

MINIMUM GERIATRIC COMPETENCIES for Medical Students	
<i>The graduating medical student, in the context of a specific older adult patient scenario (real or simulated), must be able to:</i>	
MEDICATION MANAGEMENT	
1	Explain impact of age-related changes on drug selection and dose based on knowledge of age-related changes in renal and hepatic function, body composition, and Central Nervous System sensitivity.
2	Identify medications, including anticholinergic, psychoactive, anticoagulant, analgesic, hypoglycemic, and cardiovascular drugs that should be avoided or used with caution in older adults and explain the potential problems associated with each.
3	Document a patient's complete medication list, including prescribed, herbal and over-the-counter medications, and for each medication provide the dose, frequency, indication, benefit, side effects, and an assessment of adherence.
COGNITIVE AND BEHAVIORAL DISORDERS	
4	Compare and contrast among the clinical presentations of delirium, dementia, and depression.
5	Formulate a differential diagnosis and implement initial evaluation in a patient who exhibits delirium, dementia, or depression.
6	In an older patient with delirium, urgently initiate a diagnostic work-up to determine the root cause (etiology).
7	Perform and interpret a cognitive assessment in older patients for whom there are concerns regarding memory or function.
8	Develop an evaluation and non-pharmacologic management plan for agitated demented or delirious patients.
SELF-CARE CAPACITY	
9	Assess and describe baseline and current functional abilities in an older patient by collecting historical data from multiple sources, making sure to include instrumental activities of daily living and activities of daily living, and performing a confirmatory hearing and vision examination.
10	Develop a preliminary management plan for patients presenting with functional deficits, including adaptive interventions and involvement of interdisciplinary team members from appropriate disciplines, such as social work, nursing, rehabilitation, nutrition, and pharmacy.
11	Identify and assess safety risks in the home environment, and make recommendations to mitigate these.
FALLS, BALANCE, GAIT DISORDERS	
12	Ask all patients > 65 y.o., or their caregivers, about falls in the last year, watch the patient rise from a chair and walk (or transfer), then record and interpret the findings.
13	In a patient who has fallen, construct a differential diagnosis and evaluation plan that addresses the multiple etiologies identified by history, physical examination and functional assessment.
HEALTH CARE PLANNING AND PROMOTION	
14	Define and differentiate among types of code status, health care proxies, and advance directives in the state where one is training.
15	Accurately identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for screening tests in older adults.
16	Accurately identify clinical situations where life expectancy, functional status, patient preference or goals of care should override standard recommendations for treatment in older adults.

ATYPICAL PRESENTATION OF DISEASE	
17	Identify at least 3 physiologic changes of aging for each organ system and their impact on the patient, including their contribution to homeostenosis (the age-related narrowing of homeostatic reserve mechanisms).
18	Generate a differential diagnosis based on recognition of the unique presentations of common conditions in older adults, including acute coronary syndrome, dehydration, urinary tract infection, acute abdomen, and pneumonia.
PALLIATIVE CARE	
19	Assess and provide initial management of pain and key non-pain symptoms based on patient's goals of care.
20	Identify the psychological, social, and spiritual needs of patients with advanced illness and their family members, and link these identified needs with the appropriate interdisciplinary team members.
21	Present palliative care (including hospice) as a positive, active treatment option for a patient with advanced disease.
HOSPITAL CARE FOR ELDERLY	
22	Identify potential hazards of hospitalization for all older adult patients (including immobility, delirium, medication side effects, malnutrition, pressure ulcers, procedures, peri and post operative periods, transient urinary incontinence, and hospital acquired infections) and identify potential prevention strategies.
23	Explain the risks, indications, alternatives, and contraindications for indwelling (Foley) catheter use in the older adult patient.
24	Explain the risks, indications, alternatives, and contraindications for physical and pharmacological restraint use.
25	Communicate the key components of a safe discharge plan (e.g., accurate medication list, plan for follow-up), including comparing/contrasting potential sites for discharge.
26	Conduct a surveillance examination of areas of the skin at high risk for pressure ulcers and describe existing ulcers.

Minimum Geriatric Competencies for Medical Students Consensus Process and Teaching Resources

The Medical Student Competencies in Geriatric Medicine

In July 2007, the Association of American Medical Colleges (AAMC) and the John A. Hartford Foundation (JAHF) hosted a National Consensus Conference on Competencies in Geriatric Education. The charge was to attain consensus on a **minimum** set of graduating medical student competencies to assure competent care to older patients by new interns. The process identified measurable performance subtasks, associated with evidence-based geriatric care and patient safety for PGY1s. How individual medical schools will assure that students receive the education/preparation needed to achieve these geriatric competencies will vary. However the minimum competencies establish performance benchmarks for all U.S. medical school graduates. As of January 2008, the medical student competencies in geriatric medicine had been endorsed by the American Geriatrics Society and the Association of Directors of Geriatric Academic Programs, and are under review by several other organizations.

Guiding principles

1. The competencies should focus on issues that matter to health outcomes for older adults.
2. The competencies must be important to know for patient care that might occur at the start of one's internship (aka- the "don't kill granny" curriculum)
3. The total number of content domains and competencies should be limited, with no more than 5-8 domains, and no more than 3-5 competencies in each.
4. The competencies should be similar to quality indicators in that they are the 'floor' behaviors and could be taught and evaluated at any medical school. They are not meant to limit what the 'ceiling' could be.

Summary of Consensus Process

The process for developing the in geriatric competencies began by determining a small number of geriatric content domains. Thirty-nine leaders in geriatric medical education voted on 52 domains that had been culled from previously existing geriatric curriculum lists, decreasing the number of domains by half. Geriatrically-interested individuals (members of ADGAP, the principal investigators of Reynolds grants and of Centers of Excellence, and the geriatric interest groups of SGIM, STFM, and APDIM) then completed an on-line survey identifying their top 8 domains. The final domains are:

1. Cognitive and behavioral disorders
2. Medication management
3. Self-care capacity
4. Falls, balance, gait disorders
5. Atypical presentation of disease
6. Palliative care
7. Hospital care for elders
8. Health care planning and promotion

The steering committee identified 3-5 learning outcomes ("competencies") for each content domain drawing on previous work. These competencies were posted on a 'wiki' and the steering committee went through several iterations of each competency to arrive at 35 competencies. These 35 competencies were then evaluated by educators in each of the following disciplines: Geriatrics (Respondents = 81); Family Medicine (Respondents =67); Internal Medicine (Respondents =77); Deans of Medical Education and Curriculum (Respondents = 24); Neurology (Respondents = 20); and General Surgery (Respondents = 43). These respondents completed an on-line survey asking whether a resident **MUST, SHOULD OR DOES NOT NEED TO** be competent, at the start of internship, in each of the 35 competencies.

Results were analyzed in aggregate and by discipline. Eleven of the competencies received >25% 'does not need to know' overall. Interestingly, there was considerable consistency across disciplines, often including those geriatricians who had not participated in the steering committee. Discussion ensued about the reasons for rejection, in particular, whether it was thought the competency was: (a) too advanced for a medical student, (b) poorly worded, or (c) other reason for rejection; and whether, despite the survey results, the committee members still felt this was critical for medical students.

Results of this process were presented as a "trial balloon" document for discussion at the AMC-JAHF conference attended by 98 participants. The participant's discussions resulted in 26 final competencies. The conference steering committee members then reframed the competency statements so that each one:

- Uses cognitive learning verbs such as “explain,” “identify,” “document,” “define and distinguish,” “perform,” “assess,” “compare and contrast,” etc.
- States the competencies as behaviors that occur during patient care and that can be measured (e.g. less listing, more doing and interpreting); and
- Is written as a completion of this sentence: The graduating medical student, in the context of a specific older adult patient scenario (real or simulated), must be able to...

The final document was sent to all conference participants and steering committee members for approval. Of the 93 respondents, all (100%) agreed to endorse the competencies. These competencies are understood to be **minimum** required knowledge. Achieving a higher level would be even better, but every medical school in the country should be able to at least teach their students to achieve these competencies.

The competency movement in geriatrics is growing exponentially, with several disciplines eager to develop a set of competencies that must be achieved during residency and fellowship. Next steps could include:

- Competencies for residents (then fellows, practicing physicians, etc...).
- Adoption by medical education societies and practicing physician associations.
- Adoption by licensing bodies.
- Integration into the licensing and certifying examinations.

Matching Competencies to Teaching Resources

Medical educators who seek to teach the medical student competencies in geriatrics have a resource to find appropriate materials that engage the students: the Portal of Geriatric Online Education, or POGOe, (www.pogoe.org). POGOe is an electronic repository of high-quality teaching materials in geriatrics. In spring 2008 the POGOe staff began matching the hundreds of teaching products on its website - and in educators' inventories of geriatric teaching tools - to the medical student competencies in geriatrics. This project will link the materials on POGOe to competencies. At the same time, the site's search engine now incorporates natural language processing and a concept-based search function. Through these advances the resources for teaching geriatric competencies will be available to all medical educators. It can become the framework for a virtual national curriculum in geriatrics medical education.

Competencies Steering Committee

Rosanne M. Leipzig (Mount Sinai School of Medicine)
Lisa Granville (Florida State University College of Medicine)
Deborah E. Simpson (Medical College of Wisconsin)
Karen Sauvigné (Mount Sinai School of Medicine)
Rainier P. Soriano (Mount Sinai School of Medicine)
G. Paul Eleazer (University of South Carolina School of Medicine)
Bree Johnston (UCSF School of Medicine)
Sharon Levine (FSU College of Medicine)
Michael Mintzer (University of Miami School of Medicine)
Carol Reis-Starr (Emory University School of Medicine)
Dan Swagerty (University of Kansas Medical Center)
Glenda Westmoreland (Indiana University School of Medicine)
Nathan Flacker (Emory University School of Medicine)
Robert Rohrbaugh (Yale University)

Conference Advisory Committee

M. Brownell Anderson (Association of American Medical Colleges)
Deborah E. Simpson (Medical College of Wisconsin)
Edmund H. Duthie (Medical College of Wisconsin)
Maureen Dever-Bumba (University of South Carolina School of Medicine/Palmetto Health)
Mitchell Heflin (Duke University School of Medicine)
Michael Hosokawa (University of Missouri School of Medicine)
Steven Zweig (University of Missouri-Columbia School of Medicine)