What does the future hold for general medicine?

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ABSTRACT

- General medicine is being challenged by increasing numbers of patients who are presenting with multiple comorbidities and a decline in numbers of suitably trained personnel to manage these patients.
- A resurgence in generalist care, with collaboration between generalists and specialists, is the key to successfully managing patients who present with acute medical conditions.
- Better funded collaborative training programs for general physicians, which promote a diversity of skills and address clinical demand in a proscriptive manner, are needed.
- Research aimed at designing acute services to match local clinical demand is also required.

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During the 20th century, hospital general medicine was the hub of medical activity. It was run by general physicians who often had a "specialty interest" and who sought additional specialist help when necessary. This system had many advantages — the leadership structure was clear, continuity of care was facilitated and there were real opportunities for holistic management — but it has become increasingly difficult to maintain as medical knowledge, technology, skills and specialisation have advanced.

At present, a general medical unit is often the allocated destination for an inpatient after admission under a subspecialty physician has been refused. This has resulted in heterogeneity of purpose for general medical units and a risk of inappropriate patient placement in either general or specialist medical units. The growing perception that general medicine is a second-tier option in the management of patients with acute medical conditions can have an adverse effect on recruitment and retention of staff. At a time when increasing numbers of patients are presenting with multiple comorbidities, a decline of generalism could threaten the principles of holistic patient care — organs, rather than the organism, are becoming the emphasis of individual patient management.

Recent changes in general medicine

Over the past decade, general medicine in Australia and the United Kingdom has responded in different ways to increasing numbers of patients with multiple comorbidities. In the UK, acute medicine is now a recognised medical specialty with specialty training programs and specialist acute physicians in charge of acute medical units (AMUs), in which the majority of patients who present with acute medical conditions are managed. For many years, geriatricians — who are highly skilled in acute geriatrics, rehabilitation and multispecialty team leadership — have helped manage the acute medical workload in the UK. In contrast, Australian medical assessment units (MAUs) often function more as a general medical ward that is "on acute take"; compared with their counterparts in the UK, they admit a smaller percentage of patients with acute medical conditions and the acuity of admitted patients is lower.[1] The Internal Medicine Society of Australia and New Zealand has a dominant guiding role in training for and administration of general medicine, and advocates a ward-based functional design for MAUs.[2] Emergency departments (EDs) in Australia have a culture of stabilising medical patients, whereas in the UK this is now the role of AMUs. In Australia, much of the workload of general medical units is chronic disease management, which results in a holistic approach to care. In the UK, specialist physicians are faced with balancing acute and chronic specialty workload and hospital and community care.

Acute medicine in the UK

In the UK, acute medicine has evolved as a specialty under the guidance of the Royal College of Physicians and the Society for Acute Medicine.[3,4] It was recognised formally as a medical specialty in 2007 and it can be defined practically by the curricula of its medical training programs. These curricula are entirely competency based and combine considerable training in acute medical management with mandated periods in intensive care medicine and variable experience in emergency medicine and chronic disease management. Acute physicians are trained in the traditional diagnostic and treatment skills of acute general medicine together with intensive care principles of recognising and managing patients with physiological instability, underpinned by competency in airway management, assisted ventilation techniques and haemodynamic support. This role has developed in the UK to support a system of acute medical care in which a large proportion of patients with acute medical conditions (including undiagnosed and unstable patients) are admitted directly to AMUs from the community, bypassing EDs. In the UK, there are established protocols and communication channels between primary care physicians and AMUs. Australian physicians and hospitals could do more to develop such mechanisms.

How should general medicine progress in Australia?

A recent Western Australian study has highlighted the importance of ensuring that clinical services match clinical demand.[5] Patients who presented to the EDs of two hospitals were categorised according to their basic clinical needs. The categories were "acute correctable illness", "exacerbation of chronic illness", "the non-acute patient with urgent needs" (often older patients with both clinical and functional problems such as social dependency, mobility problems and cognitive impairment) and "palliative care". These categories had relevance to the optimum care environment for patients and helped to predict length of stay in hospital. In addition, the clinical needs of the two hospital populations in this study differed in important respects, which may be relevant to acute medical service design. In particular, a deductive strategy that aims to match local service provision with local clinical demand was recommended by the researchers. It may, therefore, be beneficial to move towards a needs-specific triage system in Australia, rather than a triage system that is focused on organ involvement.

Another area for debate is whether generalists or specialists are better suited to caring for acutely unwell patients who present at the hospital "front door". Physiological instability has a limited number of ways of expressing itself and the resuscitation of patients with a wide variety of acute medical conditions is largely non-specific, requiring expertise in haemodynamics, airway control, sepsis, respiratory failure and so on. Patients with acute medical conditions may

be better cared for by a generalist with acute-care competencies, rather than by a specialist who spends significant time doing non-emergency work. This contention has a highly successful precedent in other groups of expert generalists, such as critical care physicians. An alternative system in which acute care is provided by the whole range of medical specialties on a 24/7 basis cannot be delivered practically as a consultant-led service and is not compatible with the concept of holistic medicine.

Are different "phenotypes" of generalists required?

Patients who present to emergency services with acute medical conditions do so with a broad range of clinical and social problems. The majority are not physiologically unstable and the medical profession has been slow to recognise the need to train generalist physicians who are particularly skilled in managing patients with chronic diseases or multiple comorbidities. Physicians trained to lead multidisciplinary teams with a practice that spans the acute hospital and the community would be an ideal advance in chronic disease management. The argument for specialist geriatric services is directly analogous to that for chronic disease specialists; like patients with chronic disease, geriatric patients commonly suffer a pathway of events which leads to a hospital admission that might have been avoided by more proactive management and clinical decision making.

We need to consider a system of general medical training that provides experience in all of the major disciplines of generalist care: acute medicine, chronic disease management and geriatric medicine. The training does not need to be exclusive or limited to one college, but clinical demand warrants an emphasis on competencies and experience in one of the major disciplines. In addition, the potential roles of community-based, rehabilitative and other services — as alternatives to ubiquitous acute hospital admission — need to be appraised critically.

What makes a specialty robust?

To survive, a medical specialty must have a defined function, a recognised, respected purpose, and credibility among other medical specialties. A fundamental element of credibility is a scientific evidence base that justifies the specialty's existence and advertises its contribution to clinical medicine. Further development of clinical general medicine must, therefore, be accompanied by a growth of academic units that will not only teach and train but also pioneer robust research in each of the disciplines that comprise general medicine.

The way forward

Current clinical demand warrants a resurgence in generalist care. Attempts to deliver emergency and elective medical services using a model based on super-specialisation are very unlikely to succeed, not least because a comprehensive, consultant-led acute medical service would be prohibitively expensive. In addition, the increasing complexity of patients who present to emergency departments with acute medical conditions is creating demand for an acute generalist model. In no way does this model usurp or belittle the roles of other specialty medical teams in the acute care setting — its aim is to complement them. Collaboration between generalists, emergency physicians and other specialists at the hospital front door is the key to the successful management of patients who present with acute medical conditions.

The complexity and variety of patients' acute medical conditions also necessitates a diversity of skills within general medicine. We must consider training programs for general physicians that reflect this in a prescriptive manner: programs with a structure that includes mandatory periods of training in acute, chronic and ambulatory care of patients. To increase the number of Australian physicians equipped with the necessary skills, a number of strategies have been proposed:[6]

- greater collaboration between the Royal Australasian College of Physicians (RACP) and the state and national departments of health to increase the number of general medical registrars and facilitate their training (Queensland Health have taken this initiative on board);
- close links between the RACP and the Australasian College for Emergency Medicine in training programs; and
- adjustment of federal funding to increase support for teaching relating to and consultations with patients who have complex chronic diseases.

Finally, further research is required. Can we determine the emphasis of an individual patient's needs at the time of presentation to emergency services, and does this correlate with the need for hospital admission and help to predict hospital length of stay? If so, population-specific data, derived from cooperation and collaboration between research centres, should enable a deductive process of acute service design to guide required local emphasis on different elements of service — acute resuscitative and short-stay hospital facilities, chronic disease management facilities, geriatric medicine services and palliative care services. It is intuitive that a structure designed to suit local demands should be superior to the one-size-fits-all model and comparisons of performance between individual hospital MAUs must be centred on evidence-based, appropriate national standards for key indicators of safety, quality and patient acceptability as well as the efficiency markers that currently dominate performance assessment.

Competing interests

None identified.

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