

# Medical Undergraduate Training in Geriatric Medicine in the European Union

“Growing old must be seen as a normal part of human development and health professions must be familiar with ageing and care of elderly people” WHO <sup>(1)</sup>

## **Introduction:**

The number of older people in European countries is increasing both in absolute numbers as well as a proportion of the general population. The great majority of older people receive their medical care from doctors who are not geriatricians and the majority of this responsibility falls on general practitioners. Thus all doctors now require a firm grounding in ageing in their basic education and experience of geriatric medicine in their clinical education. <sup>(2,3,4)</sup> Basic scientists must move away from the standard 70Kg 25 year old male and introduce an understanding of the ageing process relevant to their disciplines <sup>(1)</sup> Clinical geriatric medicine can be taught in many settings but it must be a required part of the undergraduate experience <sup>(5)</sup>.

## **A) Requirements for Training Institutions**

Examples of common national guidelines for basic medical education already exist. <sup>(6,7)</sup> Common international standards for basic medical education need to be explored <sup>(6)</sup>. They should be concerned with content, process, educational environment and outcome of medical education. Compliance with standards should be a matter for each country.

There are constraints encountered in introducing geriatric medicine into the undergraduate curriculum - scarcity of qualified teachers, overcrowded curricula, lack of appropriate training sites, negative attitudes and limited financial resources <sup>(5)</sup> but there must be sufficient time in the curriculum devoted to ageing and geriatric medicine to allow tomorrow's doctors to be competent to look after the increasing number of older people in the population.

The teaching of geriatric medicine should be an integral part of the whole curriculum starting in the basic sciences and progressing through to clinical teaching. The curriculum need not be delivered by geriatricians but the course must be planned, organised and monitored by experts in old age medicine <sup>(4)</sup>. Throughout there are relevant topics and skills which should be emphasised at all stages of teaching of geriatric medicine - communication skills, empathy with the older person, healthy ageing, interdisciplinary teamwork and ethical issues. <sup>(8)</sup> This can involve integral teaching with other disciplines.

The medical school must define what competencies students should exhibit in geriatric medicine on graduation.

Appropriate staff to teach the various elements of the curriculum in geriatric medicine must be recruited.

The medical school must ensure it has sufficient educational resources for the delivery of the curriculum including libraries, lecture rooms, tutorial rooms, laboratories, information technology and networking.

Adequate facilities for clinical training in geriatric medicine in a variety of settings must be available.

## **B) Requirements for Teachers**

There should be a Professor or Head of Department of Geriatric Medicine in each medical school.

The Professor or Head of Department should have appropriate experience of geriatric medicine either as a basic scientist or as a clinical specialist. Members of the department must be involved in planning the curriculum.

It is recommended that teachers gain experience through the European Academy for Medicine of Ageing or other recognised training programmes.

## **Basic Science:**

The curriculum in basic medical sciences should reflect new knowledge on ageing such as the effects of ageing on function, immune competence, pharmaco-kinetics and pharmaco-dynamics, cognitive function and personality. As considerable differences exist in how basic sciences are taught in medical schools it is difficult to be too prescriptive. By dividing the topics into

- a) genetic
- b) cellular
- c) organ and tissue
- d) whole organism levels

they can be taught in conjunction with normal functions in appropriate courses - genetics, cytology or cell biology, anatomy, biochemistry, physiology, pharmacology, immunology and pathology. Some topics may be taught in physiology or the appropriate clinical discipline e.g. hearing changes in otology, visual changes in ophthalmology, cardiovascular response in clinical physiology etc. <sup>(1)</sup>

An appropriate model includes a module for 1st year students <sup>(9)</sup> - socioeconomics, psychosocial, biomedical and attitudinal issues are covered in the Human Development Course, including ageing, physiology, theories of ageing, ageing psychology, mental health and ageing, sociology of ageing, and ethical issues. However taught, the goals should be to develop a knowledge base in gerontology and geriatric medicine, to provide the opportunity to develop appropriate attitudes for providing care to older people and to provide the opportunity to develop the necessary skills to deal with elderly patients - <sup>(10)</sup>

### **Clinical Geriatric Medicine:**

Confidence and competence in caring for elderly people is best promoted by sound clinical teaching in geriatric medicine provided later in the clinical curriculum when the student has acquired sufficient medical knowledge and clinical skills. <sup>(4)</sup> An identifiable block of curricular time should be allocated specifically to teaching geriatric medicine e.g. a minimum of 4 weeks. <sup>(1,3,4)</sup>

There should be an understanding of pure diseases and syndromes that commonly occur in older people. The student should be able to recognise the differences in the natural history and preferred management of specific diseases in elderly compared with younger patients. The necessary skills should be developed to manage both acute and chronic conditions in a wide variety of health care settings - acute wards, assessment and rehabilitation wards, day hospital, out-patient departments, continuing care units, nursing homes, and the patient's own home. <sup>(3,4)</sup>

There must be an understanding of the need to work with other healthcare providers to achieve best possible health for the older patient.

The availability of geriatricians and other interested faculty members is essential.

New developments and new initiatives should be encouraged especially using shared learning resources based upon the Internet. <sup>(4)</sup> This could be an extremely cost effective way to achieve harmonisation.

### **RECOMMENDATIONS:** <sup>(11)</sup>

The Minimum Standard requirements are:

**A. Core Competencies** - the student must be proficient in :

- a) Taking a history from an older person and performing a physical and mental state examination. This should include information on social support and an assessment of functional abilities.
- b) Using this information, formulate a differential diagnosis, make a problem list and prepare an initial management plan.

This will allow competence in the diagnosis and management of the common problems of elderly patients -

- (i) multiple pathology - physical, psychology, social and functional
- (ii) multiple drug therapy and the associated problems
- (iii) falls
- (iv) mobility problems
- (v) incontinence - urinary and faecal
- (vi) pressure sores

- (vii) stroke
  - (viii) confusion - acute and chronic
  - (ix) communication or visual difficulties
  - (x) terminal care
- c) Using information from carers
  - d) Performing competently simple functional assessments including standardised tests such as Abbreviated Mental Test or Mini-mental Mental State and Barthel, activities of daily living, Test
  - e) Using investigations appropriately
  - f) Prescribing appropriate drugs and evaluate their efficacy
  - g) Identifying and referring elderly patients who would benefit from rehabilitation
  - h) Identifying medical factors relevant to rehabilitation
  - i) Participating in discharge planning with appropriate referral to community support services
  - j) Understanding medical and multidisciplinary assessment of elderly people requiring institutional care
  - k) Awareness of ethical issues in care of elderly people
  - l) Awareness of primary and secondary prevention

## B. Communication Skills -

the student should have basic competency in:

- a) Relating to patients and their families/carers, discussing medical problems, breaking bad news and dealing with bereavement
- b) Working as a member of a multidisciplinary team including general practitioners, hospital specialists, therapists and social services.
- c) Relating to people with communication disorders.

The basic competencies required in the above skills are based on core knowledge and attitudes:

### 1. Knowledge - the student must know about:

- a) The ageing process and the role of elderly people in society and how these influence pathological processes, presentation of medical problems and the care of elderly people.
- b) The changing demography
- c) The frequency of multiple pathology and the causes of non-specific presentation in elderly people both of an acute and a chronic nature.
- d) The causes, investigation and management of the common problems seen in elderly people - see above.
- e) The inter-relationship between impairment, disability and handicap
- f) The efficacy and limitations of investigations in ill elderly people
- g) The pharmacology, therapeutic use and potential dangers of drugs commonly used by elderly people
- h) The process of rehabilitation, goal setting and multidisciplinary team working
- i) Community support services for elderly people and the importance of discharge planning
- j) Criteria for institutional care of elderly people
- k) Primary and secondary prevention

### 2. Attitudes - the student should:

- a) Understand the importance of professional attitudes in the care of elderly people, e.g. confidentiality, personal conduct, ethical issues and the right to choose and be at risk
- b) Be able to explore their own attitude to elderly people and its effect on their care
- c) Be able to explore their own attitude to death and disability and its effect on care
- d) Have respect for the role of other disciplines involved in the care of elderly people

**Assessment:**

These competencies as part of the core curriculum should form part of assessment at an appropriate stage of the course. The desired level of attainment should be set at a high level.

Detailed evaluation and assessment would provide feedback which in turn will encourage the evolution of the curricula and teaching methods.<sup>(4)</sup>

Clinical clerkship allows students to develop their geriatric knowledge, learning their specific geriatric skills and build on their internal medicine foundation. This integrates their new knowledge and skills and allows the student to develop into a comprehensive practitioner who can apply the team approach to address all medical, functional, psychosocial and ethical aspects of caring for the elderly patient.<sup>(9)</sup>

**References:**

1. World Health Organisation. Teaching Gerontology and Geriatric Medicine - Edinburgh 1982
2. Williams TF. The Undergraduate Curriculum in Geriatrics  
American Journal of Medicine 1994 97 (suppl. 4A) 41S
3. Curriculum Guidelines on the Care of the Elderly for Internal Medicine Residency Training Programs. Education Committee of the American Geriatrics Society  
American Journal of Medicine 1997 103 260-262
4. Fundacion Academia Europea de Yuste  
Conclusions of the European Academy of Yuste Foundation Working Party on the Need for Education in Geriatrics in Europe 1998
5. Barry PP Geriatric Clinical Training in Medical Schools  
American Journal of Medicine 1994 97 (suppl 4A) 8S-9S
6. WFME Task Force on Defining International Standards in Basic Medical Education  
Medical Education 2000 34 665-675
7. Advisory Committee on Medical Training. Report and Recommendations on Undergraduate Medical Education Document  
III/F/5127/3/92 Brussels: Commission of the European Communities 1992
8. Reyes-Ortiz CA, Mulligan T, A Progressive Geriatrics Curriculum  
Acad Med 1996 71 1140-43
9. Gold G Education in Geriatrics: A required Curriculum for Medical Students  
Mt Sinai J Med 1993 60 461-464
10. Ingman SR, Parianai C, Hofmeister R Toward a Comprehensive Geriatric Educational Experience  
J Am Geriatric Soc. 1979 27 320-324
11. British Geriatrics Society Compendium -  
Core Content of Undergraduate Curriculum in Elderly Care Medicine  
British Geriatrics Society 1996 Doc F2