AMERICAN ACADEMY™ OF OPHTHALMOLOGY

Integrating the Internship into Ophthalmology Residency Programs

Association of University Professors of Ophthalmology American Academy of Ophthalmology White Paper

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Future ophthalmologists will need to have broad skills to thrive in complex health care organizations. However, training for ophthalmologists does not take advantage of all of the postgraduate years (PGYs). Although the traditional residency years seem to have little excess capacity, enhancing the internship year does offer an opportunity to expand the time for ophthalmology training in the same 4 PGYs. Integrating the internship year into residency would allow control of all of the PGYs, allowing our profession to optimize training for ophthalmology. In this white paper, we propose that we could capture an additional 6 months of training time by integrating basic ophthalmology training into the intern year. This would allow 6 additional months to expand training in areas such as quality improvement or time for "mini-fellowships" to allow graduates to develop a deeper set of skills. *Ophthalmology 2016;123:2037-2041 © 2016 by the American Academy of Ophthalmology.*

Ophthalmologists face an increasingly complex medical and economic environment. Future delivery of eye care will place a premium on value—both resource use (cost) and quality of care. Future ophthalmologists will need to be broadly skilled and trained to thrive in complex health care organizations.[1] However, training for ophthalmologists has remained largely unchanged for several decades with a 1-year internship followed by 3 years of residency. Although the residency time frame—postgraduate year (PGY) 2 to 4—has little excess capacity, the intern year (PGY-1) offers an opportunity to present ophthalmic training earlier to enhance the training of our ophthalmology residents.

Of particular merit and interest is integrating the intern (PGY-1) into our residency programs. The acquisition of an additional 6 months by integrating ophthalmology-specific training into the intern year would effectively extend our residency to 42 months in length. These additional 6 months could be used to enhance leadership, teamwork, research, or quality improvement skills or used for "mini-fellowships" devoted to acquisition of additional competencies (although not being full fellowships).[2] In addition, an integrated internship might reduce the large percentage of graduates who feel compelled to complete a fellowship.

American Academy of Ophthalmology Retreat 2013

In 2013, at its annual strategic retreat, Paul Sternberg, then President of the American Academy of Ophthalmology (AAO), assembled a group of education leaders representing major stakeholder groups and organizations. The challenge presented at the retreat was to consider "What should be the capabilities of a graduating resident in 2020?" The last time this broad question of ophthalmology postgraduate training had been addressed was 27 years previously in an AAO/Association of University Professors of Ophthalmology (AUPO) consensus report that helped shape the curriculum for residency training.[3] As outlined next, at this 2013 strategic retreat, numerous background trends and technologies were considered as part of a critical reexamination of residency and fellowship training. Particularly important issues were identified that included the need to restructure the PGY-1 experience. Accordingly, the AAO and AUPO convened a working group to shepherd the discussions that led to this white paper to guide future developments in ophthalmic postgraduate education.

Background

The learning environment of physicians is changing. Doubling time for biomedical information is now estimated to be less than 3 years.[4] Digital learning tools, such as flipped classroom initiatives and open online courses, are replacing traditional print tools and lectures.[5,6] Physicians must effectively and efficiently use search engines and databases, electronic health records, clinical data registries, bioinformatics-assisted clinical decision aids, predictive models, and many other tools. Physicians must lead

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interdisciplinary teams in a complex heath care system that continuously improves. Finally, in addition to the care of sick patients, physicians must attend to the health maintenance of the individual and cost-effective, outcomes-based care of society.[7–10]

Ideally, the 4 years of medical school will instill in the future ophthalmologist the attitudes, ethics, and dedication to lifelong learning that characterize a physician. In addition to providing the necessary knowledge common to all physicians, medical school will provide a general biomedical foundation of information on which to build ophthalmology postgraduate training. A missed opportunity during medical school may be the time after the match and before starting the internship. This period could present an opportunity for an "ophthalmology boot camp" that could include virtual training material provided by the AAO or AUPO.[11,12]

The internship year (PGY-1) traditionally has functioned to give young ophthalmologists autonomous, direct patient care experience. The American Board of Ophthalmology (ABO) currently allows an internship in any field, including internal medicine, surgery, pediatrics, obstetrics, or a transitional year. Our residents' internship, although not clearly defined or controlled by our profession, has for the most part at least rendered the future ophthalmologist a more mature physician. Unfortunately, the experience of the ophthalmology intern is variable, and their service on some rotations can have little relevance to the ultimate practice of ophthalmology. The intern year often does not include acquisition of ophthalmic knowledge and skills.

With few exceptions, residency in ophthalmology (PGY 2-4) has been 36 months in length for more than a half century. The training length has not changed despite new areas of study (e.g., immunology, bioinformatics, genetics) and innumerable new diagnostic imaging tools, blood tests, pharmaceutical agents, and surgical procedures. The Accreditation Council for Graduate Medical Education (ACGME) recently developed 24 Milestones or objectives for ophthalmology residency programs.[13]

The percentage of US-trained ophthalmologists pursuing fellowship training has grown to more than 60% of residency graduates.[14] Approximately half of those who complete a fellowship (excluding retina) will practice a mix of general and subspecialty ophthalmology (Tamara Fountain, AAO Membership Survey, 2014 AAO Board Meeting). The reasons residents pursue fellowship training are highly variable, but include a desire to pursue a career in academic medicine, economic factors related to practice location and potential job opportunities, intellectual attraction of a subspecialty, or simply a perceived need for more training. Departments develop fellowships to serve the needs of society but also to serve the workload of the institution, which may have led to too many fellowship positions.

Integrated Internship (Postgraduate Year 1)

Developing an integrated 4-year program presents a unique opportunity.[15] An integrated PGY-1 experience would offer programmatic oversight and standardization of the first year of postgraduate training, which would allow more efficient use of the entire 48 months of postgraduate training. Redundancy could be eliminated, and every learning opportunity could be used to create the best possible ophthalmologists. Areas of the internship that were simply to service an intensive care unit or ward and did not enhance the training of an ophthalmologist could be eliminated. The 24 ACGME Ophthalmology Milestones could be spread out over the 4 years of the integrated program rather than concentrated in the last 3 years of training. The exact split of rotations in an integrated internship can be debated. We propose that the internship (PGY-1) include 6 months of general medicine and 6 months from our current core ophthalmology curriculum. The PGY 2 to 4 levels would include the remaining 30 months of our current core curriculum and an additional 6 months of elective or more advanced rotations. We think that this would allow our graduates to develop a broader and more advanced skill set to better suit the needs of society. Every other surgical subspecialty and most other specialties have already moved to an integrated internship.

Internship (Postgraduate Year 1) Challenges and Opportunities

The transition to an integrated internship will be difficult. Some programs may not have the resources, access to PGY-1 training slots, or desire to offer the initial year. Some may prefer to allow a better defined internship at an unrelated institution. Competition for PGY-1 spots and reduced GME funding will be important in negotiations with hospitals.[16,17] Larger residencies may not be able to secure enough PGY-1 positions at their main universities for all of their ophthalmology residents. In many hospitals, there are not enough preliminary PGY-1 positions for all of their programs that require preliminary internships.[18] Even if enough positions exist, ophthalmology residencies will need to demonstrate that the caliber of their applicants justify taking slots currently reserved for open competition in the match.

Implementation of the goals of the integrated internship could be achieved in a stepwise fashion with a hybrid model, similar to that in Neurology, Anesthesiology, and Diagnostic Radiology. In these fields, the preliminary year—although separate—is more tightly prescribed with detailed requirements for the trainee during PGY-1. In Neurology, the transition has been gradual, with more programs converting to include the internship each year but still allowing 2 kinds of programs: those with and those without an integral internship.

Over the past 10 years, the number of available preliminary year positions in the 2 most common internship programs for ophthalmology (transitional and preliminary medicine) has been decreased by 234. The number of our residents who require positions has increased by 20.[19–21] In addition, with increased pressure to produce more primary care physicians, we may see an additional shift away from transitional and preliminary positions toward categoric primary care positions.[17,22,23] The increasing supply of both allopathic and osteopathic graduates will place additional