Should geriatric medicine remain a specialty?

Leon Flicker director , Western Australian Centre for Health and Ageing, School of Medicine and Pharmacology, University of Western Australia, Royal Perth Hospital, Perth, WA 6001, Australia
leonflic@cyllene.uwa.edu.au

YES

How are specialties of internal medicine determined? Mostly by a focus on individual organs, which reflect the colocation of cellular systems, which have been so arranged by some chance survival advantage common to all mammals. Even within a specific "organology," individual specialists have a distinct range of expertise based on patients' and practitioners' interests, such as interventional versus non-interventional cardiologists. The advantage of subspecialisation, no matter how determined, is clear—it allows the practitioner to focus on specific knowledge, skills, and attitudes that can achieve better patient outcomes. However, for most subspecialties of internal medicine, the evidence for benefit on patient outcomes is lacking. Fortunately, this is not the case for geriatric medicine, and in fact if the specialty of geriatric medicine did not exist, we would be obliged to invent it.

Evidence of benefit

The origins of geriatric medicine lay in the medical neglect of older people with multiple chronic illnesses and concomitant functional disability. Doctors used to assume, without any scientific basis, that such patients would not benefit from any interventions. Their beliefs were shown to be wrong. Older patients do benefit from medical interventions, coupled with the judicious use of therapies to increase functional status and introduction of community support.

"Modern concepts of frailty help elucidate why the specialty of geriatric medicine works, and for whom"

Initially, like penicillin, geriatric assessment and rehabilitation had such a dramatic effect that observational data were judged to be sufficient to justify their adoption.[1] Numerous randomised controlled trials and systematic reviews have since shown the benefits of organised multidisciplinary care and rehabilitation over routine general practice and physician care in inpatient and outpatient populations[2] and in specific disease states affecting predominantly older people, such as stroke[3] and fractured neck of femur.[4] Some parts of this mix of interventions, particularly the team focus and the availability of allied health staff to inpatients, have been partially adopted by general physicians and other subspecialists, with some improvements in care.[5] This non-randomised controlled study mirrors previous studies, where general physicians and general practitioners formed the control groups to which geriatricians were shown to add value by decreasing disability and length of stay.[6]

Furthermore, it is not just individual patients who benefit from geriatricians. The training of the geriatrician focuses on a whole system approach, facilitating patients to obtain access not only to acute care but to subacute, outpatient, and domiciliary care, as well as determining the appropriateness of residential care. This focus on a whole system approach provides efficiency gains to the whole medical system and contributes to the substantial job satisfaction of geriatricians.[7]

Emerging definitions

Although the specialty has been based on utilitarian values rather than a specific organ, a scientific framework is beginning to emerge. Most experienced clinicians intuitively identify frail older people—sometimes by derisive terms such as gomers[8] or bed blockers—but their categorisation has been difficult. Frailty characterises people at the limits of their physiological reserve in one or more of the major homoeostatic systems. Such individuals are vulnerable to relatively minor endogenous or exogenous changes, which may lead to stereotypical clinical problems such as falls and confusion.

Over the past decade two competing definitions for frailty have emerged. One definition implies that older people acquire this "phenotype" of frailty, defined by items including unintentional weight loss, weakness, and slow walking speed.[9] Another defines frailty as "multiple phenotypes"—that is, as a multitude of vulnerabilities and instabilities[10] in a process of "deficit accumulation" that can be used to produce a frailty index.[11] These concepts explain why any minor perturbation in a frail person may precipitate a cascade of events in multiple systems,[10] leading to further illness and death. Importantly, a large observational study has now shown that older people can improve, or become less frail, and decrease their risk of disability and death,[12] highlighting the importance of targeted interventions.

These modern concepts of frailty help elucidate why the specialty of geriatric medicine works, and for whom. The accumulation of multiple insults over time and consequent reduction of homoeostatic reserve must be tackled by a comprehensive approach that includes all organ systems and focuses on functional effects. Furthermore, the loss of homoeostatic reserve, and the need to treat multiple conditions concurrently will lead to an inevitable risk of iatrogenic complications, the avoidance and early detection of which are some of the core domains of geriatric medicine. Finally, deficit accumulation is not just confined to physical insults. Life course events, extending to the fetal period,[13] may increase susceptibility to illness and so called psychosocial factors may have important influences, requiring psychosocial interventions to which other clinicians may often see little point.

Geriatric medicine does not deserve to be abandoned. It has been shown to work and continues to work well. Excitingly, it is only now that we are beginning to understand why.

I thank Kenneth Rockwood for advice.

Competing interests: None declared.
Cite this as: *BMJ* 2008;337:a516

FOTOLIA

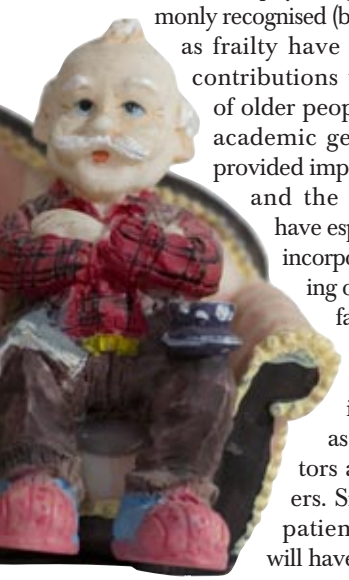
The development of geriatrics has greatly improved care for older people. **Leon Flicker** believes specialist care remains important for this vulnerable group, but **C P Denaro** and **A Mudge** argue that age divisions are no longer relevant

C P Denaro director, associate professor, Internal Medicine and Aged Care, Royal Brisbane and Women's Hospital, Brisbane, QLD 4029, Australia and University of Queensland, Brisbane
c.denaro@uq.edu.au
A Mudge staff physician, University of Queensland, Brisbane

NO Our patients have changed. The inverted pyramid is imminent. Every developed country is facing an increase in older patients.[1 2] The fastest growth in emergency admission rates is in the oldest age group.[2] These changes translate into major changes in the profile of our hospital patients, as older patients with multiple chronic diseases and disabilities occupy more beds. In addition, improved survival is also leading to larger numbers of younger people with chronic disease and disabilities living in our communities.[3] Thus it is not just geriatricians who have to be able to manage acute and accumulated chronic diseases and to assess and manage the functional, cognitive, and psychological impairments that can influence longevity, quality of life, use of health care, and treatment decisions.

"Expectations of health care for older people have changed greatly in the past generation"

The concepts of comprehensive assessment, multidisciplinary care, rehabilitation, and planned discharge have been championed by many groups, but particularly geriatric medicine. Recognition of subtle and atypical presentations of illness in elderly people, and the decreased physiological reserve commonly recognised (but poorly defined) as frailty have been important contributions to hospital care of older people.[4] Clinical and academic geriatricians have provided important leadership, and the principles they have espoused have been incorporated in the training of our hospital and family doctors and the staffing of our hospitals, which include roles such as discharge facilitators and case managers. Since most of our patients in the future will have chronic diseases or disabilities or have frailty related problems, all generalists must incorporate these holistic themes and specific knowledge into their clinical practice. So there is little point in continuing to distinguish general physicians from geriatric physicians.[5]



Value of team approach

The landmark trial by Rubenstein and colleagues, published 24 years ago, showed that admission to a geriatrician led, team based rehabilitation unit after acute care significantly improved outcomes compared with usual hospital practice.[6] This small study had a major influence in subsequent meta-analysis of geriatric interventions, but the impressive results have not been replicated.[7] Acute elder care units have had mixed success, and the evaluation of geriatric consultation services shows disappointing results.[7-9] What are the reasons? Some have argued that the wrong patient subgroup was targeted for specialist care or that the models did not provide adequate control over management decisions. However, perhaps the successful models have relied on features other than geriatric expertise such as the multidisciplinary allied health team and dedicated rehabilitation areas.

The use of multidisciplinary teams is no longer confined to geriatric medicine. Positive results have been achieved by non-geriatric physicians supervising multidisciplinary care teams, suggesting that the team model rather than "geriatric technology" may be important.[10] Similarly, there is no evidence that the important benefits seen with stroke units are tied to the leadership by a specific specialty physician group.[11] The successful chronic disease management programmes for heart failure, diabetes, or chronic obstructive airways disease also require multidisciplinary teams working with general practitioners and hospital doctors.[12-14] It seems to be resources and the model of care that make the difference.

What age is old?

It is not sensible to define a specialty by chronological age. Increasing numbers of younger people with chronic disease and disabilities also require a coordinated, function focused approach to care; artificial age cut-offs into "geriatric" and "non-geriatric" services only frustrate access to such services. In addition, attitudes to and expectations of health care for older people have changed greatly in the past generation. An approach centred on gentle symptom management and functional maintenance is no longer considered acceptable. In 2005, almost half of new patients started on renal dialysis were aged over 65, and almost 10% of patients receiving coronary artery bypass grafting were over 80.[15 16] The rationing of aggressive medical care is now appropriately based on individual judgments of risks and benefits, not by a number.

Health care is a continuum, and rather than breaking the patient's journey into arbitrary steps (under 65, over 65, acute care, subacute care, etc) a patient's continuity of care should be maximised wherever possible. There is danger if a patient with complex multiple medical conditions during their life journey sees too many doctors or has multiple handovers when admitted to hospital.

True generalists are needed

Workforce reports across the world show increasing problems attracting trainees to geriatric medicine.[17 18] Faced with the rising tide of patients with comorbidities, disabilities, and frailty there has been a renewed impetus to increase the number of generalists in hospitals. The United States has created the hospitalist movement, and the Royal Australasian College of Physicians advocates for a return to generalism.[19 20] All of these staff require an understanding of geriatric principles, but singular geriatric training may no longer provide a doctor with the skills needed to manage older patients who require evidence based therapy for a wide range of conditions.

Advocacy, innovation, and teaching of health care for elderly people need enthusiastic supporters. However, specialised geriatric training may be neither necessary nor sufficient for such a role. Our challenge is to continue to incorporate the lessons of these pioneers in aged care into everyday clinical practice.

Competing interests: None declared.
Cite this as: *BMJ* 2008;337:a515
All references are in the version on bmj.com

WHERE DO YOU STAND ON THE ISSUE?
Tell us on bmj.com