

A Better Understanding of Geriatric Medicine New York Chapter, American College of Physicians August 2018

The American College of Physicians (ACP) states that geriatric-trained physicians are specifically trained in the physiologic, pathological and psychosocial changes associated with aging.¹ Geriatricians are trained experts in managing complex illnesses, multiple co-morbidities, frailty, cognitive disorders and a multitude of geriatric syndromes in the aging population. Geriatricians are skilled in the recognition of asymptomatic and atypical presentations which occur in the elderly. Geriatric specialists also provide comprehensive medication management including recognizing adverse drug events, reducing polypharmacy,^{2,3} and de-prescribing.⁴ Additionally, geriatricians masterfully address complex end of life issues and provide care in multiple settings with a focus on effective transitions of care. While there is some overlap between geriatrics and general internal medicine, significant differences exist in areas pertinent to patient care, research, training, and administrative initiatives. Geriatric medicine experts can provide primary care or consultative geriatric care in a multitude of settings. Geriatricians work exceptionally well as part of an interdisciplinary health care team, particularly because over half of the older persons manifest multiple morbidities, and many elderly need to make decisions with the aid of caregivers. The holistic approach of a geriatric health care team is particularly well suited for the evaluation and development of a healthy aging plan.

Geriatricians are also specially trained in the skilled nursing home environment including providing care to both long term residents and post-acute care patients, as well as in the wide-ranging regulations under which the nursing facilities operate. A study on the geriatric workforce capacity indicates a pending crisis pertinent to the care of nursing home residents; the study demonstrates that the geriatric physician workforce in the United States has actually decreased from 10,270 in the year 2000 to 8,502 in 2010.⁵ This has caused a decline of the already insufficient supply of geriatricians for this extremely vulnerable nursing home population. Geriatricians are experts in prognostication and assessing risk and benefits of various medical interventions such as use of feeding tubes, mechanical ventilation, and hospitalization. Furthermore, geriatricians are training in communication skills and setting realistic expectations with patients and families. With a dearth of geriatricians available to work in the nursing home environment, we face a mounting crisis in the quality of geriatric medical care in the nursing home settings as well as other health care environments.

How is Geriatric Medicine Different?

The geriatrician's expertise is in management of patients with multiple complex conditions, diagnosing geriatric syndromes and avoiding pitfalls of disease-specific guidelines which often do not properly address the complexity of patients of advanced age. Geriatricians are experts in diagnosis and management of cognitive disorders and related behavioral symptoms. Geriatricians are skilled in the diagnosis of diseases with atypical presentations which are common among older patients. Failure to recognize such atypical presentation generally leads to worse outcomes, overutilization of resources, and implementation of inappropriate treatment.

Geriatricians are experts in diagnosing managing Alzheimer's dementia, vascular dementia and other causes of cognitive decline along with related psychiatric symptoms. Additionally, Geriatricians have a comprehensive and thoughtful approach to balancing risk versus benefits for testing and interventions such as surgery for complex geriatric patients which incorporates prognosis, life expectancy, and patient's own value system. Geriatricians stress that the optimal treatment is the one centered on the patients' goals and expectations. Patients are encouraged to engage in their own care even in the late stages of diseases to support a sense of control and well-being. Geriatricians are experts in end-of-life care as well. Geriatrician-led interdisciplinary teams improve quality of care and acute care utilization.^{6,7}

Systematic reviews have shown that Comprehensive Geriatric Assessments (CGAs) improve patient outcomes. A Cochrane review of CGAs identified 22 randomized trials and found that patients who received a CGA in acute care settings were more likely to return to their home, have improved cognitive functioning, and a lower risk of mortality compared to usual care.⁸ Similarly, in outpatient care, compared to usual care, CGAs reduced functional decline and admissions to nursing homes.⁹ Geriatrician-led CGAs in rehabilitation settings had similar benefits when compared to usual care.¹⁰

A recent study demonstrated the value of geriatric physicians as consultants for primary care providers to the elderly. Community dwelling elderly who become unable to live independently due to functional decline are often referred for rehabilitation care at a nursing home or to an outpatient clinic. A study was conducted in which these patients received a comprehensive geriatric assessment by a geriatrician to evaluate for geriatric multi-morbidity and determine need for hospital admission.¹¹ Of 32 patients assessed by the geriatrician, 25% required admission to a hospital either due to illness or suspected neurological disorders needing additional treatment and further diagnosis.¹¹ This demonstrated that geriatric assessment prior to rehabilitation referral is essential to identify illnesses that may warrant hospitalization for evaluation, treatment and patient optimization prior to long term care placement.¹¹ Geriatrics expertise helps to identify the difference between a reversible functional decline caused by illness or adverse drug reactions rather than irreversible because of the a progressive neurodegenerative process. Certain causes of cognitive, psychiatric or functional decline are reversible if treated appropriately rather than being dismissed as age related. However, many non-geriatricians lack the expertise, training, support staff and time to conduct these necessary and valuable assessments.

Furthermore, evidence suggests that subspecialty geriatric physicians render more efficient care to complex elderly patients. In a study of patients aged 65 and older in two hospitals, geriatricians were compared to general internists in terms of length of patient stay and total hospitalization cost. Geriatricians were more efficient than other physicians in managing the elderly. Care provided by geriatricians had lower costs per admission and a shorter length of stay, without compromising outcomes.⁷

Another study evaluated emergency department (ED) use when care prior to admission was provided by a geriatrician in the community or nursing home. A large retrospective cohort study of fee-for-service Medicare beneficiaries aged 66 and older (N = 287,259) from 2004 to 2007

were followed for three years. The study showed that being under the care of a geriatric physician was associated with an estimated 11.3% lower ED use.¹² There were 108 fewer ED visits per 1000 community older adults, and 133 fewer ED visits per 1000 nursing home residents per year when their provider had geriatrics training.¹² The data is remarkable, showing better quality care as well as substantial cost savings. The authors suggested that geriatric consultative care in collaboration with primary care providers may as effective in reducing emergency department use as geriatric primary care.¹² This suggests using Geriatrics Consultative care in the primary care setting for higher-risk patients as a partial solution to the geriatrician shortage situation.

Health systems across the world are examining how they provide acute hospital-level care to older adults to address managing a growing elderly population. In recognition of the expertise of geriatric physicians, a multi-site randomized trial is underway to assess whether high-risk elderly patients can have reduced hospitalizations when under the care of a geriatrician with a care model called “admission avoidance hospital at home”.¹³ Patients recruited are adults 65 and over with markers of frailty, dependence due to functional decline, delirium and dementia, in and includes patients with health crises (sudden onset of chronic illness, deterioration in the context of multiple health problems and acute exacerbation of a chronic condition). Participants are randomized, with the primary endpoint ‘living at home’ measured at 6 and 12 months.¹³ If this study demonstrates that geriatrician-led “hospital at home” is a safe and cost-effective alternative to hospitalization, which has significant ramifications for revenue saving and improved patient outcomes through avoiding hospitalization which provides exposures to multi-drug resistant organisms and increased risk for subsequent nursing home placement.¹⁴

Current and Projected Needs for Geriatricians

Medical advancements over the past century have doubled the life expectancy for Americans, which is responsible the unprecedented growth of the older population. Today, Americans 65 years and older are the fastest growing population segment comprising 46 million people.¹⁵ By 2030, 1 in 5 Americans – over 71 million – will be eligible for Medicare.^{16,17} As our population is aging, the accumulated burden of disease will increase for chronic and degenerative diseases with associated disabilities, such as dementia, congestive heart failure and osteoarthritis, which commonly affect geriatric patients. Due to their additional training and specialized approach to care, geriatricians are best equipped to handle the complexity of multiple illnesses while maintaining a focus on improving physical function and quality of life.¹⁸

In fact, the first of 78 million baby boomers are already over age 65, and it is estimated that approximately 30% of this group will require geriatric specialty care.¹⁹ Currently, there are approximately 7,300 board-certified geriatricians in the United States - approximately 1.07 geriatricians per 10,000 elderly patients – and based on 2014 surveys, only 736 geriatricians practice in the State of New York.¹⁷ The American Geriatrics Society (AGS) estimates that one geriatrician can serve approximately 700 patients.^{19,20} In New York State, one of the better-served states in the US, it is expected the 65+ population will be about 4 million by 2030, with 1.2 million elderly in need of geriatric care.^{19,20} To meet this demand, 943 new geriatricians will have to be trained over the next 15 years to fill this projected clinical care gap for New York.^{19,20}

Nationally, the number of geriatricians in practice is approximately 7,300 (as of 2016) which is woefully short of our current needs. The American Geriatrics Society estimates that high quality patient-centered care for the elderly will require about 30,000 geriatricians nationally by the year 2030.²⁰

The gap in needed geriatric care for the United States will not be sufficiently addressed by internal medicine and family practitioners alone. The total U.S. physician demand is projected to grow by 17% by 2025, with a projected shortfall of 35,600 physicians in primary care specialties.¹⁹ The widening gap between the supply and demand for primary care providers may be further broadened for those physicians choosing to specialize in geriatric medicine due to less than optimal reimbursement for provision of this complex care.

A geriatrician has been trained through four years of Medical School, at least three years of internal medicine or family practice residency and at least one to two years of fellowship. When they finish their training they depend on Medicare reimbursement to compensate them for the extra time and attention they give to their elderly patients. Yet recent budget plans propose \$554 billion cut in Medicare spending over the next decade.²¹ With the elimination of the Public Service Loan Forgiveness Program and \$451 million cuts for health training programs, including the Geriatrics Workforce Enhancement Program, we can anticipate only further decline in physicians choosing geriatrics as a career choice.

The average geriatrician in the US makes about \$184,000 per year, often less, especially if in academic medicine. Although, it may sound like a reasonable salary, it is the fourth lowest paid specialty in medicine, despite geriatric specialty being is labor and time intense. In fact, it is almost \$20,000 less per year than internal medicine colleagues who did not complete an additional year of subspecialty fellowship training. Geriatricians, like other specialists (who are better paid), have a significant debt burden from medical school, and the same expenses associated with the requirements of additional board certification and maintenance of certification.

What Does Additional Training in Geriatrics Involve?

Geriatric medicine curricular milestones have been identified for medical students and residents in Internal and Family Medicine so learners receive some geriatrics training using the competency based model.²² To complete a fellowship in geriatrics requires one year of additional training after 3 years of Internal Medicine or Family Practice residency, with the goal of gaining the knowledge and expertise required to provide comprehensive care to the older adult across a variety of settings. Fellows in geriatric medicine gain expertise in caring for and guiding older adults through different stages of aging and frailty. By extension, fellows in geriatrics learn how to help older adults and their families understand these transitions and approach them with care, compassion and pragmatism.

In 2013 the American Geriatric Society (AGS) and the Association of Directors of Geriatric Academic Programs (ADGAP) published 12 areas to describe the core work for proficiency as a geriatrician by the end of fellowship training.²³ These core “Entrustable Professional Activities” (EPAs) emphasize the broad vision and thoughtfulness necessary to provide care to older

adults with complex medical comorbidities across care settings. To meet these goals, fellows in geriatric medicine train in a variety of different settings including acute care hospitals, nursing homes, ambulatory care practices, community centers, and in the patient's home. Training includes exposure beyond the basic residency experience for internists or family medicine physicians in gero-psychiatry, palliative care, interdisciplinary team based care, neurology, nutrition, and pharmacology as it relates to older adults and aging.²³

Trends in Geriatric Medicine Fellowship Training

In 1988, specialization in Geriatric Medicine was granted in the form of a "certificate of added qualifications," and was available via fellowship or the "practice experience pathway". In 1994 the "practice pathway" was phased out and a two-year fellowship program was the only route to certification. In 1998, recognizing that few physicians were choosing geriatrics as a career path, the requirement for fellowship was shortened to one year in the hopes of expanding the applicant pool. In 2006, the ABIM formally recognized geriatrics as a subspecialty of Internal Medicine, rather than a "certificate of added qualifications" with hopes that this would elevate the value of geriatrics in the eyes of the general public and professional groups. Additionally, graduates of Family Medicine residencies have been able to earn a "certificate of added qualification" in Geriatric Medicine since 1988. Unfortunately, these strategies have not been successful and fellowships in Geriatric Medicine still lack sufficient applicants.

The Association of Directors of Geriatric Academic Programs (ADGAP) was founded in 1990 to stimulate and expand interest in geriatric education and research. In 2013, Geriatric Medicine joined the National Resident Matching Program (NRMP) Specialties Matching Service, ending the open and often cut-throat application process of rolling interviews and acceptance. An open match program levels the field for applicants and programs by allowing candidates to interview at all programs they are interested in and then ranking by preference. However, although the ADGAP/AGS have been working towards 100% participation in the Match, there is not full participation by fellowship programs nationwide. In 2017, 15 programs did not participate in the match at all, and 6 programs placed only a portion of their spots in the match.

In the match year for fellowship starting in July 2017, there were 141 geriatric fellowship programs participating in the NRMP match with 401 positions available through the match. The results were dismal with only 34 programs (24%) filling all of their positions through the match. There were 222 geriatric fellowship positions that were unmatched, which accounts for more than half of all of the 401 available fellowship spots. This trend has been consistent with having a range of 0.4 to 0.6 applicants per position from 2014 – 2017. This is in sharp contrast to Gastroenterology with 1.5 applicants per position and Cardiology with 1.3 applicants per position.²⁴

Unfortunately, there has been consistently abysmal fellowship recruitment for years, with only 61-70% of spots ultimately being filled through the match and post-match "scramble" in the academic years 2012-2014.²⁴ In the NRMP's 2015 subspecialty Match, 198 (56%) of 353 geriatric medicine fellowship positions remained unfilled, and only 68 (19%) of the available positions were filled by graduates of U.S. medical schools.²⁵ Another alarming trend is the loss of ACGME accredited geriatric medicine fellowship spots from 509 in 2013/4 to 478 in 2016/7.

As teaching hospitals continue to have vacant geriatric fellowship spots, they may close the geriatrics training spots and transfer them to more lucrative and competitive fields like cardiology, gastroenterology, or palliative medicine.

Identification of Barriers for Geriatric Medicine Recruitment

In addition to substantially declining recruitment of trainees to geriatric medicine, experts expect a future shortage of academic geriatricians. Academic geriatricians are needed to provide educational training to all levels of medical education as well as to conduct geriatric medicine research.¹⁸ Lack of exposure to geriatrics and the scarcity of positive role models have been identified as contributors to lack of interest in Geriatric medicine by medical students.²⁶ While practicing Geriatricians enjoy the challenges of caring for complex elderly patients, studies have shown that many medical students are “not comfortable with ambiguity” when managing complex patients and feel themselves overwhelmed by the poor health, number of medical problems, atypical disease presentation, and polypharmacy in the elderly.²⁶ Students also report assessing and managing a geriatric patient is too time-consuming.²⁶ These students had not exposed to elderly patients under the tutelage of a Geriatrician or specific geriatrics clerkship experience, but were exposed to older adults through other rotations. As such, they lacked the potentially rewarding experience of learning to manage complex elderly patient under the guidance of experts. Research found that when students and residents learned how to manage complicated elderly patients, they found it “rewarding”.²⁶ Exposure to proper education and learning opportunities can convert a daunting experience into a gratifying one. Additionally, opportunity exists to identify students who already appreciate the geriatric-friendly values and encourage and aid them to enter the field of Geriatric Medicine.

How Can We Address the Gap?

The need for an increase in expertly trained and passionate providers of geriatric care is clear. The way forward to achieve that goal must be innovative, multifaceted, and robust. Enhanced undergraduate as well as medical school and residency exposure to the discipline may increase interest in geriatric medicine as a career and influence elder care.²⁷ The challenge in geriatric education is to demonstrate the non-financial rewarding aspects of practicing the specialty while efforts are made to improve reimbursement in the field. A cross-sectional multicenter study demonstrated that a geriatric medicine elective during internal medicine residency was independently associated with positive attitudes towards older people.¹⁸ NYACP and national ACP have endorsed the need for appropriate education and exposure to the field of geriatric medicine across the educational continuum and are working with other stakeholders such as the American Geriatrics Society to achieve this goal.

Other strategies to promote the growth of this critical workforce will need to include improved reimbursement for the complex care provided. Young physicians who are often completing residency training with large debt from undergraduate as well medical school education will not have the luxury to choose a specialty field that is poorly reimbursed in comparison with others they may opt for. We, as current and future patients, caregivers, family members, physicians and voters, must advocate for a fair and reasonable restructuring of reimbursement to minimize the financial disadvantage which exists for those who provide care to complex elderly patients. Additionally, innovative programs such as loan forgiveness and practice start up assistance for

those choosing to practice geriatrics would likely increase fellowship recruitment as well as retention in practice.

In summary, Geriatric Medicine is different than Internal Medicine. The New York ACP Geriatrics Task Force strongly supports the growth of geriatric medicine by advocating for improved training in geriatric medicine at all levels, better reimbursement for providers, better recruitment systems for geriatric fellowship programs, loan forgiveness, and greater appreciation for this critical, complex and rewarding specialty.

This paper was developed by the New York ACP Geriatrics Task Force:

Paula Lester, MD, FACP, CMD

Leslie Algase, MD, FACP

Sharon Brangman, MD, FACP

Tina Dobsevage, MD, FACP

T.S. Dharmarajan, MD, MACP

Daniel King, MD

John Maese, MD, MACP

Ida Messana, MD, FACP

Donna Seminara, MD, FACP

Anita Szerszen, MD, FACP

Pooja P. Vyas, DO

Eleanor Weinstein, MD, FACP

References

1. <https://www.acponline.org/about-acp/about-internal-medicine/subspecialties/additional-training-options/geriatric-medicine> Accessed 4/24/18
2. Barenholtz LH, Marcus EL. Potentially inappropriate medications in older adults: Why the Revised Criteria matter. *Ann Pharmacother.* 2016;50 (7):599-603
3. Dharmarajan TS, Davuluri S. Prescribing medications for older adults: Dealing with obesity, misuse, polypharmacy and adverse drug events. In Wylie-Rosett J, Jhangiani S eds. *Obesity and Disease in an Interconnected World: A Systems Approach to Turn Huge Challenges into Amazing Opportunities* Bentham Science Publishers. 2015;281-305.
4. Page AT, Clifford RM, Potter K et al. The feasibility and effect of deprescribing in older adults on mortality and health: a systematic review and meta-analysis. *Br J Clin Pharmacol.* 2016;82(3): 583-623.
5. Lee, WC & Sumaya CV *Front Public Health.* Geriatric Workforce Capacity: A Pending Crisis for Nursing Home Residents. 2013; 1: 24.
6. Counsell SR, et al. Geriatric Care Management for Low-Income Seniors. A Randomized Controlled Trial *JAMA.* 2007;298(22):2623-2633.
7. Sorbero ME, Saul MI, Liu H, Resnick NM. Are geriatricians more efficient than other physicians at managing inpatient care for elderly patients? *J Am Geriatr Soc.* 2012;60:869-76.
8. Ellis G, Whitehead MA, O'Neill D, Langhorne P, Robinson D. Comprehensive geriatric assessment for older adults admitted to hospital. *Cochrane Database Syst Rev.* 2011;(7).
9. Stuck AE, Egger M, Hammer A, Minder CE, Beck JC. Home visits to prevent nursing home admission and functional decline in elderly people: systematic review and meta-regression analysis. *JAMA.* 2002;287(8):1022–8.
10. Bachmann S, Finger C, Huss A, Egger M, Stuck AE, Clough-Gorr KM. Inpatient rehabilitation specifically designed for geriatric patients: systematic review and meta-analysis of randomised controlled trials. *BMJ.* 2010;340:c1718.
11. Goos-Peek N¹, De Lange GD, Diraoui SB, van Maarschalkerweerd WWA, de Jonghe A. The added value of clinical geriatric assessment prior to geriatric rehabilitation. *Neth J Med.* 2017 Dec;75(10):443-447.
12. D'Arcy LP, Stearns SC, Domino ME, Hanson LC & Weinberger M. Geriatric Care Associated with Reduced Emergency Department Use? *Am Geriatr Soc. J Am Geriatr Soc.* 2013 Jan; 61(1): 4–11.
13. Shepperd S, Craddock-Bamford A, Butler C, et al. A multi-centre randomised trial to compare the effectiveness of geriatrician-led admission avoidance hospital at home versus inpatient admission. *Trials.* 2017 Oct 23;18(1):491.

14. Goodwin, JS, Howrey B, Zhang DD, Kuo YF. Risk of Continued Institutionalization After Hospitalization in Older Adults. *J Gerontol A Biol Sci Med Sci*. 2011 Dec; 66A(12): 1321–1327.
15. www.prb.org/Publications/Media-Guides/2016/aging-unitedstates-fact-sheet.aspx - Accessed on February 28, 2018
16. <https://www.americangeriatrics.org/geriatrics-profession/about-geriatrics/geriatrics-workforce-numbers>. Accessed August 1, 2018
17. https://www.americangeriatrics.org/sites/default/files/inline-files/Projected-Future-Need-for-Geriatricians_1.pdf. Accessed on August 1, 2018
18. Golden AG, Silverman MA, Issenberg SB. Addressing the Shortage of Geriatricians: What Medical Educators Can Learn From the Nurse Practitioner Training Model *Academic Medicine*: September 2015 - Volume 90 - Issue 9 - p 1236–1240.
19. Cantor, MD. We need More Geriatricians, Not More Primary Care Physicians catalyst.nejm.org/need-more-geriatricians-primary-care, June 28, 2017.
20. Fried LP & Hall WJ. Leading on Behalf of an Aging Society. *JAGS* 2008; 56:1791-1795.
21. Wasik J. “Why GOP Is Slashing Medicare.” *Forbes*, Forbes Magazine, 13 Feb. 2018.
22. Williams BC, Warshaw G, Fabiny AR et al. Medicine in the 21st century: Recommended essential geriatrics competencies for internal medicine and family medicine residents. *J Grad Med Educ*. 2010;2:373-383.
23. Leipzig RM. et al. “What is a Geriatrician? American Geriatrics Society and Association of Directors of Geriatric Academic Programs End-of-Training Entrustable Professional Activities for Geriatric Medicine.” *JAGS*, 62: 924-929, 2014.
24. <http://www.nrmp.org/wp-content/uploads/2018/02/Program-Results-2014-2018.pdf> Accessed August 1, 2018.
25. National Resident Matching Program. Results and data: Specialties Matching Service, 2015 appointment year. <http://www.nrmp.org/wp-content/uploads/2015/02/Results-and-Data-SMS-2015.pdf>. Accessed May 21, 2015.
26. Meiboom, AA, deVries H, Hertogh CMPM, Scheele F. *BMC Med Educ*. Why medical students do not choose a career in geriatrics: a systematic review. 2015; 15: 101.
27. Ni'Chroinin D, Cronin E, Cullen W et al. Would you be a geriatrician? Student career preferences and attitudes to a career in geriatric medicine. *Age Ageing*. 2013; 42: 654-7.