



Body System: Special Sensory		
Session Topic: Glaucoma		
Educational Format		Faculty Expertise Required
REQUIRED	Interactive Lecture	Expertise in the field of study. Experience teaching in the field of study is desired. Preferred experience with audience response systems (ARS). Utilizing polling questions and engaging the learners in Q&A during the final 15 minutes of the session are required.
OPTIONAL	Problem-Based Learning (PBL)	Expertise teaching highly interactive, small group learning environments. Case-based, with experience developing and teaching case scenarios for simulation labs preferred. Other workshop-oriented designs may be accommodated. A typical PBL room is set for 50-100 participants, with 7-8 each per round table. <u>Please describe your interest and plan for teaching a PBL on your proposal form.</u>
Professional Practice Gap	Learning Objective(s) that will close the gap and meet the need	Outcome Being Measured
<ul style="list-style-type: none"> • Early detection of glaucoma is often challenging, often leading to poor patient outcomes • Applying recommendations for screening and referral can be challenging • Patient adherence to treatment plans is often poor. 	<ol style="list-style-type: none"> 1. Identify patients at risk of developing open-angle glaucoma for complete ophthalmologic examination. 2. Initiate therapy to lower intraocular pressure in patients with acute angle-closure glaucoma until they can be seen by an ophthalmologist. 3. Evaluate patients presenting with symptoms consistent with acute narrow-angle glaucoma for emergent treatment or referral to an ophthalmologist. 4. Monitor patients receiving medical treatment for open-angle glaucoma for side effects and conditions that may affect treatment. 	Learners will submit written commitment to change statements on the session evaluation, indicating how they plan to implement presented practice recommendations.
ACGME Core Competencies Addressed (select all that apply)		
X	Medical Knowledge	Patient Care
	Interpersonal and Communication Skills	Practice-Based Learning and Improvement
	Professionalism	Systems-Based Practice
Faculty Instructional Goals		
<p>Faculty play a vital role in assisting the AAFP to achieve its mission by providing high-quality, innovative education for physicians, residents and medical students that will encompass the art, science, evidence and socio-economics of family medicine and to support the pursuit of lifelong learning. By achieving the instructional goals provided, faculty will facilitate the application of new knowledge and skills gained by learners to practice, so that they may optimize care provided to their patients.</p> <ul style="list-style-type: none"> • Provide up to 3 evidence-based recommended practice changes that can be immediately 		



implemented, at the conclusion of the session; including SORT taxonomy & reference citations

- Facilitate learner engagement during the session
- Address related practice barriers to foster optimal patient management
- Provide recommended journal resources and tools, during the session, from the American Family Physician (AFP), Family Practice Management (FPM), and Familydoctor.org patient resources; those listed in the References section below are a good place to start
 - Visit <http://www.aafp.org/journals> for additional resources
 - Visit <http://familydoctor.org> for patient education and resources
- Provide recommendations for identifying patients at risk of developing open-angle glaucoma for complete ophthalmologic examination.
- Provide recommendations for initiating therapy to lower intraocular pressure in patients with acute angle-closure glaucoma until they can be seen by an ophthalmologist.
- Provide recommendations for evaluating patients presenting with symptoms consistent with acute narrow-angle glaucoma for emergent treatment or referral to an ophthalmologist.
- Provide strategies for monitoring patients receiving medical treatment for open-angle glaucoma for side effects and conditions that may affect treatment.
- Provide recommendations regarding guidelines for Medicare reimbursement.
- Provide recommendations to maximize office efficiency and guideline adherence to the diagnosis and management of glaucoma.
- Provide an overview of newly available treatments, including efficacy, safety, contraindications, and cost/benefit relative to existing treatments.

Needs Assessment:

Glaucoma is a leading cause of blindness, accounting for 9% to 12% of all cases of blindness; however, more than 2.2 million Americans may not even realize they have it.^{1,2} Early detection of open-angle glaucoma is challenging since it is an asymptomatic, progressive optic neuropathy, that is usually found incidentally during an adult eye evaluation performed for other indications.² Classic narrow-angle glaucoma may be easier to identify; however the variability in presentation and the possible absence or minimization of visual changes can make diagnosis difficult.³

Data from a recent American Academy of Family Physicians (AAFP) CME Needs Assessment survey indicates that family physicians have knowledge gaps that may impede optimal management of patients with glaucoma.⁴ More specifically, CME outcomes data from the 2015 AAFP national course, Chronic Conditions: *Glaucoma* sessions and the 2015 AAFP FMX (formerly Assembly) *Glaucoma* sessions, suggest that physicians have knowledge and practice gaps with regard to managing acute angle glaucoma; knowing when to refer; screening at risk patients; pharmacologic treatment; appropriate and necessary pupil dilation; and comorbid conditions.^{5,6}

Both the AAFP and the U.S. Preventive Services Task Force (USPSTF) conclude that the current evidence is insufficient to assess the balance of benefits and harms of screening for primary open-angle glaucoma (POAG) in adults, but recognizes that some subgroups at higher risk (e.g., black persons) may benefit from periodic screening.^{7,8} Physicians managing older patients, however, should be aware that the Medicare preventive service benefits no longer cover



glaucoma screening.⁹ However, regular eye examinations for adults are recommended by the American Academy of Ophthalmology, with the interval depending on patient age and risk factors.¹⁰ Additionally, recent meta-analyses have concluded that diabetes mellitus is associated with a greater risk of developing primary open-angle glaucoma and higher intraocular pressure.¹¹ The U.K. Glaucoma Treatment Study (a multicenter, randomized, placebo-controlled trial) recently showed longer visual field preservation in patients with primary open-angle glaucoma taking latanoprost (Xalatan).

Primary care physicians can greatly improve health outcomes for patients by referring those with positive family history or with suspicious optic nerve head findings for complete ophthalmologic examination.¹² Physicians can greatly improve patient satisfaction with the referral process by improving internal office communications, engaging the patient in scheduling, facilitating the appointment, tracking referral results, analyzing data for improvement opportunities, and gathering patient feedback.¹³

In addition to screening and referral, there are improvements to be made with regard to treatment and follow-up. Patient adherence to prescribed treatment plans is often poor.^{14,15} There is some evidence that patients with depressive symptoms, those patients who report problems with using glaucoma medications, and hypochondriasis personality types are at higher risk of nonadherence, and would benefit from follow-up care with their primary care provider.^{16,17} Physicians may even want to consider using a psychometric tool to assess glaucoma treatment compliance, such as the Glaucoma Treatment Compliance Assessment Tool (GTCAT) to identify those patients who may benefit from an intervention aimed specifically to increase adherence.¹⁸ Physicians can greatly improve treatment outcomes by reinforcing the importance of medication adherence and persistence and by recognizing adverse reactions from glaucoma medications and surgeries, especially as eye care provider frequently do not use collaborative goal setting or conduct individualized assessments of patient view on glaucoma when prescribing treatment for the first time.^{12,19}

Physicians should also be kept up to date on new glaucoma medications, surgical approaches, and homeopathic remedies.

Physicians may improve their care of patients with glaucoma by engaging in continuing medical education that provides practical integration of current evidence-based guidelines and recommendations into their standards of care, including, but not limited to the following:^{2,3,8,11}

- Fundus photography or intraocular pressure measurement alone is a poor screening tool to detect patients with glaucoma.
- Family history of open-angle glaucoma, older age, and black race or Hispanic origin are important risk factors for open-angle glaucoma.
- Early treatment of patients with glaucoma reduces the risk of visual field progression.
- Primary care physicians should refer patients with risk factors or findings suggestive of glaucoma to eye specialists for a comprehensive eye examination, including perimetry.
- Acute narrow-angle glaucoma should be suspected with severe headaches, vomiting, confirmatory physical findings (e.g. acute red eye, cloudy cornea, & sluggishly responsive, mid-dilated pupil), acute eye pain, nausea, and vision changes; emergent referral and treatment are needed.



- All persons older than 65 years should be screened periodically for vision problems.
- All older persons with diabetes should have a dilated eye examination within one year of diabetes diagnosis, and at least annually thereafter.

Additionally, primary care physicians may consider practice guidelines from the Agency for Healthcare Research and Quality (AHRQ) for *Medicines adherence: Involving patients in decisions about prescribed medicines and supporting adherence*; as well as the American Academy of Ophthalmology and the American Optometric Association for *Primary angle closure, Care of the patient with open angle glaucoma, and Primary open-angle glaucoma suspect*.²⁰⁻²⁴

These recommendations are provided only as assistance for physicians making clinical decisions regarding the care of their patients. As such, they cannot substitute for the individual judgment brought to each clinical situation by the patient's family physician. As with all clinical reference resources, they reflect the best understanding of the science of medicine at the time of publication, but they should be used with the clear understanding that continued research may result in new knowledge and recommendations. These recommendations are only one element in the complex process of improving the health of America. To be effective, the recommendations must be implemented. As such, physicians require continuing medical education to assist them with making decisions about specific clinical considerations.

Resources: Evidence-Based Practice Recommendations/Guidelines/Performance Measures

- Glaucoma¹¹
- Open-angle glaucoma²
- Pain in the quiet (not red) eye³
- (AAFP) Glaucoma, Adults. Clinical Preventive Service Recommendations⁷
- American Academy of Ophthalmology. Frequency of Ocular Examinations. Clinical Statements¹⁰
- Vision loss in older persons⁸
- What you need to know about the Medicare preventive services expansion⁹
- Simple tools to increase patient satisfaction with the referral process¹³
- Medicines adherence. Involving patients in decisions about prescribed medicines and supporting adherence²⁰
- Primary angle closure²²
- Care of the patient with open angle glaucoma²³
- Primary open-angle glaucoma²⁴
- Glaucoma | Overview (patient education)²⁵

References

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