Position Statement No.4

Education and Training in Geriatric Medicine for Medical Students
Revised 2006

In view of the changing demography of the Australian population teaching directed towards the medical care of older people is a priority. The teaching of Geriatric Medicine has traditionally had a low profile in Australian medical schools. In the last decade many medical schools have undergone curriculum evaluation and restructuring. It is therefore timely for the ASGM to issue the following recommendations:

1. All medical schools should ensure that students have specific training in the assessment and management of older patients.

2. Educational objectives in geriatric medicine relate to specific knowledge, skills and attitudes, which all medical students need to acquire, based on societal need and supported by robust evidence.

3. Essential areas of knowledge include understanding:
   - a) the ageing process and physiology of ageing;
   - b) the presentation of disease in old age;
   - c) the multiple causes of the common syndromes of ageing;
   - d) the assessment, investigation and management of common medical problems in older people;
   - e) the concepts of impairment, activity limitation and participation restriction;
   - f) the principles behind why older patients are investigated and managed in ways that are sometimes different to younger patients and patients with single organ problems;
   - g) the appropriate and optimal drug prescribing for older patients;
   - h) the process of comprehensive geriatric evaluation and management including the role of the multidisciplinary team;
   - i) the role of Aged Care Assessment Teams in the community;
   - j) community supports and their appropriate use;
   - k) the role and appropriate use of residential aged care facilities;
   - l) common ethical and legal issues relevant to older people;
   - m) strategies for healthy ageing.

This Position Statement represents the views of the Australian Society for Geriatric Medicine. This Statement was approved by the Federal Council of the ASGM on 29 March 2006.

The original paper was prepared by Professor Paul Finucane (1996). The revision of this paper was coordinated by Dr Vasi Naganathan.

n) demographic trends and their implications for health and social services;
   o) awareness of racial, cultural and societal issues that impact on the delivery of care;
   p) the spectrum and relevance of ageing research.

4. Essential skills should include:
   - a) communicate effectively with older patients, their carers and other people likely to be involved in their care;
   - b) work effectively as part of a team;
   - c) assess medical and functional status of older patients;
   - d) assess the mental status of older patients;
   - e) assess and manage older patients with multiple medical problems;
   - f) effectively manage severely disabled older patients;
   - g) effectively manage dying older patients;
   - h) critically appraise and apply research findings to older people;

5. Essential attitudes should include:
   - a) a positive approach to old age and illness in older people, together with an awareness of ageist attitudes and negative stereotypes;
   - b) a feeling of competence and self-confidence in one's professional dealings with older people;
   - c) an appreciation of the role of Geriatric Medicine and Aged Care Services;
   - d) a holistic approach which focuses on the person rather than on the disease;
   - e) a recognition of the rights of older people, their families and carers in determining their own health care.

6. The teaching of Geriatric Medicine should be integrated into the entire course as well as provided as a discrete module at a time when students have acquired sufficient clinical knowledge and skills.

7. In courses that adopt a problem-based learning (PBL) approach the distribution of PBL cases should reflect the type of patients that are seen by doctors in hospitals and the community. i.e. a significant number of older people and people with chronic and irremediable disease.

8. Students need to meet older patients in the various settings in which they seek medical care (e.g. hospital, community, home, residential care).

9. The responsibility for the teaching of Geriatric Medicine should be shared by all who care for older patients.
10. Geriatricians should concentrate on teaching those areas of knowledge, skills and attitudes that are less likely to be dealt with by other specialists.
11. Students should have ready access to a library and other educational resources relevant to Geriatric Medicine.
12. Students should be assessed in the knowledge, skills and attitudes relevant to Geriatric Medicine that they are expected to acquire.
13. Geriatricians should be actively involved in student assessment processes.

BACKGROUND PAPER

Introduction

Three factors underscore the importance of medical student training in geriatric medicine:

a) The Australian population is ageing. The most striking demographic trend in Australia this century has been the increase, in both relative and absolute terms, of older people in the population. Within the elderly population, the greatest expansion is among the very old. As the prevalence of disease and disability increases with advancing age, older people will be the main users of the health care system. For example, people aged over 65 years account for 27.7% of the Australian population but account for 33% of hospital admissions and occupy 47% of all hospital beds. The highest number of patient days in hospitals is for the 75-84 age group [1]. Older people also constitute an increasing proportion of the general practitioners' workload. This use of health resources by older people will increase dramatically in the decades ahead. The increase in the number of "old old" (aged >85) means that the doctor of the future will see more patients with:

1. multiple chronic systemic diseases with acute exacerbations
2. chronic neurodegenerative disorders

b) Older people have particular health needs. Providing medical care for individual older patients presents major challenges. Medical problems in older age are often characterised by a complex amalgam of physical and cognitive dysfunction and unmet social needs, which are often difficult to disentangle and manage sensibly. Diseases often present atypically, have multiple aetiologies and protean manifestations. Chronic conditions where underlying impairments result in continuing disability and handicap, predominate in older age. Communication problems and physical frailty are also common and can make clinical assessment difficult. The appropriate use of diagnostic and therapeutic technologies often requires fine judgement of the risks and likely benefits. In particular, optimal and appropriate prescribing in the elderly is paramount to avoid iatrogenic disease. The recognition of the time in an older person's life when medical interventions should dichotomise from life prolonging to palliative is an important skill to develop. Above all, a positive approach to older people and to their medical problems is essential.

c) The training of doctors in the medicine of old age has traditionally been inadequate.

There are well documented deficiencies in the delivery of health care to older people. While the reason for this is multi-factorial, inadequate exposure to the health needs of older people in the medical curriculum is part of the problem [2]. Post-graduate training later seldom rectifies this deficiency where the principles of Geriatric Medicine again tend to receive little emphasis [3]. A lack of early exposure to complex older patients, together with a lack of competence and self-confidence in dealing with them, can foster a lifelong negative attitude toward these patients.

What Training is Required?

Prior to graduation from medical school, all students should have acquired specific knowledge, skills and attitudes (appendix) relevant to Geriatric Medicine and the medical care of older people. This is 'core' material, and as such is as relevant to the future cardiologists, neurosurgeons, biochemists and general practitioners as to the prospective geriatricians. These objectives are in accordance with learning objectives in Gerontology and Geriatric medicine approved by the World Health Organisation in 1982 [4]. The depth to which each item should be explored is discretionary.

When Should Training in Geriatric Medicine Take Place?

A vertically integrated approach is ideal, with the health needs of older people being a theme running through the entire undergraduate course. Thus, the physiology and biochemistry of ageing can be incorporated into physiology and biochemistry teaching programs. Where the curriculum is divided into pre clinical and clinical years, there are advantages in having teachers/faculty with a clinical background (ie. geriatricians) having input into the pre-clinical program, thus ensuring its clinical relevance. Teaching in Geriatric Medicine should also be horizontally integrated. For example, in a systems-based teaching module, aspects of that system relevant to older people should be covered. Thus, when studying diseases of the cardiovascular system, students should have exposure to cardiovascular problems in older people. Medical
schools with PBL curricula should ensure there are cases of older people and people with chronic and complex diseases [5]. There needs to be a defined time set aside for training in Geriatric Medicine under the supervision of Geriatricians during the later half of the medical course when complex medical issues can be best appreciated. It should be sufficiently long for students to gain experience in all aspects of in-patient care, from admission to discharge. Students should also be exposed to the community care of older people either during this attachment and/or during a separate community care module. It is important for students to have exposure to active and healthy older people early in the medical course as this helps foster a positive view of older people.

**How Should Geriatric Medicine be Taught?**

The knowledge, skills and attitudes which medical students need can be acquired in a variety of ways. Knowledge is best obtained from textbooks, journals, lectures and computer assisted learning, as well as from a variety of small group teaching activities (eg. tutorials, problem-based learning, bed-side teaching). Innovative medical schools increasingly use self-directed learning to teach students how to access information. Communication and physical examination skills are also acquired in a number of ways, including role-play and the use of simulated and real patients. Problem-based learning, whether undertaken in the tutorial room or at the bedside, promotes the development of problem solving skills. The techniques used to promote attitudinal learning include role-modelling, role-play, senior mentor programs, other forms of experiential learning, and small group discussions. Students should perform comprehensive geriatric medical assessments on a number of in-patients and outpatients. It is important for them to then have the opportunity to discuss both the problems they have identified and the approach to management of these problems with experts in Geriatric Medicine.

**Where Should Geriatric Medicine be Assessed?**

Traditionally, clinical teaching has been largely hospital-based, in wards, outpatient departments and day hospitals. The need for a greater community focus for medical education is now widely appreciated [6] and this is particularly relevant to the study of Geriatric Medicine. Geriatric Medicine is well equipped to meet this need, due to the manner in which it spans the hospital and community. Students can get a valuable appreciation of the needs of older people and of the services provided, from exposure to and involvement in home visiting, Aged Care Assessment Teams, community based programs and hospital outreach programs.

**Who Should Teach Geriatric Medicine?**

It is neither desirable nor feasible for the teaching of Geriatric Medicine to be left entirely to Geriatricians. Ideally, all clinicians who care for older patients should teach geriatrics, dealing particularly with how older people can best benefit from their expertise. For example teaching in Geriatric Medicine should take place in the cardiology ward, urology ward, the ENT clinic, the palliative care unit and in the general practitioner's surgery. Clinicians of all specialties should teach students about how management is adapted to suit the individual needs of the older person (eg: patients with a single problem, patients with multiple chronic diseases on multiple medications, frail patients and dying patients). Geriatricians should concentrate on teaching those areas of knowledge, skills and attitudes that are unlikely to be addressed by others. Health professionals other than doctors also have much to contribute to medical student teaching. Learning how the various members of the multi-disciplinary team assess and manage multiple medical, functional and social problems can be enormously instructive.

**Resource / Reference Material**

It is essential that each centre of teaching in Geriatric Medicine has a well-resourced library with general texts of Geriatric Medicine, texts related to specific topics in geriatrics, specialist geriatric journals and relevant video-tape material. In addition, some centres have invested in new technologies that can be applied to the teaching of geriatrics. Important amongst these is web-based teaching.

**How Should Proficiency in Geriatric Medicine be Assessed?**

Whenever possible, assessment in Geriatric Medicine should be integrated with other specialities. For this to occur, it is essential that issues relevant to older people receive due attention whenever knowledge, skills or attitudes are being tested. Too often, this fails to occur. For example, when clinical skills are being assessed, there is a tendency to exclude patients with communication difficulties or other problems that make physical examination difficult. If students are to be stimulated to develop the clinical skills necessary for assessing older people, it is essential that they be assessed in those skills that they are expected to acquire. Geriatricians should be involved in all aspects of the assessment process, from designing the tool to undertaking the actual assessment.
APPENDIX

Essential Areas of Knowledge

a) ageing process and physiology of ageing
   Students should appreciate i) the nature of ageing; ii) its time of onset; iii) physiological decline in organ function over time; iv) the consequences of ageing; v) the difference between chronological and biological ageing; and vi) knowledge of theories of ageing (eg: Hayflick limit, Kirkwood's Disposable Stoma theory).

   The importance of pathology rather than physiological decline as a cause of illness should be understood, physiological change merely forming the backdrop against which disease occurs. Student should understand the concept that frailty is a loss of "reserve" and is central to understanding the ageing process.

b) the presentation of disease in old age including the convergence of symptomatology into the common syndromes (eg: confusion, falls and instability, incontinence and failure to manage at home). There should be an understanding that older people may present in different ways to younger people. In particular students should understand these syndromes are usually an indicator of an acute illness superimposed on chronic diseases.

c) the multiple causes of the common syndromes of ageing
   Each of these syndromes is a result of a number of predisposing factors due to disease related pathological changes and age-related physiological changes. Acute exacerbations or presentations are then due to precipitating factors, such as infection and medications, superimposed on these predisposing factors.

d) the assessment, investigation and management of common medical problems in older people
   Detailed knowledge is required of the investigation and management of the syndromes of ageing. In addition, to be able to undertake a comprehensive geriatric medical assessment and subsequent management plan (problem-solving skills) detailed knowledge is needed of the management of common systemic diseases seen in old age such as chronic heart failure, strokes, peripheral vascular disease, chronic lung disease, osteoarthritis and diabetes as well as neurodegenerative diseases such as dementia and Parkinson's disease.

e) the concepts of impairment, activity limitation and participation restriction
   The World Health Organisation's International Classification of Functioning Disability and Health provides a framework for understanding people's health status [7]. This is important for determining the need for health services, for planning rehabilitation and for assessing the benefits of therapy, especially in chronic conditions.

f) the principles behind why older patients are investigated and managed in ways that are sometimes different to younger patients and patients with single organ problems
   Decisions on investigations and treatments (pharmacological or surgical) in older people often involve a more complex weighing up of risk versus benefit. These decisions are made on the basis of co-morbidities and frailty (the presence of impairments, activity limitations and participation restrictions) rather than chronological age alone.

g) the appropriate and optimal drug prescribing for older patients
   Both over-prescribing and under-prescribing are common in older patients. Optimal and appropriate prescribing demands an understanding of pharmacokinetics and pharmacodynamics in older age. In the era of evidence-based medicine, treatment should be based on the highest level of evidence. However the generalisability/applicability of clinical trials may be limited because older patients with complex diseases are excluded from most studies. Additional age-related factors such as visual and cognitive impairment and reduced manual dexterity may influence compliance in some older patients.

h) the process of comprehensive geriatric evaluation and management including the role of the multidisciplinary team
   This includes an awareness of the need for: i) thorough assessment of physical, mental, functional and social status; ii) accurate diagnosis; iii) a problem orientated approach; iv) early intervention; v) a multidisciplinary team approach to patient care; and vi) the involvement of family and carers. There is high-level evidence that this approach produces better outcomes for patients.

i) the role of Aged Care Assessment Teams in the community

j) community supports and their appropriate use.

k) the role and appropriate use of residential aged care facilities.

l) common ethical and legal issues relevant to older people.
   These involve principles of autonomy, beneficence, non-maleficence and justice. Important issues include the role of carers and families in making decisions on behalf of older people and the ethical issues involved in making end of life decisions, living wills and
essential care planning. There needs to be an understanding of the legal framework relevant to Geriatric Medicine e.g. testamentary capacity, fitness to drive and capacity to consent to treatment.

m) strategies for healthy ageing
The role of primary, secondary and tertiary prevention in old age should be understood. This should involve an appreciation of the rationale for such efforts, strategies for implementation and methods of evaluation.

n) demographic trends and their implications for health and social services

o) awareness of racial, cultural and societal issues that impact on the delivery of care

p) the spectrum and relevance of ageing research
Students should have a basic understanding of ageing research from fundamental (e.g. genomics), translational (e.g. cholinergic hypothesis) to applied research (e.g. randomised controlled trials, health service research and epidemiology).

Essential Skills

a) communicate effectively with older patients, their carers and other people likely to be involved in their care
Communication problems are common in older patients, whether in hospital or living in the community. Students need to develop expertise in history-taking and in providing information to patients with impaired hearing, speech or cognition. An ability to communicate with a patient's family and carers and with other health colleagues (e.g. nursing, allied health and other doctors) is also essential to obtain details on the medical, functional and social history as well as to effectively institute management plans.

b) work effectively as part of a team

c) assess medical and functional status of older patients.
Specialised skills are required to obtain an optimal assessment. For example the ability to comprehensively examine a hearing impaired, confused or demented patient in a sensitive manner is an important clinical skill for students to acquire.

d) assess the mental status of older patients.
Students should be competent in being able to diagnose delirium, dementia and depression. They should be able to assess cognitive function with the aid of screening instruments such as the Mini-mental state examination.

e) assess and manage older patients with multiple medical problems.
Since multiple pathology often underlies health problems in older people, a problem-based approach to diagnosis and management is particularly suited to the practice of Geriatric Medicine. Management should be on an individual basis and not protocol driven. The questions to ask in every clinical encounter are: "What are the problems?", "What can be done?" and "What should be done?"

f) effectively manage severely disabled older patients
Students should have an ability to formulate and set appropriate management goals for severely disabled older patients.

g) effectively manage severely disabled and dying older patients
Students should have an ability to recognize when and understand how palliative management may take priority over life sustaining treatments.

h) critically appraise and apply research findings to older people
The direct applicability of many research findings to older people is limited by subject selection. Students should have developed the ability to decide how generalisable research findings are to older patients by answering the following questions: Have older people similar to your patients been included in the research? Were their co-morbidity, disability and cognition measured? Was the propensity to harm measured? Were older people's views sought?

Essential Attitudes

a) a positive approach to old age and to illness in elderly people together with an awareness of ageist attitudes and negative stereotypes about ageing in the community and among health professionals. Students should reflect on personal and societal experience of interaction with older people (e.g. grandparents and great grandparents, elder statesman) and think about the enrichment of society by older people.

b) A feeling of competence and self-confidence in one's professional dealings with older people

c) an appreciation of the role of Geriatric Medicine and Aged Care Services
There needs to be an understanding that an acute hospital should only be part of a continuum of coordinated services available for older people.

d) an holistic approach which focuses on the person rather than on the disease

e) recognition of the rights of older people, their families and carers in determining their own health care.
References


Further Reading


