Fellowship Position Paper

May 2006

Purpose and Charge

As part of its planning for the future of the discipline of geriatric medicine, the American Geriatrics Society (AGS) is reexamining formal fellowship training in geriatrics. The American Board of Internal Medicine (ABIM) and the American Board of Family Medicine (ABFM) are responsible for geriatrics certification, and the Accreditation Council for Graduate Medical Education (ACGME) is responsible for accreditation of geriatrics training programs, which includes the determination of required curriculum. These bodies are guided by leaders in the discipline, and the AGS has been highly influential in the past. As a specialty, internal medicine is reviewing the structure of postgraduate training, and substantial changes are possible over the next several years. Thus, it behooves the AGS to provide guidance to the field about geriatrics fellowship training.

Accordingly, the AGS Education Committee was asked to evaluate the structure and content of geriatrics fellowship training and to make recommendations consistent with the goals and recommendations of the AGS position paper on the future of
The committee was charged with considering the following issues:

1. What needs to be covered as core content in a standard geriatrics fellowship?
2. How many months of clinical training are necessary to complete this core training?
3. Should research training be a requirement for all geriatrics fellowships, as it is for most other fellowship programs?
4. Are there areas of geriatrics that warrant additional training sufficient to extend training (e.g., an additional year) beyond a standard geriatrics fellowship?
5. What changes in the structure or length of fellowship training would make geriatrics a more or less desirable career choice? For example, what would be the impact on recruitment if geriatrics fellowships entailed at least 2 years of training after residency or if a 1-year geriatrics fellowship could be included in the 3 years of medical residency training?
6. What types of formal fellowship training programs could be created for practicing physicians who are unable to leave practice to pursue full-time geriatrics fellowship training?

This charge was not to determine the specific length of time that would be required in a geriatrics fellowship nor whether geriatrics should request a return to a mandatory 2-year fellowship. Rather, it was to determine more broadly what constitutes appropriate geriatrics fellowship training.

In response to this charge, the Education Committee appointed an ad hoc group of educators, some of whom were members of the Education Committee, to prepare a position paper responsive to these questions. Members of this ad hoc committee were Drs. Evelyn Granieri (chair), Marie Bernard (chief editor), Christine Arenson, Anne Fabiny, Bruce Ferrell, Suzanne Fields, Andrea Fox, John Murphy, Sharon Levine, David Mehr, Karen Novielli, Gail Sullivan, and Glendo Tangarorang. The paper drafted by the subcommittee was reviewed and approved by the AGS Education Committee, ADGAP Board of Directors and the AGS Board of Directors in May 2006.

Sources of data used by the subcommittee for their deliberations include the longitudinal database compiled by the Association of Directors of Geriatric Academic
American Geriatrics Society & Association of Directors of Geriatric Academic Programs (ADGAP) with support from the Donald W. Reynolds Foundation, survey data from program directors in internal medicine or family practice and geriatrics, and published literature on geriatrics, fellowship training, and education. In some cases, small focus groups were conducted to amplify considerations in particular areas. The following is a summary of the ad hoc committee’s deliberations.

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**Background**

In a national survey of fellowship-trained geriatricians Medina-Walpole et al. found 66% reporting that they spend up to 25% of their time in teaching and administration and 11% reporting that they spend more than half of their time in research. Additionally, 78% report involvement in teaching, and 39% report participation as principal or co-investigator in research. Fellows with longer training (i.e., those who finished a 2-year program) were more likely to participate in academic career-developing activities such as research, teaching, and memberships in national geriatric professional societies. Mentors in geriatrics were identified by half of respondents as positively influencing their decision to enter the field of geriatric medicine. More than half of fellowship-trained geriatricians identified the need for increased training in teaching skills, administration, and business management. Seventeen percent of respondents identified the need for further research training, such as formal coursework in research methodology and grant writing, as well as the need for more intense mentoring.

The AGS statement on the future of geriatric medicine describes the goals of geriatric medicine, identifies the obstacles to achieving these goals, outlines strategies for overcoming these barriers, and presents a vision of the future roles of geriatricians. One of the goals listed is to recruit more physicians into careers in geriatric medicine to meet the needs of the growing elderly patient population. These geriatricians will be needed to influence the delivery and quality of care provided to elderly patients, to train other physicians and health-care professionals in the appropriate care of older persons, and to conduct research to guide the clinical care of older persons. Although geriatricians have
the highest professional satisfaction rates among physicians. Recruitment into the field has been modest at best. Fewer than 300 physicians entered geriatric medicine fellowships in 2004. There is a large and growing gap between the number of available geriatricians and the number needed. The AGS statement on the future of geriatrics therefore recommends expanding the number of geriatricians, not merely replacing those who have left the field. Measures suggested to stimulate recruitment into geriatric medicine include forgiveness of federal and state loans; provision of ample support for advanced fellowships (beyond the 1 year required for certification) to train geriatricians in research, administrative, and teaching skills; development and expansion of leadership training programs; and provision of plentiful career development awards. The report advised the ABIM and ABFM to consider innovative pathways to achieve board certification.

An issue of the ADGAP newsletter highlighted the considerably lower compensation for junior faculty in geriatrics at academic medical centers across the country in comparison with their colleagues in family practice and internal medicine. Similar disparities were seen in private practice, although geriatricians in private practice earned about $25,000 more than their academic colleagues in 2003 (median $155,276 versus $130,000), or a 19% difference. For financially strapped residents, this compensation gap is clearly a disincentive for pursuing a geriatrics fellowship. Considering the length of training, geriatricians earn 76% to 96% of the income of general internists.

There is ample evidence that practicing primary care physicians do not feel well prepared to care for the older adult. For example, one study of graduating residents at academic health centers found that graduating primary care residents feel poorly prepared to care for the needs of elderly patients. Among these residents only 48% in family practice and 52% in internal medicine felt very prepared to care for elderly patients; 43% in family practice and 52% in internal medicine felt very prepared to care for chronically ill patients; and 27% in family practice and 13% in internal medicine felt very prepared to care for nursing home residents. There is evidently a perceived need among graduating primary care physicians for additional training in geriatrics. Similarly, practicing primary
care physicians feel ill prepared to deal with many of the issues in the care of older adults, with 50% to 70% of family physicians and internists feeling the need for more training regarding psychosocial issues, caregiver needs, community services, and interdisciplinary care.  

A survey administered to geriatrics fellows who attended the 2005 AGS annual meeting was returned by 73 respondents. The sample included only those fellows who chose to attend the meeting and to respond to the survey (see Appendix A for complete survey results). Survey findings were similar to those of the Medina-Walpole study. However, it is interesting to note that although 24% of 1-year fellows would have been less enthusiastic about doing a geriatrics fellowship had the training required 2 years, they would still have matriculated, and for 42% of 1-year fellows, this increased time requirement would have had no effect on their decision. Thirty-four percent of 1-year fellows would not have entered geriatric medicine training had the training required 2 years. However, when asked whether they would advise a junior colleague to undergo fellowship training in geriatric medicine if the requirement were for 2 years, 31% would very enthusiastically recommend the training and 59% would enthusiastically recommend it. Thirty-eight per cent of the survey respondents from 1 year, 48% from 2-year, and 70% from 3-year programs reported that they believe that their fellowship prepared them very well for their future jobs.

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**Core Content**

**Issue No. 1: What needs to be covered as core content in a standard geriatrics fellowship?**

Before considering what should be covered as core content in a standard fellowship, the leadership qualities of geriatricians that will distinguish them from family and internal medicine colleagues without formal geriatrics training must be determined. These characteristics include:

1. Expertise in the clinical care of older adults, including leading teams that provide
care for those who are frail and those with complex medical conditions.

2. Expertise in the design and implementation of effective and efficient systems of care for older adults, particularly for those who are frail and those with complex or chronic medical conditions.

3. Administrative and practice management leadership skills in all the systems of care in which older adults receive care: the home, clinical office, adult day care center, assisted living facility, hospital, rehabilitation facility, nursing home, and hospice.

4. Expertise in educational theory and practice, with skill in interdisciplinary collaboration and teaching to facilitate the education of the entire health-care workforce in caring for older adults.

5. Expertise in the design and conduct of basic science research, clinical trials, health services research, clinical epidemiology and other types of clinical investigation that will further the science of aging and health care for the older adult.

After review of the program requirements of the ACGME for fellowship education in internal medicine–geriatric medicine and family medicine–geriatric medicine, the committee concluded that all the elements of education and training that are essential to produce a clinical geriatrician are currently mandated. This conclusion was also supported by responses to a survey sent to the Society for General Internal Medicine (SGIM) Geriatrics Interest Group and the list-serve for family physicians in geriatrics maintained by the Group on Geriatric Education of the Society of Teachers of Family Medicine (STFM).

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**Length of Fellowship**

**Issue No. 2. How many months of clinical training are necessary to complete core training?**

The committee members could reach no consensus on this issue. The point and
counterpoint arguments are presented below.

**Point: Maintain 12 Months of Clinical Training**

The change in duration of fellowships in geriatric medicine from 2 years to 1 year was in large part a response to the dearth of internal medicine and family practice graduates enrolling in geriatrics fellowships. In 1995, for example, only 57% of fellowship positions were filled. Around the same time, the National Study of Internal Medicine Manpower (NaSIMM) found that more than 50% of geriatrics fellowship graduates were graduates of foreign medical schools, in contrast to a decade earlier when most geriatrics fellows were graduates of U.S. medical schools. In 1997–1998 the ABFM and ABIM as well as the ACGME changed the training requirements from 24 to 12 months.

Following the change to the 1-year training requirements, the fill rate for first-year positions increased to 91%. (The increase may be attributable only to association and not necessarily to causation.) There was great discussion regarding the pros and cons of switching to a 1-year program, but it should be remembered that the switch was for pragmatic reasons, to recruit more trainees into the field. The switch was not driven by a consensus that the 1-year requirement was the optimal length of time for training, but rather that the 2-year requirement was too long to attract a sufficient number of qualified candidates.

Since 1997 there has been considerable experience with 1-year fellowships and continuing experience with 2-year (or longer) programs. Almost one half of all programs offer only 1 year of training, although these tend to be the smallest programs. In 2001–2002, only 23% of the 338 fellows in training were in a second year or beyond. It appears that those participating in 2-year programs are more likely than 1-year graduates to pursue careers in academic geriatrics and to practice only geriatrics. Even though the switch has been regarded as a mixed blessing, there are those who argue that the switch was a wise move, given the association with an increased number of fellows, perhaps an increase in quality of fellowship applicants, and the success of 1- and 2-year fellows in passing the certificate of added qualifications (CAQ) examination. The trade-off has
been a decrease in funding for second-year positions (because Veterans Affairs and Medicare funding is tied to ACGME program length), perhaps a decrease in the number of individuals pursuing 2 years of training, and an unclear long-term effect on quality.

Unfortunately, there are few objective data to provide guidance in determining how long it actually takes to train a geriatrician. Experts have suggested that, to succeed in an academic career in geriatrics, 2 or more years of training beyond residency is necessary. The unanswered questions remain: (1) Are 12 months of training sufficient for someone pursuing primarily a clinical geriatrics role? (2) Does the 12-month program draw trainees away from the 2-year (or longer) programs, thereby diminishing the number of well-trained geriatricians who pursue academic careers? Regarding the first question, there are few if any objective measures to provide guidance, but the pass rate for 1-year fellows on the CAQ examination (not a validated measure of quality) suggests that 12 months may be sufficient. Geriatrics fellowship program directors as a group, though divided on the question of 12 months versus 24 months, on balance have favored the switch to the 12-month requirement. Although it is also likely that fellows graduating from 24-month (or longer) programs have better clinical training at the time of graduation, it is likely that additional years spent in clinical practice provide sufficient experience to compensate for the lack of 12 months of additional clinical training.

**Counterpoint: 24 Months of Clinical Training Should Be Mandated**

The current 1 year of clinical geriatrics training is insufficient to adequately train physicians to manage the medical complexity often presented by older patients, either in primary care or consultative roles. The length of training should be in line with the breadth of knowledge and experience necessary to master skills at an advanced level. Training in geriatrics includes more clinical sites (e.g., hospice, home, nursing home, rehabilitation facility, office, and hospital) than training in other subspecialties, and it entails much broader content, encompassing all organ systems as well as nonclinical domains, such as interdisciplinary team interactions, the continuum of care, advocacy, and financing of health care for older adults. Compressing these sites of care and extensive content into 12 months produces inadequately trained graduates who are likely
to practice internal medicine or family practice with only modestly improved geriatrics competencies. This shortcoming is critical in geriatrics, where 1 year of experience in long-term and ambulatory care is unlikely to include sufficient exposure to the issues of clinical continuity.

Geriatrics experiences in medical school and residency training are improving, and this will impact the skills of entering geriatrics fellows; however, the knowledge base in geriatrics and gerontology is expanding at an even greater rate. Training small numbers (e.g., 300 to 400 per year) of inadequately trained geriatrics fellows will perpetuate the image of geriatrics as a second-rate field. When geriatricians’ clinical skills and knowledge base are inadequate, they cannot command the respect of colleagues and thereby advocate effectively for changes in physician practice in the care of older patients.

Research Training

Issue No. 3: Should research training be a requirement for all geriatrics fellowships, as it is for most other fellowship programs?

Fellowships in geriatric medicine will not train sufficient numbers of physicians to provide direct clinical care to the growing population of older Americans. The goal therefore of all geriatrics fellowships must be to train physicians who can influence the quality of health care provided to older persons not just within their own individual practices, but more widely. Currently, geriatrics fellowship programs are accredited by ACGME for only 1 year, which is an inadequate amount of time in which to gain research skills and carry out a meaningful traditional research project simultaneously with acquiring comprehensive clinical competencies. Appropriate research areas for geriatrics fellows include health services, epidemiology, clinical outcomes, basic science or laboratory science, and education. However, the committee specifically recommends that geriatrics fellows be required to participate in a scholarly leadership project to develop skills in areas that will improve geriatrics health care delivery and education and thus widen his or her future influence on the quality of health care for older adults.
Intensive nonclinical training in leadership skills should be required in every geriatrics fellowship, with focus on at least one of the following areas: administration and program development, education, health policy, patient safety and quality of care, and research. Some fellowships may have the capacity to train in all areas, but most will choose one or two. Programs training fellows to conduct research to improve the care of older adults (e.g., health services, clinical, basic science, and genetic research) will teach different competencies than programs training fellows to develop, implement, improve, or evaluate clinical programs for older adults. Similarly, different skills are needed by fellows who will teach after graduation and by those who will seek to influence health care policy. Finally, some fellowships will integrate the didactic and experiential teaching of nonclinical competencies throughout the fellowship, but others may provide them in a separate year.

All fellows must be required to conduct a project in one leadership area during the fellowship. The leadership area chosen would relate specifically to the fellow’s career plans after graduation. Time must be provided in the fellowship to conduct leadership projects. This requirement, if adopted by ACGME, might allow reimbursement for research activities that benefit Medicare recipients. A leadership project would be defined as a project of sufficient quality or novelty to be presented at a regional or national meeting appropriate to the topic. Examples of such projects include a pilot research investigation, a systematic review article, the development or evaluation of new curriculum or educational materials, a paper and presentation to influence health care policy, and quality improvement project at a clinical site.

Of note, skills in evidence-based medicine and literature appraisal are not included in this list of leadership skills, as these are already among the essential requirements for fellows in the performance of high-quality clinical practice.
Additional Training

Issue No. 4: Are there areas of geriatrics that warrant additional training sufficient to extend standard fellowship training an additional year?

Several areas in geriatrics may merit a year or more of additional training. Geriatrics training could conceivably be extended an additional year to allow fellows to focus upon one of three career tracks: administration, research, or education. Alternatively, fellows could extend training for an additional year to focus upon palliative care, long-term care, home care, chronic disease management, or health services management. The goals and focus of extended training in each of these areas are summarized below.

Administration

The goal of the training in administration would be to create geriatricians who are skilled in leading health care organizations throughout the continuum of care to which older adults are exposed. Thus, geriatric medicine fellows who select the administration track might be trained through a variety of mechanisms, such as: (1) master’s level programs in public health administration or business; (2) practical experiences such as apprenticeship in medical directorship in a skilled nursing facility, large group practice, or health maintenance organization; or an externship with community agency directors (e.g., a local chapter of the Alzheimer’s Association or Council on Aging); (3) involvement in committees such as ethics, quality improvement, and clinical pathways; (4) linkage with the certified medical directors program under the American Medical Directors Association.

See Appendix B for a list of topics that would be included in a 12-month didactic and experiential curriculum in administration.

Research

Research training would focus on basic science, clinical investigation, social sciences,
clinical epidemiology, ethics, and health services delivery. A sustained mentorship, in addition to basic instruction in research methods, design, and data analysis, would be required. Fellows would learn relevant research methods and gain experience with techniques sufficient to conduct or participate in research as a primary investigator or co-investigator. Most of the knowledge would be acquired through classes or formal coursework (e.g., Master of Public Health, Master of Science in health services research, clinical or basic science research, or clinical epidemiology) in addition to lectures, informal teaching, self-study, seminars, and research conferences. Typically, research training requires at least 24 months beyond clinical training. Those pursuing doctoral training in related basic or applied sciences would require more than 24 months of training. Fellows in research tracks would be required to design, conduct, and present a research project by the completion of fellowship training.

See Appendix B for a list of the core topics for advanced training in geriatrics research.

**Education**

The goal of the training in educational theory and practice would be to create academic geriatrics educators with the expertise necessary to develop and lead educational innovation and change. The additional training would include mentored teaching during these 12 months, as well as the design and implementation of an educational project.

See Appendix B for the topics that would be included in a 12-month didactic and experiential curriculum in education.

**Palliative Care**

All geriatricians should be familiar with the basic principles and practice of palliative care and hospice, but a 1-year geriatrics fellowship does not provide sufficient time to develop expertise in this field, nor will it meet requirements for eligibility for the certification examination in palliative care. Combined 2-year programs that meet the requirements of both geriatrics and palliative care are already in place and offer a logical, attractive method to achieve dual certification. It should also be noted that the ACGME
has convened an ad-hoc Committee for Hospice and Palliative Care Medicine to develop an application for recognition by the ACGME of this new subspecialty.

**Long-Term Care**

Current requirements for designation as a certified medical director from the American Medical Directors Association (AMDA) require coursework and at least 2 years of practice in long-term care and service as a medical director. Geriatrics programs with a strong focus on developing the evidence base for long-term-care medicine might offer an extended fellowship that incorporates the required coursework, clinical experience, and administrative experience and that also provides for the development of research skills in the long-term-care setting.

**Home Care**

It is well known that there are 3 to 4 older adults in the community in need of care for every older adult in a nursing home. The number of community-residing older adults is expected to increase dramatically with the aging of the baby-boomer generation. Thus, there is a role for geriatrics fellows who are particularly interested in advancing the research base in this setting and for programs with particular academic strengths. An additional 1 to 2 years of practice in the home setting, coupled with the development of research skills and a research agenda focused on the issues unique to this setting, would be valuable.

**Chronic Disease Management**

For geriatrics fellows who are interested in developing a research agenda in the management of chronic disease or in moving beyond traditional medical models of care, additional training will be of critical importance. Master’s degrees in public health (MPH or MSPH) or research training focused on the management of specific chronic diseases or on chronic care management issues would be appropriate. In addition, programs with strength in this area could develop unique opportunities to provide advanced clinical and
educational experiences for geriatrics fellows.

Health Services Management

For geriatrics fellows who are interested in the coordination of geriatrics care for a particular health system, additional training such as that available in a masters program in business administration might be useful.

Fellowship Structure and Recruitment Into Geriatrics

Issue No. 5: What changes in the structure or length of fellowship training would make geriatrics a more or less desirable career choice? For example, what would be the impact on recruitment if geriatrics fellowships entailed at least 2 years of training after residency or if a 1-year geriatrics fellowship could be included in the 3 years of medical residency training?

Virtually all members of the ad hoc subcommittee agreed that 9 to 12 months (most chose 12) of clinical training were necessary to expose trainees to the wide variety of problems geriatricians would face in practice. No one favored incorporating geriatrics fellowship into the third year of residency training (the 2 + 1 model), although several liked a 3 + 1 or 2 + 2 combined residency-fellowship model. Several members suggested additional focused training in the second year (e.g., advanced research training, coursework toward AMDA’s certification, additional training in palliative care with eligibility for certification, award of an MPH degree).

A questionnaire was distributed to professional list-serves (i.e., the SGIM Geriatrics Interest Group, ADGAP fellowship directors, and the AGS special interest group in family practice) to address the question of fellowship structure and recruitment into geriatrics. Seventy-seven percent of respondents favored a geriatrics fellowship at least 12 months long. Several commented that a 2-year fellowship would be less desirable because of the additional financial burden of another year of training. High medical school debt combined with low starting salaries, they believe, would deter trainees from
entering the field. Only 27% of respondents favored shortening the training. Seventy-four percent liked the 2 + 2 option. The consensus was that 2+ years of training would be advantageous for those interested in a research career and that 1 year of training would be appropriate for those headed for geriatrics practice.

The University of Missouri conducted two focus groups of family and community medicine residents—one group consisting of 6 trainees interested in geriatrics (geriatrics-positive group) and the second group consisting of 18 residents not interested (uninterested in geriatrics group). Not surprisingly, the uninterested group did not want the family medicine residency “tampered with,” whereas the geriatrics-positive group favored a “geriatrics track” within family medicine. Many of the residents in both groups felt that either a 1-year fellowship after residency or a 2 + 2 combination would be attractive to some family medicine residents, especially the 2 + 2 model since it would offer better training in the continuity of care. There was no interest in obtaining an MPH degree. In the opinion of these trainees, loan forgiveness would be an incentive to complete a geriatrics fellowship.

All of the ad hoc subcommittee members, on the basis of their own experience with residents and fellows, believe that a major motivation for residents’ choice of a fellowship in geriatrics is the opportunity it provides to extend clinical training an additional year to increase their confidence in caring for older patients who present with complex medical conditions.

Among residents and faculty alike there is limited interest in lengthening training beyond the current 4 years; however, the possibility of a 2 + 2 program is of interest to both groups. The 2 +1 options were widely seen as inadequate.

**Alternative Pathways for Practicing Physicians**

**Issue No. 6: What types of recognition of expertise in geriatrics could be created for practicing physicians who are unable to leave practice to pursue a full-time geriatrics fellowship?**

At its November 2005 meeting, the Education Committee discussed proposals currently
under consideration by ABIM that would recognize practice focused on a specific setting, population, or disease. The ABIM discussion has been prompted by requests from hospitalist medicine that the Board establish formal recognition for this rapidly growing discipline as well as other disciplines (e.g., HIV) that do not now rely on formal clinical fellowship training. It also is the result of ABIM’s recognizing that medicine is not a static career and that many internists will want to refocus on new areas without leaving practice to engage in full-time fellowship training.

For geriatrics, there was some agreement on the Education Committee that to be a geriatrician, one would need to have completed 3 years of residency plus at least 1 year of either fellowship training; however, recognition of focused practice in care of older person might be possible through a practice pathway as part of maintenance of certification.

Geriatrics would have the option of setting a time frame for when physicians would be eligible (e.g., 10 years beyond completion of their residency). Under this option, the ABIM would establish criteria for recognition of focused practice under its maintenance-of-certification program. For example, a practicing clinician might be required to successfully complete a knowledge module such as the Geriatrics Review Syllabus, complete a practice-improvement module focused on geriatrics, and pass the secure geriatrics examination. In addition, the practitioner would be required to demonstrate experience in dealing with a significant number of geriatric patients in the practice, a requirement resembling the former “grandfathering” requirement. Other possibilities to consider would include demonstration of having met continuing medical education (CME) requirements or participation in “mini-fellowship” clinical tutorials.

There is agreement on the AGS Education Committee that the primary purpose of moving forward with pathways for recognition of focused practice in geriatrics is to provide primary care physicians with additional skills and expertise in geriatric medicine to care for the growing number of elderly patients predicted in coming decades.

There is also consensus on the Education Committee that input and leadership from geriatrics on the exact requirements for these pathways is important and necessary as these discussions evolve. Additionally, if the level of interest among practicing physicians is sufficient and if geriatrics program resources support the creation of
alternative pathways to certification, the committee agrees that AGS should embrace this opportunity to improve the ability of practicing physicians to provide care to elderly patients and should devote resources to assuring trainees access to high-quality curriculum tools. As adult learners, practicing physicians are more likely to respond to programs that meet an identified learning need and that offer an educational experience which will be immediately relevant to their practice. Allowing recognition of focused practice in geriatrics could help practicing physicians to prioritize their learning needs and meet these needs in a time frame that fits their lifestyle and practice needs.

Conclusions and Recommendations

**Issue No. 1: What needs to be covered as core content in a standard geriatrics fellowship?**

Current content in geriatrics fellowships appears to be appropriate to produce clinical geriatricians.

**Issue No. 2: How many months of clinical training are necessary to complete core training?**

The committee members could not reach consensus on this issue.

**Issue No. 3: Should research training be a requirement for all geriatrics fellowships, as it is for most other fellowship programs?**

It was agreed that 1 year is not a sufficient amount of time in which to conduct meaningful traditional research. However, a project designed to assist the fellow in developing leadership skills should be required within the 1-year fellowship program. All geriatrics fellows who intend to complete only 1-year fellowship of fellowship should be required to conduct a scholarly project in administration and program development, education, or health policy. Those who plan to extend training beyond 1 year may focus on research scholarship or pursue more in-depth training in one of the other areas.
Issue No. 4: Are there areas of geriatrics that warrant additional training sufficient to extend standard fellowship training an additional year?

Several areas do warrant an additional year of training: administration, research, education, palliative care, nursing home care, home care, chronic disease management, and health services management. In the opinion of the Education Committee, geriatrics fellowships could conceivably and quite justifiably be lengthened to 2 years to allow for advanced training in these critical areas for the discipline.

Issue No. 5: What changes in the structure or length of fellowship training would make geriatrics a more or less desirable career choice? For example, what would be the impact on recruitment if geriatrics fellowships entailed at least 2 years of training after residency or if a 1-year geriatrics fellowship could be included in the 3 years of medical residency training?

Current data indicate that there is limited interest among residents and faculty in lengthening training beyond the current 4 years; however, the possibility of a 2 + 2 program is of interest to both groups. The 2 + 1 options are seen as inadequate. Physicians are attracted to geriatric medicine as a career choice because of the challenge of caring for patients with complex problems and the pleasure of interacting with older individuals. The cost of medical education, with its inherent debt burden, and the lower relative reimbursement for geriatricians serve as disincentives. Increased opportunities for loan forgiveness might attract more residents to training in geriatrics fellowships.

Issue No. 6: What types of recognition of expertise in geriatrics could be created for practicing physicians who are unable to leave practice to pursue a full-time geriatrics fellowship?

The Education Committee agrees that the primary purpose for moving forward with a recognition of focused practice in geriatrics is to provide primary care physicians with additional skills and expertise in geriatric medicine to care for the growing number of elderly persons. Additionally, there is consensus that input and leadership from geriatrics
on the exact requirements for focused practice in geriatrics is important, even necessary, as the discussions among the certifying bodies about these pathways evolve.

The Next Steps

The purpose of this document is to elucidate the components of fellowship training in which every trainee in geriatric medicine should demonstrate competency. It was not the province of the Education Committee to determine the optimum time frame for the acquisition of this knowledge and skill base. We recognize the diversity of foci and opinions among experts in the discipline, and we have attempted to address the prevailing questions about fellowships in geriatric medicine so as to identify answers that can be applied realistically. Additional research—for instance, a survey of practicing geriatricians in both clinical and academic settings to determine competencies that must be acquired during fellowship training for successful practice in geriatrics—might lead to further improvements in fellowship programs. Although steps like this would require resources and time, we believe that the investment would lead to a cadre of fellowship-trained physicians in geriatric medicine who would serve as the next generation of leaders in the field.

References


Appendix A: Fellowship Questionnaire Results

The following tables summarize the responses to the questions in a survey administered to fellows in geriatric medicine who attended the 2005 AGS annual meeting, comparing the responses of those in 1-year, 2-year, and >2-year programs.

1. After completing geriatrics fellowship, what type of career do you plan to enter?
   42 fellows in 1-year fellowships responded to the question.
   21 fellows in 2-year fellowships responded to the question.
   10 fellows in >2-year fellowships responded to the question.

<table>
<thead>
<tr>
<th>Possible Responses</th>
<th>1-year fellowship</th>
<th>2-year fellowship</th>
<th>3-year fellowship</th>
</tr>
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<tbody>
<tr>
<td>Academics as clinician-scientist (researcher)</td>
<td>3 7%</td>
<td>4 19%</td>
<td>7 70%</td>
</tr>
<tr>
<td>Academics as clinician-educator</td>
<td>18 43%</td>
<td>14 67%</td>
<td>2 20%</td>
</tr>
<tr>
<td>Clinical practice</td>
<td>21 50%</td>
<td>4 19%</td>
<td>0 0%</td>
</tr>
<tr>
<td>Further training</td>
<td>2 5%</td>
<td>2 10%</td>
<td>1 10%</td>
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<tr>
<td>Other</td>
<td>2 5%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
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2. How well do you believe your program will prepare you for your future job?
   42 fellows in 1-year fellowships responded to the question.
   21 fellows in 2-year fellowships responded to the question.
   10 fellows in >2-year fellowships responded to the question.

<table>
<thead>
<tr>
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<th>1-year fellowship</th>
<th>2-year fellowship</th>
<th>3-year fellowship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very well</td>
<td>16 38%</td>
<td>10 48%</td>
<td>7 70%</td>
</tr>
<tr>
<td>Fairly well, but certain things I will have to learn on my own</td>
<td>26 62%</td>
<td>11 52%</td>
<td>3 30%</td>
</tr>
<tr>
<td>Poorly</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
<tr>
<td>Not at all</td>
<td>0 0%</td>
<td>0 0%</td>
<td>0 0%</td>
</tr>
</tbody>
</table>

3. Please check all of the certificates/degrees/board certifications you currently possess or will possess at the completion of your geriatrics fellowship.
42 fellows in 1-year fellowships responded to the question.
21 fellows in 2-year fellowships responded to the question.
10 fellows in >2-year fellowships responded to the question.

<table>
<thead>
<tr>
<th>Possible Responses</th>
<th>1-year fellowship</th>
<th>2-year fellowship</th>
<th>3-year fellowship</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABIM—Internal Medicine</td>
<td>23 55</td>
<td>17 81</td>
<td>10 100</td>
</tr>
<tr>
<td>ABFP—Family Medicine</td>
<td>17 40</td>
<td>1 5</td>
<td>0 0</td>
</tr>
<tr>
<td>MPH</td>
<td>1 2</td>
<td>1 5</td>
<td>2 20</td>
</tr>
<tr>
<td>MBA</td>
<td>0 0</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>PhD</td>
<td>2 5</td>
<td>1 5</td>
<td>0 0</td>
</tr>
<tr>
<td>Other degree</td>
<td>2 5</td>
<td>5 24</td>
<td>0 0</td>
</tr>
<tr>
<td>Other certification</td>
<td>2 5</td>
<td>4 19</td>
<td>0 0</td>
</tr>
</tbody>
</table>

4. Please indicate if you plan to pursue other certificates/degrees in addition to your CAQ in geriatrics.

27 fellows in 1-year fellowships responded to the question.
11 fellows in 2-year fellowships responded to the question.
8 fellows in >2-year fellowships responded to the question.

<table>
<thead>
<tr>
<th>Possible Responses</th>
<th>1-year fellowship</th>
<th>2-year fellowship</th>
<th>3-year fellowship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Palliative Medicine</td>
<td>12 44</td>
<td>6 55</td>
<td>2 25</td>
</tr>
<tr>
<td>CMD—Certified Medical Director</td>
<td>14 52</td>
<td>5 45</td>
<td>2 25</td>
</tr>
<tr>
<td>MPH</td>
<td>6 22</td>
<td>2 18</td>
<td>1 13</td>
</tr>
<tr>
<td>MBA</td>
<td>2 7</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>PhD</td>
<td>1 4</td>
<td>0 0</td>
<td>0 0</td>
</tr>
<tr>
<td>Other medical subspecialty</td>
<td>1 4</td>
<td>1 9</td>
<td>3 38</td>
</tr>
<tr>
<td>Other</td>
<td>2 7</td>
<td>1 9</td>
<td>1 13</td>
</tr>
</tbody>
</table>

5. If fellowship requirement for geriatrics was increased to a mandatory 2 years of training, what effect would this have had on your decision to enter geriatrics?

41 fellows in 1-year fellowships responded to the question.
21 fellows in 2-year fellowships responded to the question.

10 fellows in >2-year fellowships responded to the question.

<table>
<thead>
<tr>
<th>Possible Responses</th>
<th>1-year fellowship</th>
<th>2-year fellowship</th>
<th>3-year fellowship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Would have been less enthusiastic but would have entered fellowship</td>
<td>10</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>Would not have entered fellowship</td>
<td>14</td>
<td>34</td>
<td>2</td>
</tr>
<tr>
<td>No effect on my decision to enter geriatrics</td>
<td>17</td>
<td>42</td>
<td>18</td>
</tr>
</tbody>
</table>

6. How enthusiastically do you advise junior colleagues to pursue a geriatric medicine fellowship?

41 fellows in 1-year fellowships responded to the question.

20 fellows in 2-year fellowships responded to the question.

10 fellows in >2-year fellowships responded to the question.

<table>
<thead>
<tr>
<th>Possible Responses</th>
<th>1-year fellowship</th>
<th>2-year fellowship</th>
<th>3-year fellowship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Very enthusiastically</td>
<td>21</td>
<td>51</td>
<td>11</td>
</tr>
<tr>
<td>Enthusiastically</td>
<td>20</td>
<td>49</td>
<td>9</td>
</tr>
<tr>
<td>Not at all</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

7. If the fellowship requirement for geriatrics was increased to a mandatory 2 years of training, how enthusiastically would you advise junior colleagues to pursue a geriatric medicine fellowship?

42 fellows in 1-year fellowships responded to the question.

20 fellows in 2-year fellowships responded to the question.

9 fellows in >2-year fellowships responded to the question.

<table>
<thead>
<tr>
<th>Possible Responses</th>
<th>1-year fellowship</th>
<th>2-year fellowship</th>
<th>3-year fellowship</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Very enthusiastically</td>
<td>13</td>
<td>31</td>
<td>12</td>
</tr>
<tr>
<td>Enthusiastically</td>
<td>25</td>
<td>59</td>
<td>7</td>
</tr>
<tr>
<td>Not at all</td>
<td>4</td>
<td>10</td>
<td>1</td>
</tr>
</tbody>
</table>
Appendix B: Potential 2nd-Year Training Tracks

Administration

A 12-month didactic and experiential curriculum for a second year of geriatrics fellowship training in administration could include the following topics:

**Basic Health-Care Management**

1. Leadership skills
2. Team building
3. Recruiting, interviewing, and retaining employees
4. Improving performance
5. Providing feedback and holding critical conversations
6. Improving meeting effectiveness
7. Creating clinical outcome measures
8. Solving and preventing problems (individual and group)
9. Creating performance-based appraisals; establishing management controls
10. Managing projects
11. Making presentations to the business and health-care community
12. Preparing and implementing a budget
13. Managing population and individual care
14. Developing strategies for advance directives and preventing futile care
15. Managing time
16. Training in total quality improvement, management
17. Developing strategic plans
18. Managing long-term-care
19. Training in medical directorship, administration of the nursing home
20. Billing and finance

**Health Services Organization and Delivery**

1. Medical care systems structure and the U.S. hospital system
2. Private practice, health maintenance organizations, independent practice associations, preferred provider organizations
3. Funding methods for medical care
   a. Sources of funds, third-party payers (e.g., Medicare, T18, T19, CHAMPUS)
   b. Distribution of funds: recent control by managed care methods (e.g., preadmission review, current stay review, emergency department admission review, second opinions, case managers, gatekeepers, physician incentives, quality of care, cost-effective care)

**Research**

Core topics for a second year of geriatrics fellowship training in research would include the following:

**Basic Biostatistics and Epidemiology With Clinical Applications**

1. Sensitivity and specificity; predictive values
2. False-positive and false-negative error rates
3. Introduction to the 2 \( \times 2 \) contingency table
4. Risks and rates:
   a. Measures of incidence and prevalence
   b. Standardization techniques (e.g., age standardization)
   c. Relative risk; odds ratio; attributable risk; differences between relative and absolute risk
   d. Bayes’ theorem
5. Type I error; type II error
6. \( P \) value
7. Standard deviation
8. Standard error
9. Confidence intervals
10. Hypothesis testing
a. One-tailed and two-tailed tests
b. t-test; paired t-test
c. Chi-square test
d. Nonparametric tests
e. Survival analysis; life table analysis
f. Sample size calculation; power

**Study Design in Clinical Research**

1. Internal and external validity; confounding; matching; stratification; effect modification
2. Research methods: randomized controlled trials; variations of case-control and cohort studies; meta-analysis
3. Critical review of the literature
4. Data collection
5. Data analysis
6. Abstract and paper presentation
7. Grant writing, including budgets and budget justification
8. Project management
9. Oral and written presentation of scientific data
10. Ethical aspects of research; the role of the institutional review board
11. Evidence-based medicine: rationale and utility

**Funding Issues**

1. National Institute of Aging (NIA) and National Institutes of Health (NIH) grant mechanisms and review
2. Foundations supporting geriatrics research

**Education**

A 12-month didactic and experiential curriculum for a second year of geriatrics fellowship training in education could include the following topics:
1. Historical issues in medical education
2. Principles of adult learning
3. Adult learning in the clinical setting
4. Curricular issues in medical education; ACGME requirements and core competencies
5. Research methods in medical education
6. Platform speaking skills
7. Methods for proving feedback
8. Working with the problem trainee
9. Instruction in the ambulatory setting
10. Instruction in the inpatient setting
11. Small-group facilitation and interactive discussion techniques
12. Case-based teaching
13. Effective role-playing techniques
14. Teaching procedural skills
15. Effective use of educational technology
16. The literature of medicine
17. Reflections on doctoring and teaching
18. Evaluation of trainee competency
19. Evaluation of medical education programs and curriculum
20. Evaluation of the clinician educator
21. The peer-review process
22. Scholarship reconsidered and assessed: the educator portfolio
23. Funding of medical education
24. The clinician-educator as mentor
25. Publishing and funding the clinician-educator’s work
26. Leadership and negotiating skills
27. Effective committee leadership
28. Leadership for professional development and institutional change
29. Medical education reform
30. Continuing medical education