BACKGROUND
Specialisation has served the surgical profession and the community well, especially over the last 100 years.

Specialisation within surgery facilitates the concentration and acquisition of knowledge and experience. It contributes to the setting of standards, research and advances in care. Specialists and specialist units can be a focus for teaching and the dissemination of best practice. For patients with a well-defined clinical problem, treatment by a specialist and/or in a high volume specialist unit has an increased likelihood of a good outcome.

However, specialisation also has some disadvantages. It can lead to fragmentation of knowledge and patient care. This is particularly relevant for patients with multiple system diseases, undifferentiated illnesses where the exact diagnosis is uncertain or even from which system it originates. Given that specialisation requires a critical size of population and institution it has implications for access to care, and especially access to emergency care for patients who live far from the relevant institution. This in turn can be a major problem for governments and hospital managers as they seek to provide a full range of accessible surgical services to all of their population within finite budgets.

Governments, health providers, workforce planners and specialist medical Colleges are increasingly examining the paradoxes and nuances of the relationship between specialisation and generalism. This includes consideration of new and innovative models of delivery of care, philosophies of practice and the training and maintenance of an appropriately skilled and empowered workforce.

The Royal Australasian College of Surgeons (RACS) has adopted ‘six principles of Generalism within Surgery’. These principles are relevant to practice within the nine specialty areas in which RACS recognises, trains and examines. They apply also to the relationship and cooperation between established specialties, sub-specialists, and specialists practicing across a number of recognised specialties.

The same six principles can be used to guide interactions with and between Fellows of other Colleges and other health practitioners who may be required to provide surgical services. These may include general practitioners, physiotherapists and nurse practitioners.

This document is intended to promote best practice within the surgical community and to provide guidance and framework for jurisdictions and institutions as they seek to safely and efficiently provide surgical services to whole populations.

Specialisation is a dynamic and continuous process. Achieving the right balance between generalism and specialisation is a dynamic progression. Seeking the best outcome for patients remains the overriding principle. One size does not fit all, and the right balance and model will vary from region to region, depending on the workforce, ease of communication and geography.

TERMINOLOGY
“Generalism” and “Generalist” have been usefully defined by the Royal College of Physicians and Surgeons of Canada as:

“Generalism is a philosophy of care that is distinguished by a commitment to the breadth of practice within each discipline and collaboration with the larger health care team in order to respond to patient and community needs.”

“Generalists are a specific set of physicians and surgeons with core abilities characterized by a broad based practice. Generalists diagnose and manage clinical problems that are diverse, undifferentiated, and often complex. Generalists also have an essential role in coordinating patient care and advocating for patients”
Nevertheless, within surgery the terms ‘generalism’ and particularly ‘generalist’ are easily confused with the specific surgical specialty discipline of ‘General Surgery’. Outside of surgery ‘generalist’ may also be used to refer to General Practitioners, or to undifferentiated doctors yet to enter a specialist training program.

**Extended Scope of Practice:** the term, Extended Scope of Practice applies when a specialist or other practitioner works beyond the normal range expected of their discipline, described or defined as follows:

a surgeon or other health practitioner who, in addition to practicing in their specialty, practices in limited areas of other specialties in response to community need. This may be on a regular basis or on an “as needed” basis.

For this reason we suggest that for describing the practice of specialists, the specific terms of narrow or broad scope specialist may better articulate how specialists actually practice within the scope of their specialty.

- ‘narrow scope specialist’ to define a surgeon practicing within a limited clinical area of their recognised specialty, often called a sub-specialist. This person will usually have had extra training in this area and may have additional expertise.
- ‘broad scope specialist’ to refer to a surgeon who regularly practices across the full range of their specialty. In general this correlates with the RACS scope as defined for each specialty.

RACS-trained surgeons are initially trained in the broad scope of their specialty. Many subsequently function simultaneously or sequentially as a narrow scope specialists or subspecialist, or as a broad or extended scope specialist in different work contexts or at different stages of their career. For instance, some will undertake a narrow scope of practice at a major institution’s specialist unit, a broad scope in emergency work and or private practice and an extended scope on outreach visits to smaller centres in Australia.

**SIX PRINCIPLES OF GENERALISM WITHIN SURGERY**

1. **Necessary for Sustainable Health Systems**
   The configuration of surgical services to all regions should be designed to provide safe, cost effective and equitable delivery of high quality surgical care to the whole population of Australia and New Zealand. This requires a mix of surgeons who specialise in a narrow range of conditions and surgeons who cover a broad scope or extended scope of practice working in cooperative relationships with each other.

   In Australia, Surgeons working across a wide scope or extended scope of practice are particularly necessary and effective in providing for emergency surgery, services to rural and regional areas, military and humanitarian work. They are also increasingly desirable for the oversight and management of many patients with multiple and complex conditions. Without these skills, the surgical services in many areas would become non-viable.

2. **Appropriate Training**
   Surgeons working across a broad or extended scope of practice need initial broad training in multiple specialty areas to reflect the clinical needs, or when the need for broad scope is recognised subsequently, further training and support in their non-core specialty areas.

3. **Collaboration and Support**
   To deliver a safe and high quality service to patients, surgeons working across a wide scope of practice and their institutions should establish cooperative, easily accessible and mutually supportive relationships with more specialised colleagues and specialised institutions.
Similarly, specialist and subspecialist surgeons must recognise their regional responsibilities and develop similar relationships with broad scope surgeons so that together they can ensure high quality care, irrespective of the patient’s location.

4. Continuing Professional Development and Audit
Continuous two-way, audit, education, learning and development should occur within and as an essential part of these mutually supportive relationships. Both the broad scope surgeon and the supporting specialist have an obligation to regularly review the audit data and use it to refine the service to improve the quality of care.

5. Location specific Scope of practice
The scope of practice of all surgeons will be best determined by an assessment of local need and defined in the context of the wider regional service networks. The appropriate scope of practice will be location-specific and depend on the training and skill set of the extended or broad scope surgeon, available local facilities, linked services and existing or planned supportive relationships.

6. Supportive Legal and credentialing frameworks
The RACS (in dialogue with Fellows, specialty and sub-specialty societies and jurisdictions) needs to foster a medico-legal and credentialing framework which facilitates extended and broad scope of practice surgery while protecting patients, institutions and jurisdictions. Medico-legal risk should be minimized in services in which there is good collaboration between the broad and narrow surgeons and where there is shared clinical responsibility.

BODY OF POLICY

1 Necessary for Sustainable Health Systems
Safe, cost effective and equitable delivery of high quality surgical services to the whole population of Australia and New Zealand requires a mix of surgeons specialising in a narrow range of conditions and surgeons covering a wide scope or extended scope of practice working in cooperation.

In Australia, Surgeons working across a wide scope or extended scope of practice are particularly necessary and effective in emergency surgery, rural and regional areas, military and humanitarian work. They are also increasingly desirable for the management of patients with multiple and complex conditions

The population of Australia and New Zealand is distributed amongst a few large and sprawling cities, large regional centres, smaller rural centres and remote towns and settlements. In addition, there are a mix of cultural and economic factors that influence the health and wellbeing of our populations.

The provision of safe, equitable, accessible and sustainable modern surgical services is a concern of our governments and a professional obligation for all surgeons in Australia and New Zealand. Largely in Australia, our geography, social mix and economic realities do not allow all the population ready or equal access to large institutions with their multiple specialty and subspecialty units.

Our populations are ageing and suffering from increasing rates of multi system disease and co-morbidities. Presentations with illness or accident are often undifferentiated and potentially involve multiple medical and surgical specialties. Even in large, fully developed specialist institutions it is difficult practically and financially to cover all needs with multiple teams of narrow scope specialists. Also, diagnoses are sometimes obscure and the appropriate specialty area is not always apparent at presentation.
Many of our most disadvantaged Indigenous populations live in regional and remote areas and their cultural background makes it difficult for them to deal with multiple different and unfamiliar healthcare providers located geographically well away from their support.

Governments and other health care funders are faced with increasing costs and an unsustainable rise in health costs as a proportion of Gross National Product. As nations and as a profession there is an imperative to find the most cost effective way of delivering high quality surgical services to all.

A number of surgeons will serve in the military or work in humanitarian situations in low income countries in which it will be desirable to practice competently over an extended scope of practice.

All the previous factors and scenarios are unlikely to be met solely by an increasingly specialised surgical workforce. Surgeons working across the full scope of their specialty or across multiple specialties will continue to be needed. The right mix of narrow scope and broad and extended scope specialists and specialist surgical units will be determined by the interplay of all these factors. Maximising the quality and safety of specialised services delivered in a generalist context is covered in subsequent principles.

2 Appropriate Training

Surgeons working across an extended scope of practice need initial broad training in multiple specialty areas.

Historically surgical trainees were exposed to a broad experience in surgery in general before entering a specialist training program. Commencement of the RACS SET (Surgical Education and Training) program in 2007 allowed medical graduates to be selected into one of nine specialist training programs from Post Graduate Year 3 (PGY3). While many had several more years as an undifferentiated junior doctor or an unaccredited trainee before entering SET, the exposure to multiple specialties within surgery is currently reduced.

Surgeons in Australia who intend to work in rural areas or other environments where an extended scope of surgery is desirable therefore need personalised, targeted and appropriate training in other specialty areas. This may be accomplished by clinical terms before SET, facilitated during SET by supportive regulations for training of that particular specialty and or by a personalised high impact post Fellowship program, tailored to the surgical needs of the trainee’s intended practice location. Specialist societies have a crucial role in the design of such extended scope training pathways. The contacts established during these specialty attachments should ideally translate into ongoing mentoring, referral and continuous medical development relationships. Sometimes, already trained surgeons move to an area where extended scope of practice is desirable: provision needs to be made for these surgeons to receive further training and support, which can often be done in conjunction with the supporting specialist.

3 Support

To deliver a safe and high quality of service to patients Surgeons working across an extended or broad scope of practice and their institutions should establish cooperative, easily accessible and mutually supportive relationships with more specialised colleagues and specialised institutions. Similarly, specialist and subspecialist surgeons must recognise their regional responsibilities and develop similar relationships with broad scope surgeons so that together they can ensure high quality care, irrespective of the patient’s location.

It is vitally important for the health of the population that extended and broad scope of practice surgeons and institutions are not in, or perceived to be in, competition with narrow scope surgeons and institutions.

For patients to gain from all the benefits of specialisation along with the continuity, efficiency and access that Generalism may add, extended and broad scope specialists and institutions should have
supportive and functional links with narrow scope specialists and institutions. These links may include initial training, ongoing mentoring, bilateral regular clinical or educational visits and regular clinical case based consultations. They may also include combined operating lists and co-located clinics where there is an outreach service: this helps provide skill acquisition, peer support and enhances the rapport between the surgeons.

The sharing of protocols, inclusion in multidisciplinary disease based meetings and participation in specialty or multi institutional audits should be encouraged.

Such functional relationships allow patients easy access to expert second opinions and referral for more specialised care if indicated. They enhance the practice of the narrow scope specialist and institution by increasing the number of appropriately triaged, diagnosed referred complex cases in their area of expertise. Ongoing appropriate local after-care is also enhanced.

The extended or broad scope specialist's practice is also enhanced. By cooperation and input from a supportive narrow scope specialists and institutions they can undertake the care in areas of extended expertise, confident they have ready access to appropriate advice and back-up in case of unexpected complications. Over time, they may safely develop the capacity to manage more complex cases.

The population, health funders and providers of surgical services gain by increased local continuity of care, an enhanced level of emergency care, functional and sustainable emergency rosters and decreased transfers, travel and disruption.

4 Continuing Professional Development and Audit

Continuous two-way, audit, education, learning and development should occur within and as an essential part of these mutually supportive relationships. Both the broad scope surgeon and the supporting specialist have an obligation to regularly review the audit data and use it to refine the service to improve the quality of care.

Surgical practice is changing at an increasing rate with an explosion of knowledge and technology. Initial surgical training serves as a sound platform for future continuous learning and development. Extended and broad scope specialists have a particularly arduous task in maintaining currency and competency.

Access to scientific meetings such as the RACS Annual Scientific Congress (ASC) which involves simultaneous programs for most surgical specialities and sub-specialties is important. ‘Recent developments’ and ‘up-date’ sessions by narrow scope specialists specifically catering to the needs of extended and broad scope specialists are valuable at international, national and local meetings.

Clinical attachments and or joint clinics and operating sessions function as both learning and auditing opportunities. Formal specialty or institutional based audits should be open to the broad or extended scope specialist.

Narrow scope specialists benefit from close interaction with their extended and broad scope counterparts by refreshing their knowledge of the breath of their specialty and or being exposed to developments and advances beyond their usual scope of practice. They may also learn valuable insights into the particular needs and structures of a society outside their usual experience.

5 Scope of practice

The scope of practice will be best determined by local need and developed in the context of the wider regional service networks. The appropriate scope of practice will be location specific and depend on the training and skill set of the extended scope surgeon, available local facilities and existing or planned supported specialist relationships.
There is no 'one size fits all' in the provision of high quality surgical services to a whole population. Different contexts and different specialty services will need different solutions.

Local needs, local skill sets and local support facilities will be an important factor in configuring the safe level of services that can be offered at a particular location. National, state and regional health services and frameworks are equally important as is particular specialty’s prerequisites for sustainability. The service configuration should be design to reflect the needs of the community and the expertise that the health service has available to it, and may change with time. The scope of practice will be a consequence of these factors.

All these factors and stakeholders need to be consulted and have the ability to influence the mode of delivery and level of service at a particular location. A safe, sustainable, equitable and accessible surgical service is the driving denominator.

6 Legal and credentialing frameworks

The RACS (in dialogue with Fellows, specialty and sub-specialty societies and jurisdictions) needs to foster a medico-legal and credentialing framework which facilitates extended scope of practice surgery while protecting patients, institutions and jurisdictions.

In their role as expert witnesses to courts and membership of credentialing committees’ surgeons are integral and important parties in establishing legal frameworks and local working environments for the practice of surgery.

Broad and extended scope surgeons are particularly vulnerable to adverse rulings in legal matters if the context of practice is not taken into account. The expert opinion of a narrow scope specialist will often appropriately be sought by the courts. It is very important for the narrow scope expert to consider the wider issues of context of practice, the access to surgical services and the implications for standards of surgery available to the whole population in their advice to the court.

Rigidly applying criteria that are only relevant to the largest and most specialised units may lead to a lowering of overall standards of surgery available to the whole community. Similar attitudes should be considered in credentialing. Issues of protecting market share, prestige of the profession, membership of particular societies, political or financial advantage should be subservient to creating a safe, sustainable, accessible and continuous surgical service to the local population.

Medico legal risk can be reduced if there is a strong collaborative relationship between the narrow scope specialist and broad or extended-practice surgeon, particularly if there have been good lines of communication, agreed clinical guidelines, and shared clinical responsibility.

Credentialing can be used as an extending and empowering process rather than seen only in restrictive terms. For instance the credentialing process may identify deficiencies in the scope of practice of a surgeon, a unit and or an institution and proactively suggest or set in motion processes such as extra training, mentoring or partnerships which facilitate a safe expanded scope of practice.

Self-imposed or institution-imposed excessive restriction of scope of practice based on minimising medico-legal risk may paradoxically increase the clinical risk for patients due to delays in diagnosis and treatment during transfer and while awaiting more specialised attention. In time, it may also adversely affect the local expertise available for emergency management to the detriment of patients.

Costs incurred by the health system and opportunity costs should also be taken into account by the expert narrow scope surgeon when giving an opinion on medico legal or credentialing issues.

TASK DELEGATION

The College recognises that within clinical teams and services some tasks can be delegated. When this occurs the same principles of support, communication and review of performance/outcomes
should occur. Those to whom tasks are delegated should participate in appropriate CPD to their extended scope of practice and should be adequately supervised and supported.

- The College supports a delegated model of care, not substitution.
- If allied health care providers are to undertake work in a delegated model, the allied health worker should be held to the same standard as the traditional providers of this care. The work would normally be expected to be directly or indirectly supervised and subject to audit and peer review.
- The College recognises that there are roles within the health system for which suitably qualified nurse practitioners, physiotherapists and other allied health personnel can work within a defined role within a medical unit. The potential impact of task delegation on surgical training must be considered and negative impacts avoided. We support the importance of satisfying roles and recognise that this applies to all clinical staff, including doctors.

DEFINITIONS

**Generalism:** “Generalism is a philosophy of care that is distinguished by a commitment to the breadth of practice within each discipline and collaboration with the larger health care team in order to respond to patient and community needs.”

**Generalist:** “Generalists are a specific set of physicians and surgeons with core abilities characterized by a broad based practice. Generalists diagnose and manage clinical problems that are diverse, undifferentiated, and often complex. Generalists also have an essential role in coordinating patient care and advocating for patients”

**Specialist:** A medical practitioner who has competed all the requirements of a specialist training program. In the context of surgery in Australia and New Zealand this is a medical practitioner who has been awarded the Fellowship of the Royal Australasian College of Surgeons (FRACS). The FRACS is endorsed in one of the 9 specialties.

**Specialisation:** The process in which a medical practitioner or group of practitioners restricts the range of their practice while increasing the depth of knowledge and expertise in that area.

**Specialties:** The nine areas of surgical expertise in which surgeons are trained, examined and recognised by the RACS. They are cardiothoracic surgery, general surgery, neurosurgery, orthopaedic surgery, otolaryngology head and neck surgery, paediatric surgery, plastic and reconstructive surgery, urology and vascular surgery. Each has an accepted scope.

**Extended scope specialist:** A surgeon or other health practitioner who in addition to practicing in his/her specialty area also practices in limited areas of other specialties in which some additional training or support has been provided.

**Sub-specialist:** A surgeon or other health practitioner who restricts their range of practice and increases their expertise to a clinical area within their main recognised specialty. They may or may not continue to work in the broader scope of their recognised specialty.

**Narrow scope specialist:** same as sub specialist.

**Broad scope specialist:** a surgeon or other health practitioner who continues to practice across the full range of their primary specialty

**SET Program:** The RACS Surgical Education and Training Program, accepted by the Australian and New Zealand Medical Councils as the approved training pathway for recognition as a specialist surgeon in Australia and New Zealand.
PGY: Post Graduate year. Distinguishing the experience and seniority of an undifferentiated junior doctor prior to commencing a specialist training program.