Royal Australasian College of Surgeons

Outreach Surgery in Regional, Rural and Remote areas of Australia and Aotearoa New Zealand – Case Studies

POS-3200

We provide five outreach surgery case studies demonstrating the principles in the proposed revision of the outreach policy, to assist members of Fellowship Services to understand the real-world application of the principles.

1 Mobile outreach services: the Mobile Surgical unit in New Zealand

Mobile health means a team and/or resource travels to multiple locations to provide outreach services.

The mobile surgical unit consists of a truck and trailer, containing a portable operating theatre. The Mobile Surgical Service travels to rural communities to provide elective day-stay procedures, telehealth services and professional development to rural health professionals. The service commenced in 2004.[1] Local doctors and nurses are involved as surgical assistants and perioperative nurses, resulting in upskilling. The service is integrated into the health system, with rural health equity a key strategic driver. Services are scheduled regularly, with 25 rural communities visited over a 5-week cycle, visiting communities with demonstrated need for services. Surgeons participate as part of their public hospital appointments. A quality assurance and quality improvement system is integrated into the service. The service has demonstrated increased access to services for rural children and Māori.[2]

2 Paediatric Surgeon and Rural General Surgeon

A paediatric surgeon flies to a regional centre >600km from a capital city to collaborate with a local general surgeon every 8 weeks. The service enables children and families to have care close to home and the rural surgeon to maintain an extended scope of practice in common paediatric elective and emergency surgery. Post-op care is delegated to the general surgeon with remote support from the capital city paediatric surgical unit. The general surgeon is capable of recognising and managing clinical deterioration. Along with the Director of Medical Services, anaesthetic and nursing teams, there is an agreed scope of paediatric surgical practice for that facility with reference to state based capability frameworks and a documented risk management plan. The scope of practice excludes procedures and patients that would exceed the facility's capacity to recognise and respond to clinical deterioration, stabilise, definitively manage, or transfer, or where the real-world transfer time is clinically unacceptable (would not allow for clinical rescue). Real-world transfer time differs from perfect-world transfer time, where multiple patients requiring transfer across a region may be competing for transport based on clinical need.

3 Rural Hospital with satellite facility

A large rural hospital has several smaller satellite facilities with bidirectional movement of staff. There are existing systems for remote video support from the main facility emergency department, staffed by FACEMs, to the satellite hospital emergency rooms. Elective surgery is undertaken at a satellite facility 50 minutes by road from the main site. With reference to the state anaesthetic and surgical capability framework and knowledge of the infrastructure and health workforce capacity at the satellite facility, there is an agreed scope of practice for each surgical unit, predominantly day stay surgery with some overnight stays. There are agreed protocols for patient selection including age and ASA status. Most surgeons return home (usually within 60 minutes of the satellite hospital) and delegate post-operative inpatient care to the Rural Generalist GPs, who are available to attend after hours, with virtual surgical

support available from the main hospital, and with authority to transfer patients to the main site. The surgical team is on call at the main site and always accepts transfers of post-operative patients. The real-world transfer time is appropriate for the range of possible post-operative complications. A considerable proportion of the elective surgery workload of the hospital network occurs at the satellite facility, allowing resources at the main site to be focused on more complex patients and procedures.

4 Inner Regional Hospital with no formal links to another facility

A regional hospital provides surgical services by hosting visiting metropolitan surgeons on a fee for service basis. Surgeons are entrusted to set their own scopes of practice, with reference to the scope of practice of any surgeon practicing in their specialty, and without reference to state capability frameworks. There are junior medical staff (prevocational year 2-3) in the hospital overnight, with instruction to call the responsible surgeon if concerned about a patient. Handover between surgeon and junior medical staff does not always occur. There are no local GPs or specialists supervising or available to attend the hospital if required by the HMOs and no capacity to take patients back to theatre overnight. There are no formal links or agreements with the closest metropolitan hospital and not all surgeons operating at the regional hospital are associated with the metropolitan hospital.

The Director of Medical Services has received reports about patients experiencing clinical deterioration postoperatively and the nursing staff and HMOs being unable to contact the responsible surgeon, or the surgeon recommending transfer, but the metropolitan hospital refusing to accept the patient due to bed block. A meeting is convened with surgeons, anaesthetists, nursing, and medical administrators. An interim agreement that an individual surgeon is available to attend the facility in person while they have post-operative patients admitted, or that surgeons agree to a roster where at least one surgeon capable of recognising and responding to clinical deterioration is available. Some surgeons decide to no longer provide services at the facility. Others continue their services and engage in a risk assessment and risk management plan, including defining scopes of practice, delegations and formal links with the metropolitan facility and surgical units.

5 Remote OHNS outreach

An OHNS surgeon provides a long-standing paediatric OHNS outreach services 4 times a year to a remote hospital, 1600km from the state capital, more than 17 hours by road and real-world transfer time of more than 4 hours (road ambulance to local airport, 2.5-hour flight, road ambulance to capital city hospital). A Rural Generalist GP anaesthetist and a local general surgeon are trained and available to manage post-operative complications, including return to theatre for paediatric patients with post tonsillectomy haemorrhage. On the morning of an operating list, the general surgeon receives news that a close family member is terminally ill, and they need to fly out the same day. The surgeon and GP anaesthetist consult with the Director of Medical Services. They consider the risks of children waiting another 3 months for surgery and the risk of a post tonsillectomy haemorrhage with no onsite surgical service and transfer times more than 4 hours. They decide to cancel tonsillectomy cases, proceed with low-risk surgical cases where risk of clinical deterioration requiring urgent care is minimal (insertion of middle ear ventilation tube, myringoplasty. They use the remainder of the outreach visit for consultations and staff training, reschedule some children's operations, and arrange transfer for others to a metropolitan facility for surgery.

[1] Mobile Health Surgical. (n.d.). *Our Services*. Retrieved January 26, 2026, from https://mobilehealth.co.nz/our-services/

[2] Bax, K., Shedda, S., & Frizelle, F. (2006). The New Zealand mobile surgical bus service. What is it achieving? *The New Zealand Medical Journal*, *119*, U2025.