Report from the

Commission on Geriatrics Study Requirement for Medical School

To the

Texas Higher Education Coordinating Board

In accordance with Texas Education Code, Section 61.088 (House Bill 2584 of the 77th Texas Legislature)

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Commission on Geriatrics Study Requirement for Medical School

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Executive Summary

The aging of the Texas population will have a major impact on the practice of medicine and future health care costs. Currently Texas has the fourth largest population of older adults in the nation (2 million). As the aging baby boom generation grows older and as Americans live healthier and longer lives, the number of older adults will continue to grow. Older Texans will need a physician workforce prepared to care them whether they are vital and trying to remain healthy or suffer from chronic illnesses, disabilities and frailty. Texas medical schools are charged with the responsibility to educate and train future physicians who will serve this aging Texas population.

The 77th Texas Legislature in response to this aging imperative directed the establishment of a Commission on Geriatrics Study Requirement for Medical School (Commission) to make recommendations regarding the feasibility or desirability of making the study of geriatrics a requisite for graduation from any medical school in Texas. The Commission consisted of representatives from each of the state’s medical schools and public members from the Texas Department on Aging’s Office of Aging Policy and Information and Baylor University’s Gerontological Studies Program. The Commission held two meetings in Austin, reviewed the current status of geriatrics medical education and training in the U.S. and in Texas, conducted a survey of all of the Texas medical schools, and reviewed the American Association of Medical Colleges’ Graduation Questionnaire.

Geriatrics education and programming has increased across the U.S. within medical schools over the past decade. The majority of medical schools integrate geriatrics into the curriculum rather than provide a specific course in geriatrics. Most medical schools offer elective clerkships in geriatrics during the clinical training years with few schools offering a required geriatrics clerkship. In Texas, the Commission conducted a survey where the results indicated that the medical schools are utilizing a variety of venues to deliver geriatric content across the four years of medical education. Most schools deliver geriatric content in required courses in the pre-clinical years and in elective courses or as portions of required courses in the clinical years. There are some gaps however in the delivery of certain topics on aging and in the locations where teaching occurs.

The Commission recommends that geriatrics and gerontology be integrated throughout the entire medical school curriculum and be labeled as such. Texas medical schools should consider utilizing the American Geriatrics Society’s “Core Competencies in Geriatrics” as the guide for necessary curriculum in geriatrics throughout the four years of medical education. All medical students should be exposed to the continuum of care for older adults. Texas medical schools should consider establishing relationships with community-dwelling older adults in addition to partnering with senior advocacy organizations, such as the Silver-Haired Legislature, American Association of Retired Persons and Area Agency on Aging to assist in the geriatrics education. In order to accomplish these recommendations, there will need to be additional geriatrics training for the current faculty at Texas medical schools and an increase in the number of faculty trained in geriatrics that are recruited. In order to accomplish these recommendations, the members of the Commission believe that additional funding would be required.
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I. Legislative Directive

In accordance with House Bill 2584, authored by Representative Norma Chavez of El Paso, the 77th Texas Legislature directed the establishment of a Commission on Geriatrics Study Requirement for Medical School (Commission) to make recommendations regarding the feasibility or desirability of making the study of geriatrics a requisite for graduation from any medical school in Texas. The president of each institution of higher education that operates a medical school designated an individual to serve on the Commission as a representative of the medical school. The Commission was charged to conduct studies and make findings and recommendations to the Texas Higher Education Coordinating Board by October 1, 2002.

II. History and Methodology of the Study

The Commission consisted of eight representatives, one from each of the Texas medical schools, and public members from the Office of Aging Policy and Information, Texas Department on Aging and Baylor University Gerontological Studies Program. At the initial meeting in March 2002 at the Texas Higher Education Coordinating Board’s offices, a survey of the status of geriatric education at Texas medical schools was proposed, in order to determine the current teaching and learning approaches for geriatric education. Reports on learning objectives for geriatric education, prepared and disseminated by national societies, were used in developing the survey form.

After the development of the survey instrument, the Coordinating Board staff distributed copies of it to each of the eight Texas medical school’s representatives so that they could assess instruction in geriatrics at their respective institution. The results of the survey were compiled by the Coordinating Board staff with each school identified in the tabulation. The Medical School Data Collection Tool on Geriatric Education is included as Appendix A and the institutional responses from May 2002 are included as Appendix B. In addition, the results of geriatrics-related items on the 2001 Graduation Questionnaire, administered to American Association of Medical Colleges (AAMC)-affiliated allopathic medical schools, were requested. These items query graduating medical students about their perception of the geriatric content taught and geriatric clinical experiences during their medical education. The Graduation Questionnaire items were also compiled and provided without identification.

The members of the Commission met a second time in Austin in June 2002 at the Texas Higher Education Coordinating Board’s offices to review the surveys, the AAMC Graduation Questionnaire, the background information on national geriatrics education initiatives and begin to develop recommendations.
III. Background

A. Demographic Characteristics of Older Adults in the U.S. and Texas

The aging of the population is one of the most significant demographic trends affecting the United States. The population aged 65 years old and older (referred to here as “older adults”) is growing more rapidly than any other population group. Currently, older adults comprise about 13% of the total U.S. population, but by 2030, are projected to comprise 20% of the population; that is an estimated 70 million older adults.\(^1\)

While the growth of this population of older adults in Texas has continued to parallel national trends, there are significant differences between the U.S. and the Texas population. Features such as absolute size, ethnic and racial diversity, and poverty rate distinguish older Texans from the national aged population. Additionally, the longevity and diversity of older adults in Texas present challenges for policy and planning.\(^2\)

Texas has the fourth largest population of older adults in the nation (2 million), behind California (3.5 million), Florida (2.8 million), and New York (2.4 million).\(^3\) Texas has the second largest Hispanic elderly population (488,925) in the nation, second only to California (677,321), and has the third largest Black elderly population (239,441) in U.S., following New York (352,558) and California (253,122).\(^4\) Overall, minorities comprise about 27% of older adults in Texas. By 2030, they will increase to a projected 44% of that population. However, nationally, minorities comprise a much smaller portion of older adults. Minorities make up 16% of the total U.S. population in 2000 and will only comprise 25% of the population by 2030.

The oldest-old (i.e., persons aged 85+) is the most rapidly growing population among older adults. The 85+ population currently comprises 11% of the total 65+ population and 1% of the total Texas population. Nationally, however, a projected 19 million persons are estimated to be 85 years of age or older by 2050, comprising 24% of older adults and 5% of the total U.S. population.\(^5\)

As the aging baby boom generation grows older and as Americans live healthier and longer lives, the number of older adults will continue to grow.\(^6\) However, older adults, particularly those with frailty, will require specialized care. On average, by age 75, older adults have between two to three chronic medical conditions and some have as many as 10 or 12 conditions.\(^7\) Older adults comprise 13% of the total population, yet account for 49% of all days of hospital care, and 50% of all physician hours.\(^8\)

Currently there are only 9,000 geriatric physicians out of the current 650,000 licensed physicians who have met the qualifying criteria in geriatrics. In Texas, there are 358 certified geriatricians as of 2002.\(^9\) It is estimated that 20,000 geriatric physicians are needed to meet the current demand, with a future projection of 36,000 needed to care for older adults by the year 2030.\(^10\) In addition, it is estimated that approximately 2,400 geriatric academicians are needed to train new providers and develop standards of care. However, there are currently fewer than 600 geriatric academicians in the country.\(^11\)
B. Geriatrics Education Initiatives

In the next few decades, a growing number of older adults will challenge and transform our society. They will test the nation's financial and human resources and alter traditional notions of "old age." They will require more elder-qualified health care professionals and force our nation to reshape and improve health care delivery systems to meet their needs. Providing quality health care for this growing population, especially for those who are frail, will require a team approach by doctors, nurses, social workers and other health care professionals as well as family members and their informal caregivers.

"Today, there are approximately 34 M people over the age of 65 in the United States; by the time the 2000-01 entering class graduates in 2004, that number will have increased by over a million. Whatever area of specialization these graduates choose to pursue, it is likely that they will care for significant numbers of elderly patients. It is crucial then, that medical schools provide students with the attitudes, knowledge, and skills they will need to competently care for older people."

“The epidemiologic imperative as it relates to medical education is even more evident. Most patients being cared for by internists, family physicians, orthopedists, and urologists will be aged 65 and above by the year 2000. General surgeons and psychiatrists will also care for a great many patients of this age. Even pediatricians and obstetricians will have increasing contact with those individuals over 65 as grandparents or great-grandparents of their patients.”

The Institute of Medicine (IOM) of the National Academy of Sciences identified a distinct body of knowledge in geriatrics and gerontology. Findings from the 1978 report suggest that medical schools expand the content (a comprehensive humanistic medical education in geriatrics) in their current courses and create distinct required courses integrating knowledge of aging from various disciplines. There are a limited number of medical schools across the United States that require geriatric clinical rotations. Nationally, 31% of osteopathic medical schools and 10% of allopathic schools require a geriatrics clerkship and 81% of osteopathic medical schools and 84% of allopathic schools offer a geriatrics clinical elective rotation.

The Association of American Medical Colleges, the Federated Council for Internal Medicine, the American Geriatrics Society, and other professional medical associations have since called for and developed guidelines to support improved required geriatrics education in undergraduate medical education. Additionally, the American Medical Association’s Council on Scientific Affairs has recommended that the “art and science of home health care” be incorporated into the regular medical school curriculum. Although these recommendations are less prescriptive than mandating specific components at the current time, they address the necessity of incorporating content and experiences that address both basic science and clinical knowledge and skills.

Historically, concentrated education and training in the care of older patients have focused on residencies and fellowships. However, there are several notable exceptions, including those universities which developed a Department of Geriatrics years ago, some with an established Center on Aging, and those that have required a geriatric clerkship for as long as 22 years (e.g.,
Health Science Center in Syracuse College of Medicine/Binghamton; Mt. Sinai School of Medicine; University of Kansas Medical School; Wayne State University; The University of Texas Health Science Center at San Antonio). It has become increasingly apparent that allowing students to “select” geriatric training options will not prepare enough physicians to care for an aging society. Additionally, programs that do not provide integrated geriatrics content in their curriculum are failing to prepare medical students sufficiently well to care for the increasing number of older patients in the changing health care environment (e.g., AMA, AAMC, IOM).

Recommendations for geriatric education programming include further development of geriatric knowledge, learning of specific geriatric skills, integration of new knowledge and skills into a base of internal medicine knowledge and developing “comprehensive practitioners who can apply the team approach to address all the medical, functional, psychosocial, and ethical aspects of caring for the elderly.”

“The field of geriatrics involves more than nursing home care, and a geriatric program must necessarily involve involvement in ambulatory, home health, acute care, and consultative geriatric services. It is imperative that instructors present a positive, balanced experience in geriatrics to our future physicians.” Similarly, concerning geriatric clinical rotations, Fields and colleagues support that “If the national curriculum goal is to teach all medical students principles of Geriatric Medicine, mandatory rotations may be necessary.”

It has also been suggested that a required geriatric clerkship may be increasingly important to medical school applicants and to government agencies funding medical education. Evidence of this is seen in the increasing number of geriatric questions on qualification exams, graduation questionnaires, and the increasing “recommendations” for integration of geriatric content and competencies from a growing number of professional medical and health care associations.

At the current time, many initiatives focusing on geriatric education for medicine and health professionals are funded by the U.S Department of Health and Human Services (Bureau of Health Professions) and private entities such as the John A. Hartford Foundation, in conjunction with educational associations and professional organizations. While a number of medical, health professional, and subspecialty associations have independently developed core competencies and suggested curricular content, a lack of consensus exists across professions concerning specific guidelines and requirements. This lack of consensus leads to inconsistency in the amount and type of geriatric education and training, and modalities used for instruction and application across school curricular experiences – thus contributing to an unevenness in preparation of students, particularly at the undergraduate level, to care for an aging population.

In addition to the geriatric education and training initiatives funded by private foundations, the annual Graduation Questionnaire, under the auspices of the Association of American Medical Colleges (AAMC) and the Liaison Committee on Medical Education (LCME), appears to be the driving force supporting the infusion of geriatric content into undergraduate medical education. In 2001, new questions were incorporated into the Questionnaire to complement the existing ones, in order to better assess the existence and adequacy of geriatric content in medical school curricula.
One of those questions was: “Do you believe that the time devoted to your instruction in Geriatrics was inadequate, appropriate or excessive?” Annual responses are summarized below:

<table>
<thead>
<tr>
<th>Schools</th>
<th>Inadequate (%)</th>
<th>Appropriate (%)</th>
<th>Excessive (%)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Schools 1998</td>
<td>44.7</td>
<td>52.5</td>
<td>2.8</td>
<td>13,877</td>
</tr>
<tr>
<td>All Schools 1999</td>
<td>43.6</td>
<td>53.9</td>
<td>2.6</td>
<td>12,864</td>
</tr>
<tr>
<td>All Schools 2000</td>
<td>38.6</td>
<td>57.5</td>
<td>3.9</td>
<td>14,103</td>
</tr>
</tbody>
</table>

The Association of American Medical Colleges, a national non-profit association of the nation’s 125 Doctor of Medicine (MD) medical schools and 400 associated teaching hospitals, oversees the data collection and analyses from the Student Records System (SRS) annual Graduation Questionnaire (GQ) Report. Findings from the GQ report in 2001 show that of all the schools in the U.S., only 35.6% of the students nationwide agreed or strongly agreed that Geriatrics was adequately covered in the first and second years of medical school; 59.2% of graduating students agreed or strongly agreed that Geriatrics was adequately covered during the medical school clinical experience. Each medical school receives a report that compares its student responses for the current year to the national average response, as well as to the previous two school-specific years.

1. **American Geriatrics Society (AGS)**

Prior to the founding of the AGS, the history of geriatric medicine in the United States was brief. The Society's roots were planted on June 11, 1942, when a group of physicians interested in advancing medical care for older adults met with the intention of forming a specialty society dedicated to geriatric medicine. Among those physicians were Dr. Ignatz Leo Nascher, who coined the term "geriatrics," Dr. Malford W. Thewlis, who was named the first executive secretary of the Society, and Dr. Lucien Stark who was appointed the first AGS president.

Founded in 1942, the American Geriatrics Society (AGS) is a nationwide, not-for-profit association of geriatrics health care professionals dedicated to improving the health, independence and quality of life of all older people. The Society supports this mission in many ways through activities in: clinical practice; professional education on the clinical care of older people; research; public education and information; public policy efforts; and, by collaborative relationships with other organizations.

The American Geriatrics Society has put forth a position statement outlining six recommendations for geriatric medical education:

1. Gerontology and geriatric medicine should be integrated into the curriculum for each year of medical school, and clinical experiences in geriatrics should be required.

2. Residency and fellowship training programs that involve primary or consultative care of elderly patients should be required to have scheduled clinical and didactic experience in geriatrics. The full spectrum of healthcare settings should be utilized for training.
3. Future faculty responsible for geriatric education within family medicine, internal medicine, and psychiatry should have academic geriatric fellowship training which includes instruction in clinical care, teaching, research, and administration. Faculty in other specialties who are responsible for geriatric education should have specific advanced training in gerontology and geriatric medicine, especially as it relates to their discipline.

4. Formal recognition of expertise in geriatric medicine should be considered by all specialties that provide care to older adults.

5. Practicing physicians who provide substantial care to older adults should be strongly encouraged to gain continuing medical education in geriatrics. All sectors of the healthcare marketplace, including both the for-profit and not-for-profit arenas should be penetrated.

6. Continued increased funding is needed for the support of medical student, residency and fellowship training programs in geriatric medicine. This must be available for training in acute inpatient, outpatient, and long-term care settings. Additional funding is necessary to support the development of geriatrics faculty and a sufficient number of faculty to direct clinical research and educational programs.

The complete recommendations from the American Geriatrics Society Position Paper on Geriatric Education and Areas of Basic Competency for the Care of Older Patients along with the Society’s rationale are provided in Appendix C, and can be found at the following URL: http://www.americangeriatrics.org/products/positionpapers/edu_ger.shtml

The AGS produces “Geriatrics at Your Fingertips” a pocket guide which is distributed to medical students in their clinical years, and is also available to practicing professionals. This comprehensive clinical guide is an essential tool in evaluating and managing the diseases and disorders that most commonly affect older persons. It contains assessment instruments, recommended diagnostic tests and management strategies, including both pharmacologic and non-pharmacologic therapies. It is an excellent tool for all practicing clinicians, including physicians, nurse practitioners, nurses, physician assistants, and pharmacists, as well as professionals-in-training in all of these disciplines. Three of the eight medical schools in Texas have a student chapter of the American Geriatrics Society.

2. John A. Hartford Foundation

Founded in 1929, The John A. Hartford Foundation is a committed champion of health care, training, research and service system innovations that will ensure the well-being and vitality of older adults. Its overall goal is to increase the nation's capacity to provide effective, affordable care to its rapidly increasing older population and seeks to improve the geriatrics skills of current and future health care professionals. Today, the Foundation is America's leading philanthropic agency with a sustained interest in aging and health. Through its grants, the John A. Hartford Foundation seeks specifically to:

- Enhance and expand the training of doctors, nurses, social workers and other health professionals who care for older adults; and
• Promote innovations in the integration and delivery of services for all older Americans.

Since the nation's capacity and ability to serve older adults is increased by engaging doctors, nurses and social workers at all the stages of their formation and professional growth27 the John A. Hartford Foundation continues to support interdisciplinary education and training, medical school education and the American Federation of Aging Research (AFAR).

Interdisciplinary Education and Training:

• Eight Geriatric Interdisciplinary Team Training (GITT) Program sites were funded nationwide (1995), to find a way to provide health professionals with the knowledge and skills necessary to work effectively in teams. This multi-faceted program has developed and evaluated practicum-based training models for advanced practice nurses, residents in internal and family medicine, social workers and other health professionals. These are designed to improve each group's ability to work together more collaboratively and effectively and lead to better outcomes for older adults.

• These model training sites have alerted health care professionals to the value of team training for the care of older patients. A new “Geriatric Interdisciplinary Teams in Practice Initiative” was launched in 2000.

Medical Education:

• Twenty medical colleges and universities were funded for a two-year cycle (June 2000- June 2002) to focus on increasing the geriatric content in the first four years of medical training. An additional cohort of medical colleges and universities were funded in early 2002. Six of the eight medical schools in Texas applied for the grant, however only three received funding: The University of Texas Health Science Center at San Antonio, Texas Tech University Health Sciences Center and The University of Texas Medical Branch at Galveston. Curricular content is currently being placed on an American Association of Medical Colleges (AAMC) test website.

• The Association of Directors of Geriatric Academic Programs (ADGAP) and the Hartford Foundation are currently sponsoring initiatives to support undergraduate education, fellowship and faculty development in geriatrics. A recent publication entitled, Geriatric Medicine Training and Practice in the United States at the Beginning of the 21st Century catalogues these efforts.28

• Integrating geriatrics into the subspecialties of Internal Medicine is an effort that seeks to raise awareness about the realities of caring for an older population, developing a core group of informed academic sub-specialists committed to this effort, attract future sub-specialists to the aging field and incorporate geriatric content into the training and certification of these sub-specialists.

• Increasing Geriatrics Expertise in the Surgical and Medical Specialties. This project works with surgical and medical specialties (e.g., gynecology, orthopedic surgery and
urology, among others) to focus attention on geriatric issues, particularly within the professional societies of each of these specialties. In addition, the project is working to develop a core geriatrics curriculum, enhance residency training, and provide faculty leadership. It also holds an annual interdisciplinary leadership conference.

American Federation for Aging Research (AFAR):

- Paul B. Beeson Physician Faculty Scholars program is an initiative that seeks to attract the nation’s most outstanding physician-scientists to careers in research on aging and the investigation of geriatric clinical care and health services.

- A five-year grant to the American Geriatrics Society seeks to increase geriatrics expertise in ten surgical and medical specialties.

For a representative listing and description of the geriatric education programs supported by the Hartford Foundation, see Appendix D.

3. Health Resources and Services Administration/Bureau of Health Professions U.S. Department of Health and Human Services

Health Resources and Services Administration promotes the gerontologic and geriatric education and training of multi-level (undergraduate, graduate, community and academic) professionals from a broad variety of disciplines. The Bureau of Health Professions hosted an invitational National Forum on Geriatric Education and Training in the spring of 1995. The purpose of the forum was to set a national agenda for action on geriatric education for all who provide health care to older adults. In preparation for the National Forum, a series of white papers was commissioned, constituting Volume 1 (A National Agenda for Geriatric Education) in a series of three publications. The “Forum Report” is Volume 2; and, “Strategic Recommendations for Geriatric Education” comprises Volume 3. These volumes continue to serve as a guide for geriatric education and training initiatives across the nation.

Geriatric Education Center (GEC) grants are made to accredited health professions schools (e.g., dental, pharmacy, medical). Since 1985, 375,000 health professionals have received training in geriatrics through the Centers. The purpose of the GECs are to:

- Improve the training of health professionals in geriatrics;
- Provide geriatric residencies, traineeships and fellowships;
- Develop and disseminate curricula on the treatment of health problems in elderly individuals;
- Train and re-train faculty to provide instruction in geriatrics;
- Support continuing education for health professionals who provide geriatric care; and
- Provide clinical geriatrics training in nursing homes, chronic and acute care hospitals, ambulatory care centers and senior centers.
GECs also provide services to and foster collaborative relationships among health professions educators (organizations and institutions that sponsor formal and informal educational programs and activities for faculty, students and practitioners) within defined geographic areas (states, counties, metropolitan areas or portions thereof). Furthermore, GECs strengthen the multidisciplinary training of health professionals to diagnose, treat and prevent disease and other health problems affecting older adults. In fiscal year 2000, 34 GECs were awarded a total of $7.4 million with an estimated $100,000 for a single institution and $150,000 for a consortium of three or more institutions. The Texas Consortium of Geriatric Education Centers (TCGEC) is one of the current 41 GECs in the country and is composed of nine academic institutions including Baylor College of Medicine, University of North Texas and its Health Science Center, University of Texas-Pan American, Texas Southern University, The University of Texas Health Science Center at Houston, The University of Texas Medical Branch at Galveston, Texas A&M University, the University of Houston and Texas Women’s University. The University of Texas Health Science Center at San Antonio administrates the second GEC in Texas.

Additional information on the Geriatric Education Centers can be found at the following URL: http://www.bhpr.hrsa.gov/interdisciplinary/gec.html

C. Medical Education/Testing/Licensure

1. Medical Education

The Liaison Committee for Medical Education (LCME) sets the standards for medical education and the testing and licensure of physicians is under the auspice of the United States Medical Licensing Examination (USMLE), a joint program of the Federation of State Medical Boards of the United States and the National Board of Medical Examiners. The USMLE Step 1 is completed after the second year of medical school, focusing on basic science concepts. The USMLE Step 2 is completed early in the fourth year, and focuses on clinical concepts.

The Step 1 Examination does not include specific geriatric/gerontology-identified content. Based on the sample testing materials provided as an example of the USMLE Step 1 Examination, less than 5% (7/150) of the clinical vignette questions reference individuals over the age of 65; the percentage increases slightly when vignettes involving individuals aged 60 and above are included (11/150).

The Step 2 Examination Table of Contents includes the subtopic of “Senescence” under the “General Principles” heading. Of the 150 questions in the sample vignettes, 12 pertained to individuals over age 65 (approaching 10%), and nine additional questions pertained to individuals over age 60.

The Association of American Medical Colleges has taken a lead in recognizing the importance of and promoting the infusion of geriatric and gerontology content into education and training
experiences at the undergraduate level, has funded multiple institutions nationally to develop innovative curricular content, and will be facilitating dissemination of materials through their website and a conference in 2003. These efforts by the AAMC have created greater visibility for geriatrics and gerontology in the general medical school curriculum.

2. Residency Programs (Graduate Medical Education)

Through a national matching program, newly graduated MDs enter into a residency program that is three to seven years or more of professional training under the supervision of senior physician educators. The length of residency training varies depending on the specialty chosen: family practice, internal medicine, and pediatrics, for example, require three years of training; general surgery requires five years.

The John A. Hartford Foundation, in conjunction with other medical education foundations such as the American Federation for Aging Research (AFAR) and the Association of American Medical Colleges (AAMC), supports pilot funding for geriatric residency specialty training (e.g., geriatric surgery). The guidelines for content, competencies and assessment standards are developed by the discipline-specific organizations. Additional information on these programs can be found at the following URLs: http://www.aamc.org; http://www.afar.org; http://www.jhartfound.org

3. Fellowships

A fellowship consists of one to three years of additional training in a subspecialty as an option for some doctors who want to become highly specialized in a particular field, such as gastroenterology, a subspecialty of internal medicine and of pediatrics, or child and adolescent psychiatry, a subspecialty of psychiatry, or geriatrics, a subspecialty of internal medicine and family medicine. The additional training is usually comprised of a combination of clinical, research and education components.

There are a number of funding entities that support geriatric fellowships. Requirements for geriatric fellowships are provided in full at the following URL: http://www.americangeriatrics.org/products/positionpapers/fellowship.pdf

The majority of physicians also choose to become board certified, which is an optional, voluntary process. Certification ensures that the doctor has been tested to assess his or her knowledge, skills, and experience in a specialty and is deemed qualified to provide quality patient care in that specialty. There are two levels of certification through 24 specialty medical boards -- doctors can be certified in 36 general medical specialties and in an additional 88 subspecialty fields. Most certifications must be renewed every six to ten years, depending on the specialty.

Licensed physicians must continue to receive credits for continuing medical education (CME), and some states require a specific number of CME credits per year to ensure the doctor's knowledge and skills remain current. CME requirements vary by state, by professional organizations, and by hospital medical staff organizations.
a. Certificate of Added Qualifications in Geriatric Medicine (CAQGM)

The core training requirements for eligibility for the Certificate of Added Qualifications in Geriatrics Medicine (CAQGM) offered by the American Board of Family Practice and the American Board of Internal Medicine include completion of at least one year of a prescribed clinical training fellowship program, with a suggestion of a two-year fellowship. (Specific guidelines for Fellowship Training in Geriatrics can be located at the following URL: http://www.americangeriatrics.org)

In Texas, of the 7,674 subspecialty Certificates issued to diplomats in 2000, 358 were issued for geriatrics, 125 in Family Practice (FP) and 233 in Internal Medicine (IM). Between 1991 and 2000 there were 5,632 CAQ Certificates in geriatrics issued, of those 1,779 were issued in Family Practice and 3,853 in Internal Medicine. It is important to note however (Table 4 ABME – Appendix E), that there has been a distinctive and incremental decline in the number of Geriatric CAQ certificates issued in both FP and IM across that same ten-year period.29

Recertification Requirements

The recertification process for the Geriatric Medicine Certificate is completed over a two-year period. It may begin in the eighth year of the ten-year certificate. An expanded description of the requirements is provided in Appendix F.

Appendix C shows the number of licenses granted in geriatrics for a ten year period, collectively and by state. You may access these tables (4 and 8) at the following URL: http://www.abms.org/Downloads/Statistics/Table4.PDF.

<http://www.abms.org/Downloads/Statistics/Table8.PDF>

Testing and licensure for a geriatric specialty occurs in Internal Medicine and/or Family Medicine. Certification requirements are provided in Appendix F, and can be accessed at the following URLs: http://www.abfp.org/ and http://www.abim.org/subspec/geri.htm

IV. Findings

A. Texas Medical School Survey

The survey was assembled by the eight schools’ Commission representatives in order to assess the amount of geriatrics teaching, the venues and locations of the teaching, the courses and the topics related to geriatrics in the pre-clinical and clinical years as well as to ascertain if external grant funding existed to support geriatrics programs.

The survey results indicated that the schools are utilizing a variety of venues to deliver geriatric content in both pre-clinical and clinical parts of the curriculum. Most schools deliver geriatric
content in required courses in the pre-clinical years and in elective courses or as portions of required courses in the clinical years. The University of North Texas Health Science Center is the only Texas medical school that requires a “geriatric” rotation for a portion of third-year medical students, however, seven of the eight medical schools offer an elective clinical rotation in geriatrics. Furthermore, there is additional opportunity to deliver web-based information about geriatrics and gerontology in most schools.

The location of a majority of the clinical teaching occurs in geriatric ambulatory clinics and in house calls or home visits. The gaps in the location of teaching demonstrate a need for additional locations to include assisted living facilities, hospice venues, nursing facilities, and continuing care retirement communities.

The following is the list of geriatric content areas for which all eight schools responded affirmatively (100%) as being taught to all medical students:

- Functional Assessment
- Demographics of Aging
- Ethical Issues in Geriatric Care
- Common Geriatrics Syndromes
- Dementia
- Cognitive Assessment

Other topics on aging and geriatrics content areas are addressed at some point in the curriculum but the survey results showed gaps in particular topics such as Myths of Aging, Ageism, Disease Prevention, Pressure Ulcers, Sleep Disorders, Failure to Thrive, and Ethical Issues. In addition geriatric assessment skills such as social assessment and preoperative assessment should be more evident.

Overall, there is geriatric content within Texas’ medical school curricula, but it is not necessarily labeled as such, and the amount of time devoted to any particular geriatric content area is difficult to quantify. Additionally, there is no consistency across Texas medical schools with regard to core content and/or competencies/skills acquisition, or training site opportunities.

Some of the issues facing medical schools regarding integration/infusion or stand-alone geriatric courses/clerkships as identified by the Commission include:

- The lack of geriatric-trained clinical faculty;
- Competing time demands for other multi-disciplinary or topic specific content;
- Diversity of opinion concerning specialty training at the undergraduate versus residency and/or fellowship levels;
- Diversity of curricular structure; and
- The lack of mandate for inclusion of geriatric content and experiences.
B. Medical School Graduation Questionnaire

The Medical School Graduation Questionnaire (GQ) is a national questionnaire administered annually since 1978 by The Association of American Medical Colleges (AAMC). The GQ surveys the fourth-year students prior to graduation of every U.S. medical school (125). Last year over 14,000 students (90%) responded. The 32 questions assess more than 200 items and relate to the students perceptions of the teaching on different topics, their clerkship experience in medical schools, their career interests, support programs, demographic data, etc. For the last several years questions have been asked related to geriatric teaching across all four years. Data are analyzed for each school and compared across schools. Each school receives their students’ perceptions regarding issues of their particular school and the national average of all students who responded to the questions.

In 2001 data were collected relating to geriatric teaching in ten questions. The students were asked to respond if they strongly agree, agree, have no opinion, disagree or strongly disagree to the question. The interpretation of the responses needs to take into account the fact that pre-clinical students may not recognize geriatrics content in the basic science courses which may explain why only a little more than one-third of Texas students believed that geriatrics was adequately covered in the first and second year of medical school, and more than one-half agreed that it was covered again during their medical school experience. Over 50% of the students indicated that they learned about the health care needs of healthy older adults and were well prepared to care for older adults in acute care setting and ambulatory settings. Slightly less than one-half indicated that they were well prepared to care for older adult patients in long-term health care settings. Additional efforts need to include small group and interdisciplinary approaches.

V. Recommendations

1. Geriatrics and gerontology courses and content within courses and during clinical clerkships needs to be labeled as “geriatrics” in order to be easily identified within the curriculum. As noted in the findings, geriatric and gerontology content is being delivered within the existent curriculums of the Texas Medical Schools, but may not be labeled as or identified as such.

2. Geriatrics and gerontology content should be integrated throughout the entire medical school curriculum and should not be relegated to “one” specific stand alone course, for example, as in Pediatrics. As previously noted, the care of those over the age of 65 will be commonplace in the delivery of health care into the 21st century across all medical disciplines and specialties. Geriatrics and gerontology content should be included in all of the basic science courses, systems oriented courses, health care delivery courses, public health courses, medical ethics and legal courses and clinical clerkships, with few exceptions, i.e., Pediatrics. The advantages of an integrative approach include: 1) less displacement of existing courses from already full curricula; 2) the provision of greater opportunities to change the student’s
perspective throughout the medical school curriculum; 3) the promotion of sensitivity to aging issues and topics in many basic science courses and clinical clerkships; and 4) the acknowledgement of the importance of geriatrics by integrating it throughout the four year medical student curriculum.

3. Texas medical schools should consider utilizing the American Geriatrics Society’s “Core Competencies in Geriatrics” as the guide for necessary curriculum in geriatrics throughout the four years of medical education in all of the Texas medical schools (Appendix G). Curricular objectives could be developed using this guide for the pre-clinical and clinical years.

4. Texas medical schools should expose medical students to the continuum of care that is and can be provided to older adults. This would involve participation in sites of care and living for older adults. For example, medical students should be provided experiences in ambulatory care geriatrics clinics, house call programs, nursing facility care, hospice care programs, geriatrics hospital based care, assisted living facilities and retirement communities. This could be accomplished through partnerships between the medical school and community based providers and agencies.

5. Additional geriatrics training is needed for the current faculty at the Texas medical schools and there is a need to increase the number of faculty recruited that have been trained in geriatrics and gerontology. Most medical school faculty members have not had the opportunity to receive geriatrics specific training, yet faculty development in geriatrics and gerontology would greatly enhance the geriatrics content delivered to the medical students. This has been the approach of the John A. Hartford Foundation which was described previously. Resource constraints at the Texas medical schools affect the ability to deliver geriatrics content by their current geriatrics and non-geriatrics faculty. Geriatrics is a “high touch, low tech” field which means that more time is required to work with these patients. This results in fewer patients being seen by the geriatrics faculty which can affect clinical funding.

6. Medical schools should consider the adoption of the “Senior Professor” model to expose the medical students to vigorous, functional and vital older adults in order to combat ageism. The “Senior Professors” mentor individual medical students throughout the year/years of medical school. The John A. Hartford Foundation has funded this type of initiative at two of the Texas medical schools.

7. Relationships need to be established with community-dwelling older adults throughout the geriatrics training of the medical students. Partnerships could be developed with the local American Association of Retired Persons (AARP) chapter members, the Silver-Haired Legislature representatives and/or Area Agency on Aging advisory board members in order to provide access and enhance the medical students exposure to active older adults. In addition, collaborative efforts with the Aging Network and community based social service programs for seniors can provide medical students with real world experiences.
8. Medical student education in geriatrics should be integrated/linked to the existent residency and geriatrics fellowship programs. All internal medicine and family medicine residencies should have required rotations in geriatrics. Most of the Texas medical schools have co-existent internal medicine and family practice residencies and geriatric fellowship programs, therefore, once the residents and fellows have received training in geriatrics and gerontology they could assist in medical student education.

9. The Texas Legislature should consider the provision of a budget line item to support geriatrics education within all of the Texas medical schools. This would insure that a particular number of faculty would be available to be engaged in the training of the medical students in geriatrics and gerontology education. Ohio currently has legislation for the funding of geriatrics education within the medical schools where the line item budget was consumed with experiential times with the elderly of the community.

In order to accomplish the recommendations, the members of the Commission recognize that additional funding would be required. Many of the national efforts toward the improvement of geriatrics and gerontology education for the physicians of tomorrow have come from private and federal grant support. There needs to be the recognition of the priority of geriatrics and gerontology education for all medical students and the financial support towards this goal.
References


4 Administration on Aging. (2000).


7 Ibid

8 Ibid


12 Ibid


14 Williams TF. 1994. The Undergraduate Curriculum in Geriatrics. The American Journal of Medicine; 97(Suppl. 4A): 41-41S.


21 Warshaw, Gregg A.; Bragg, Elizabeth J.; Shaull, Ruth W.

22 American Geriatrics Society webpage; AGS History; http://www.americangeriatrics.org

23 Ibid


28 Warshaw, Gregg A.; Bragg, Elizabeth J.; Shaull, Ruth W.


30 Texas Higher Education Coordinating Board Commission on Geriatric Education. Brainstorming session on Geriatric Study Requirements for Medical Schools in Texas meeting; June 5, 2002.

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Appendix A
Medical School Data Collection Tool on Geriatrics Education

Commission on Geriatrics Study Requirement for Medical School

Medical School Data Collection Tool on Geriatrics Education
May 2002

Instructions: Please complete the following twelve (12) questions/items. Include addendum as needed.

1. Institution: ____________________________________________________________

2. AY 2001 Medical School Enrollment: ____________

3. Geriatrics/Gerontology Faculty:

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4. Pre-Clinical Years (Years 1 and 2):

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B. Courses (Those with Geriatrics/Gerontology Content only):

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</tbody>
</table>
4. Pre-Clinical Years (Years 1 and 2) continued:

C. Seminars:

D. Workshops:

E. Web-based Courses/Curriculum:

F. Others:

5. Clinical Years (Years 3 and 4):

A. Is a Geriatric Clinical Rotation Required? Yes _______ No _______

   If yes, how is it performed/conducted? During which year?

B. Is a Geriatric Clinical Rotation an Elective? Yes _______ No _______

   If yes, how is it performed/conducted? During which year?

C. Is there a formal geriatric content/experience with Other Rotations? Yes _______ No _______

   If yes, how is it performed/conducted? During which year? Is it a longitudinal or block experience?
6. Locations of Geriatrics Training Experiences (Check all that apply):
   ____ Geriatrics Ambulatory Clinics  ____ Continuing Care Retirement Community
   ____ Nursing Facility  ____ House Calls
   ____ Assisted Living Facility  ____ Hospice Facility

7. Are the medical students taught the following Geriatrics/Gerontology topics? (Check all that apply):
   ____ Myths of Aging  ____ Common Geriatric Syndromes
   ____ Ageism  ____ Dementia
   ____ Interdisciplinary Team Care  ____ Delirium
   ____ Functional Assessment  ____ Depression
   ____ Demographics of Aging  ____ Polypharmacy
   ____ “Normal” Aging vs. Disease  ____ Incontinence
   ____ Pharmacology of Aging  ____ Iatrogenesis
   ____ Physiology of Aging  ____ Falls, Immobility and Gait Disturbances
   ____ Anatomic/Histologic Changes of Aging  ____ Osteoporosis
   ____ Ethical Issue in Geriatric Care  ____ Sensory Impairments (Vision and Hearing)
   ____ Disease Prevention  ____ Pressure Ulcers
   ____ Health Care Financing  ____ Sleep Disorders
   ____ Cultural Aspects of Aging  ____ Atypical Presentations of Disease
   ____ Normal” Aging vs. Disease  ____ Failure to Thrive

8. Are the medical students taught to perform the following? (Check all that apply):
   ____ Functional Assessment  ____ Balance and Gait Assessment
   ____ Cognitive Assessment (MMSE, Clock drawing, etc.)  ____ Preoperative Assessment
   ____ Social Assessment

9. Does your medical school sponsor a Student Chapter of the American Geriatrics Society?  
   Yes _______ No _______
   If yes, how long has it been in existence?

10. Has your medical school received a AAMC “Enhancing Geriatric and Gerontology Medicine Education in Undergraduate Medical Education” grant sponsored by the Hartford Foundation?  
    Yes _______ No _______
    If yes, provide title, goals and objectives of the grant (may include as an attachment).

11. Has your medical school applied for a AAMC “Enhancing Geriatric and Gerontology Medicine Education in Undergraduate Medical Education” grant?  
    Yes _______ No _______
12. Other Comments:
Appendix B
Institutional Responses to Medical School Data Collection Tool

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<th>Outline of Questionnaire to Medical Schools</th>
<th>TAMUSHSC 709</th>
<th>UTMB 723</th>
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<th>UTHSC-H 744</th>
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Abbreviations: TAMUSHSC = Texas A&M University System Health Science Center  UTMB = UT Medical Branch at Galveston  UTSWC-D = UT Southwestern Medical Center at Dallas  UTHSC-H = UT Health Science Center at Houston  UTHSC-SA = UT Health Science Center at San Antonio  UNTHSC = Univ. of North Texas Health Science Center at Fort Worth  Baylor CM = Baylor College of Medicine  TTUHSC = Texas Tech Univ. Health Sciences Center  UNTHSC = Univ. of North Texas Health Science Center at Fort Worth
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* Y/N = Not applicable
Appendix C
American Geriatrics Society (AGS) Position Statement and Areas of Basic Competency

AGS Position Statement
http://www.americangeriatrics.org/products/positionpapers/edu_ger.shtml

Education in Geriatric Medicine

Background

Geriatric medicine and gerontology have made important strides in the education of professionals from the numerous disciplines that care for older adults. A defined and growing body of skills and scientific knowledge are available, and their application is necessary for competent medical care of older adults. Nearly all of the nation's medical schools now offer some geriatric curricula and a growing number of physicians have specialized in clinical care of the older adults, health care systems management, geriatric education, and aging research.

The American Geriatrics Society (AGS), which represents clinicians, researchers, administrators and educators in the area of geriatric medicine, should continue to serve as an advisory body in setting standards for determining the requirements for and dissemination of geriatric medical education. Additionally, the AGS should serve as a resource for policy-makers in overcoming barriers to effective care of older adults that can be eliminated through improvements in the formal processes of education.

Positions

1. Gerontology and geriatric medicine should be integrated into the curriculum for each year of medical school, and clinical experiences in geriatrics should be required.

   Rationale: Since nearly all medical graduates will find themselves caring for elderly patients, knowledge of aging and the aged should be a required part of the curriculum. Age-related changes should be integrated into basic science courses, and clinical aspects of aging should be integrated into each clinical science course and clinical rotation, with the obvious exceptions of pediatrics and obstetrics. Focused instruction in geriatric assessment and physical diagnosis is needed. Clinical experiences are necessary to dispel myths of aging and provide exposure to healthy and dependent seniors in multiple settings including the hospital and outpatient areas, as well as retirement communities, patient’s home, and the teaching nursing home.

2. Residency and fellowship training programs that involve primary or consultative care of elderly patients should be required to have scheduled clinical and didactic experience in geriatrics. The full spectrum of healthcare settings should be utilized for training.
Rationale: In order to improve the health care of elderly patients throughout our care systems, the body of knowledge on aging must be assimilated by all practitioners who care for older persons. Optimal care of elderly patients should not depend on referral or consultation by geriatrics "experts" alone but needs to be in the mainstream of all specialty care of the adult. Geriatric medical education should expand into ambulatory, home, and long-term care settings, to parallel the increasing utilization of these sites in geriatric care. Emphasis should be placed on teaching the scientific body of knowledge regarding the coexistence of the aging process and disease states, as well as the skills necessary to promote healthy aging and provide for comprehensive, interdisciplinary assessment and management of older adults with functional impairments throughout the continuum of care.

3. Future faculty responsible for geriatric education within family medicine, internal medicine, and psychiatry should have academic geriatric fellowship training which includes instruction in clinical care, teaching, research, and administration. Faculty in other specialties who are responsible for geriatric education should have specific advanced training in gerontology and geriatric medicine, especially as it relates to their discipline.

Rationale: Ample high quality geriatric fellowship positions are available for physicians already trained in family medicine, internal medicine, and psychiatry; therefore all future geriatrics faculty in these disciplines have access to advanced training. Geriatric fellowship and advanced training opportunities are increasingly available for faculty in other specialties as well.

4. Formal recognition of expertise in geriatric medicine should be considered by all specialties that provide care to older adults.

Rationale: The American Board of Family Practice, American Board of Internal Medicine, and American Board of Psychiatry and Neurology formally recognize expertise in geriatrics via their Certification of Added Qualifications in Geriatric Medicine and Geriatric Psychiatry, respectively. Such formal recognition enhances the academic credibility of the field and promotes continuing medical education in geriatrics. All specialties that are involved in the care of the elderly should be encouraged to consider additional geriatric training and to include appropriate age-related questions in their specialty certification examinations.

5. Practicing physicians who provide substantial care to older adults should be strongly encouraged to gain continuing medical education in geriatrics. All sectors of the healthcare market place, including both the for-profit and not-for-profit arenas should be penetrated.

Rationale: The recent and rapid growth in our knowledge of new and effective approaches to the care of older adults warrants aggressive dissemination to practicing physicians for improved geriatric care. Continuing medical education in geriatrics is increasingly available and in various formats including didactic and interactive
presentations, medical journal programs, and web-based services. The Geriatrics Recognition Award is sponsored by the AGS to specifically recognize physicians who are committed to advancing their continuing medical education in geriatrics.

6. Continued increased funding is needed for the support of medical student, residency and fellowship training programs in geriatric medicine. This must be available for training in acute inpatient, outpatient, and long-term care settings. Additional funding is necessary to support the development of geriatrics faculty and a sufficient number of faculty to direct clinical research and educational programs.

Rationale: For geriatric academic efforts to achieve success and long-term viability, adequate resources including funds, personnel, space, time, and equipment are necessary. A number of sources of support have been developed over the last several years, including the National Institutes of Health, Health Resources and Services Administration, Department of Veterans Affairs, and several foundations. These will continue indefinitely to allow for the development of adequate numbers of geriatrics faculty. Equally important will be the promotion of these programs, so that highly qualified applicants can be attracted to these resources. Adequate funding is still a problem at all levels of geriatric education. Support for medical student education, fellowship programs (especially for academic training beyond the one year clinical fellowship) and faculty development is of most immediate concern. Although some additional support is received from the Department of Veterans Affairs, state governments and private foundations, continued and increased financial assistance is needed.

**Areas of Basic Competency for the Care of Older Patients for Medical and Osteopathic Schools** *Last Updated January 1, 1998*

**Introduction**

The majority of medical students will enter a specialty caring for older patients. This document provides a framework for medical schools to develop a curriculum on aging and to lay the foundation for students who will subsequently be caring for older patients. This document is not meant to be comprehensive or all-inclusive. Rather, it is meant to provide a reference for those involved in curriculum development, implementation, and evaluation. It also attempts to provide minimum competency standards in geriatrics for graduating medical students who will enter a variety of specialties.

**Goal**

The overall goal of the undergraduate medical curriculum in geriatrics for medical students is to provide the foundation for competent, compassionate care of older patients. This foundation includes attitudes, knowledge, and skills that are needed to care for older people.

**Recommended Proficiencies**

I. Attitudes

   A. Awareness of the various myths and stereotypes related to older people.

   B. Recognition that ageism, like racism, affects all levels and aspects of society including health professions and can adversely affect optimal care of elderly patients.

   C. Recognition of the heterogeneity of older persons--a diverse group with different personalities, different values, different functional levels, and different medical illnesses. Thus, each person needs to be viewed as an individual regardless of chronological age and to be cared for in a unique fashion.

   D. Openness and willingness to work with other disciplines in caring for older patients.

   E. Self-awareness of the students’ personal attitudes towards their own aging, disability, and death.

   F. Compassion and understanding attitude on the part of the physician for care givers of the frail elderly and the difficulties they face.
G. An appreciation of the need for improving and optimizing function for older people, rather than just focusing on diseases.

II. Knowledge

A. Related to Basic Sciences

1. Demography and Epidemiology of aging including the growth in numbers of older people and heterogeneity of the older population.

2. Theories of aging including biochemical/molecular, cellular, genetic, and biopsychosocial.

3. "Normal" aging versus diseases at the molecular, cellular, tissue, and organism levels.
   a. "Normal" aging is heterogeneous affecting different tissues and organs in different individuals at different rates.
   b. Preventable, reversible, and treatable aging processes need to be identified by practicing physicians and managed accordingly.
   c. Loss of homeostatic control mechanisms may account for much of the aging process.

4. Anatomic and histologic changes associated with aging.

5. Pathology associated with normal aging and age associated disease processes.

6. Physiology of aging in various organ systems.

7. Pharmacologic changes in aging and relevance to therapeutic decisions

B. Related to Clinical Practice

1. Geriatric Syndromes and Conditions. Students should be familiar with common geriatric syndromes and conditions and have a basic understanding of risk factors, causes, signs, symptoms, differential diagnosis, initial diagnostic evaluation, and preventive strategies. Conditions of these Geriatric Syndromes and Conditions include:
   a. Dementia
   b. Inappropriate prescribing of medications
   c. Incontinence
d. Depression

e. Delirium

f. Iatrogenesis, include consequences of hospitalization & bed rest

g. Falls

h. Osteoporosis

i. Alterations in the special senses including hearing and vision impairment

j. Failure to thrive

k. Immobility and gait disturbances

l. Pressure Ulcers

m. Sleep Disorders

n. Non-specific presentation of disease

2. Knowledge of diseases and disorders that are more common or have particular features in older people. Although student’s individual clinical experiences may provide greater or lesser exposure to these disorders, students should have at least "broad" knowledge of pathophysiology, presenting signs and symptoms, differential diagnosis, and initial diagnostic evaluation for common diseases older people, including:

a. Rheumatological diseases (e.g. osteoarthritis, rheumatoid arthritis, temporal arteritis/polymyalgia rheumatica)

b. Genito-urological diseases (e.g. benign prostatic hyperplasia, sexual dysfunction)

c. Neurological diseases (e.g. Parkinson’s disease, stroke and transient ischemic attack, dizziness/syncope)

d. Cardiovascular diseases (e.g. congestive heart failure, atrial fibrillation, valvular heart disease) Hypertension (Diastolic and Systolic)

e. Endocrinological diseases (e.g. type II diabetes mellitus, hyperosmolar non-ketotic coma, hyper- and hypo- thyroidism, Paget’s Disease of the Bone)
f. Cancer of various organs, including: breast; lung; colon; prostate; and hematologic malignancies

g. Infections, including: pneumonia; tuberculosis; and urinary tract

h. Renal diseases (e.g. fluid and electrolyte disturbances)
i. Gastroenterological disorders (e.g. constipation, malnutrition, diverticulitis, diverticulosis)

j. Psychiatric diseases (e.g. depression)
k. Others, such as fractures, amyloidosis

3. Knowledge of psychosocial issues. Students should be familiar with identification, presenting signs and symptoms, and appropriate referral of common psychosocial problems and issues, including:

a. Normal behavioral late life changes, including retirement

b. Psychopathology, including: affective disorders, psychotic disorders, anxiety disorders, responses to medical illness, depression, and substance abuse

c. Under-reporting of symptoms and illnesses

d. Sexuality and aging

e. Elder abuse and neglect

f. Suicide

g. Home safety

h. Community resources, including those used to prevent institutionalization

i. Adaptation to care in alternative living situations, including long-term care facilities

4. Knowledge of Prevention, including:

a. Primary prevention (for example, exercise, nutrition, and psychosocial interventions designed to maximize function to allow independent living);

b. Secondary Prevention with age appropriate screening for diseases and identification of geriatric syndromes;
c. Tertiary prevention strategies; for example, rehabilitation and chemoprophylaxis in the post-myocardial infraction patient.

5. Knowledge of Ethical Issues in Geriatric Care
   a. Advance Directives
   b. Decision-Making Capacity
   c. Euthanasia, Assisted Suicide
   d. Health Care Rationing
   e. Pain Management
   f. End-of-Life Care

6. Health Care Financing
   a. Mechanisms and Implications (Medicare, Medicaid, Managed Care, Capitation)

7. Cultural aspects of aging. Students should be familiar with the influence of culture and ethnicity on the aging process, health and disease perception, and access to medical care, with emphasis on:
   a. Demography of ethnic elders in the United States
   b. The heterogeneity of the federally designated minority elder groups
   c. Risk Factors and disease prevalence in these elders
   d. The components of providing culturally competent medical care

III. Skills

A. Students should be competent in performing the basic elements of geriatric assessment with standardized methods for assessing physical, cognitive, emotional and social functioning as appropriate. Specific examples include: screening examinations for mental status, geriatric depression, and functional status including activities of daily living and instrumental activities of daily living.

B. Students should be competent in physical diagnosis skills, including: mobility assessment, gait and balance assessment, and recognizing normal versus abnormal signs of aging, and pre-operative assessment.
Instructional Strategies

Instructional strategies vary considerably from medical school to medical school, depending on available resources (locations, faculty, etc.). In general, it is important to include healthy as well as the non-healthy for training students since using only ill elderly people perpetuates many of the myths and stereotypes associated with aging and may promote ageism.

I. Longitudinal experiences with aging throughout all four years of the undergraduate medical curriculum are to be encouraged, particularly with community dwelling elderly.

II. Settings for conducting clinical experiences should include the inpatient and outpatient areas, but also sites such as retirement communities, assisted living facilities, community care homes, home care visits, as well as the teaching nursing home.

Developed by the AGS Education Committee and approved November 1998 by the AGS Board of Directors. The American Geriatrics Society, The Empire State Building, 350 Fifth Avenue, Suite 801, New York, NY 10118, 212-308-1414, Fax: 212-832-8646, info.amger@americangeriatrics.org.

Requirements for geriatric fellowships are provided in full at the following URL:

Appendix D  
Programs Supported by the John A. Hartford Foundation

(http://www.jhartfound.org)

Academic Geriatrics and Training

The John A. Hartford Foundation seeks to improve the geriatric skills of current and future health professionals with programs covering the entire spectrum of academic and field training for health professionals. The nation's capacity and ability to serve older adults is increased by engaging doctors, nurses and social workers at all the stages of their formation and professional growth.

Follow the highlighted links to see a complete listing of grants under each area of focus.

For medical school, through residency and fellowship training and on into clinical practice and positions in medical school faculty, Hartford funded programs are increasing the number of doctors able to teach geriatrics and improving the geriatric content of medical training programs, including those in the specialties and subspecialties.

For baccalaureate, advanced practice nursing, master's, and into the Ph.D. level, Hartford programs provide opportunities to increase the nation's capacity to create nurses who are well prepared to provide high quality care for older adults in a variety of settings and to improve care through research and in-service training.

Social Workers

For baccalaureate, master's, Ph.D. and practicing social workers, Hartford Foundation programs are helping to define and promote the special role of social workers to improve and provide vital services in the care of older adults.

Interdisciplinary Training

The Foundation developed its Geriatric Interdisciplinary Team Training (GITT) initiative to create new training models to demonstrate the feasibility and benefits of training health professionals to work together as teams.

Association of American Medical Colleges - Renewal Info  
Washington, DC  
M. Brownell Anderson
Enhancing Geriatrics in Undergraduate Medical Education

The Association of American Medical Colleges has received Foundation support to operate a competitive grants program to help medical schools improve the geriatrics education they provide their students. Through this grant, the Association will fund the development of new educational approaches, evaluate their impact on student knowledge and attitudes, and disseminate successful ideas to all U.S. medical schools. A request for proposals to the deans of the 125 medical schools in the United States will ask that the schools describe how they would use two-year awards of up to $100,000 to significantly increase the quality and quantity of geriatrics education throughout the medical school curriculum. Funded sites will be required to share curricular models and training products with the Association for the use of other schools and eventual dissemination of successful models. The program will be evaluated through several methods including quarterly progress reports, an implementation timetable, a curriculum evaluation process and a site visit to each of the funded schools. The Association will use multiple approaches to disseminate and support the adoption of the successful innovations developed in this project. Included in these methods: electronic mailing lists; a newsletter, The Reporter; professional media relations; annual meetings; a major workshop and the annual special issue of the AAMC journal, Academic Medicine.

Award: $2,628,870
Duration: 4 Years
Awarded: December 1999
The American Geriatrics Society, Inc. - Renewal Info
New York, NY
Dennis W. Jahnigen, M.D.
David H. Solomon, M.D.

Increasing Geriatrics Expertise in Non-Primary Care Specialties

This award is a continuation of a 1993 grant to the American Geriatrics Society, which was designed to increase geriatric expertise in five non-primary care specialties (general surgery, gynecology, orthopedic surgery, urology, and emergency medicine). Funding will extend the original program to focus on five additional non-primary care specialties (anesthesiology, ophthalmology, otolaryngology, physical medicine and rehabilitation, and thoracic surgery). The development of a core geriatric curriculum, to be customized by inserting discipline-specific content, is also planned.

Award: $1,523,217
Duration: 4 Years
Awarded: May 1997
American Geriatrics Society, Inc.
New York, NY
Nancy E. Lundebjerg
**Distribution of Geriatrics Educational Materials**

This grant will enable the American Geriatrics Society to distribute two educational products, Geriatrics at Your Fingertips and Tools for Geriatric Care to third-year medical students and first-year residents. At the end of three years, 88,000 copies of each will have been distributed. By distributing these materials at critical periods in the education of physicians, the American Geriatrics Society hopes to preserve and nurture future physicians' interest in the healthcare of older adults. These resources are convenient guides (a pocket sized book and a laminated fold-out pocket card) to current information on how to treat and assess a wide variety of common geriatric syndromes and conditions such as dementia, depression, falls, incontinence and the special considerations of medical treatments as they apply to older adults.

Award: $693,200  
Duration: 3 Years  
Awarded: June 2000  
The American Geriatrics Society, Inc.  
New York, NY  
Patricia P. Barry, M.D., M.P.H.

**Enhancing Geriatric Care Through Practicing Physician Education: Phase II**

Most of today's primary care physicians, a major audience requiring special attention due to its importance in the care of elders, had little exposure to geriatrics in medical school or residency training. To address this issue, the American Geriatrics Society will implement a plan for Practicing Physician Education using the "Train-the-Trainer-model," in which skilled teachers are developed to train peer practitioners, and the "Opinion Leader" (OL) model, an educational model which builds on recent research on the way practicing physicians learn, and how innovations spread via a medical community's naturally occurring opinion leaders. Opinion leader activities may include formal presentations, informal interactions, and community level activities, but most importantly, this model encourages leaders of the local physician community to become involved in the quality of care delivered by their peers and empowers them to work jointly toward its improvement.

Award: $1,992,957  
Duration: 4 Years  
Awarded: January 1998  
The American Federation for Aging Research (AFAR), Inc.  
New York, NY  
Stephanie Lederman
Medical Student Geriatric Scholars Program

The John A. Hartford Foundation awarded a grant to the American Federation for Aging Research to continue its successful program to attract medical students to academic geriatrics by providing them with mentored clinical and research opportunities. By the end of the three year grant, up to 270 students will be chosen through a competitive process to train at one of four training centers or at a designated John A. Hartford Foundation Center of Excellence in Geriatric Medicine.

This is a renewal of a successful program which began in 1993. The Fan Fox and Leslie R. Samuels Foundation supports scholars attending New York area medical schools in addition to those supported nationally by the Hartford Foundation.

Award: $2,880,806  
Duration: 3 Years  
Awarded: March 2001  
American Federation for Aging Research, Inc. (AFAR)  
New York, NY  
Odette van der Willik  
Stephanie Lederman

Centers of Excellence Coordinating Center

The goal of the Centers of Excellence (CoE) effort has been to address the critical shortage of geriatric faculty members in American medical schools and to strengthen training in geriatrics for physicians. The Centers of Excellence program is a central component of the Foundation's strategic plan to increase academic geriatrics capacity throughout the country. By identifying and funding CoEs in geriatrics around the country, more institutional attention will be brought to the field and faculty will be able to develop in the leaders that geriatrics needs. The CoE coordinating center activities of the American Federation for Aging Research include systematization across the seven previously-funded and 11 new CoEs, as well as the seven CoE Designation Award sites. AFAR coordinates meetings for trainees, prepares and circulates newsletters, maintains a web site on behalf of the program, and conducts periodic evaluations of current and previous trainees' career development. In addition, it administers a research fellows program for up to three cohorts of researchers.

Award: $2,032,939  
Duration: 4 Years  
Awarded: June 1999  
American Federation for Aging Research, Inc. (AFAR)  
New York, NY  
Odette van der Willik
Medical Student Geriatric Scholars Program

This award continues a program to interest medical students in academic geriatrics careers. Up to 60 students will be competitively selected each year for three years. They will conduct aging-related research with a pre-determined mentor at a geriatric Center of Excellence. In addition to doing clinical, health services or basic research projects during their 8-12 weeks as Scholars, the students also participate in geriatric clinical and didactic programs, and are invited to present their research at a subsequent annual meeting of the American Geriatrics Society. Funds are also available, on a competitive basis, for the students' home institutions, to increase geriatric programming for medical students.

Award: $1,494,910
Duration: 3 Years
Awarded: July 1999
Appendix E  
Geriatric Subspecialty Licensure by the American Board of Medical Specialties

ABMS Members Boards: Subspecialty Certificates Issued*  
1991-2000

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* ABMS Members Boards: Subspecialty Certificates Issued*
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Appendix F
Geriatric Medicine Certification Program of the American Board of Internal Medicine and the American Board of Family Practice

Introduction

The Geriatric Medicine Certification Program, jointly developed by the American Board of Internal Medicine and the American Board of Family Practice, is designed to recognize excellence among those who provide care to the elderly. The requirements are similar for diplomats of both Boards. The examination will be administered to candidates from both Boards at the same time in the same testing centers. The standard for passing the examination will be identical for both Boards.

The program will have three components:

- Satisfactory completion of training requirements.
- Substantiation by local authorities of the candidate’s clinical competence as a geriatric medicine consultant.
- Successful performance on a comprehensive, one-day examination.

Requirements for Certification in Geriatric Medicine

Internists must be certified in Internal Medicine by the American Board of Internal Medicine and must have formal training in geriatric medicine. Diplomats are required to complete 12 months of clinical training in geriatric medicine accredited by the Accreditation Council for Graduate Medical Education or Canadian training that has been accredited by The Royal College of Physicians and Surgeons of Canada.

Description of the Examination

The Geriatric Medicine Examination will be a one-day examination consisting of multiple-choice questions. It will cover broad aspects of geriatric medicine that internists caring for the elderly are expected to know. Clinical situations involving diagnosis, treatment, prognosis, and the etiology and natural history of disease will be stressed. Interpretation of physiologic data, electrocardiograms, and imaging studies used in caring for geriatric patients may be required. Specific areas of emphasis may include:

- Biology of Aging: The examination will cover the biology of aging and longevity, including changes in drug metabolism, immunology and nutritional requirements of the elderly. Epidemiology and research methodologies related to geriatric medicine will be included.
- Geriatric Care Issues: Issues specific to care of the elderly will be covered, including geriatric assessment and rehabilitation, preventive medicine, management of patients in long-term care settings, and psycho-social, ethical, legal, and economic issues pertinent to geriatric patients.
• Medical Diseases: Diagnosis and treatment of diseases that require a modified approach to management in the elderly will be included. Situations of special concern, such as falls and incontinence, as well as preoperative assessment and postoperative management of geriatric patients will be covered. The examination will encompass all of the relevant organ systems and will include other specialty areas that are relevant to the practice of geriatric medicine, such as otorhinolaryngology, ophthalmology, gynecology, and dermatology.

• Neuropsychiatry: The examination will cover relevant topics in neurology and psychiatry, including the diagnosis and management of cerebrovascular disease, dementia, sensory impairment, and other cognitive and affective changes that occur with aging.

Recognition of Successful Diplomates

Successful Diplomates will be awarded an ABIM Certificate of Added Qualifications in Geriatric Medicine. The certificate will bear dates limiting the duration of its validity to ten years. Reassessment will be required for renewal of the certificate. To maintain certification in geriatric medicine and to be eligible for recertification, diplomats must maintain a valid underlying certificate in either internal medicine or an ABIM subspecialty.

The American Board of Family Practice also offers a Certification in Geriatric Medicine. The American Board of Family Practice and the American Board of Internal Medicine have agreed to award certification in geriatric medicine on the basis of performance on a single jointly developed examination.

American Board of Family Practice

The American Board of Family Practice currently offers Certificates of Added Qualifications (CAQs) in Adolescent Medicine, Geriatric Medicine and Sports Medicine. These CAQs are offered in conjunction with other medical specialty boards. Successful CAQ candidates will be awarded the ABFP Certificate of Added Qualifications. The certificate will be valid for ten years, at which time recertification is required for renewal of the certificate.

If for any reason PRIMARY certification in Family Practice is lost (e.g., expiration, revocation, etc.) the Certificate of Added Qualification will be simultaneously withdrawn. With restoration of the primary certificate, the CAQ will be reinstated for any remaining period of time on the CAQ certificate.

CAQ in Geriatric Medicine

In a joint venture, the American Board of Family Practice and the American Board of Internal Medicine offer a Certificate of Added Qualifications in Geriatric Medicine. The "added certificate" is designed to recognize excellence among those Diplomats who provide care to the elderly. Geriatric Medicine Examinations are given annually.
Announcements will be made in the Journal of the American Board of Family Practice and on the ABFP web page concerning exact dates and the application process.

- **Certification Requirements**

  Family physicians must be certified by the American Board of Family Practice and must be in good standing at the time of the examination.

  The Diplomate must hold a currently valid, full, and unrestricted license to practice medicine in the United States or Canada.

  The Diplomates may qualify by satisfactory completion of an ACGME-accredited fellowship training program in Geriatric Medicine.

  Diplomates must achieve a satisfactory score on the one-day written Geriatric Medicine Examination.

- **Recertification Requirements**

  The recertification process for the Geriatric Medicine certificate is completed over a two-year period. It may begin in the 8th year of the 10-year certificate and includes the following requirements.

  Current primary certification in Family Practice at the time of the examination

  Completion of a Geriatric Medicine recertification pre-application form and submission of a self-evaluation fee.

  Completion of 3 Self-Evaluation Process (SEP) modules. The SEP modules are at-home, open book examinations consisting of 60 questions each. All candidates must complete three modules to be eligible to sit for the examination. The SEP modules will be scored and incorrect answers will be identified. No references to the literature will be given with the score report. Should a candidate be unsuccessful on any of the SEP modules, the candidate will be required to repeat the particular module until successful.

  Completion of a formal geriatric medicine examination application form and submission of an examination fee

  Verification that all licenses held in the U.S. and Canada are currently valid, full and unrestricted.

  Successful completion of a half-day written examination
Appendix C shows the number of licenses granted in geriatrics for a ten year period, collectively and by state. You may access these tables (4 and 8) at the following URL:

<http://www.abms.org/Downloads/Statistics/Table4.PDF>
<http://www.abms.org/Downloads/Statistics/Table8.PDF>
Appendix G
Map of Texas Medical Schools

Texas Tech University Health Sciences Center

University of North Texas Health Science Center at Fort Worth

University of Texas Southwestern Medical Center at Dallas

University of Texas Medical Branch at Galveston

University of Texas Health Science Center at Houston

Baylor College of Medicine

Texas A&M University System Health Science Center