

Clinical Services Capability Framework

Intensive Care Services

Module Overview

Please note: This module must be read in conjunction with the [Fundamentals of the Framework](#) (including glossary and acronym list) and [Intensive Care Services - Children's](#) module.

The availability of and access to intensive care services is vital to the health of the community and fundamental to the delivery of healthcare in South Australia. An intensive care unit (ICU) is a separate and self-contained section of a hospital staffed and equipped for the management of patients with established life-threatening reversible or potentially reversible, organ failure or with a high risk of life-threatening organ failure.¹ An ICU provides specialist expertise and facilities for the support of patients and their families, utilising the skills of medical, nursing and other allied health staff qualified and experienced in the management of critically ill patients.²

Intensive care services may be delineated by specific clinical subspecialty (e.g. cardiothoracic ICU, neurosurgical ICU) and/or age groups or may provide general intensive care to a broad mix of patient types and subspecialty. It is preferable neonatal ICUs, paediatric ICUs and cardiac (coronary) care units are separated from general ICUs—although coronary care patients and children may be managed in general ICUs, where necessary.

Intensive care services may provide outreach, consult and medical emergency and trauma team participation, including governance and administrative frameworks for MET/code blue teams. In South Australia it is also current practice in some hospitals to provide parental nutrition and central vascular access support to the broader hospital clinical teams and to follow up and monitoring the progress of patients with tracheostomies and/or acquired critical illness disability following prolonged critical illness is also commonplace.

The level of intensive care services available should be complementary to support the levels of other clinical services provided within a particular facility. The role of the ICU will vary depending on the agreed service profile, facilities and support services.¹

This module recognises three levels of complexity for ICU service provision: Levels 4 to 6. Levels 1 to 3 are not represented as these services do not operate at these lower levels. The different service levels take into consideration the complexity and risks associated with the delivery of a service and the need for specialised support.

Children have specific needs in health services—please refer to the relevant children's services modules.

Service Requirements

In addition to what is outlined in the [Fundamentals of the Framework](#), specific service requirements include:

- > provide relevant clinical indicator data to satisfy accreditation and other statutory reporting obligations.
- > ACHS Quality Indicators for Intensive Care Medicine
- > Clinical data registry participation allowing cohort comparison of outcome data based on DRG and adjusted for illness severity, diagnosis, age and co-morbidities. For example ANZICS CORE, National Cardiothoracic Surgical Outcome Database and National Trauma Database
- > 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

Intensive Care Services	Level 4	Level 5	Level 6
<p>Service description</p>	<ul style="list-style-type: none"> > capable of providing immediate resuscitation and short-term cardiorespiratory support for critically ill patients. > major role in monitoring and prevention of complications in at-risk medical and surgical patients. > capable of providing ventilation and simple invasive cardiovascular monitoring for period of up to 24 hours (provision of care for more than 24 hours allowed for patients with single-system failure, but only within context of daily consultation with registered intensive care specialist with which host unit has established and documented referral process). > Access to timely transfer to higher level of care when patient requires access to general or sub-specialty intensive care 	<ul style="list-style-type: none"> > capable of providing complex multisystem general intensive care for critically ill patients.. > capable of providing general intensive care multisystem life support including ventilation, renal replacement therapy and invasive cardiovascular monitoring for an indefinite period. > Access to timely transfer of patients to higher level of care may be required to access subspecialty services not available at home facility. 	<ul style="list-style-type: none"> > capable of providing tertiary or quaternary multisystem intensive care for indefinite period to general and subspecialty critical care patients. > capable of providing care for critically ill obstetric patients, with onsite obstetric service. > access to broad range of on-site subspecialty clinical services.
<p>Service requirements</p>	<p>As per module overview, plus:</p> <ul style="list-style-type: none"> > all patients admitted to unit must be referred for management to registered medical specialist taking responsibility for unit at time of admission. > some flexibility in staffing resources to accommodate increased patient admissions. > number of admissions sufficient to maintain clinical skills of both medical and nursing staff. > daily consultation with registered intensive care specialist for all patients ventilated for greater than 24 hours and/or with multisystem failure; however, if Fellow of College of Intensive Care Medicine (CICM) is in charge of unit, this provision may be unnecessary except to facilitate access to subspecialty services outside ICU. 	<p>As per Level 4, plus:</p> <ul style="list-style-type: none"> > must have sufficient clinical workload and case mix of patients to maintain high level of clinical expertise and adequate clinical exposure. > capable of accommodating at least six ventilated patients at one time. > capable of managing more than 200 ventilated patients per year. 	<p>As per Level 5, plus:</p> <ul style="list-style-type: none"> > capable of accommodating at least twelve ventilated patients at one time. > capable of managing more than 400 ventilated patients per year.

Intensive Care Services	Level 4	Level 5	Level 6
<p>Workforce requirements</p>	<p>A Level 4 service requires:</p> <p>Medical</p> <ul style="list-style-type: none"> > lead clinician with responsibility for clinical governance of service who is registered medical specialist with credentials in intensive care medicine, anaesthetics, emergency or general medicine. > support available to unit from registered medical specialist with experience in intensive care medicine, anaesthetics, emergency and general medicine; however, if registered medical specialist simultaneously rostered for second clinical area (e.g. operating suites, emergency department), second registered medical specialist with intensive care medicine experience must be identified to support ICU in event duty specialist unable to attend promptly. > in addition to registered medical specialist, at least one medical practitioner with appropriate level of experience on-site 24 hours. > all medical practitioners trained in advanced life support (ALS 2 trained for those working in MET Team) <p>Nursing</p> <ul style="list-style-type: none"> > staffing levels in accordance with the relevant industrial instruments. <p>Allied health</p> <ul style="list-style-type: none"> > access to allied health professionals, including identified dietician, physiotherapist, occupational therapist, pharmacist, social worker and speech pathologist, as required. <p>Other</p> <ul style="list-style-type: none"> > access to technical support staff (e.g. biomedical engineers, scientific officers IT and computer programming), as required. 	<p>As per Level 4, plus:</p> <p>Medical</p> <ul style="list-style-type: none"> > registered medical specialists to be Fellows of CICM. > registered medical specialist with credentials in intensive care medicine, rostered and accessible to cover intensive care unit at all times. > at least one medical practitioner with intensive care experience rostered in unit at all times. <p>Nursing</p> <ul style="list-style-type: none"> > staffing levels in accordance with the relevant industrial instruments <p>Allied health</p> <ul style="list-style-type: none"> > extended access to physiotherapist and social work services on request 	<p>As per Level 5, plus:</p> <p>Medical</p> <ul style="list-style-type: none"> > registered medical specialists to be Fellows of CICM. > dependent upon unit design and patient numbers, at least one registered medical specialist (FCICM) rostered to the unit during business hours, and predominantly present within it. > on-call service provided by registered medical specialist with credentials in intensive care medicine. <p>Nursing</p> <ul style="list-style-type: none"> > staffing levels in accordance with the relevant industrial instruments

Intensive Care Services	Level 4	Level 5	Level 6
Specific risk considerations	> Nil	<p>In addition to what is outlined in the Fundamentals of the Framework, specific risk management requirements include:</p> <ul style="list-style-type: none"> > with regard to lead clinician, acknowledgement by CICM recruitment of Fellows to rural/regional units may be difficult and College supports designation of Level 5 for regional ICU if this were only deficiency, genuine attempts had been made at recruitment of suitable personnel^{1,2} and, under such circumstances, appropriately trained and registered medical specialists (e.g. anaesthetists, general physicians, emergency medicine specialists) were able to provide required medical / specialist coverage. 	> Nil

Support services requirements for Intensive Care services	Level 4		Level 5		Level 6	
	On-site	Accessible	On-site	Accessible	On-site	Accessible
Anaesthetic	4		5		6	
Cardiac (cardiac medicine)				5	6	
Medical	4		5		6	
Medical imaging	4		4		6	
Mental health (relevant section/s)		4		5		5
Pathology	4		4		6	
Perioperative (relevant section/s)	4		5		6	
Pharmacy	4		5		6	
Renal				5		5
Surgical	4		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)
<p>Refer to the Fundamentals of the Framework for details.</p>	<p>In addition to what is outlined in the Fundamentals of the Framework, the following are relevant to intensive care services:</p> <ul style="list-style-type: none"> > Australasian Health Infrastructure Alliance. Australasian Health Facility Guidelines v2.0. Part B – Health Facility Briefing and Planning, 360 Intensive Care – General. www.healthfacilityguidelines.com.au/ > Australasian College for Emergency Medicine, Australian and New Zealand College of Anaesthetists and College of Intensive Care Medicine of Australia and New Zealand. Guidelines for Transport of Critically Ill Patients (2015). http://www.cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Professional%20Documents/IC-10-Guidelines-for-Transport-of-Critically-III-Patients.pdf > College of Intensive Care Medicine of Australia and New Zealand. Guidelines on intensive care specialist practice in hospitals accredited for training in intensive care medicine (2013) http://www.cicm.org.au/CICM_Media/CICMSite/CICM-Website/Resources/Professional%20Documents/IC-2-Guidelines-on-Intensive-Care-Specialist-Practice.pdf > The Australian Council on Healthcare Standards. Intensive Care Indicators. ACHS; nd. www.achs.org.au > College of Intensive Care Medicine of Australia and New Zealand. Intensive Care Specialist Practice in Hospitals Accredited for Training in Intensive Care Medicine. CICM; 2011. www.cicm.org.au/

Reference List

1. College of Intensive Care Medicine of Australia and New Zealand. Minimum Standards for Intensive Care Units: Review IC-1. CICM; 2003.
2. College of Intensive Care Medicine of Australia and New Zealand, Intensive Care Services for Areas of Need. (2010).

For more information

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