



# **Standards and Guidelines For Gerontology and Geriatrics Programs**

2008 Update

**Association for Gerontology in Higher  
Education**

The Educational Unit of  
The Gerontological Society of America

Excerpt:

CHAPTER 11

Geriatrics Curricula for Undergraduate Medical Education in Osteopathic Medicine

## CHAPTER 11

### Geriatrics Curricula for Undergraduate Medical Education in Osteopathic Medicine

Marilyn R. Gugliucci and Athina Giovanis

Currently, those aged 65 years and older use more than 50% of healthcare resources. Despite the growing elderly population, the number of geriatricians fell by a third between 1998 and 2004. According to the American Geriatrics Society (2006), it is estimated that by 2030 there will be only one geriatrician for every 7,665 older adults. Stefanacci, et al (2007) states that there are fewer than 350 physicians being trained in geriatrics each year. Presently, this is not enough to replace the geriatricians going into retirement, let alone provide care for the country's growing elderly population. Based on the inherent and continued shortages of geriatricians, it appears that primary care physicians will bear the responsibility for caring for the majority of the elderly (Gawande, 2007). However, geriatric content has not been a focal point in undergraduate medical education and minimum requirements for geriatric competency tend to be lacking (AACOM, 2007). It has become increasingly apparent that allowing students to "elect" geriatric training options will not prepare enough physicians to care for an aging society. The responsibility for providing health care to the elderly requires that every physician, nurse and allied health professional have knowledge, skills and abilities in geriatrics.

Of the approximately 52,000 osteopathic physicians in the United States, it is estimated that 65 percent are primary care practitioners. Although Doctors of Osteopathic Medicine account for a small percentage of the nation's physicians, they provide a significant proportion of primary care visits. It is the philosophical foundation and emphasis of osteopathic medical schools to train students to be primary care physicians (AOA, 2007).

Osteopathic medical educators, therefore, recognized that American Association for Colleges of Osteopathic Medicine (AACOM) Institutions should not only be achieving the standards in geriatrics outlined by the American Geriatrics Society, but establishing standards of excellence in undergraduate osteopathic geriatric medical education. While there are federal funds to improve geriatric training in the postgraduate osteopathic and allopathic levels (AAMC, 2007), most medical students have chosen their postgraduate specialty by the third year in medical school. Geriatric educators realize the importance for osteopathic medicine curriculum to ensure that, regardless of the specialty chosen, graduating physicians have a 4-year foundation of the attitude, knowledge, and skills essential to providing competent osteopathic elder care.

#### Existing Core Competencies for Geriatrics

The American Geriatrics Society (AGS) is a not-for-profit organization of health professionals devoted to improving the health, independence and quality of life of all older people. AGS has developed and formally adopted a set of basic competencies for geriatric care (*Areas of Basic Competency for the Care of Older Patients for Medical and Osteopathic Schools*, updated in 1998; reviewed in 2002). Essentially the document puts forth competencies in three areas: (1) Attitudes – comprised of seven competencies that address issues such as awareness of various myths and stereotypes related to older people and self-awareness of the students' personal attitudes towards their own aging,

disability and death; (2) Knowledge – comprised of seven competencies in the basic sciences and seven in clinical practice that address associated changes in aging, ethical issues, prevention, cultural aspects of aging and common geriatric conditions; and (3) Skills – comprised of two competencies in geriatric assessment and physical diagnosis.

Presented in this chapter are the Association for Gerontology in Higher Education (AGHE) Program of Merit Standards for Undergraduate Geriatric Curricula in Osteopathic Medical Schools. A panel of osteopathic medical educators reviewed and endorsed these standards using as their guide the *Areas of Basic Competency for the Care of Older Patients for Medical and Osteopathic Schools* (AGS, 2002).

### Minimum Standards for Geriatrics Curricula in Osteopathic Medical Schools

#### **I. Pre-clinical Years**

A. *Required Geriatrics Content:* Pre-clinical training for medical students will include content in Geriatrics that provides a foundation in gerontology as it applies to geriatrics practice. It is important that geriatrics be clearly recognizable as a curriculum component with stated competencies and assessment methods and defined in the campus catalog. Over the two-year preclinical span, the student must become proficient in the attitudes, knowledge, and skills that apply to gerontology and geriatrics, including but not limited to:

1. Awareness of the various myths and stereotypes related to older people.
2. Recognition that ageism affects all levels and aspects of society.
3. Recognition of the heterogeneity of older persons, and that each person needs to be viewed as an individual.
4. Understanding of a multidisciplinary and interdisciplinary approach with others in caring for older patients.
5. Self-awareness of the students' personal attitudes towards their own aging, disability, and death.
6. Compassion and understanding attitude on the part of the physician for care givers of the frail elderly and the difficulties they face.
7. An appreciation of the need for improving and optimizing function for older people, rather than just focusing on diseases.
8. Demography and Epidemiology of aging including the growth of the elderly population and the heterogeneity of the older population.
9. "Normal" aging, versus diseases at the molecular, cellular, tissue, and organism levels.
10. Knowledge of psychosocial issues and how to identify them, and knowing which community services available for elders and how to access them.
11. Knowledge of ethical issues in caring for the elderly.
12. Health care financing for the elderly.
13. Cultural aspects of aging.

For traditional teaching formats, it is expected that competency could be attained with a minimum of 21-hours (one to two credits) of lecture and discussion on caring for healthy elderly and elderly with co-morbid conditions as presented above. The geriatrics

training/curriculum may be either a formalized course or integrated within the existing curriculum provided that the various areas of content are outlined and are identified. Various teaching methods, such as case-based education, problem-based learning, or other forms of recognized learning techniques maybe used to achieve the competency outcomes.

B. *Pharmacology of Aging Requirement:* Preclinical training will provide distinct and identifiable content that focuses on the pharmacokinetics of aging and therapeutic management principles for care of older and frail patients. The student competencies should define expected knowledge of pharmacologic changes that occur with aging and the changes that should be made to an elderly patient's pharmacologic therapy. Such competencies as: ability to identify and chose drugs for older adults, including familiarity with their research foundation, titration, drug half-life variability in older adults, rates of absorption based on age, disease state, body mass and biological factors, iatrogeneses and prescription drugs, over the counter medications, and polypharmacy. A minimum of 2 hours of geriatrics lectures, or equivalent, in pharmacology should be included. One hour of geriatric pharmacology must be listed separately in the campus catalog and schedule of classes. The second hour may be integrated into the other pharmacology teaching and identified through geriatrics specific objectives.

C. *Additional Basic Science Requirements:* Preclinical training will provide identifiable content that focuses on the scientific foundations of geriatric medicine. Defined geriatrics learning objectives should be included in systems courses, discipline courses, problem based learning curricula or other teaching methods utilized by the COM. Students' competencies should define expected knowledge of the anatomic, histologic and biochemical changes associated with aging, and the pathophysiology, atypical presentations of diseases, differential diagnosis, and initial diagnostic evaluation for common diseases and disorders in older people. The more common diseases and disorders of the elderly include but are not limited, to musculoskeletal, genito-urological, neurological, cardiovascular, endocrine, renal and psychiatric diseases, cancer of various organs, infections, and gastro-intestinal.

D. *OMM Related to Aging Requirement:* Preclinical training will provide identifiable content and experiences that focus on osteopathic principles and practices of geriatrics practice, including but not limited to selection of applications and their modifications – for older adults. For traditional instruction, an hour of lecture and two hours of skills lab within the osteopathic manipulative medicine (OMM) must be included and listed separately in the campus catalog. Student competencies should include knowledge of the common diseases and conditions found in the elderly, and the interrelationship of structure and function as it pertains to these diseases. Student training should include knowledge of applied osteopathic manipulative methods and disease prevention and management of the elderly patient across the continuum of care (outpatient setting, hospital or a nursing home).

E. *Geriatrics Practicum:* Preclinical training will provide students opportunities to achieve stated competencies through observation and participation in the care of older adults through clinical geriatrics practicums. The practicums will be designed to help the student gain insight and basic skills in a multidimensional osteopathic assessment and management approach to care of older adults. Emphasis should be placed on the multi/interdisciplinary nature of geriatric medicine. One or more of the five practicums listed below must be completed:

1. A home care setting, where the student will go on house calls with a physician or other health professional.
2. An assisted living facility, where students will interview older adults regarding their medical, social, cognitive and functional concerns, and will perform a physical exam.
3. A skilled nursing facility, where the students will assist in the care of residents with a physician.
4. An Alzheimer's care facility, where the students will assist in the care of the residents with a physician or a nurse.
5. Hospice, where the student along with a physician or a nurse preceptor, will come in contact and health care for older persons receiving end of life care.

F. *Evaluation of Student Geriatrics Competence:* Assessment of student competency in the minimum pre-clinical requirements will be documented using such methods as: graded logs or journals, content knowledge exams, older adult standardized patient exams, etc.

## II. Clinical Years

A. *Required Geriatrics Core Rotation:* Completion of a minimum of four weeks in a core geriatrics rotation, under the supervision of a geriatrician. The core rotation should include opportunities to:

1. Familiarize the student with common geriatric syndromes and conditions and to develop a basic understanding of risk factors, causes, signs, symptoms, differential diagnosis, initial diagnostic evaluation, and preventive strategies. Common geriatric syndromes and conditions include:
  - a. Dementia
  - b. Polypharmacy
  - c. Incontinence
  - d. Depression
  - e. Delirium
  - f. Iatrogenesis
  - g. Falls
  - h. Osteoporosis
  - i. Alterations in the special senses
  - j. Failure to thrive
  - k. Immobility
  - l. Gait disturbances
  - m. Pressure Ulcers
  - n. Sleep Disorders
  - o. Atypical presentation of disease
2. Demonstrate knowledge of primary, secondary and tertiary prevention of disease in the older adult population and demonstrate a competent approach to chronic, acute, and multiple presentations.

B. *Evaluation of Student Geriatrics Competence:* The precepting physician must document student competency with measurable performance assessments of knowledge, skills, and attitudes. Student competency should include the ability to assess physical, cognitive, emotional, and social functioning as appropriate in an elderly patient, using standardized methods. Specific examples include: screening examinations

for mental status, geriatric depression, and functional status including activities of daily living and instrumental activities of daily living. Students should exhibit competence in physical diagnosis skills, which include mobility assessment, gait and balance assessment, an osteopathic structural exam, recognizing normal versus abnormal signs of aging, educating patients in prevention strategies, and making a pre-operative assessment.

#### Policy and Planning: Administrative Issues

A. Within the college, there must be a minimum of an established Division of Aging within another Department, such as a Department of Family Medicine or Internal Medicine. A Department of Geriatrics is preferred, as a Department can generally be more far reaching than that of a Division. The Division or Department Chair must have the following minimum qualifications:

1. A Doctor of Osteopathic Medicine degree or Doctor of Medicine degree.
2. A minimum of a certificate of added qualifications in geriatrics, or a fellowship in geriatrics (preferred).
3. A full-time appointment in the department that oversees the geriatrics/gerontology training of the medical students.
4. A recognized record of academic and professional achievement in geriatrics/gerontology.

B. Regular division/department meetings should be in place that addresses the development and implementation of the Division or the Department of Geriatrics/Gerontology program.

C. An annual evaluation procedure should be used to determine whether the mission and goals of the program are being met and what changes, if any, are necessary. Graduating students should be surveyed upon completion of the program, and all graduates should be surveyed every five years to provide direction for program changes.

D. A Student Geriatrics Interest Group, preferably a student chapter of the American Geriatrics Society, should be offered for medical students and mentored by a geriatrician or a gerontologist of the division or the department.

E. Faculty from the Division or the Department of Geriatrics must be available to promote and provide assistance to medical students interested in conducting research in geriatrics and gerontology.

#### *Faculty*

The success of any medical school program depends on the quality and dedication of its faculty. Preferably, the geriatrics faculty will include a broad range of disciplines to reflect the interdisciplinary nature of geriatrics practice and the scope of geriatrics education. Core geriatrics faculty members are required to have degrees appropriate to their role and in sufficient numbers to effectively manage curriculum requirements. Faculty should have credible experiences in geriatrics, gerontology or aging studies fields and have proven expertise such as clinical experience in geriatrics, research, grant

involvement, publications, as well as state and national representation on geriatrics/gerontology boards and organizations.

### Conclusion

The physicians who will be providing care for the expanding older population are being trained now. No matter their choice of a future medical specialty, students need to learn about and experience the full continuum of adult care, from wellness to end of life. Since primary care physicians are currently and will continue to provide the majority of care for the elderly (Gawande, 2007), osteopathic medical schools are in a position to lead the way in educating future physicians in high-quality geriatrics care.

*The authors would like to extend a special thank you to the review panel:*

*Bruce Bates, D.O., Chair Department of Family Medicine, Director, Division on Aging, University of New England College of Osteopathic Medicine, ME.*

*Wayne Carlsen, D.O., Chair, Department of Geriatric Medicine/Gerontology, Associate Professor, Ohio University College of Osteopathic Medicine, OH.*

*Thomas Cavalieri, D.O., Dean (Interim), Endowed Chair for Primary Care Research, and Professor of Medicine Director, New Jersey Institute for Successful Aging, UMDNJ-School of Osteopathic Medicine, NJ.*

*Janice A. Knebl, DO, MBA, Dallas Southwest Osteopathic Physicians Endowed Chair in Clinical Geriatrics, Chief, Division of Geriatrics, Vice Chair, Department of Medicine, University of North Texas Health Sciences Center, Texas College of Osteopathic Medicine at Fort Worth, TX.*

*Donald Noll, D.O., Associate Professor and Chair, Geriatrics and General Internal Medicine, A.T. Still University-Kirksville College of Osteopathic Medicine, MO.*

*Shirley A. Weaver, Ph.D., Consulting Coordinator Strategic Initiatives, National AHEC Organization (NAO), PA.*

*And the collaboration of Linda Heun, Ph.D., Vice President for Medical Education, American Association for Colleges of Osteopathic Medicine, Washington, DC*

## References and Resources

- Administration on Aging (2002) The Older Population, A Profile of Older Americans. <http://www.aoa.gov/prof/Statistics/profile/1.asp>.
- Association for Gerontology in Higher Education (AGHE) (2007) <http://www.aghe.org/site/aghewebsite/>
- American Geriatrics Society (AGS) (2002) Areas of Basic Competency for the Care of Older Patients for Medical and Osteopathic Schools. <http://www.americangeriatrics.org/education/competency.shtml>
- American Geriatrics Society (2006) [http://www.americangeriatrics.org/news/ags\\_fact\\_sheet.shtml](http://www.americangeriatrics.org/news/ags_fact_sheet.shtml)
- Association of American Medical Colleges. (2007) <http://www.aamc.org/>
- American Osteopathic Association (AOA) (2007) Osteopathic Medical Education. [http://www.osteopathic.org/index.cfm?PageID=ost\\_ome](http://www.osteopathic.org/index.cfm?PageID=ost_ome)
- Baker, L., Cuthbert, J., Dickerson, B., Goodwin, J.S., Hackethorn, D., Kirland, R.T., Kneble, J., Kvale, J., Lichtenstein, M.J., & Santoyo, L. (2002) Report from the Commission on Geriatrics Study Requirement for Texas Medical Schools, TX.
- Carey, J. R. (2004) *Human Longevity: How Old Can We Grow?* UC Davis Magazine, 21, 16-17.
- Caveliere, T.A. (2003) *Geriatrics* (Chapter 23) in Foundations for Osteopathic Medicine, 2<sup>nd</sup> Edition, Ward, R.C. Executive Editor, Lippincott Williams & Wilkins: Philadelphia.
- Eleazer, G. P., Doshi, R., Wieland, D., Boland, R., & Hirth, V. A. (2005) *Geriatric Content in Medical School Curricula: Results of a National Survey*. Journal of the American Geriatrics Society, 53, 136-140.
- Gawande, A. (2007) *Annals of Medicine: The Way We Age Now*. The New Yorker. [http://www.newyorker.com/reporting/2007/04/30/070430fa\\_fact\\_gawande/](http://www.newyorker.com/reporting/2007/04/30/070430fa_fact_gawande/)
- Lee, M., Wilkerson, L., Reuben, D. B. & Ferrell, B. A. (2004) *Development and Validation of a Geriatric Knowledge Test for Medical Students*. Journal of the American Geriatrics Society, 52, 983-988.
- Stefanacci, R., G., Spivack, B. S. (2007) *Medicare Part D: Team Building*. Clinical Geriatrics, 15, 9-11.
- US Census Bureau, (2005) [http://www.census.gov/Press-Release/www/releases/archives/aging\\_population/006544.html](http://www.census.gov/Press-Release/www/releases/archives/aging_population/006544.html).