The Glaucoma Specialist’s Extended Care Network

A patient-centered model for the future.

BY SAYOKO E. MOROI, MD, PhD; PAULA ANNE NEWMAN-CASEY, MD, MS; SARAH DOUGHERTY WOOD, OD, MS; AND CHERYL KHANNA, MD

The Patient Protection and Affordable Care Act, an aging US population, the projected shortage of ophthalmologists, Accountable Care Organizations, and greater accountability are all affecting the delivery of eye care. Other influential changes beyond the scope of this article are meaningful-use incentives, electronic health records, and alterations in the health insurance market. Together, these forces pose many challenges, expose gaps in the traditional patient care model, and raise the question of how to meet the needs of patients and providers.

This article characterizes the gap between the aging population’s need for eye care and the ability of traditional models to provide that care based on current workforce projections. One potential solution is a shift to a team-based model of care. This article does not discuss referral patterns of glaucoma patients from nonteam vision care providers.

THE GAP BETWEEN THE AGING POPULATION AND WORKFORCE PROJECTIONS

Three factors will affect how glaucoma care is provided in the future. The first is an increase in the number of patients with the disease. The number of Americans older than 75 years of age will more than double between 2010 and 2050. The prevalence of glaucoma is projected to increase from 1.86% among those over 40 years of age to 10.3% among those over 65 years of age. Nearly half (47.5%) of US ophthalmologists are over the age of 55 and will likely retire by 2020. Younger ophthalmologists increasingly choose an abbreviated work week compared to those who are retiring. Because the number of ophthalmology training slots has not changed significantly during the past decade, the number of ophthalmologists is not expected to rise in the near future. Meanwhile, according to the US Bureau of Labor Statistics, the number of employed optometrists was 33,100 in 2012 and is projected to increase by 24% to 41,200 in 2022.

TEAM-BASED GLAUCOMA CARE MODELS

New vision care team models for managing chronic eye diseases such as glaucoma are required to meet the needs of patients and providers. The authors believe that implementing an extended glaucoma care model within an institution or community necessitates a multidisciplinary approach such as partnering with optometrists. The glaucoma team concept was introduced in 1990 by The Glaucoma Specialist’s Extended Care Network.
Optical Audit Committee in Great Britain. This approach has been adopted in Australia, Canada, and more recently, the United States.

A five-member team was initiated in 2007 at the Mayo Clinic (Figure). Two glaucoma fellowship-trained ophthalmologists, one comprehensive ophthalmologist, and two optometrists function within an organized system with checks and balances among providers. This model has eight components:

1. Standardized glaucoma testing
2. Shared electronic medical records
3. A treatment plan defined by consultation with the glaucoma specialist
4. A standardized treatment algorithm
5. A standardized definition of glaucomatous progression
6. Optometrists observing patients with stable disease
7. A mandatory consultation with the specialist every 2 years for patients with stable disease
8. Timely access to the specialist for patients with unstable glaucoma

In Dr. Khanna’s experience, this approach improves patients’ access to the glaucoma service and prioritizes glaucoma specialty care for those with unstable or advanced disease. The Mayo glaucoma team members demonstrated higher adherence to the American Academy of Ophthalmology’s guidelines than single-provider care by optometrists or comprehensive ophthalmologists. A cost-effectiveness study is in progress to investigate the potential cost benefit of the Mayo Clinic team model.

FUTURE CONSIDERATIONS

Preventing glaucoma-related blindness demands quality care for a growing number of patients. A vision care team of glaucoma specialists and optometrists is one possible solution to meeting this challenge. This model could be enhanced by engaging other providers (e.g., primary care physicians, pharmacists, ophthalmic support staff) to meet the unique needs of each patient. This team approach coordinates patients’ care and improves their access to glaucoma specialists. Potential limitations include poor communication among team members.

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inconsistent use of the algorithm, and fragmented care. The model will evolve as data are generated to analyze cost-effectiveness and patients’ outcomes.

Cheryl Khanna, MD, is an assistant professor in the Department of Ophthalmology, Mayo Clinic, Rochester, Minnesota. Dr. Khanna may be reached at (507) 284-2787; khanna.cheryl@mayo.edu.

Sayoko E. Moroi, MD, PhD, is a professor, Glaucoma Service chief, and glaucoma fellowship director for the Department of Ophthalmology and Visual Sciences, University of Michigan, in Ann Arbor. Dr. Moroi may be reached at (734) 763-3732; smoroi@med.umich.edu.

Paula Anne Newman-Casey, MD, MS, is an assistant professor in the Department of Ophthalmology and Visual Sciences, University of Michigan, in Ann Arbor. Dr. Newman-Casey may be reached at (734) 936-9503; panewman@med.umich.edu.

Sarah Dougherty Wood, OD, MS, is a clinical instructor in the Department of Ophthalmology and Visual Sciences, University of Michigan, in Ann Arbor. Dr. Wood may be reached at (734) 615-2479; skwood@med.umich.edu.