Surgical Services

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), Anaesthetic Services, Perioperative Services and Surgical Services - Children's modules.

Surgical services encompass both elective and emergency surgery. This module focuses primarily on the provision of *elective* surgical services for *adults*. The capacity and capability of a service to manage patients requiring surgery in a timely way depends on the service having an efficient interface with a range of other hospital- and community-based services.

A close interface exists among surgical services, operating theatres and other areas of the hospital, such as inpatient wards, the emergency department and diagnostic services. The provision of safe surgical services requires effective integration with anaesthetic and perioperative services. Pre- and post-anaesthetic care (refer to Perioperative Services module, Section 5, Post-Anaesthetic Care Services), pain management (refer to Perioperative Services module, Section 1, Acute Pain Services) and infection control are integral components of surgical services.

Services external to the hospital, including community rehabilitation, subacute care, aged care and community support services, help facilitate the flow of surgical patients from hospital to community services and then to home.

Several patient admission referral pathways exist for elective surgery. These pathways usually begin with a registered medical practitioner (general practitioner) or registered medical specialist with credentials in surgery. These pathways may result in patients being directly referred to a public specialist outpatient clinic (Appendix 1) or private specialists' consulting suites.

In certain areas of treatment, surgical procedures may be performed by health practitioners authorised under legislation other than Fellows of the Royal Australasian College of Surgeons (RACS). As such, the scope of practice of such persons must be taken into account when interpreting this and other relevant services' capability levels. The individual's scope of practice should be defined by the health facility's credentialing committees.

Patients usually access emergency surgical services via an emergency department or inpatient ward. If a facility routinely provides emergency or trauma surgical services, it must refer to the Emergency Services module within the CSCF and Royal Australasian College of Surgeons' Australasian Trauma Verification Program.[1]

A range of factors can affect a patient's access to elective surgery, and where and when it occurs. Elective surgery theatre schedules are affected by the need to perform emergency surgical services that would normally fall outside the capability of elective surgical services. Health care facilities providing both elective and emergency services face the constant challenge of managing the effect of emergency surgical cases on elective surgical cases.

This module describes five levels of service (Levels 2 to 6) and includes subspecialty surgical oncology services and the following appendices:

- specialist outpatient clinic services (Appendix 1)
- anaesthetic risk (Appendix 2)
- extended care units / 23-hour surgical units (Appendix 3)
- outreach services (Appendix 4).

Level 2 surgical services relate to provision of local anaesthesia only as a defined level of service. This does not limit medical practitioners or other suitably qualified and experienced health practitioners in administering local anaesthetic for individual cases. A Level 2 service, either on-site or off-site, may provide consultative services. A Level 6 surgical service manages superspecialty or complex clinical conditions.

Subspecialty surgical oncology services, also known as surgical cancer services, cover surgical removal of cancers with the intent to cure or, if not appropriate, palliation to enhance a patient's quality of life.

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

Surgical services must be aware of and consider a patient's surgical complexity. Table 1 describes, in general terms, the characteristics of surgical complexity levels and requirements to undertake those complexities. As situational complexity increases, a service usually needs input from a higher level service. The examples of procedures noted in Table 1 are indicative only of surgical procedure complexity.

Table 1: Surgical complexity characteristics

Complexity	Characteristics
Surgical complexity I (SCI) (e.g. local anaesthetic for removal of lesions)	This level of surgical complexity: > is an ambulatory / office surgery procedure > requires local anaesthetic, but not sedation > requires a procedure room, aseptic technique and sterile instruments, but not an operating theatre > requires access to resuscitation equipment (including oxygen) and means of delivery > requires an area where patients can sit, but not a recovery room > generally does not require post-operative stay or treatment > does not require support services other than suture removal or a post-operative check.
Day surgery for SCI	When this definition is applied to patients having day surgery (i.e. those admitted and discharged on the same day), refer to Section 2, *Day Surgery Services* of the Perioperative Services module.
Surgical complexity II (SCII) (e.g. local anaesthetic and/or sedation for excision of lesions)	This level of surgical complexity: > is usually an ambulatory, day-stay or emergency department procedure > requires local anaesthesia or peripheral nerve block and possibly some level of sedation, but not general anaesthesia > requires at least one operating room or procedure room, and a separate recovery area.
Day surgery for SCII	When this definition applies to patients having day surgery, refer to Section 2, *Day Surgery Services* of the Perioperative Services module.
Surgical complexity III (SCIII) (e.g. general anaesthesia for inguinal hernia)	This level of surgical complexity: > usually requires general anaesthesia and/or a regional, epidural or spinal block > requires at least one operating room and a separate recovery room > may be a day-stay / overnight case or extended stay case > may have access to close observation care area/s.
Day surgery for SCIII	When this definition is applied to patients having day surgery, refer to Section 2, *Day Surgery Services* of the Perioperative Services module. Freestanding day hospitals require at least one operating room and a separate recovery room when performing SCIII procedures. Freestanding day hospitals may not provide extended-stay cases.
Surgical complexity IV (SCIV) (e.g. general anaesthesia for abdominal surgery such as laparotomy)	This level of surgical complexity: > involves major surgical procedures with low to medium anaesthetic risk > usually requires general anaesthesia, and/or a regional, epidural or spinal block > has potential for perioperative complications > has close observation care area/s > has access to intensive care services > may have capacity to provide emergency procedures.

Surgical complexity V (SCV) (e.g. general anaesthesia for any major or complex surgery)	This level of surgical complexity: > includes major surgical procedures with high anaesthetic risk > includes surgery and anaesthetic risk with highest potential for intra- and post-operative complications > provides the most complex surgical services > requires specialist clinical staff, equipment and infrastructure > has on-site intensive care services > may have extensive support services available.

Most facilities do not provide a full range of surgical services and, therefore, divide their caseload into major and minor cases. This division may not reflect commonly held assumptions about major and minor cases, but does reflect a split of local caseloads. Despite varying definitions, the concept of dividing surgery by procedural complexity is common clinical practice.

The combination of surgical complexity and anaesthetic risk generally determines the types of patient whose care can be provided at a particular level of surgical service. Access to off-site or on-site intensive care and support services is also an important consideration in determining levels of surgical service (refer to Intensive Care Services module).

Service Networks

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

> services provided within the context of an established service network
> documented processes to facilitate access to clinical advice, assistance and professional support
> may encompass both private and public services.

Service Requirements

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

> meeting requirements of other relevant modules, such as children's, emergency and/or intensive care, and maternity services
> links with relevant services including, but not limited to:
> emergency and emergency surgical, where required
> intensive care
> maternity
> medical imaging
> pathology
> perioperative
> sterilising
> access to telehealth facilities for services at all levels to enable pre-operative and/or post-operative consultation, where necessary
> 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:

- surgery can only be performed by suitably qualified and experienced health professionals authorised under legislation and credentialed by the health service Credentialing and Clinical Privileging Committee or equivalent
- surgeon trainees must be supervised according to RACS' professional documents and guidelines[2] or documents and guidelines of other relevant professional bodies
- all MPGs in accredited training must be supervised by a registered medical specialist with credentials in surgery or surgical subspecialty as per RACS' guidelines[2]
- conscious sedation can only be performed by a person authorised under legislation, and in keeping with ANZCA Document PS09.
- staff directly providing anaesthetic services must be assigned responsibilities commensurate with their level of training and education, competence, experience, required level of supervision, credentials and scope of practice in accordance with particular statutory legislation
- medical practitioners (general practitioners) trained in surgery who have successfully completed RACS training for general practitioner surgical proceduralists, and have approval to practise by the Joint Consultative Committee on Surgery, and other suitably qualified and experienced health professionals approved by national registering bodies, may provide specific surgical services, consequent to credentialing and defining scope of clinical practice.

Surgical Services	Level 2	Level 3	Level 4	Level 5	Level 6
Service description	> provided in health service setting without defined perioperative or anaesthetic services. > operates on demand and manages low- and medium-risk patients for surgical complexity I (SCI) procedures, performed usually on body surface, using only local anaesthetic (and do not involve penetrating internal body cavities via epithelium other than with a needle). > provided by suitably qualified and experienced medical practitioners or other specifically qualified health practitioners. > has procedural room where minor simplistic diagnostic and therapeutic surgical procedures undertaken. > most procedures provided in outpatient clinic, day-stay service, ambulatory service (e.g. 23-hour surgical units—Appendix 3) or in emergency department setting. > does not provide elective surgical services, but may provide occasional outreach services	> provided mainly in hospital setting with designated but limited surgical, anaesthetic and sterilising services. > manages: – surgical complexity I procedures with low to high anaesthetic risk – surgical complexity II procedures with low to high anaesthetic risk – surgical complexity III procedures with low to medium anaesthetic risk – surgical complexity IV procedures with low to medium anaesthetic risk. > may be offered 24 hours a day and may include day surgery. > may also provide emergency surgical services.	> provides surgical services 24 hours a day for: – surgical complexity I procedures with low to high anaesthetic risk – surgical complexity II procedures with low to high anaesthetic risk – surgical complexity III procedures with low to high anaesthetic risk – surgical complexity IV procedures with low to medium anaesthetic risk – surgical complexity V procedures with low anaesthetic risk. > part of service network with higher level services, ensuring access to information related to latest evidence-based care and treatments.	> provides surgical services for: – surgical complexity I procedures with low to high anaesthetic risk – surgical complexity II procedures with low to high anaesthetic risk – surgical complexity III procedures with low to high anaesthetic risk – surgical complexity IV procedures with low to high anaesthetic risk – surgical complexity V procedures with low to high anaesthetic risk. > manages most levels of patient risk (low, medium and high) by providing short- to long-term or intermittent care. > manages patients with increased risk levels until it can arrange their transfer to highest service level. > provides clinical services 24 hours a day and has various combinations of medical, nursing, allied health and other staff on-site.	> highly specialised service managing highest level of risk and most complex surgical presentations in specified area of expertise. > procedures have high risk potential for intra- and post-operative complications. > mainly delivered in large metropolitan facilities, supported by wide range of medical and surgical subspecialties and support services. > staff represent critical mass of expertise and may provide statewide leadership and education in clinical management to service providers. > may also provide statewide consultation-liaison service and other statewide and, where applicable, interstate services.

Surgical Services	Level 2	Level 3	Level 4	Level 5	Level 6
Service requirements	As per module overview, plus: > must have at least one procedure room. > nursing services accessible on-site. > medical services provided on-site or in close enough proximity to provide a rapid response. > access to staff trained in resuscitation.	As per Level 2, plus: > on-site close observation care area/s for surgical complexity IV procedures. > access to emergency monitored bed. > members of multidisciplinary team with experience, knowledge and skills in surgical principles and practice.	As per Level 3, plus: > medical services provided on-site or in close enough proximity to provide rapid response at all times. > access to close observation care area/s. > suitably qualified and experienced multidisciplinary team members relevant to surgical service they provide who may also deliver rehabilitation services. > access to medical and surgical registered medical specialists for telephone consultation and clinical support (range of specialists reflects range of procedures performed). > access to staff with suitable qualifications and experience in stomal care, breast care, mouth care and wound management, depending on specific types of surgery service performs. > may provide limited outreach services. > may have separate day surgery facilities.	As per Level 4, plus: > combinations of procedures with moderate to high level of complexity and risk, and management of some patients with comorbidities and risk of intra- and post-operative complications. > coordinated and prioritised care for surgical patients, including coordination with perioperative services. > multidisciplinary team with members qualified and experienced in providing surgical services in specialty or subspecialty area. > may provide support to rural and remote areas. > may have specialist ward areas (e.g. orthopaedics). > may provide separate endoscopy and day surgery facilities (refer to *Perioperative Services* module). > may provide case management for patients with complex care.	As per Level 5, plus: > staff suitably qualified and experienced in infection control. > dedicated surgical staff available at close proximity 24 hours. > dedicated surgical staff with clinical competency in range of subspecialty areas. > suitably qualified and experienced surgical multidisciplinary team with specific specialty and/or subspecialty areas. > extensive range of specialist services / functions provided on visiting basis. > usually major provider of teleconferencing facilities and may coordinate these services. > may provide statewide outreach services (Appendix 4). > registered medical specialists with credentials in variety of subspecialties may be lead clinicians with governance responsibility of subspecialties. > medical practitioners may relieve in rural and remote areas, as need arises. > may have lead clinician who has responsibility for governance of surgical services.

Surgical Services	Level 2	Level 3	Level 4	Level 5	Level 6
Workforce requirements	As per module overview, plus: **Medical** > access to medical practitioners to provide surgical care. **Nursing** > staffing levels in accordance with the relevant industrial instruments. > suitably qualified and experienced registered nurse in charge on each shift. **Allied health** > Access to allied health services for peri-operative care and work-up before planned surgery, as required.	As per Level 2, plus: > surgical staff with experience and expertise in care of surgical patients. **Medical** > medical practitioner with credentials in surgery > access to registered medical specialists with credentials in surgery who can give advice for all types of surgical patients. > may have access to visiting registered medical specialists with credentials in general surgery or other surgical subspecialties. **Nursing** > staffing levels in accordance with the relevant industrial instruments. > suitably qualified and experienced nurse manager (however titled) in charge of unit. > suitably qualified and experienced registered nurse in charge of each shift. > other suitably qualified and experienced nursing staff appropriate to service being provided. **Allied health** > access to allied health professionals, as required.	As per Level 3, plus: **Medical** > one or more medical practitioners with credentials in surgery. > access to registered medical specialists (both medical and surgical), with range of specialists reflecting range of procedures the service performs. > credentialed registered medical specialists (Fellows of RACS) with subspecialty endorsement, where necessary, relevant to service being provided. > access—24 hours—to registered medical specialist in general surgery. **Allied health** > access to allied health professionals (including social workers, occupational therapists, clinical psychologists and physiotherapists) and appropriately trained support staff within surgical services of inpatient hospital facilities, as required	As per Level 4, plus: **Medical** > access—24 hours—to one or more medical practitioners to support patients in post-operative stage hours. > access—24 hours—to registered medical specialist with credentials in general surgery. > registered medical specialists with credentials in surgery of multiple specialties. > may have access—24 hours—to registered medical specialists with credentials in surgical subspecialties (e.g. orthopaedics). **Nursing** > staffing levels in accordance with the relevant industrial instruments. > access to infection control coordinator.	As per Level 5, plus: **Medical** > may have registered medical specialist with credentials in surgery as director of surgical services. > registered medical specialists with credentials in surgery in multiple specialties on-site and/or visiting.

Surgical Services	Level 2	Level 3	Level 4	Level 5	Level 6
Specific risk considerations	In addition to risk management outlined in the Fundamentals of the Framework, specific risk management requirements include: > awareness of surgical complexity and combination of anaesthetic risk appropriate to this level of service.	In addition to risk management outlined in the Fundamentals of the Framework, specific risk management requirements include: > where specialist services e.g. obstetrics and paediatrics are provided, staff working in specialist service must have qualifications and/or experience in that specialty.	Nil	Nil	Nil

Support service requirements for surgical services	Level 2		Level 3		Level 4		Level 5		Level 6	
	On-site	Accessible	On-site	Accessible	On-site	Accessible	On-site	Accessible	On-site	Accessible
Anaesthetic			3		4		5		6	
Cardiac (diagnostic and interventional)							3		3	
Cardiac (cardiac medicine)							4		5	
Cardiac (coronary) care unit										
Intensive care				4		4	5		6	
Medical						4	5		6	
Medical imaging		1	2		4		4		5	
Nuclear medicine									4	
Palliative care				3		4		4		5
Pathology		1		2		4	4		5	
Perioperative (relevant section/s)	2		3		4		5		6	
Pharmacy		1	2		3		4		5	
Rehabilitation						4		5		5

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 for details.	In addition to what is outlined in the Fundamentals of the Framework, the following are relevant to surgical services: > Australian Day Surgery Nurses Association. Best practice guidelines for ambulatory surgery and procedures. Perth: Cambridge Publishing; 2009. > Australian College of Critical Care Nurses. ACCCN Resuscitation Position Statement (2006): Adult and Paediatric Resuscitation by Nurses. ACCCN; 2006. www.acccn.com.au/images/stories/downloads/adult-paediatric_resus.pdf > Australian Society of Anaesthetists. Position statements and professional standards. www.asa.org.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-Ill-Patients.pdf > Australian and New Zealand College of Anaesthetists, The 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. ANZCA, RACGP, ACRRM; 2003. www.racgp.org.au/Content/NavigationMenu/About/Governance/JointConsultativeCommittees/AnaesthesiaJCCA/ARSCSA2003.pdf > Australian Government Department of Health and Ageing. Between the flags - Keeping patients safe: A statewide initiative of the Clinical Excellence Commission. Canberra, Department of Health; 2008. > South Australian Government. Consent to Medical Treatment and Health Care Policy. www.sahealth.sa.gov.au > South Australian Government. Surgical Team Safety Checklist Policy Directive 2011. www.sahealth.sa.gov.au > Royal Australasian College of Surgeons. Policy and position papers. www.surgeons.org/ > Royal Australasian College of Surgeons. Implementation Guidelines for Ensuring Correct Patient, Correct Side and Correct Site Surgery. RACS; 2006. www.surgeons.org/ > Royal Australasian College of Surgeons. The Australasian Trauma Verification Program Manual. Melbourne: RACS; 2009. www.surgeons.org

Surgical Services Appendix 1

Specialist outpatient clinic services

Specialist outpatient clinic services are an integral part of the South Australian hospital system. These services form a key point of entry for people to access surgical care and should be provided in convenient locations such as:

> specialist rooms, within or adjacent to existing healthcare facilities

> other community settings.

Hospital-based specialist outpatient services are desirable where there is a critical mass of expertise, specialist equipment or where optimal care requires multidisciplinary input. Clinical education and training is considered to be a vital component in the context of these services.

Generally, a patient's registered medical practitioner (general practitioner) or other primary healthcare worker should provide ongoing management in primary care settings. If a patient has an ongoing clinical condition requiring specialist consultation, it is expected the patient will also continue to have regular reviews with his/her registered medical practitioner (general practitioner).

These services have the following roles and responsibilities:

> specialist assessment (including related diagnostic services and patient review)

> ongoing specialist management of patients with complex surgical conditions

> care before and after an acute admission, which cannot be delivered in another setting (pre-admission and post-discharge follow-up).

Surgical Services Appendix 2

Anaesthetic risk, physical status and surgical complexity

The main factor affecting surgical service levels is the interaction between anaesthetic risk (i.e. a patient's physical status) and procedural / surgical complexity. The American Society of Anesthesiologists (ASA1) has a scale accepted as both a universal means of determining a patient's physical status, and a proxy for risk.[4] When these two indicators are used, they provide a level of service enabling a particular type of patient to undergo a particular complexity of procedure safely.

Table 2: Physical status scale

Physical status	Description
P1 = ASA 1	A normal, healthy patient
P2 = ASA 2	A patient with mild systemic disease and no functional limitations
P3 = ASA 3	A patient with a moderate to severe systemic disease that results in some functional limitation
P4 = ASA 4	A patient with severe systemic disease that is constantly life threatening and functionally incapacitating
P5 = ASA 5	A moribund patient who is not expected to survive 24 hours with or without surgery
P6 = ASA 6	A declared brain dead patient whose organs are being removed for donor purposes
E	A patient who requires an emergency procedure

Adapted from the American Society of Anesthesiologists 2003 and the Australian and New Zealand College of Anaesthetists

Table 3 describes anaesthetic service provision, referring to a patient's physical status as a low, medium or high level of risk.

Table 3: Level of risk and physical status

Level of risk	Physical status (adults)
Low	ASA I (PI) and ASA2 (P2)
Medium	ASA 3 (P3)
High	ASA 4 (P4) and ASA 5 (P5)

Source: American Society of Anesthesiologists 2001[4]

Surgical Services Appendix 3

Extended care units / 23-hour surgical units

Extended care units / 23-hour surgical units (also known as short-stay units) have been developed for patients whose expected surgical episode of care can be delivered within 23 hours. Beds in the 23-hour units are quarantined for this purpose and patient care is delivered according to a set clinical pathway. Evaluations of this model have found it to be effective in improving patient flow without increasing re-admission rates or demand on community services.

The concept of 23-hour care units is based on the premise the majority of surgical care can be administered within a 24-hour period in a non-ward environment. Patients can be admitted, prepared for the surgical procedure, then monitored and provided with appropriate pain relief post-surgery before protocol-based discharge occurs within 24 hours.[5]

The establishment of a 23-hour unit in a facility greatly affects both the facility requirements of a day procedure unit, and its location. If, as intended, the extended care / 23-hour surgical unit assumes the pre-operative management of patients and the third stage/discharge process, stand-alone day procedure units cannot provide this type of service. Instead, the stand-alone unit may be collocated with the procedure rooms and care unit, or within the operating suite's envelope.

Depending on where an extended care unit is located in relation to the main operating suite, an extended care unit may also handle the pre-operative management of day surgery admissions in order to obviate the need for duplicated pre-operative facilities in the main operating suite.

Surgical Services Appendix 4

Outreach services

The Royal Australasian College of Surgeons[6] describes outreach surgical services as provision of services to 'regional, rural and remote patients who otherwise would have to travel great distances, often at significant personal cost or hardship'. Outreach services, which are appropriate to the community, should be provided in accredited facilities. Outreach services are provided on a day surgery basis; however, in the rare instance where the patient is required to remain overnight, there should be arrangements for the provision of inpatient care and post-operative follow up.

Considerations for providing surgical outreach services

- Planning for outreach services should be realistic and recognise some patients will probably need to be referred to a larger or higher level service.
- Surgical outreach services must be designed to meet a priority and be deemed to be an essential population need for the services to be provided. These services cannot reasonably be provided by existing medical staff.
- Outreach services must be planned, coordinated, staffed and resourced appropriately.
- All registered medical specialists credentialed in surgery who participate in outreach services must also be credentialed to perform procedures they are required to do.
- On-site equipment and facilities must be adequate for the procedure.
- Operating suites must be used for all procedures of surgical complexity III and above; procedure rooms may be used for surgical complexities I and II.
- Outreach assessment is an essential component of surgical outreach services.
- The service must have administrative and clinical support structures and processes at a local level.
- Medical practitioners who provide anaesthetic services must be trained and credentialed to provide anaesthetic services for the procedures they perform.
- Local medical practitioners and registered nurses who assist with intra-operative care must be trained in surgical procedures and have expertise in pre-, intra- and post-operative care appropriate to the procedures they perform.
- The service must have documented processes for the whole of a surgical patient's episode from initial consultation to post-operative and follow-up care.
- Outreach surgical services patients requiring anaesthetics must be assessed for anaesthesia. Low-risk patients are most suitable for provision of these services; however, medium-risk patients may be considered in circumstances where clinical judgement deems the procedure necessary but not an emergency.
- Outreach services build on the local services and contribute to the local capacity and make sustainability paramount.
- Outreach services are primarily provided on a day-only basis. However, where it is necessary for the patient to stay overnight, appropriate arrangements for the care of the patient (by a registered medical practitioner) while in hospital needs to be agreed prior to surgery. The surgeon ensures the medical practitioner: has access to the operating surgeon or nominated cover at all times; is aware of and able to recognise the potential complications; is able to resuscitate patients in the event of life-threatening complications; and can provide post-operative management at the local level in consultation with the surgeon.
- Where services are provided in rural and remote communities, and sterilising facilities are not available, disposable instrumentation, drapes and equipment are to be used.

Surgical Oncology - Subspecialty Overview

Surgical oncology services, also known as surgical cancer services, involve surgically removing cancers with intent to cure or, if not appropriate, providing palliation to enhance a patient's quality of life. The fundamental requirements are a thorough knowledge of the disease and extensive surgical experience in the field of the relevant organ.

Surgical oncology involves not only specific operative procedures, but also prevention strategies, diagnosis, rehabilitation, follow-up care, palliative care and outcome evaluation.

Children have specific needs in health services—refer to the Children's Services - Preamble, Cancer Services - Children's and Surgical Services - Children's modules.

Surgical oncology activities include:

- investigating and diagnosing cancer using various procedures (e.g. biopsies; exploratory and staging operations; and endoscopic procedures in ear, nose and throat, gastrointestinal, lung, genitourinary and gynaecological cancers), and non-operative radiological techniques and procedures (e.g. biochemical and serological tumour markers)
- undertaking pre-operative tumour staging to evaluate the extent and spread of the disease
- assessing a patient's suitability for an operative approach
- determining the appropriateness of surgery after considering alternative or adjuvant therapies and supporting evidence
- performing surgical excision and reconstruction
- participating in multidisciplinary patient management and follow-up by consulting and liaising with medical oncologists, radiation oncologists, pathologists, radiologists, haematologists, specialist cancer nurses, allied health professionals and palliative care medicine teams, where appropriate (with the multidisciplinary team's functioning based on the principles of multidisciplinary care)
- performing operative intervention to treat cancer-related complications and alleviate symptoms.

Table 4 shows examples of minor, intermediate, complex and specialised surgical oncology for each tumour stream. The table is an indicative guide based on published literature and/or experienced clinical opinions, and is not intended to be a complete list of all procedures. Some tumour streams do not have examples for all complexity levels. This is entirely appropriate, but may change as surgical practices change in the future. At each level, only a suitably credentialed person with appropriate qualifications and current experience can perform procedures.

Table 4: Complexity of surgical procedures and interventions for various tumour streams (indicative guide only)

Tumour stream	Surgical procedure / intervention			
	Minor (SCII)	Intermediate (SCIII)	Complex (SCIV)	Specialised (SCV)
Bone and soft tissue sarcoma		Excision of subfascial lipoma, osteochondroma or other simple cases		Biopsy of suspected or proven sarcoma, retroperitoneal sarcoma, resection of bone or soft tissue sarcoma with appropriate reconstruction of soft tissue, bone or joint, if required
Bone metastasis			Internal fixation of suitable metastatic disease	Internal fixation of metastatic problems, wide resection of metastasis or need for more specialised interventional radiology (such as embolisation), spinal fixation, prosthetic replacement or pelvic metastases
Breast	Fine needle aspiration or core biopsy of palpable lesion, or lesion detected radiologically	Complete tumour resection or total mastectomy	Complete local excision of cancer or mastectomy with axillary dissection or sentinel node biopsy	
Colorectal	Excision of colonic polyp via colonoscopy		Sigmoid colectomy, hemicolectomy, high anterior resection.	Low anterior resection (anastomosis below the peritoneal reflection), pelvic exenteration, total rectal excision with ileoanal pouch, transanal resection for carcinoma (where cure is the intent)

Tumour stream	Surgical procedure / intervention			
	Minor (SCII)	Intermediate (SCIII)	Complex (SCIV)	Specialised (SCV)
Endocrine	Fine needle aspiration		Radical neck dissection; resection of thyroid, adrenal and other endocrine tumours	Multiple endocrine neoplasia syndrome
Gynaecological	Cervical biopsy, hysteroscopy, cervical polypectomy	Dilatation and curettage, laparoscopy, large loop excision of transformation zone of the cervix	Total abdominal hysterectomy, salpingo-oophorectomy	Radical debulking of ovarian cancer
Head and neck	Fine needle aspiration	Excision lymph nodes neck, panendoscopy	Parotid gland excision, thyroidectomy, radical resection of head and neck tumours, radical neck dissection	Skull base resections, tumour resections that require reconstructive transfer of multiple tissue layers
Hepatopancreat-icobiliary	Endoscopic retrograde cholangiopancreatography (ERCP)	Staging laparoscopy		Radical excision of porta hepatis for hilar cholangiocarcinoma liver transplantation, hepatocellular carcinoma surgery, pancreatico-duodenectomy, hemihepatectomy
Lung	Bronchoscopy with biopsy lung	Mediastinoscopy	Lung resection, lobectomy, mediastinal tumours	Pneumonectomy, thoracic paediatric malignancy
Neurological		Peripheral nerve tumour excision or biopsy	Skull vault and intradural tumours	Transdural, skull base, craniofacial malignancy requiring a multidisciplinary approach
Skin	Excision of skin lesion, wider excision of lesion including minor skin graft or minor flap	Wider excision of lesion with major skin graft or major flap repair, sentinel lymph node biopsy	Radical excision of lymph nodes, invasion of deep vital structures, major excisions with plastic reconstruction using multiple tissue layers or free flap transfer	
Upper gastrointestinal	Oesophago-gastroduoden-oscopy with or without biopsy	Staging laparoscopy	Small bowel resection	Oesophagectomy, radical gastrectomy
Urological	Transrectal ultrasound of the prostate biopsy, cystoscopy	Transurethral resection prostate, radical orchidectomy, transurethral resection bladder tumour	Nephrectomy/nephro-ureterectomy, radical prostatectomy	Cystectomy, retroperitoneal lymph node dissection, nephrectomy with excision of caval thrombus

Table note: Each tumour stream has its own continuum of complexity and, therefore, it should not be assumed that complexities can be compared across the different tumour streams.

For certain types of cancer surgery, well established and widely accepted evidence indicates a patient's short- and long-term outcomes improve when they have the surgery in facilities that perform a sufficient number of those procedures. Patients have better treatment outcomes when surgeons working within multidisciplinary teams perform a procedure often enough to maintain their skills and expertise, and allow appropriate referral for adjuvant treatment. Improved outcomes mean better survival, longer disease-free survival and decreased morbidity from specific types of surgery. The improved outcomes may be due to the concentration of services to higher volume providers and/or the development of an increased skill base among medical, nursing, allied health professional and support staff.

The evidence showing outcomes improve when facilities maintain adequate caseloads varies significantly across tumour streams. The published literature on some procedures, such as oesophagectomies and pancreaticoduodenectomies, shows a consistently strong correlation between the maintenance of sufficient caseloads and lower mortality rates. However, the evidence is less concrete regarding other procedures.

Service Networks

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

- integration of surgical oncology with other services involved in managing a patient with cancer (i.e. sharing the treatment of patients with cancer with the specialist surgeon / surgical oncologist, medical oncologist, radiation oncologist, haematological oncologist and pathologist as part of a multidisciplinary team)
- close links with diagnostic services (including high-quality medical imaging, nuclear medicine, interventional radiology, endoscopy and pathology services), medical and surgical subspecialties, allied health professionals and palliative care services
- a consultancy (outreach) service (i.e. hospitals with cancer surgery of a higher level providing outreach services to hospitals with a lower service level) with a surgical oncologist, medical oncologist or radiation oncologist from a higher level service (visiting or telehealth) conducting clinics (including conducting initial assessments and long-term patient follow-ups).

Service Requirements

In addition to what is outlined in the Surgical Services module, specific service requirements for Levels 2 to 6 are summarised in Table 5:

Level 2	Level 3	Level 4	Level 5	Level 6
> None	> access for referral to an appropriate multidisciplinary team with registered medical specialists credentialed in medical oncology, haematological oncology, radiation oncology, radiology and pathology, and available for consultation, to be involved in developing a management strategy. > access to clinical / medical genetics, medical oncology, radiation oncology, clinical haematology, vascular surgery, plastics and reconstructive surgery, and palliative care services > trained technical assistants to ensure all equipment functions safely and properly, and provides service, and that processes ensure this is done to an agreed standard.	> access to medical and surgical registered specialists for telephone consultation and clinical support, with the range of specialists reflecting the range of procedures performed. > physiotherapist on-site or accessible during business hours.	> None	> plastic and reconstructive surgery on-site. > direct access to all facets of the multidisciplinary team, including medical and radiation oncology services, on-site for inpatient treatment. > regular multidisciplinary meetings in each tumour group for which the facility provides a service. > access to registered medical specialists credentialed in surgical oncology or appropriate discipline to assist and guide assessment, treatment, case management and case review.

Legislation, regulations and legislative standards	Non-mandatory standards, guidelines, benchmarks, policies and frameworks (not exhaustive & hyperlinks current at date of release of CSCF v3.2)
Refer to the Fundamentals of the Framework and Cancer Services - Preamble for details.	In addition to what is outlined in the Fundamentals of the Framework, Cancer Services - Preamble and Surgical Services module, the following are relevant to surgical oncology services: > Royal Australian College of Surgeons. General guidelines for assessing, approving and introducing new procedures into a hospital or health service. RACS; 2008. www.surgeons.org/media/297973/REA-ASE-3103-P-General-Guidelines-for-Assessing-Approving-Introducing-New-Surgical-Procedures-into-a-Hospital-or-Health-Service.pdfw > National Health and Medical Research Council. Organ-specific treatment guidelines and standards. nd. www.nhmrc.gov.au/guidelines/health_guidelines.htm > Royal Australasian College of Surgeons. Position Statement: Outreach Surgery. RACS; 2007. www.surgeons.org/ > Standards Australia/Standards New Zealand. Australian/New Zealand Standard AS/NZS 4173:2004. Guide to the safe use of lasers in health care. Standards Australia; 2004.

Reference List:

Note: This reference list includes references from the appendices.

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