Anaesthetic Services – Children's

Government of South Australia
SA Health

Module Overview

Please note: This module must be read in conjunction with the Fundamentals of the Framework (including glossary and acronym list), Children's Services - Preamble, Surgical Services - Children's and Perioperative Services modules.

This module primarily addresses the provision of ***elective*** children's anaesthetic care services. The following information refers to children undergoing general anaesthetic, local anaesthetic and major regional anaesthetic / analgesia or sedation (to be collectively described as *anaesthesia*) for diagnostic or therapeutic procedures. This module should be interpreted in conjunction with other professional documents of the Australian and New Zealand College of Anaesthetists (ANZCA).

Note: Where emergency / trauma anaesthetic services are provided for children, please refer to the Royal Australasian College of Surgeons' Australasian Trauma Verification Program[1] and Emergency Services - Children's module.

Anaesthetic services are a *hospital-wide* service. Children's anaesthetic services are provided by a multidisciplinary anaesthetic and anaesthetic assistant workforce with specialist expertise in the management of children requiring procedural and/or operative anaesthesia, pre- and post-procedural / operative anaesthetic care, acute pain management services, and specialist services such as children's intensive care and trauma care. Therefore, children's anaesthetic services can be provided in many locations outside the operating theatre complex. However, for the purposes of this module, providing children's anaesthetic services applies predominantly to *procedural / operative anaesthesia*.

Children's anaesthetic services commence at Level 3 and progress to Level 6. As in all levels, the ability to provide safe, appropriate perioperative care matched to the proposed surgical procedure and the age of the child is the main consideration. The different service levels address the interaction between the anaesthetic risk (i.e. physical status of the child) and procedural / surgical complexity. The American Society of Anaesthesiologists' (ASA[1]) physical status scale describes the alignment of the physical status of the child with the level of anaesthetic risk (Table 1).

Table 1: ASA[1] scale for anaesthetic risk and physical status in children[2]

ASA score	Anaesthetic risk	Physical status
ASA 1 (P1)	LOW	Healthy child
ASA 2 (P2)		Child with mild systemic disease
ASA 3 (P3)	MEDIUM	Child with severe systemic disease
ASA 4 (P4)	HIGH	Child with severe systemic disease that is a constant threat to life
ASA 5 (P5)		A moribund child who is not expected to survive 24 hours without surgery
ASA 6 (P6)		Declared brain-dead child whose organs are being removed for donor purposes
E		The addition of E to the classification means that the patient requires an emergency procedure and the risk to the patient is no longer determined by their previous ASA[1] status

Adapted from: ASA Physical Status Classification System

The ASA[1] scale for anaesthetic risk is an imperfect system, and for the purposes of this module the scale is used only for patients *above the age of 1 year*.[2] Children below the age of 1 year form a specific risk group as recognised by ANZCA Professional Standard PS29. When using the ASA[1] scale for children less than 1 year of age, the following measures should be considered to ensure safe care is delivered from Level 4 services and above:

- anaesthetic is performed within a suitable environment using relevant child-specific equipment
- medical practitioners work within their credentialed scope of practice.

The ASA[1] scale is not used for risk stratification but has been used in this module as a surrogate measure. This consideration is not meant to be a replacement for sound clinical judgment. There should also be consideration for the ex-premature infant in regard to perioperative risk. A detailed children's elective surgical service provision matrix (Appendix 1) relevant to children of all ages directs clinical management of anaesthetic and surgical services. The matrix combines surgical complexity with the anaesthetic physical status to ascertain the service level required for the child; however, the matrix refers to ***elective*** surgery only. Age-appropriate intensive care services capable and prepared to accept and admit a child, if required, following a surgical procedure (Appendix 2) must also be available.

Where services provide anaesthesia for children, anaesthesia should be recognised as a subspecialty. Staff providing anaesthesia must be persons authorised under legislation, credentialed by their health service Credentialing and Clinical Privileging Committee or equivalent, working within their scope of practice, and have contemporary skills in paediatric anaesthesia. This must be noted on each authorised person's privileging document. Persons authorised under legislation administering anaesthetics to children must have relevant training, competencies, credentialing and experience or be supervised, and should participate in the maintenance of their qualifications within their professional college and/or a professional training program.

Medical practitioners (general practitioners or rural generalists) who have successfully completed an Advanced Rural Training module in Anaesthesia, and who have approval to practice by the Joint Consultative Committee on Anaesthesia (JCCA), may provide specific anaesthetic services.[3]

Staff performing the role of assistant to the anaesthetist must have qualifications and experience in the care of children.[4,5,6,7,8,9] Anaesthetic services, operating suites, procedure rooms, radiology suites and all areas where anaesthetics (including sedation) are administered should fulfill the Australasian Healthcare Facilities Guidelines and be compliant with ANZCA PS55 and PS29.

Pre-anaesthetic screening is desirable for elective surgical patients and should be completed and vetted by suitably trained staff. This will identify patients who need a more comprehensive and early pre-anaesthetic consultation with an anaesthetist, due to suspected higher than normal anaesthetic risk.

Patients with low anaesthetic risk profiles on screening may have their formal pre-anaesthetic consult on the day of surgery.

Pre-anaesthetic consultation is mandatory for all patients undergoing an anaesthetic, the only exception being an extreme emergency.

Pre-anaesthetic consultation/screening ensures:

- the patient is in an optimal state of health for the planned procedure
- anaesthetic management is planned
- informed consent for the anaesthetic is given.

Recovery from anaesthesia occurs in a post-anaesthetic recovery area with relevant levels of suitably qualified and experienced staff. For children's post-anaesthetic care services, please refer to the Perioperative Services module, Section 5, Post-Anaesthetic Care Services.

The main factors affecting anaesthetic service levels are the interaction between the anaesthetic risk (i.e. physical status of the patient with complicating medical comorbidities) and procedural / surgical complexity. Additional high-risk categories of children with significant comorbidities exist (e.g. obese children where these children require combined paediatric-medical specialist team care prior to a procedural intervention). Considerations for children should include the post-operative plan and care needs and requirements. Geographical location, transfer of the child and distance from specialist services should be carefully considered and safely planned prior to performing any procedure.

There are varying anaesthetic service capability levels where similar support services and staffing are required to provide a safe anaesthetic and surgical service. With children there are higher risks in perioperative care related to age and history of prematurity. The specialist anaesthetist providing anaesthetic services in younger age groups requires specialisation of training and experience. Therefore the children's elective surgical service provision matrix has defined anaesthetic risk as low, medium and high based on ASA[1] levels (Table 1).

In addition, children less than 1 year old with ASA[1] levels of 1 and 2 will have an increased anaesthetic risk within the matrix due to the actual age of the child and any prematurity history.[5] The following **definitions** are used in the Children's Anaesthetic Services module:

- **a premature infant** is less than 37 weeks gestation at birth[10]
- **a premature infant with comorbidities** is an infant less than 37 weeks gestation at birth with additional conditions (e.g. less than 37 weeks gestation at birth with anaemia)[10]
- **a neonate** is an infant in the first 28 days of life
- **post-conceptional age** (PCA) is the gestational age plus postnatal age (in weeks)
- **credentialed specialist anaesthetist** is a registered medical specialist with credentials in anaesthesia as credentialed by the facility. Credentialed specialist anaesthetists working in a children's surgical service are typically registered medical specialists with credentials in anaesthesia who perform regular operating lists on paediatric patients.

When surgery is to be performed where the risk is greater than the anaesthetic service level capability and appropriate post-operative care, alternatives such as transfer or retrieval to a service that can provide patient care by more experienced staff should occur as long as service level requirements are fulfilled. Various terms relating to surgical complexity as it relates to children (Appendix 3) have been used within the Surgical Services - Children's module.

Children requiring provision of anaesthesia may arrive from a variety of locations. Anaesthetic services require close and direct relationships with various clinical and support services including, but not limited to, emergency, intensive care, maternal foetal medicine, medical imaging, perioperative and surgical services.

Service Networks

In addition to the requirements outlined in the Fundamentals of the Framework, specific service network requirements include:

- children's anaesthetic services must meet requirements of the relevant clinical module where maternity, children's and trauma services are provided.
- access to teleconferencing facilities.

Service Requirements

In addition to the requirements outlined in the Fundamentals of the Framework, specific service requirements include:

- links with emergency services and involvement in development of emergency anaesthetic services, where applicable to that service.
- all equipment needed for children requiring anaesthetic / anaesthesia readily available, compliant with relevant Australian and New Zealand standards, Drugs and Therapeutics standards and should be in accordance with ANZCA Guidelines.
- access to the operating suite must be controlled with only authorised staff entering to ensure security of drugs, equipment and maintenance of infection control requirements (other staff and visitors must report to reception prior to entry)
- provide relevant clinical indicator data to satisfy accreditation and other statutory reporting obligations.
- compliance with SA Health policy directives and guidelines that are referenced at:
  - SA Health Policy Directives
  - SA Health Policy Guidelines
  - SA Health Clinical Directives and Guidelines

Workforce Requirements

The CSCF does not prescribe staffing ratios, absolute skill mix, or clerical and/or administration workforce requirements for a team providing a service, as these are best determined locally and in accordance with relevant industrial instruments. Where minimum standards, guidelines or benchmarks are available, the requirements outlined in this module should be considered as a guide only. All staffing requirements should be read in conjunction with the *Health Care Act 2008*, Awards and relevant Enterprise Agreements including, but not limited to:

- SA Health Salaried Medical Officers Enterprise Agreement 2013
- SA Health Visiting Medical Specialists Enterprise Agreement 2012
- SA Health Clinical Academics Enterprise Agreement 2014
- Nursing/Midwifery (South Australian Public Sector) Enterprise Agreement 2013
- SA Ambulance Service Enterprise Agreement 2011
- SA Public Sector Wages Parity Enterprise Agreement Salaried 2014

In addition to the requirements outlined in the Fundamentals of the Framework, specific workforce requirements include:

- drugs used for conscious sedation must be prescribed by a medical practitioner, registered medical specialist or other person authorised under legislation with appropriate training in administration of conscious sedation.
- conscious sedation can only be performed by a person authorised under legislation, and in keeping with ANZCA Document PS09
- medical practitioners undertaking training in anaesthesia may provide anaesthesia under supervision, with restrictions on their practice and supervision arrangements determined by the health service Credentialing and Clinical Privileging Committee or equivalent.
- anaesthetist responsible for the anaesthetic must be in attendance at all times while the patient is undergoing an anaesthetic and if the anaesthetist needs to leave the operating theatre, handover to a person authorised under legislation occurs in keeping with ANCA professional document PS53.
- registered medical practitioners (general practitioners or rural generalists) may provide specific anaesthetic services, consequent to credentialing and defining scope of clinical practice by the health service Credentialing and Clinical Privileging Committee or equivalent.
- assistant to medical staff administering sedation / anaesthesia must be exclusively available to the medical practitioner at induction of and emergence from sedation / anaesthesia and during the procedure, as required.
- assistant to medical staff must have appropriate training and competency in care of children.
- assistant to medical staff undertaking rotational training or upskilling must be appropriately supervised at all times by a fully qualified anaesthetic assistant with recent practice.
- Informed consent for all procedures / sedation by the person performing the performing the procedure / sedation.

Anaesthetic services - children's	Level 3	Level 4	Level 5	Level 6
Service description	> provides care for children with low anaesthetic risk receiving local anaesthetics with sedation and general anaesthetics. > may be undertaken in a day hospital or inpatient facility. > provides all types of sedation including caudal blocks, neuraxial blocks and regional blocks—where these procedures performed, anaesthetic may be administered by: – registered medical specialist with credentials in anaesthesia – medical practitioner (general practitioner) with credentials in anaesthesia – medical practitioner undertaking training in anaesthesia under supervision – other persons authorised under legislation to prescribe and administer anaesthesia. > may be provided to children above age of 4 years by medical practitioner (general practitioner) with credentials in anaesthesia, but may be provided to children as young as 2 years of age on individual basis in accordance with JCCA guidelines (for specific training and education refer to ANZCA PS29).	> provided in broad range of facilities including high-level day surgery services and hospital-based operating theatres (on regular daily elective surgical operating lists). > may have dedicated children's observation care areas but no on-site neonatal intensive care unit. > documented processes to Level 4 and higher level intensive care services. > complexity of anaesthesia provided depends on standard of children-specific post-anaesthetic facilities and specialised children's medical staff and manages: – surgical complexity I with high anaesthetic risk – surgical complexity II with medium anaesthetic risk – surgical complexity III with low and medium anaesthetic risk and surgical complexity IV with low anaesthetic risk for a child who is: ▪ greater than 1 year of age, with anaesthesia performed by registered medical specialist with credentials in anaesthesia ▪ greater than 6 months of age with no comorbidities for specific surgical and diagnostic procedures in a facility with an allocated children's area for postsurgical nursing management; registered medical specialist with credentialing in provision of paediatric anaesthesia and appropriately trained nursing staff with paediatric experience on-site during time of service (particular procedures have low perioperative risks and medium to high post-anaesthetic care requirements due to age, such as: o nasal cautery o removal of foreign body from nose and ear o insertion of grommets o insertion of cochlear implant o examination of ears or eyes under general anaesthetic o tear duct probing o circumcision o other similar procedures ▪ term infant aged 44 weeks PCA (T44) or more, and well ex-premature infant with no other comorbidities aged 52 weeks PCA or more in a facility with an allocated children's area for post-surgical nursing management and appropriately trained nursing staff with paediatric experience on-site during the time of service (these particular procedures have low perioperative risks and medium to high post-anaesthetic care requirements due to age, and are performed by registered surgical and anaesthetic specialists with recognised training and credentialing in paediatric subspecialisation).	> provided in a designated hospital or general hospital facility for adults and children. > provides anaesthetic services for neonates and children whose condition does not require on-site Level 6 superspecialties. > In addition to anaesthetic and post-anaesthetic care service provided at Level 4, this level of service manages: **Neonates:** – surgical complexity I and II with low to medium anaesthetic risk. **Children** (over T44 and ex-premature infants more than or equal to 52 weeks PCA): – surgical complexity I to IV with high anaesthetic risk – surgical complexity V with low and medium anaesthetic risk. > has documented processes with public or licensed private health facilities to support patient referral and transfer to/from both lower and higher levels of service (increased levels of risk will be managed until transfer to highest level of service arranged).	> specialist, statewide and (where applicable) interstate service. > manages highest level of anaesthetic risk in conjunction with most complex surgical and medical presentations where anaesthetics are required. > supported by wide range of medical and surgical subspecialties and support services. > provides general anaesthesia for children of all ages. > possess critical mass of staff expertise and provide statewide leadership in clinical management to service providers. > statewide consultation and liaison service may be provided. > may be a provider of telehealth.

Anaesthetic services - children's	Level 3	Level 4	Level 5	Level 6
Service description *(continued)*	> manages: – surgical complexity II procedures with low anaesthetic risk – surgical complexity III procedures with low anaesthetic risk for a child who is: ▪ greater than 2 years of age with a registered medical specialist with credentials in anaesthesia or facility-credentialed medical practitioner ▪ greater than 4 years of age with a medical practitioner with credentials in anaesthesia – surgical complexity III with low anaesthetic risk (day surgery facilities – Specialist Paediatric Surgery) for a child greater than 1 year of age, with anaesthesia performed by a registered medical specialist with credentials in anaesthesia and paediatrics. > documented processes for transfer and acceptance of patients to Level 4 children's intensive care service. > must be capable of providing immediate resuscitation and short-term cardiorespiratory support until patient transfer where required. > selection of patients and surgical procedures in these facilities should ensure intensive care admission would be an unexpected and rare event.	– surgical complexity IV with medium anaesthetic risk due to age or history of prematurity with ASA 1 or 2: ▪ only in facilities with designated children's close observation care beds and children's ward, and only when performed by registered medical specialist with credentials in paediatric surgery, and registered medical specialist with credentials in anaesthetics with competency and scope of practice in paediatric anaesthesia ▪ only for specific children's surgical procedures, such as inguinal hernia repair and pyloromyotomy ▪ must be registered medical specialist with credentials in paediatrics accessible for on-site consultation 24 hours, and registered nurse competent in providing advanced paediatric life support or experience to equivalent standard and scope of practice to care for the child and must have full facilities for provision of extended apnoea monitoring ▪ for term infants (T) and well, ex-premature infants with no other comorbidities aged 44 weeks PCA or more. – surgical complexity IV with ASA 3: ▪ only in facilities with designated children's close observation care beds and children's ward and only when performed by registered surgical and anaesthetic specialists with recognised training and credentialing in paediatric subspecialisation ▪ must be registered medical specialist with credentials in paediatrics accessible for consultation on-site 24 hours, and registered nurse competent in providing advanced paediatric life support or experience to equivalent standard and scope of practice to care for the child ▪ for T44 and ex-premature infants who are aged 52 weeks PCA or more. > documented processes with higher level services ensuring access to information related to latest evidence-based care and treatments. > day surgery facilities must provide perioperative clinical expertise and facilities as described above during their hours of operation as stipulated in service requirements below. > medical practitioners providing anaesthesia must have credentials and scope of practice that enables provision of anaesthesia to children, and demonstrated currency of practice, noted on their privileging document.	> part of service network but must have access to information related to latest evidence-based care / treatments.	

Anaesthetic services - children's	Level 3	Level 4	Level 5	Level 6
Service requirements	As per module overview, plus: > at least one procedure room. > where service provided 24 hours a day, medical practitioners available. > immediate access to emergency equipment, drugs and oxygen required for ventilation as per The Australian Resuscitation Council guidelines for infants, children and adolescents. > immediate access to medical practitioner with credentials in anaesthetics who can attend emergencies during hours of operation. > emergency post-anaesthetic care services available. > emergency anaesthetic services may be available. > elective anaesthetic services provided during business hours. > elective post-anaesthetic care services generally provided during business hours.	As per Level 3, plus: > clinical services available 24 hours. > emergency anaesthetic services provided—medical services provided on-site or in close enough proximity to provide rapid response at all times. > appropriately equipped post-anaesthetic recovery area. > access —24 hours—to dedicated post-anaesthetic recovery staff. > surgical and/or subspecialty (children's) area. > access to children's close observation care area/s. > outreach services may be provided with specialist services / functions being provided on a visiting basis.	As per Level 4, plus: > specific protocols and policies in place for management of emergency and elective patients. > planned provision for intensive care services for children and adolescents requiring post-operative ventilation. > access to Level 5 NICU. > may have access to specialist children's ward areas (e.g. children's orthopaedics). > may have links with emergency services and involvement in development of emergency anaesthetic services. > may provide outreach services in a shared-care model. > may be involved in planning of anaesthetic services for future needs of the facility.	As per Level 5, plus: > provides procedures that have high level of complexity and magnitude of risk to patients with extensive range of comorbidities requiring specialist staff. > procedures performed on patients with high risk potential for intra- and post-operative complications (e.g. advanced chronic disease that may not be well controlled). > specialist medical, nursing and surgical services available on-site with many staff having subspecialty training and/or experience. > manages children of all surgical complexities and anaesthetic risk. > usually major provider of teleconferencing facilities and coordinator of these services. > statewide provider of outreach services. > documented processes and protocols for skill enhancement for staff across the state. > may have combinations of operating theatres, endoscopy units and day surgery units. > may be involved in statewide approach to anaesthetic risk management.

Anaesthetic services - children's	Level 3	Level 4	Level 5	Level 6
Workforce requirements	As per module overview, plus: **Anaesthetic workforce** > credentialed medical practitioners (general practitioner) with anaesthetic qualifications. > access via telephone to registered medical specialist with credentials in anaesthetics who assists in assessing and advising on all types of anaesthesia and patient types undergoing anaesthetic. > registered medical specialist with credentials in anaesthesia and scope of practice in paediatric anaesthesia suitable to administer anaesthetic to children between 1 and 2 years of age in the category of surgical complexity III with low anaesthetic risk. > on-site medical practitioner until patient discharged from post-anaesthetic care unit.	As per Level 3, plus: **Anaesthetic workforce** > registered medical specialists with credentials in anaesthetics and scope of practice in paediatric anaesthesia suitable for age of child and anaesthetic complexity. > medical practitioners training or with experience in anaesthetics > in facilities providing surgical services for term infants and well, ex-premature infants (>52 weeks PCA), registered medical specialists providing anaesthesia or surgery must have recognised training, currency of practice and credentialing in children's subspecialisation, and this must be noted on their privileging document.	As per Level 4, plus: > access —24 hours—to dedicated on-site medical and nursing staff to attend operating room and post-anaesthetic recovery area. **Anaesthetic workforce** > access—24 hours—to registered medical specialist with credentials in anaesthetics. > access to registered medical specialists with credentials in anaesthetics who assist and guide assessment, treatment, case management and case review. > may have access to registered medical specialist with credentials in anaesthetics and subspecialty in paediatrics. > may provide some specialist anaesthetic services / functions on visiting basis within capability of host service. **Allied health** > access to social work (for death in surgery, organ donation and adverse events)	As per Level 5, plus: > medical and nursing staff must demonstrate knowledge, competency and experience in subspecialties of anaesthesia (i.e. neonatal anaesthesia, complex anaesthesia and anaesthesia for superspecialty procedures). > may have lead clinicians responsible for clinical governance of services in both medical and nursing fields. > may be medical and nursing staff with subspecialty qualifications in post-anaesthetic care. > provision for medical practitioners and registered nurses to relieve in rural and remote areas as need arises. **Anaesthetic workforce** > clinical service director of paediatric anaesthetic services who is registered medical specialist with credentials in anaesthesia with subspecialty in paediatrics. > registered medical specialists with credentials in anaesthesia, anaesthetic subspecialties and pioneering procedures in anaesthetics and post-anaesthetic care. > registered medical specialists with credentials in anaesthesia with responsibility for training, supervising and upskilling of medical staff. > demonstrated knowledge, competency and experience in subspecialties of paediatric anaesthesia (e.g. neonatal anaesthesia, complex anaesthesia and anaesthesia for paediatric superspecialty procedures).
Specific risk considerations	> Nil	> Nil	> Nil	> Nil

Support service requirements for children's anaesthetic services	Level 3		Level 4		Level 5		Level 6	
	On-site	Accessible	On-site	Accessible	On-site	Accessible	On-site	Accessible
Children's intensive care		4		4		5	6	
Children's surgical	3		4		5		6	
Neonatal						5	6	
Pharmacy	2		4		5		5	
Perioperative (relevant section/s)	3		3		5		6	

Legislation, regulations and legislative standards	Non-mandatory standards, guidelines, benchmarks, policies and frameworks (not exhaustive & hyperlinks current at date of release of CSCF)
Refer to the Fundamentals of the Framework and Children's Services - Preamble for details.	In addition to what is outlined in the Fundamentals of the Framework and Children's Services - Preamble, the following are relevant to children's anaesthetic services: > Australian and New Zealand College of Anaesthetists, Royal Australian College of General Practitioners, and Australian College of Rural and Remote Medicine (Joint Consultative Committee on Anaesthesia). Advanced Rural Skills: Curriculum Statement in Anaesthesia. 2003. www.racgp.org.au > Australian and New Zealand College of Anaesthetists. Professional, Technical, Training and Educational Standards, Guidelines and Professional Documents. > Australian and New Zealand College of Anaesthetists. Professional Standard PS1: Recommendations on Essential Training for Rural General Practitioners in Australia Proposing to Administer Anaesthesia. 2002. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS2: Statement on Credentialing and Defining the Scope of Clinical Practice in Anaesthesia. 2006. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS4: Recommendations for the Post Anaesthesia Recovery Room. 2006. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS7: Recommendations on the Pre-Anaesthesia Consultation. 2008. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS8: Recommendations on the Assistant for the Anaesthetist. 2012. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS9: Guidelines on Sedation and/or Analgesia for Diagnostic and Interventional Medical, Dental or Surgical Procedures. 2010. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS16: Statement on the Standards of Practice of a Specialist Anaesthetist. 2008. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS26: Guidelines on Consent for Anaesthesia or Sedation. 2005. www.anzca.edu.au/resources/professional-documents/

Legislation, regulations and legislative standards	Non-mandatory standards, guidelines, benchmarks, policies and frameworks (not exhaustive & hyperlinks current at date of release of CSCF)
Refer to the Fundamentals of the Framework and Children's Services - Preamble for details. *(continued)*	> Australian and New Zealand College of Anaesthetists. Professional Standard PS28: Guidelines on Infection Control in Anaesthesia. 2005. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS29: Statement on Anaesthesia Care of Children in Healthcare Facilities Without Dedicated Paediatric Facilities. 2008. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS31: Recommendations on Checking Anaesthesia Delivery Systems. 2003. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS42: Recommendations for Staffing of Departments of Anaesthesia. 2006. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS45: Statement on Patients' Rights to Pain Management and Associated Responsibilities. 2010. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS53: Statement on the Handover Responsibilities of the Anaethetist. 2013. www.anzca.edu.au/resources/professional-documents/ > Australian and New Zealand College of Anaesthetists. Professional Standard PS55. Recommendations on Minimum Safety Requirements for Safe Administration of Anaesthesia in Operating Suites and Other Anaesthetising Locations. 2012. www.anzca.edu.au/resources/professional-documents/ > Australian Confederation of Paediatric & Child Health Nurses. Competencies for Specialist Paediatric and Child Health Nurses. www.chnwa.org.au > Australian College of Operating Room Nurses. ACORN Standards for Perioperative Nurses: Guideline G2 Management of the Perioperative Environment. ACORN; 2008. www.acorn.org.au/ > Australian College of Operating Room Nurses. ACORN Standards for Perioperative Nurses: Guideline G4 Management of Post-anaesthesia Recovery Unit. ACORN; 2008. www.acorn.org.au/ > Australian College of Operating Room Nurses. ACORN Standards for Perioperative Nurses: Position Statement PS6 Ensuring Correct Patient, Correct Site, Correct Procedure. ACORN; 2008. www.acorn.org.au/ > Australian College of Operating Room Nurses. Standards for Perioperative Nursing for Registered and Enrolled Nurses in Australia. www.acorn.org.au/ > Australian Day Surgery Nurses Association. Best practice guidelines for ambulatory surgery and procedures. Perth: Cambridge Publishing; 2009. > Australian Society of Anaesthetic and Paramedical Officers. Standards and guidelines. www.asapo.org.au/education/education.html > Children's Hospitals Australasia. Charter on the Rights of Children and Young People in Healthcare Services in Australia. www.awch.org.au > Royal Australasian College of Surgeons. Implementation Guidelines for Ensuring Correct Patient, Correct Side and Correct Site Surgery. RACS; 2006. www.surgeons.org/

Anaesthetic Children's - Appendix 1:
Children's elective surgical service provision matrix

Surgical complexity	Anaesthetic type	Anaesthetic risk and physical status								
		LOW (ASA 1 – 2)			MEDIUM (ASA 3)			HIGH (ASA ≥4)		
		Modifiers	Minimum surgical service level	Minimum children's intensive care service level	Modifiers	Minimum surgical service level	Minimum children's intensive care service level	Modifiers	Minimum surgical service level	Minimum children's intensive care service level
I	Local anaesthetic	e.g. sutures, dental, eye / ENT exam.	Level 2	Access to Level 4		Level 2	Access to Level 4		Level 4	Access to Level 4
II	Local anaesthetic with sedation	e.g. fractures, dental, radiology, interventions.	Level 3	Access to Level 4		Level 4	Access to Level 4	**>T44** and **ex-prem infants (≥52 weeks PCA)** with credentialed anaesthetist working in their scope of practice.	Level 5	Level 5 on-site
II	Local anaesthetic with sedation	**Neonate** with credentialed anaesthetist working in their scope of practice.	Level 5	Level 5 on-site and access to Level 5 Neonatal Service	**Neonate** with credentialed anaesthetist working in their scope of practice.	Level 5	Level 5 on-site and access to Level 5 Neonatal Service			
III -V	General anaesthetic	**Neonate** with credentialed anaesthetist working in their scope of practice.	Level 6	Level 6 on-site and/or Level 6 Neonatal Service on-site	**Neonate** with credentialed anaesthetist working in their scope of practice.	Level 6	Level 6 on-site and/or Level 6 Neonatal Service on-site	**Neonate** with credentialed anaesthetist working in their scope of practice.	Level 6	Level 6 on-site and/or Level 6 Neonatal Service on-site

Neonate is infant in first 28 days of life.

T44 refers to term infant who is greater than or equal to 44 weeks post-conceptional age (PCA).

PCA is gestational age plus postnatal age (in weeks).

Surgical complexity	Anaesthetic type	Anaesthetic risk and physical status								
		LOW (ASA 1 – 2)			MEDIUM (ASA 3)			HIGH (ASA ≥4)		
		Modifiers	Minimum surgical service level	Minimum children's intensive care service level	Modifiers	Minimum surgical service level	Minimum children's intensive care service level	Modifiers	Minimum surgical service level	Minimum children's intensive care service level
III	Local anaesthetic with sedation and general anaesthetic	**>1 year of age** with credentialed anaesthetist working in their scope of practice. **>2 years of age** with credentialed anaesthetist working in their scope of practice or facility credentialed non-specialist anaesthetist. **>4 years of age** with non-specialist anaesthetist.	Level 3	Access to Level 4	**>1 year of age** with credentialed anaesthetist working in their scope of practice. **>6 months of age** and **no comorbidities** with credentialed anaesthetist working in their scope of practice and allocated children's area for post-surgical nursing management. **T44** or **well ex-prem** and **no comorbidities (≥52 weeks PCA)** with credentialed anaesthetist working in their scope of practice and allocated children's area for post-surgical nursing management.	Level 4	Access to Level 4	**>T44** and **ex-prem infants (≥52 weeks PCA)** with credentialed anaesthetist working in their scope of practice.	Level 5	Level 5 on-site

Non-specialist anesthetist refers to medical practitioner (general practitioner) with credentials in anaesthesia. In accordance with JCCA, endorsement for elective paediatric anaesthesia for children as young as 2 years of age may be granted on an individual practitioner basis after demonstration of assessment / accreditation and competency by regional representatives of JCCA. Such endorsement is to be related to the individual's documented training in paediatric anaesthesia in this age group.

6 months of age refers to children with medium to high post-anaesthetic care requirements due to age only, but no associated severe systemic disease, having particular procedures with low perioperative risks, such as nasal cautery, removal of foreign body from nose and ear, insertion of grommets, examination of ears or eyes under general anaesthetic, tear duct probing, circumcision and other similar procedures, performed by registered surgical specialists with appropriate subspecialty credentialing and scope of practice.

Appendix 1: Children's elective surgical service provision matrix (continued)

Surgical complexity	Anaesthetic type	Anaesthetic risk and physical status								
		LOW (ASA 1 – 2)			MEDIUM (ASA 3)			HIGH (ASA ≥4)		
		Modifiers	Minimum surgical service level	Minimum children's intensive care service level	Modifiers	Minimum surgical service level	Minimum children's intensive care service level	Modifiers	Minimum surgical service level	Minimum children's intensive care service level
IV	General anaesthetic and regional anaesthetic	**>1 year of age** with credentialed anaesthetist working in their scope of practice. **>6 months of age** and **no comorbidities** with credentialed anaesthetist working in their scope of practice. **T44** or **well ex-prem** and **no comorbidities (≥52 weeks PCA)** with credentialed anaesthetist working in their scope of practice.	Level 4	Access to Level 4	Medium risk children (ASA 1-2) due to age or history of prematurity, including ex-prem infants ≥T44 PCA, with credentialed anaesthetist working in their scope of practice and designated children's close observation care beds and children's ward. >T44 or ex-prem infants >52 PCA (ASA 3) with credentialed anaesthetist working in their scope of practice and designated paediatric close observation care beds and children's ward.	Level 4	Access to Level 4	**>T44** and **ex-prem infants (≥52 weeks PCA)** with credentialed anaesthetist working in their scope of practice.	Level 5	Level 5 on-site

Appendix 1: Children's elective surgical service provision matrix (continued)

Surgical complexity	Anaesthetic type	Anaesthetic risk and physical status								
		LOW (ASA 1 – 2)			MEDIUM (ASA 3)			HIGH (ASA ≥4)		
		Modifiers	Minimum surgical service level	Minimum children's intensive care service level	Modifiers	Minimum surgical service level	Minimum children's intensive care service level	Modifiers	Minimum surgical service level	Minimum children's intensive care service level
V	General anaesthetic	**>1 year of age** with credentialed anaesthetist working in their scope of practice. **>6 months of age** with credentialed anaesthetist working in their scope of practice. **>T44** and **ex-prem infants (≥52 weeks PCA)** with credentialed anaesthetist working in their scope of practice.	Level 5	Level 5 on-site	**>1 year of age** with credentialed anaesthetist working in their scope of practice. **>6 months of age** with credentialed anaesthetist working in their scope of practice. **T44** or **well ex-prem** and **no comorbidities (≥52 weeks PCA)** with credentialed anaesthetist working in their scope of practice.	Level 5	Level 5 on-site			

Adapted from: Physical classification system of ASA[1] Manual for Anesthesia Department Organization and Management 2001.

Anaesthetic Children's Appendix 2: Access to age-appropriate intensive care services

Service Level / Type	Descriptor
Level 4 children's intensive care service	> can support children greater than 12 years of age for indefinite period > can support children 12 years of age and younger with consultation and collaboration with Level 6 paediatric intensive care service (PICU) and early transfer to higher level service, where appropriate.
Level 5 children's intensive care service	> capable of supporting all children (not infants <52 weeks PCA) and providing mechanical ventilation for period of up to 7 days > more complex cases provided in consultation with Level 6 paediatric intensive care service > planned elective surgical admissions for infants <52 weeks PCA who can be admitted for no longer than 24 hours > consultation with Level 6 paediatric intensive care service beyond this 24 hours to occur.
Level 6 paediatric intensive care service	> is only designated paediatric intensive care service and provides highest level of intensive care support to infants, children and adolescents.
Level 6 neonatal service	> provides continuous life support to premature and ex-premature infants > neonatal surgery may be performed at this level.

Anaesthetic Children's Appendix 3: Children's surgical complexity characteristics

Complexity	Characteristics
Surgical Complexity I (SCI)	This level of surgical complexity: > ambulatory / office surgery procedure > requires local anaesthetic, but does not require sedation > does not require operating theatre, but does require procedure room, aseptic technique, and sterile instruments > has access to resuscitation equipment > does not require recovery room, but does require area in which patients can sit > no planned post-operative stay or treatment required > requires no support services other than removal of sutures or post-operative check.
Surgical Complexity II (SCII)	This level of surgical complexity: > does not require application of general anaesthesia, but requires local anaesthesia or peripheral nerve block and may require some level of sedation > requires at least one operating room or procedure room and separate area for recovery (as per Australasian Health Facility Guidelines [AusHFG]) > most procedures can be undertaken as ambulatory or day-stay patient, or in an emergency department.
Surgical Complexity III (SCIII)	This level of surgical complexity: > usually requires general anaesthesia and/or regional anaesthesia > must have at least one operating room or procedure room and requires separate area for recovery (as per AusHFG)[11] > is likely to be performed as day-stay patient > intensive care admission would be an unexpected event > must have access to overnight beds, if required.
Surgical Complexity IV (SCIV)	This level of surgical complexity: > usually requires general anaesthesia > surgical procedures with potential for perioperative complications may be performed as overnight case or extended day case > has on-site access to close observation areas.
Surgical Complexity V (SCV)	This level of surgical complexity: > provides most complex surgical services > requires specialist clinical staff, equipment and infrastructure > requires extensive supporting services > involves surgery and anaesthetic risk that has highest potential for intra- and post-operative complications > must have on-site intensive care services relevant to surgery being performed.

Developed by Queensland Health CSCF Surgical, Perioperative and Anaesthetic Services Advisory Groups 2009 and adjusted specifically for children's services by CSCF Children's Surgical and Anaesthetic Services Advisory Groups 2009.

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Public I1-1A

Acknowledgement: Used and adapted with the permission of Queensland Health