately unwell, uncomplicated newborns</p> <ul style="list-style-type: none"> <li>- care of newborn <math>\geq 34 + 0</math> weeks gestation</li> <li>- usually correlating to newborn birthweight <math>\geq 2,000</math> grams</li> </ul> <p>Includes growing preterm and convalescing newborns and infants</p> <p>May accept care of newborns marginally under the gestational age/birthweight listed above, when clinically appropriate or following specialist consultation with emergency retrieval or tertiary service</p>					
Complexity of care					
<b>Emergency care</b>	Provides resuscitation and emergency stabilisation prior to transfer				
<b>Respiratory</b>	<p>Provides oxygen therapy <math>\leq 30</math> per cent, 24–48 hours</p> <p>Provides non-invasive respiratory support for short-term transition problems pending transfer</p> <ul style="list-style-type: none"> <li>- nasal continuous positive airways pressure or high-flow oxygen via nasal cannulae</li> <li>- oxygen requirement (<math>\leq 40</math> per cent, <math>\leq 4</math> hours)</li> </ul> <p>Provides short-term assisted ventilation care for respiratory support pending transfer only</p> <ul style="list-style-type: none"> <li>- anticipated short-term use (less than 4 hours), oxygen requirement (<math>\leq 60</math> per cent)</li> </ul>				
<b>Surgical</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)				
<b>Medical</b>	<p>Provides care for short-term transition problems or minor complications, for example:</p> <ul style="list-style-type: none"> <li>- as for level 2, plus</li> <li>- gavage feeding</li> <li>- simple apnoea monitoring, blood glucose monitoring</li> <li>- short-term intravenous therapy</li> </ul>				
<b>Critical care/special care</b>	Provides low-dependency special care				
<b>Ophthalmology</b>	Established referral pathways to ophthalmology services				
Workforce					
<b>Emergency response</b>	Rapid response system (for example Code Blue or equivalent) team on site 24 hours a day to respond immediately to newborn emergencies (birth suite, nursery, emergency department)				
<b>Medical</b>	<table border="1"> <tr> <td>Paediatrics</td> <td> <p>Consultant paediatrician (or general practitioner with competence in paediatrics/newborn advanced life support accreditation)</p> <ul style="list-style-type: none"> <li>- on site for ward round seven days per week</li> <li>- on call 24 hours a day (within 30 minutes)</li> </ul> <p>Resident</p> <ul style="list-style-type: none"> <li>- on site 24 hours a day</li> </ul> </td> </tr> <tr> <td>General practice</td> <td>Access to general practitioner(s) with competence in resuscitation and emergency stabilisation of newborns</td> </tr> </table>	Paediatrics	<p>Consultant paediatrician (or general practitioner with competence in paediatrics/newborn advanced life support accreditation)</p> <ul style="list-style-type: none"> <li>- on site for ward round seven days per week</li> <li>- on call 24 hours a day (within 30 minutes)</li> </ul> <p>Resident</p> <ul style="list-style-type: none"> <li>- on site 24 hours a day</li> </ul>	General practice	Access to general practitioner(s) with competence in resuscitation and emergency stabilisation of newborns
	Paediatrics	<p>Consultant paediatrician (or general practitioner with competence in paediatrics/newborn advanced life support accreditation)</p> <ul style="list-style-type: none"> <li>- on site for ward round seven days per week</li> <li>- on call 24 hours a day (within 30 minutes)</li> </ul> <p>Resident</p> <ul style="list-style-type: none"> <li>- on site 24 hours a day</li> </ul>			
General practice	Access to general practitioner(s) with competence in resuscitation and emergency stabilisation of newborns				

Workforce continued	
<b>Nursing/Midwifery</b>	<p>Staffing in accordance with the <i>Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015</i> or in the case of the private sector, the relevant enterprise agreement and statutory requirement</p> <p>Staff with appropriate competence and qualifications on site 24 hours a day</p> <p>Staff with competence in the administration of non-invasive ventilation (continuous positive airways pressure or high flow oxygen)</p> <p>Staff with competence in neonatal resuscitation and emergency stabilisation</p>
<b>Allied health</b>	<p>Established referral pathways to child protection services</p> <p>Access to pastoral care</p> <p>On-site access to allied health services including dietetic, physiotherapy, social work, audiology and speech pathology services</p>
Clinical support services	
<b>Pathology</b>	Access to pathology services 24 hours a day
<b>Diagnostic imaging</b>	<p>Access to on-call basic radiology services 24 hours a day (within 30 minutes)</p> <p>Access to imaging services locally</p>
<b>Pharmacy</b>	Access to pharmacy services locally
<b>Retrieval and transfer</b>	<p>Established pathways with PIPER for specialist consultation, referral and transfer – as required</p> <p>Established policies and infrastructure (including stabilisation, transfer and back-transfer)</p> <p>Established protocols to accept appropriate convalescent referrals from level 5 and 6 services</p>
<b>Lactation support</b>	<p>Referral pathway to lactation advice and referral services*</p> <p>*Not discipline specific and may not be on site</p>
Infrastructure	
<b>Nursery</b>	<p>Access to facilities, space and equipment to support:</p> <ul style="list-style-type: none"> <li>- care for newborns without complications</li> <li>- newborn resuscitation</li> <li>- stabilisation prior to retrieval</li> </ul> <p>In accordance with:</p> <p><i>Australasian health facility guidelines: intensive care – neonatal / special care nursery</i></p> <p>'Transfer: guide to nursery capability', <i>Neonatal ehandbook</i></p>
<b>Special care nursery</b>	On-site access to special care nursery – low dependency

## Level 4

As for level 3, plus:

Service overview	
<p>Provides care for moderately unwell, uncomplicated newborns</p> <ul style="list-style-type: none"> <li>- care of newborn <math>\geq 32 + 0</math> weeks gestation</li> <li>- usually correlating to newborn birthweight <math>\geq 1,500</math> grams</li> </ul> <p>Includes growing preterm and convalescing newborns and infants</p> <p>May accept care of newborns marginally under the gestational age/birthweight listed below, when clinically appropriate or following specialist consultation with emergency retrieval or tertiary service</p>	
Complexity of care	
<b>Emergency care</b>	Provides resuscitation and emergency stabilisation prior to transfer
<b>Respiratory</b>	<p>Provides non-invasive respiratory support</p> <ul style="list-style-type: none"> <li>- nasal continuous positive airways pressure or high flow oxygen via nasal cannulae</li> <li>- oxygen requirement (<math>\leq 40</math> per cent, up to 48–72 hours)</li> </ul> <p>Provides short-term ventilator care for respiratory support pending transfer only</p> <ul style="list-style-type: none"> <li>- anticipated short-term use (<math>\leq 4</math> hours), oxygen requirement (<math>\leq 60</math> per cent)</li> </ul>
<b>Surgical</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)
<b>Medical</b>	<p>Provides care for newborns requiring incubator care who are pre-term or unwell, for example</p> <ul style="list-style-type: none"> <li>- as for level 3, plus</li> <li>- blood gas monitoring</li> <li>- non-invasive blood pressure monitoring</li> </ul>
<b>Critical care/special care</b>	Provides low to high-dependency special care
<b>Ophthalmology</b>	Established referral pathways to ophthalmology services
Workforce	
<b>Emergency response</b>	Rapid response system (for example Code Blue or equivalent) team on site 24 hours a day to respond immediately to newborn emergencies (birth suite, nursery, emergency department)
<b>Medical</b>	<p>Paediatrics</p> <p>Consultant paediatrician (or dual trained paediatrics/neonatology)</p> <ul style="list-style-type: none"> <li>- on site business hours</li> <li>- on call after hours (within 30 minutes)</li> </ul> <p>Paediatric registrar</p> <ul style="list-style-type: none"> <li>- on site 24 hours a day to respond to newborn emergencies</li> </ul> <p>Resident</p> <ul style="list-style-type: none"> <li>- on site 24 hours a day</li> </ul>
	<p>Paediatric subspecialty</p> <p>Access to clinical and diagnostic paediatric subspecialties via referral</p> <p>(see 'retrieval and transfer' for advice on referral pathways)</p>
	<p>Surgery</p> <p>Access to surgical advice and consultation via referral</p> <p>(see 'retrieval and transfer' for advice on referral pathways)</p>

Workforce continued	
<b>Nursing/Midwifery</b>	<p>Staffing in accordance with the <i>Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015</i> or in the case of the private sector, the relevant enterprise agreement and statutory requirement</p> <p>Staff with appropriate competence and qualifications on site 24 hours a day</p> <p>Staff with competence in the administration of non-invasive ventilation (continuous positive airways pressure or high-flow oxygen)</p> <p>Staff with competence in neonatal resuscitation and emergency stabilisation</p>
<b>Allied health</b>	<p>Established referral pathways to child protection services</p> <p>Access to pastoral care</p> <p>On-site access to allied health services including dietetic, physiotherapy, social work, audiology and speech pathology services</p>
Clinical support services	
<b>Pathology</b>	Access to pathology services 24 hours a day
<b>Diagnostic imaging</b>	Access to on-call imaging services 24 hours a day (within 30 minutes)
<b>Pharmacy</b>	Access to pharmacy services 24 hours a day (seven-day service, 24 hour on-call service)
<b>Retrieval and transfer</b>	<p>Established pathways with PIPER for specialist consultation, referral and transfer – as required</p> <p>Established policies and infrastructure (including stabilisation, transfer and back-transfer)</p> <p>Established protocols to accept appropriate convalescent referrals from level 6 services</p>
<b>Lactation support</b>	<p>Referral pathway to lactation advice and referral services*</p> <p>*Not discipline specific and may not be on site</p>
Infrastructure	
<b>Nursery</b>	<p>Access to facilities, space and equipment to support:</p> <ul style="list-style-type: none"> <li>- care for moderate and selected high-risk, uncomplicated newborns</li> <li>- newborn resuscitation</li> <li>- newborn isolation</li> <li>- stabilisation prior to retrieval</li> </ul> <p>In accordance with:</p> <p><i>Australasian health facility guidelines: intensive care – neonatal / special care nursery</i></p> <p>'Transfer: guide to nursery capability', <i>Neonatal ehandbook</i></p>
<b>Special care nursery</b>	On-site access to special care nursery – low to high dependency

## Level 5

As for level 4, plus:

Service overview	
<p>Provides care for moderately unwell or preterm newborns, including some moderately complex newborns</p> <ul style="list-style-type: none"> <li>- care of newborn <math>\geq 31 + 0</math> weeks gestation</li> <li>- usually correlating to newborn birthweight <math>\geq 1,250</math> grams</li> </ul> <p>Includes growing preterm and convalescing newborns and infants</p> <p>May accept care of newborns marginally under the gestational age/birthweight listed below, when clinically appropriate or following specialist consultation with emergency retrieval or tertiary service</p>	
Complexity of care	
<b>Emergency care</b>	Provides resuscitation and emergency stabilisation
<b>Respiratory</b>	<p>Provides non-invasive respiratory support</p> <ul style="list-style-type: none"> <li>- nasal continuous positive airways pressure or high flow oxygen via nasal cannulae</li> <li>- oxygen requirement (<math>\leq 50</math> per cent, for 72 hours or more)</li> </ul> <p>Provides short-term ventilator care for respiratory support pending transfer only</p> <ul style="list-style-type: none"> <li>- anticipated short-term use (<math>\leq 4</math> hours), oxygen requirement (<math>\leq 60</math> per cent)</li> </ul>
<b>Surgical</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)
<b>Medical</b>	<p>Provides care for newborns requiring incubator care who are pre-term or unwell, for example</p> <ul style="list-style-type: none"> <li>- as for level 4, plus</li> <li>- parenteral nutrition (proficiency in administration and maintenance)</li> <li>- central venous catheters (e.g. umbilical) and peripherally inserted central catheters</li> </ul>
<b>Critical care/special care</b>	Provides high-dependency special care and limited intensive care (for example parenteral nutrition)
<b>Ophthalmology</b>	Established referral pathways to ophthalmology services
Workforce	
<b>Emergency response</b>	Rapid response system (for example Code Blue or equivalent) team on site 24 hours a day to respond immediately to newborn emergencies (birth suite, nursery, emergency department)
<b>Medical</b>	<p>Neonatology</p> <p>Consultant neonatologist (or dual-trained paediatrics/neonatology)</p> <ul style="list-style-type: none"> <li>- on site business hours</li> <li>- on call after hours (within 30 minutes)</li> </ul> <p>Paediatric registrar (minimum six months experience in newborn intensive care)</p> <ul style="list-style-type: none"> <li>- on site 24 hours a day</li> </ul> <p>Resident</p> <ul style="list-style-type: none"> <li>- on site 24 hours a day</li> </ul>
	<p>Paediatric subspecialty</p> <p>Access to clinical and diagnostic paediatric subspecialties via referral</p> <p>(see 'Retrieval and transfer' for advice on referral pathways)</p>
	<p>Surgery</p> <p>Access to surgical advice and consultation via referral</p> <p>(see 'Retrieval and transfer' for advice on referral pathways)</p>

Workforce continued	
<b>Nursing/Midwifery</b>	<p>Staffing in accordance with the <i>Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015</i> or in the case of the private sector, the relevant enterprise agreement and statutory requirement</p> <p>Staff with appropriate competence and qualifications on site 24 hours a day</p> <p>Staff with competence in the administration of non-invasive ventilation (continuous positive airways pressure or high-flow oxygen)</p> <p>Staff with competence in the administration of parenteral nutrition and management of central venous catheters and peripherally inserted central catheters</p> <p>Staff with competence in neonatal resuscitation and emergency stabilisation</p>
<b>Allied health</b>	<p>Established referral pathways to child protection services</p> <p>Access to pastoral care</p> <p>On-site access to allied health services including dietetic, physiotherapy, social work, audiology and speech pathology services</p>
Clinical support services	
<b>Pathology</b>	Access to pathology services 24 hours a day
<b>Diagnostic imaging</b>	Access to on-call imaging services 24 hours a day (within 30 minutes)
<b>Pharmacy</b>	<p>On-site access to pharmacy services 24 hours a day (seven-day service and extended hours, 24 hour on-call service)</p> <p>Access to sub-specialist paediatric advice, for example parenteral nutrition support</p>
<b>Retrieval and transfer</b>	<p>Established pathways with PIPER for specialist consultation, referral and transfer – as required</p> <p>Established policies and infrastructure (including stabilisation, transfer and back-transfer)</p> <p>Established protocols to accept appropriate convalescent referrals from level 6 services</p>
<b>Lactation support</b>	<p>Referral pathway to lactation advice and referral services*</p> <p>*Not discipline specific and may not be on site</p>
Infrastructure	
<b>Nursery</b>	<p>Access to facilities, space and equipment to support:</p> <ul style="list-style-type: none"> <li>- care for moderate and selected high-risk, uncomplicated newborns</li> <li>- newborn resuscitation</li> <li>- newborn isolation</li> <li>- stabilisation prior to retrieval</li> </ul> <p>In accordance with:</p> <p><i>Australasian health facility guidelines: intensive care – neonatal / special-care nursery</i></p> <p>'Transfer: guide to nursery capability', <i>Neonatal ehandbook</i></p>
<b>Special care nursery</b>	On-site access to special care nursery – low to high dependency

## Level 6A

As for level 5, plus:

Service overview		
Provides continuous life support and comprehensive multidisciplinary care for extremely premature newborns and those with non-surgical critical illness		
Complexity of care		
<b>Emergency care</b>	Provides resuscitation and emergency stabilisation	
<b>Respiratory</b>	Provides full range of respiratory support <sup>3</sup>	
<b>Surgical</b>	n/a (see 'Retrieval and transfer' for advice on referral pathways)	
<b>Medical</b>	Provides care for complications of extreme prematurity Provides care for term babies with non-surgical critical illness for example meconium aspiration	
<b>Critical care</b>	Provides on-site access to neonatal intensive care <sup>4</sup>	
<b>Ophthalmology</b>	Established referral pathways to ophthalmology services	
Workforce		
<b>Emergency response</b>	Rapid response system (for example Code Blue or equivalent) team on site 24 hours a day to respond immediately to newborn emergencies (birth suite, nursery, emergency department)	
<b>Medical</b>	Neonatology	Consultant neonatologist as head of unit Consultant neonatologists - on site business hours - on call after hours (within 30 minutes) Senior neonatal trainee (fellow) (minimum 12 months experience in newborn intensive care) - on site 24 hours a day HMO/registrar - on site 24 hours a day
	Paediatric subspecialty	Access to clinical and diagnostic paediatric subspecialties via referral (see 'Retrieval and transfer' for advice on referral pathways)
	Surgery	Access to surgical advice and consultation via referral (see 'Retrieval and transfer' for advice on referral pathways)
	Developmental medicine	Consultant neonatologist or paediatrician with expertise in newborn follow-up for very premature newborns and complex medical and surgical conditions

<sup>3</sup> Newborns receiving non-invasive respiratory support (for example nasal CPAP) not otherwise fulfilling any criteria for intensive care, may be managed in a level 5 nursery (British Association of Perinatal Medicine 2001).

<sup>4</sup> All tertiary neonatal intensive care units also have on-site access to a level 5 special care nursery.

Workforce continued	
<b>Nursing/Midwifery</b>	<p>Staffing in accordance with the <i>Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015</i> or in the case of the private sector, the relevant enterprise agreement and statutory requirement</p> <p>Staff with appropriate competence and qualifications on site 24 hours a day</p> <p>Staff with competence caring for complex newborns, including intensive care experience</p> <p>Staff with competence in neonatal resuscitation and emergency stabilisation</p>
<b>Allied health</b>	<p>Established referral pathways to child protection services</p> <p>Access to pastoral care</p> <p>On-site access to multidisciplinary paediatric allied health services including dietetic, physiotherapy, social work, audiology and speech pathology services</p> <p>Access to appropriate follow-up for very premature newborns</p>
Clinical support services	
<b>Pathology</b>	On-site access to pathology services (including clinical biochemistry, microbiology, haematology, transfusion) 24 hours a day
<b>Diagnostic imaging</b>	Access to full range of tertiary imaging services (including emergency access to X-rays and high-level imaging services, and newborn echocardiography services) 24 hours a day
<b>Pharmacy</b>	<p>On-site access to pharmacy services 24 hours a day (seven-day service and extended hours, 24 hour on-call service)</p> <p>Access to subspecialist paediatric advice</p>
<b>Retrieval and transfer</b>	<p>Established pathways with PIPER regarding consultation, referral and transfer</p> <p>Established protocols to accept appropriate referrals from level 1–5 services</p> <p>Established protocols to facilitate appropriate convalescent referrals to level 2–5 services</p> <p>Established links to newborn surgery and specialist care for complex congenital and metabolic diseases of the newborn</p> <p>Established links to other subspecialty services as required</p>
<b>Lactation support</b>	<p>Referral pathway to lactation advice and referral services*</p> <p>*Not discipline specific and may not be on site</p>
Infrastructure	
<b>Nursery</b>	<p>Access to facilities, space and equipment to support:</p> <ul style="list-style-type: none"> <li>- continuous life support and comprehensive multidisciplinary care for extremely high-risk newborns and those with complex and critical conditions</li> <li>- newborn resuscitation</li> <li>- newborn isolation</li> </ul> <p>In accordance with:</p> <p><i>Australasian health facility guidelines: intensive care – neonatal / special-care nursery</i></p> <p>'Transfer: guide to nursery capability', <i>Neonatal ehandbook</i></p>
<b>Operating rooms</b>	n/a
<b>Intensive care unit</b>	Provides neonatal intensive care on-site

## Level 6B

As for level 6A, plus:

Service overview		
Provides continuous life support and comprehensive multidisciplinary care for extremely high-risk newborns and those with complex and critical conditions		
Provides statewide specialist services		
Complexity of care		
<b>Emergency care</b>	Provides resuscitation and emergency stabilisation	
<b>Respiratory</b>	Provides full range of respiratory support <sup>5</sup>	
<b>Surgical</b>	Provides newborn surgical care – including complex congenital conditions	
<b>Medical</b>	Provides neonatal intensive care for newborns with complex and critical conditions Provides care for complications of extreme prematurity for example ductus arteriosus, necrotising enterocolitis	
<b>Critical care</b>	Provides on-site access to neonatal intensive care <sup>6</sup>	
<b>Ophthalmology</b>	Established referral pathways to ophthalmology services	
Workforce		
<b>Emergency response</b>	Rapid response system (for example Code Blue or equivalent) team on site 24 hours a day to respond immediately to newborn emergencies (birth suite, nursery, emergency department)	
<b>Medical</b>	Neonatology	Consultant neonatologist head of unit <ul style="list-style-type: none"> <li>- on site business hours</li> <li>- on call after hours (within 30 minutes)</li> </ul> Senior neonatal trainee (fellow) <ul style="list-style-type: none"> <li>- on site 24 hours a day</li> </ul> HMO/registrar <ul style="list-style-type: none"> <li>- on site 24 hours a day</li> </ul>
	Paediatric subspecialty	On-site access to clinical and diagnostic paediatric subspecialties
	Surgery	Consultant paediatric surgeon <ul style="list-style-type: none"> <li>- on site business hours</li> <li>- on call after hours (within 30 minutes)</li> </ul> Dedicated surgical registrar <ul style="list-style-type: none"> <li>- on site business hours</li> <li>- on call after hours (within 30 minutes)</li> </ul>

5 Newborns receiving non-invasive respiratory support (for example nasal CPAP) not otherwise fulfilling any criteria for intensive care, may be managed in a level 5 nursery (British Association of Perinatal Medicine 2001).

6 All tertiary neonatal intensive care units also have on-site access to a level 5 special care nursery.

Workforce continued		
	Anaesthetics	<p>Consultant anaesthetist</p> <ul style="list-style-type: none"> <li>- on site business hours</li> <li>- on call after hours (within 30 minutes)</li> </ul> <p>Dedicated anaesthetics registrar</p> <ul style="list-style-type: none"> <li>- on site business hours</li> <li>- on call after hours (within 30 minutes)</li> </ul>
	Developmental medicine	Consultant neonatologist or paediatrician with expertise in newborn follow-up for very premature newborns and complex medical and surgical conditions
<b>Nursing/Midwifery</b>	<p>Staffing in accordance with the <i>Safe Patient Care (Nurse to Patient and Midwife to Patient Ratios) Bill 2015</i> or in the case of the private sector, the relevant enterprise agreement and statutory requirement</p> <p>Staff with appropriate experience and qualifications on site 24 hours a day</p> <p>Staff with competence and experience in caring for complex newborns, including intensive care experience</p> <p>Staff trained in neonatal resuscitation and emergency stabilisation</p>	
<b>Allied health</b>	<p>Established referral pathways to child protection services</p> <p>Access to pastoral care</p> <p>On-site access to multidisciplinary paediatric allied health services including dietetic, physiotherapy, social work, audiology and speech pathology services</p> <p>Access to appropriate follow-up for very premature newborns and complex medical and surgical conditions</p>	
Clinical support services		
<b>Pathology</b>	<p>On-site access to pathology services (including clinical biochemistry, microbiology, haematology, transfusion) 24 hours a day</p> <p>On-site access to a full range of blood products 24 hours a day, with on-site cross matching</p>	
<b>Diagnostic imaging</b>	On-site access to full range of tertiary imaging services (including emergency access to X-rays and high-level imaging services, and newborn echocardiography services) 24 hours a day	
<b>Pharmacy</b>	<p>On-site access to pharmacy services 24 hours a day (seven-day service and extended hours, 24 hour on-call service)</p> <p>Access to subspecialist paediatric advice</p>	
<b>Retrieval and transfer</b>	<p>Established pathways with PIPER regarding consultation, referral and transfer</p> <p>Established protocols to accept appropriate referrals from level 1–6 services</p> <p>Established protocols to facilitate appropriate convalescent referrals to level 2–6 services</p> <p>Established links to other sub-speciality services as required</p>	
<b>Lactation support</b>	<p>Referral pathway to lactation advice and referral services*</p> <p>*Not discipline specific and may not be on site</p>	

Infrastructure	
<b>Nursery</b>	<p>Access to facilities, space and equipment to support:</p> <ul style="list-style-type: none"> <li>- continuous life support and comprehensive multidisciplinary care for extremely high-risk newborns and those with complex and critical conditions</li> <li>- newborn resuscitation</li> <li>- newborn isolation</li> </ul> <p>In accordance with:  <i>Australasian health facility guidelines: intensive care – neonatal / special-care nursery</i>  ‘Transfer: guide to nursery capability’, <i>Neonatal ehandbook</i></p>
<b>Operating rooms</b>	Direct access to operating theatres for specialist elective and emergency surgery
<b>Intensive care unit</b>	Provides neonatal intensive care on-site

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