

Cutting Edge Cataract and Glaucoma Care

2 hours

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Disclosure

The speaker reports no relevant financial disclosures.

Course Description

Advances in cataract surgery and glaucoma management continue to expand the role of the optometrist in patient care. This course reviews current innovations in cataract surgery technology, premium intraocular lens selection, laser-assisted cataract surgery, postoperative management, and emerging approaches to interventional glaucoma. Through case studies and clinical examples, attendees will learn how to improve surgical outcomes, optimize patient counseling, and identify glaucoma patients who may benefit from earlier intervention.

Learning Objectives

Upon completion of this course, participants should be able to:

1. Identify factors that influence cataract surgery candidacy and postoperative visual outcomes.
 2. Describe current technologies utilized in modern cataract surgery, including femtosecond laser-assisted cataract surgery.
 3. Discuss the optometrist's role in preoperative counseling, premium IOL selection, and postoperative care.
 4. Recognize limitations of traditional glaucoma management strategies.
 5. Identify glaucoma patients who may benefit from earlier referral for selective laser trabeculoplasty (SLT) or minimally invasive glaucoma surgery (MIGS).
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Section I: Preparing Patients for Cataract Surgery

Determining Surgical Readiness

Beyond Visual Acuity

Discussion of factors influencing cataract surgery recommendations, including:

- Visual acuity
- Glare disability
- Functional limitations
- Lifestyle complaints
- CMS requirements for cataract surgery

Importance of Comprehensive Evaluation

Review of a patient presenting with severe vision loss despite minimal historical information.

Discussion of:

- Visual acuity assessment
- Pinhole testing
- Refraction
- Glare testing
- Ocular health evaluation
- Dilated fundus examination

Effective Referral Communication

Information that should accompany referrals:

- Visual acuity findings
- Refraction
- Ocular health status

- Relevant systemic and ocular history
 - Specific concerns affecting surgical outcomes
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Section II: Identifying Factors That Affect Surgical Outcomes

Ocular Surface Disease and Corneal Health

Conditions that may negatively impact outcomes:

- Meibomian gland dysfunction
- Dry eye disease
- Chalazia
- Pterygia
- Corneal dystrophies
- Corneal degenerations

Case Study

Patient presenting with:

- Foreign body sensation
- Contact lens intolerance
- Tearing
- Reduced vision

Discussion of diagnosis and treatment of ocular surface disease prior to surgical referral.

Retinal Considerations

Importance of identifying retinal pathology prior to cataract surgery and premium lens implantation.

Section III: Advances in Cataract Surgery Technology

Evolution of Cataract Surgery

Review of demographic and technological changes driving modern cataract surgery:

- Aging population
- Increased visual expectations
- Longer life expectancy
- Active lifestyles
- Greater demand for spectacle independence

Femtosecond Laser-Assisted Cataract Surgery (FLACS)

Applications of Laser Technology

Laser-assisted procedures including:

- Corneal incisions
- Astigmatism management
- Capsulotomy creation

Clinical Advantages

Benefits of laser-assisted surgery:

- Increased precision
- Improved reproducibility
- Enhanced centration
- Improved wound architecture
- Better consistency in capsulotomy creation

Effective Lens Position (ELP)

Discussion of:

- Relationship between lens position and refractive outcomes
- Impact of small positioning errors on postoperative refractive accuracy
- Importance of precise surgical planning

Patient Selection

Potential candidates include:

- Premium IOL recipients
 - Patients with astigmatism
 - Complex cataract cases
 - Patients with corneal endothelial disease
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Section IV: Premium Intraocular Lens Counseling

Understanding Patient Goals

Discussion of:

- Spectacle independence
- Monovision
- Distance vision goals
- Near vision expectations

Covered Versus Non-Covered Services

Review of patient counseling topics:

Covered services:

- Cataract extraction
- Standard monofocal intraocular lenses

Non-covered services:

- Astigmatism correction
- Toric IOLs
- Presbyopia-correcting IOLs
- Additional diagnostic testing
- Intraoperative aberrometry

The Optometrist's Role

Importance of optometric involvement in:

- Patient selection
 - Preoperative education
 - Expectation management
 - Technology discussions
 - Referral decisions
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Section V: Postoperative Cataract Care

Co-Management Principles

Discussion of:

- Postoperative evaluation
- Managing patient expectations
- Premium IOL postoperative considerations
- Identifying complications requiring referral

Dropless Cataract Surgery

Potential Benefits

Advantages for:

- Patients with compliance challenges

- Elderly individuals
- Patients with arthritis or physical limitations
- Nursing home residents
- Patients with cognitive impairment
- Patients with financial barriers

Impact on Postoperative Management

Review of how dropless therapies may improve compliance and reduce medication burden.

Section VI: The Evolution of Glaucoma Management

Traditional Glaucoma Treatment Paradigm

Review of historical treatment approaches:

- Topical medications as first-line therapy
- Addition of medications with disease progression
- Delayed surgical intervention

Case Study

Patient with progressive glaucoma despite:

- Multiple medications
- Apparently controlled intraocular pressure
- Ongoing visual field progression

Discussion of treatment limitations and disease progression.

Section VII: Interventional Glaucoma

Changing Treatment Philosophy

Review of emerging concepts:

- Earlier intervention
- Preservation of trabecular outflow function
- Reduction of medication burden
- Improved long-term disease control

Selective Laser Trabeculoplasty (SLT)

Discussion of:

- Mechanism of action
- Timing of intervention
- Patient selection
- Outcomes in mild-to-moderate disease

Minimally Invasive Glaucoma Surgery (MIGS)

Overview of:

- MIGS procedures
- Appropriate candidates
- Postoperative management
- Medication reduction strategies

The Window of Opportunity

Discussion of:

- Progressive trabecular dysfunction
- Earlier intervention benefits
- Reduced effectiveness in advanced disease

Section VIII: Intraocular Pressure Fluctuation and Compliance

Understanding IOP Variability

Review of evidence demonstrating:

- Significant day-to-day IOP fluctuation
- Missed pressure spikes
- Relationship to disease progression

Home Tonometry

Discussion of the role of:

- Home IOP monitoring
- I-Care HOME tonometry
- Identification of pressure fluctuations

Compliance Challenges

Recognizing patients who may benefit from referral:

- Medication noncompliance
 - Ocular surface disease
 - Progressive visual field loss
 - Difficulty administering drops
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Clinical Recommendations for Mild-to-Moderate POAG

Continue Medical Management When:

- Disease is stable

- Compliance is good
- Ocular surface remains healthy
- Target pressure is achieved

Consider Interventional Glaucoma Referral When:

- Visual fields continue to progress
 - IOP remains above target
 - Compliance concerns exist
 - Ocular surface disease develops
 - Medication burden becomes excessive
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Summary and Take-Home Points

- Perform comprehensive preoperative evaluations prior to cataract referral.
- Address ocular surface disease before surgery whenever possible.
- Understand the benefits and limitations of modern cataract technologies.
- Participate actively in premium IOL counseling and postoperative care.
- Recognize the limitations of medication-only glaucoma management.
- Refer appropriate glaucoma patients earlier for SLT and MIGS evaluation.
- Develop collaborative relationships with surgeons utilizing advanced cataract and glaucoma technologies.
- Optometrists should maintain a central role in the diagnosis, management, and co-management of both cataract and glaucoma patients.