

Teaching Ophthalmology to Primary Care Physicians

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The evolution of our health care system toward managed care has placed primary care “gatekeeper” physicians in a position where they must examine and treat patients with diseases that are ordinarily treated by medical and surgical subspecialists. Many of these physicians may be poorly prepared to accept this new responsibility. The Association of University Professors of Ophthalmology (AUPO) has published a Policy Statement on Medical Student Education that suggests the minimum level of competence expected of general physicians when dealing with ophthalmologic problems. A recent survey of directors of residency programs in family practice, internal medicine, and pediatrics revealed that the training of primary care physicians (as opposed to academicians or subspecialists) has become a nearly universal programmatic goal. Most program directors believe that less than half of their residents meet the AUPO standard at the completion of medical school, and a significant minority do not meet the AUPO standard at the completion of their residency. An overwhelming majority of program directors believe that additional training in ophthalmology and other subspecialties should be incorporated into the training programs of primary care physicians. Ophthalmologists and other subspecialists should develop programs at the medical student level directed toward the education of primary care physicians, and should participate in the training of primary care physicians, as well as their own subspecialty residents. In the future, the primary care physician must be considered part of the “eye care team.” Enhancing the ophthalmologic education of primary care physicians is in the best interest of quality patient care. *(Arch Ophthalmol. 1995;113:722-724)*

After an introductory 2 years of studying theoretical and applied biomedical sciences, medical students in traditional educational programs begin their clinical training in a series of required rotations that stress the major areas of internal medicine, pediatrics, general surgery, obstetrics and gynecology, family practice, psychiatry, and, in some cases, neurology and anesthesiology. An elective fourth year allows students to streamline their education toward their ultimate career goal. Stu-

dents who plan to enter the primary care fields of internal medicine, pediatrics, or family practice may receive little or no exposure to the many subspecialty areas of medicine, including ophthalmology, otolaryngology, orthopedics, urology, neurosurgery, dermatology, and radiation oncology.

Our health care delivery system in the United States is evolving, in many areas, to a managed care process in which patients, regardless of their presenting complaint, are first examined by a “gatekeeper” who is generally a primary care physician. In many cases, there are considerable financial incentives for the primary care physician to treat as many of these patients as possible, without referring them to a subspecialist. For those pa-

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tients who present with ophthalmologic or other subspecialty problems, the primary care physician educated in a traditional program may be poorly trained and ill prepared to care for them. While many subspecialists are clamoring to retain their status as "point of entry" physicians, it is unlikely that this will occur.

It would be desirable, therefore, that current and future primary care physicians-in-training receive a broader exposure to ophthalmology, as well as other medical and surgical subspecialties. The Association of University Professors of Ophthalmology (AUPO) has issued a Policy Statement on Medical Student Education that states that all physicians should be able to (1) measure and record a visual acuity; (2) evaluate a red eye; (3) evaluate a traumatized eye; (4) detect strabismus and abnormal eye movements; (5) detect abnormal pupillary responses; (6) perform direct ophthalmoscopy to detect abnormalities of the optic nerve and fundus; and (7) initiate management and/or referral for detected or suspected abnormalities of the eye and visual system.

As a member of the AUPO Education Committee, I recently conducted a survey of residency program directors (PDs) in the primary care fields of family practice, internal medicine, and pediatrics to determine their opinions regarding the following: (1) whether their graduates were competent to provide basic care for ophthalmologic problems; (2) when appropriate training in ophthalmology should occur (ie, during medical school or residency); (3) whether primary care programs should devote additional time to teaching ophthalmology and other subspecialties to their residents; and (4) which are the best methods of teaching ophthalmology, or other subspecialties, to their residents. A total of 135 programs were surveyed and 71 responses were returned, for a response rate of 52.6%. The AUPO policy statement (previously outlined) described the level of competence held for primary care physicians, which served as the basis for the survey.

Important results of the survey were as follows.

- Nearly all PDs of residency programs in family practice, internal medicine, and pediatrics currently believe that training residents to be primary care physicians (as opposed to subspecialists) is an important goal of their program. This was the opinion of 98.5% of respondents. I assume that this represents a recent change, as among those surveyed were many PDs of prestigious academic programs who I believe, only a few years ago, would have considered their primary goal to be the training of academicians and tertiary care subspecialists.
- A substantial percentage of graduates of primary care residency programs do not meet the level of competence described in the AUPO policy statement. Whereas 100% of PDs of family practice residency programs believe that their graduates meet these criteria (they have an accreditation requirement that this be the case), 33.3% of PDs in internal medicine and 13.6% in pediatrics do not believe their graduates meet the AUPO standard.
- Medical schools are not doing an adequate job of teaching ophthalmology to their students. Nearly 90% of PDs believe that less than 50% of their entering residents meet the AUPO standard. More than 15% of PDs believe that those residency graduates who meet the AUPO guidelines do so by virtue of training in the residency program *alone*. More than 85% of PDs, however, believe that a major component of this training should occur during medical school.
- There is a strong consensus that additional training in ophthalmology, and other subspecialties, should be incorporated into primary care residency programs. This was the opinion of 64% of PDs in family practice, 87.5% in internal medicine, and 86.3% in pediatrics. More than 90% of PDs responded that they would be willing to provide time for their residents to enhance their knowledge and skills in ophthalmology and other subspecialties, and 92% of PDs in family practice, 96% in internal medicine, and 73% in pediatrics would block time for their residents to participate in specially designed rotations in their departments of ophthalmology.
- There is a need to develop methods of assessment of residents' knowledge and skills in ophthalmology and other subspecialties. Whereas subspecialty expertise is assessed in 92% of family practice programs, such an evaluation occurs in only one third of internal medicine and pediatrics programs. In addition, only 30% of internal medicine and pediatrics programs provide any remediation when a deficiency is discovered.
- Ophthalmologists and departments of ophthalmology should become cooperatively involved in the training of primary care physicians. More than 90% of PDs in primary care residencies believed that ophthalmologists should be involved in this process; however, only 21% thought that teaching should be done by ophthalmologists alone.
- Traditional methods of teaching are still believed to be the most valuable and effective. The most important methods of teaching ophthalmology to primary care physicians were believed to be subspecialty rotations during the residency program, lectures given by ophthalmologists, subspecialty rotations during medical school, and lectures given by primary care physicians.

An important manifestation of "health care system reform" is that even the most prestigious and traditionally academic residency programs in internal medicine and pediatrics now view training of primary care "gatekeeper" physicians as a major programmatic goal. To function effectively in the primary care role, physicians will need broader training to encompass the full spectrum of patients who seek all forms of medical care. While the survey described in this report was concerned spe-

cifically with ophthalmology, I believe that the conclusions can be applied to all of the subspecialties. It is evident that the current system of medical education, at both the medical school and residency levels, is poorly preparing primary care physicians to fill their new role, and that enhanced training in the medical and surgical subspecialties must occur at both the medical school and residency levels. It is likewise evident that ophthalmologists, as well as other subspecialists, should play a major role in the education of primary care physicians. By doing so, ophthalmologists can enhance patient care in the new managed-care environment, as well as improve their image among the medical community.

Medical schools should consider identifying those students heading for careers in primary care specialties and tracking them into a specially designed senior year in which they get greater exposure to ophthalmology and other important subspecialties of medicine. Subspecialty organizations concerned with medical student education, such as the AUPO and the Ameri-

can Academy of Ophthalmology, should develop specific curricula and methods of assessment for future primary care physicians. These curricula should use existing teaching aids, and new educational modalities should be developed where necessary. Medical school subspecialty departments should then organize clinical rotations that use, and achieve the goals of, these curricula. Such rotations should be directed toward future primary care physicians, rather than future subspecialists.

Academic subspecialty departments, including departments of ophthalmology, should increase their role in the training of residents in primary care specialties, both by participating in their didactic education and by developing clinical rotations directed toward the primary care physician. Such rotations should deemphasize refraction, postsurgical care, and other intricacies of ophthalmology that are beyond the scope of primary care practice. Instead, rotations should emphasize the skills necessary to examine patients with ophthalmologic problems effectively. Such experiences would include exposure to

neuro-ophthalmology, pediatric ophthalmology, emergency or walk-in clinics, inpatient consultation services, and a retina clinic stressing diabetic retinopathy. In addition, methods of assessment should be developed to ensure that the AUPO criteria are achieved.

The evolution and reform of health care should be accompanied by reform of our educational processes. The concept of the "eye care team" should include the primary care physician, who will frequently be the initial health care professional to examine patients with ophthalmologic problems. Ophthalmologic participation in the subspecialty education of these physicians is in the best interest of quality patient care.

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Notes From Our Ophthalmic Heritage

A look at the past . . .

There is an argument for brevity in medical writings, that should appeal even to those who write merely for the sake of writing, found in the well-known fact that wherever the writer of a very long and tiresome paper puts his "conclusions" at the end, in the form of a synopsis or summary, that part is not only read first, but is frequently the *only* part read by anybody except the writer and the proof reader. In such cases the "conclusions" frequently contain about all there is of value in the paper. Short papers are always read, and the great improvement in our medical literature in the past few years, as shown by the pages of the JOURNAL, is doubtless owing to the tendency of time toward pithy articles.

Reference: A plea for brevity in medical writing. *JAMA*. 1894;23:765.