

Acute medical admissions in our hospitals: getting it right

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Acute medical units can help fast-track medical patient assessment and admission to hospital

Hospitals in Australia are experiencing increasing numbers of medical presentations (ie, patients requiring admission under the care of a physician rather than a surgeon) in a context of ongoing restriction of inpatient beds. The resulting pressure on emergency departments (EDs) causes frustration for health care workers and administrators alike, as they struggle to meet key performance indicators that are designed to minimise the time that patients spend on trolleys in the corridors of EDs. Many hospitals have responded to this challenge by developing acute medical units (AMUs) that are equipped to fast-track patients with medical problems to the care of inpatient physicians (ie, staff physicians and visiting medical officers) and multidisciplinary teams who can best plan the management, care and disposition (destination after leaving the AMU) of these patients.

On 24 April 2009, a seminar titled "Acute medical assessment units: improving care and flow for medical patients" was held at the Royal Children's Hospital, Melbourne. The meeting was called by The Alfred Hospital, Melbourne, to assess the current state of evolution and performance of AMUs in Australia and New Zealand, and was supported by the Victorian Government Department of Human Services (DHS), Monash University National Health and Medical Research Council (NHMRC) Centre of Research Excellence in Patient Safety (CRE-PS) and the Internal Medicine Society of Australia and New Zealand (IMSANZ). Speakers from Australia and NZ addressed 210 attendees, including 78 doctors, 45 nurses, 17 DHS staff, 14 business analysts, 18 allied health professionals and pharmacists, 20 research educators and 10 representatives of relevant medical colleges. Here, we present the major themes presented for discussion and debate; speaker slides are available at <http://www.crepatientsafety.org.au/seminars/>.

In the keynote presentation, Associate Professor John Henley (Visiting Professor, The Alfred Hospital) drew on years of experience running the AMU at Auckland City Hospital, NZ, and consulting on AMUs throughout Australasia. He emphasised the value of AMU staff working closely with ED staff, collocating the AMU and ED, and sharing administration across both units. At Auckland City Hospital, the AMU provides infrastructure, administration, and nursing and allied health support, but patients are seen by inpatient physician teams, with no default service provided in the AMU. This arrangement places the onus on the inpatient physician teams to attend to their patients promptly, and encourages continuity of care. This continuity is more difficult to achieve in AMUs that have their own medical staff, as distinct from inpatient physician teams. Henley also emphasised the importance of monitored beds, imaging equipment that is in close proximity to the AMU, and consulting rooms that permit urgent review of patients who are likely to require admission at the request of local general practitioners (thus bypassing the need for their assessment in the ED). In 2006, Henley co-authored a position statement on AMUs on behalf of IMSANZ.¹

An international and historical perspective on AMUs was provided by one of us (P FJ), drawing on extensive involvement in the establishment of AMUs in the United Kingdom. When the UK

National Health Service applied severe penalties for hospitals that failed to move most patients from the ED within 4 hours, AMUs were developed throughout the country, supported by a new subspecialty — acute medicine. Introduction of a 4-hour rule is now pending in Western Australia, further focusing attention on AMUs. The importance of designing units according to the functionality required by individual hospitals was also emphasised — some units are designed to manage only patients with acute medical emergencies; some are designed to manage all medical admissions other than intensive care and critical care unit admissions; and some are primarily aimed at managing hospital bed issues, without a particular medical focus. Some units also accept surgical patients. This point was later reinforced by Associate Professor David Russell (Director, General Medicine, Royal Melbourne Hospital), who noted that the AMU should be regarded as a "philosophy of care", not simply as a geographical entity. The value of effective change-management strategies in successful introduction of the AMU, particularly from the nursing perspective, was illustrated by one of us (LTO). Ms Glynis Jenkins (Project Coordinator, Acute Assessment Unit, Royal Perth Hospital, Perth) highlighted the importance of effective engagement with allied health staff, who play a crucial role in the AMU in both the UK and WA.

Access block that results from delayed discharge and poor "back-door" availability of subacute and community care (paucity of options for discharging current inpatients who no longer require acute care but are not well enough to go directly home) is a major barrier to patient care, patient flow and ED key performance indicators. Dr Pieter De Villiers Smit (Acting Director, Emergency Department, The Alfred Hospital) described examples of how access block can impede patient management and safety. Professor Peter Cameron (Physician, Emergency Department, The Alfred Hospital, and Director, NHMRC CRE-PS), who chaired the session on identifying and addressing barriers, recently expanded on this topic in this Journal.² Access block increases patient length of stay and incidence of adverse events, and decreases quality of care. In Australia, the excess mortality in hospitals attributable to access block matches that of the national road toll. Access block is a hospital-wide responsibility, rather than a problem within and for the ED itself, but is rarely acknowledged as such. Lugubrious specialty referral processes (whereby a patient can be referred, in turn, to several different subspecialties before being accepted for management) and significant delays in allocation of hospital beds contribute to access block.

Associate Professor Ian Scott (General Physician and Director, Department of Internal Medicine and Clinical Epidemiology, Princess Alexandra Hospital, Brisbane) reviewed the limited evidence base for efficacy of AMUs. In uncontrolled and often poor-quality studies, AMUs reduced estimated bed costs, and probably contributed to decreases in mortality, patient length of stay in hospital, ED admission waiting times and numbers of outlier patients (ie, patients whose allocated hospital bed is in a ward other than the ward that is usually managed by their admitting team). AMUs can

also increase the allocation of patients to appropriate subspecialties, increase staff and patient satisfaction, and facilitate the direct discharge of patients from hospital without an increase in the readmission rate. Professor Don Campbell (Head, General Medicine Department, Clayton Campus, Monash Medical Centre, Melbourne) illustrated how simulation modelling and clinical audit data can be used to optimise the use of resources in AMUs.

In the UK, acute medicine is practised as an independent subspecialty that has its own Society of Acute Medicine, whereas in Australia and NZ it is part of the training of a general physician. An ageing general physician workforce with a paucity of young trainees and consultants threatens the development of AMUs in Australia. One of us (H H N) presented alarming data from the 11th annual report of the Medical Training and Review Panel (MTRP),³ the Medical Labour Force Survey⁴ and the Specialist Advisory Committee in General Medicine of the Royal Australasian College of Physicians (RACP) (Surinder Ahluwalia, Education Officer, Education Deanery, RACP, personal communication). In 2006, general medicine was the third most populated physician specialty in Australia, after cardiology and gastroenterology, but had the highest proportion of ageing physicians and the smallest number of new graduates — only four general physicians received their RACP Fellowship in 2006, in contrast with 42 cardiologists and 19 gastroenterologists. At least 200 additional general physicians are required in Australia, although a structured workforce analysis in this area has not been undertaken recently. The numbers of trainees entering cardiology and gastroenterology exceeded the MTRP recommendations, but no recommendation is provided for general medicine. There appears to be little regulation of trainee numbers in each subspecialty by the RACP or health departments, and a relative oversupply of cardiology and gastroenterology trainees. Numbers of general medicine trainees in 2009 are higher than for 2007, but fewer than 40% of those who do some advanced training in general medicine actually practise in this specialty. A major workforce strategy to replenish the ranks of general physicians is required. Cross-training of subspecialty trainees (who are encouraged to maintain their general medicine skills) could provide an interim solution until numbers of dedicated general medicine trainees and dual specialty trainees increase. Additional appointments of full-time general physicians and affirmative action in remuneration could also help — this has been successful in the training of geriatricians.

The meeting concluded with Professor Paddy Phillips (Chief Medical Officer, South Australia) summarising what administrators

want from those designing and running their AMUs. He focused on four themes: clarity, reliability, accountability and working together, a useful checklist for any initiative. This was a timely presentation, as it was part of the session on implementation that was chaired by Ms Margaret Grigg, Assistant Director of the Access and Metropolitan Performance Branch within the Victorian Government DHS. This department will no doubt receive requests for additional funding of Victoria's AMUs from the inspired attendees of the seminar.

Competing interests

None identified.

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