Subject:	Emergency Surgery	Ref. No.	FES-PST-050

BACKGROUND

Patients who present to hospitals with acute surgical conditions and/or trauma are significant consumers of health resources in Australia and New Zealand.[1] Emergency surgical patients often have complex and challenging problems, which may include major traumatic injury, sepsis, shock and serious abdominal conditions.[2] The Royal Australasian College of Surgeons (RACS) recognises the challenges associated with providing adequate emergency and trauma care to communities across Australia and New Zealand.[3]

The community expects expert quality care when presenting at emergency departments and acute care facilities, but this is contingent on governments and health services addressing problems and shortfalls in service delivery and staff retainment. Access to operating theatres must be managed effectively to ensure that emergency surgery is appropriately prioritised[4] and Health service directors must demonstrate leadership in reconciling the competing demands of elective and emergency surgery.[5]

The inevitable outcome of inadequate resources, critical staff shortages and an inability to attract motivated individuals to careers in emergency surgery is a threat to the future standard of emergency surgical care in both Australia and New Zealand. In order to meet the demands of the future the College makes the following recommendations regarding the provision of emergency surgery.

SERVICE ADMINISTRATION & FACILITIES

Hospitals accepting emergency patients need to be provided with appropriate and adequate facilities. This includes 24 hour availability of the required surgical specialties, anaesthesia, adequate nursing support and ancillary support (such as intensive care, pathology and radiology). Appropriate surgical facilities must be available for day-time surgery and as much of the acute surgery as possible must be performed in protected day-time and emergency surgery lists. These arrangements need to consider local situations and cater for full time staff and visiting surgeons.

Hospitals that provide emergency and trauma care need to have an appropriate number of general and orthopaedic surgeons. There also needs to be ready access to surgeons in other specialties (neurosurgery, otolaryngology head and neck, vascular surgery, plastic and reconstructive surgery, paediatric surgery, cardiothoracic surgery, urology, obstetrics and gynaecology and ophthalmology) and many of these surgeons may not be able to be appointed on a 24 hour roster. There may need to be local arrangements whereby surgeons from a number of hospitals share care in order to ensure provision of appropriate services.[6]

The College supports the following principles:

- Where possible it is recommended that dedicated emergency theatre space be provided.
- Rostering systems should be established so that surgeons can be available to perform emergency surgery when required.
- Smaller district/regional general hospitals and rural hospitals require facilities that are appropriately resourced for the level of service that is being provided.
- Adequate resourcing of infrastructure, workforce and appropriate administration is essential at all levels.

SURGICAL APPOINTMENTS AND LEADERSHIP

The College recognises the provision of emergency surgery is a core competency within all surgical specialities. It is essential that surgeons continue to be specifically trained in emergency medicine to enable the broad provision of acute surgical care in all areas. Coordinated systems must be developed and periodically reviewed to improve care for seriously ill and injured patients, and for those who have less serious clinical conditions but who still require surgical review.[7]

Leadership of the surgical and clinical teams must be given greater credibility within organisations and surgeons must have input into consultations on improving services in their particular location/area/region. In acute surgical care it is vital that high risk and emergency procedures are led by consultant staff who are best placed to provide the earliest possible treatment assessment.

Senior surgical and nursing staff are often left frustrated by the constant challenge of providing adequate emergency surgical services. As a consequence some staff are opting out of working in emergency care situations or choose to leave public hospital practice altogether. Junior staff, aware of these frustrations, may prefer to take career paths that avoid the need to participate in emergency care, thus compounding the problem.[8] It is therefore essential that ongoing reforms are made in order to make the emergency surgical care environment an attractive place for surgeons to work.

In many hospitals there is a requirement for training and teaching of junior staff and the institution must support these roles. Junior staff must be given adequate time to learn new skills and senior clinical staff must be given time to teach as part of their hospital appointment. Further encouragement of post-Fellowship training will both support and lead to career development and leadership opportunities in emergency surgery and trauma. Continuing education and professional development in emergency and trauma care needs to be valued as an important means of maintaining and continually improving standards.[9]

MODEL OF CARE

Model of care arrangements for emergency surgery will vary from hospital to hospital but in all cases it is vital that they are fully supported by all aspects of the hospital or health service.

Successful acute surgery needs to be led and/or supervised by the nominated surgical consultant. Consultants in acute surgical care must be available immediately to take responsibility for patient care and ensure that treatment occurs according to clinical need.[10]

Appropriate rapid triage facilities and theatres must be available at short notice, and there must be a clear delineation of responsibility for patient care. In addition to this, suitable handover must be viewed as a priority and performed so that each patient is clearly assigned under the care of a particular surgeon.

There needs to be protocols and resources in place for hospitals which are less well equipped to be able to transfer patients quickly. Retrieval teams from more central, well equipped hospitals need to be available at short notice to avoid compromising patient care and it is critical that ambulance services (including air ambulance) are readily available for pre-hospital care. Ambulances must be directed to the hospital most suited to the patient's particular needs and ideally for complex multi-system trauma patients, this will be the nearest level one trauma centre (or equivalent).

Surgeons should work within the principles of safe working hours. Rosters need to be arranged so that a surgeon who works for a considerable proportion of the evening or night has the next day rostered off, and that they are appropriately remunerated. Surgeons cannot be expected to work during the day after actively working overnight.[11]

OUTCOMES

For patients who have serious acute surgical or traumatic conditions inefficiencies in the system of retrieval, triage, diagnostic investigation, access to the operating theatre, and appropriate post-operative care may lead to an increased risk of morbidity and mortality. In addressing these issues it is vital that appropriate quality control, adequate data collection and audit processes continue to evolve to support further refinement of services across Australia and New Zealand. Increased financial investment and development of improved leadership, teamwork and management frameworks will lead to the best possible clinical outcomes for patients.

Approver: Director, Fellowship and Standards
Authoriser: Professional Development and Standards Board

[1] Royal Australasian College of Surgeons New Zealand Trauma Committee, 'Guidelines for a structured approach to the provision of optimal trauma care', http://www.surgeons.org/media/17053260/doc_2012-09-14_guidelines_for_a_structured_approach_to_the_provision_of_optimal_trauma_care.pdf
Royal Australasian College of Surgeons, 'Model Resource Criteria For Level I, II, III & IV Trauma Services in Australasia http://www.surgeons.org/media/309212/2009-08-04_MRC_for_website.pdf
[2] Stewart, B., Khanduri, P., McCord, C., Ohene-Yeboah, M., Uranues S., Vega Rivera, F., Mock, C. Global disease burden of conditions requiring emergency surgery (2014), Br J Surg, Jan 2014; 101(1), 9-22.
[3] Qureshi, A., Smith A., Wright, F., Brenneman, F., Rizoli S., Hsieh T. (2011), The impact of an acute care emergency surgical service on timely surgical decision-making and emergency department overcrowding. J Am Coll Surg, 213: 284–293.
[4] Britt RC, Weireter LJ, Britt LD. Initial implementation of an acute care surgery model: implications for timeliness of care (2009), J Am Coll Surg, 209: 421–424.
[5] https://www.surgeons.org/media/307115/sbm_2011-05-24_separating_elective_and_emergency_surgery.pdf
[6] Smith, M., Hussain, A., Xiao, J., Scheidler, W., Reddy, H., Olugbade, K. (2013), The importance of improving the quality of emergency surgery for a regional quality collaborative. Ann Surg. 257: 596–602.
[7] Leppäniemi, A., Jousela, I., A traffic-light coding system to organize emergency surgery across surgical disciplines. (2014), Br J Surg, 101(1), 134-40.
[8] Statement of Acute Care, American College of Surgeons (2007) http://www.facs.org/fellows_info/statements/st-56.html
[9] Campbell, G., Watters, D. A. K. (2013), Making decisions in emergency surgery. ANZ Journal of Surgery, 83: 429–433.
[10] Royal College of Surgeons in Ireland, National Clinical Programme in Surgery – Model of Care for Acute Surgery; Dublin, Ireland (2013)
[11] Standards for Safe Working Hours and Conditions for Fellows, Surgical Trainees and International Medical Graduates Position Statement, The Royal Australasian College of Surgeons (2007)
http://www.surgeons.org/Content/ContentFolders/Policies/FES_FES_2264_P_Safe_Hours_Position_Paper.pdf