Course Title: **Presbyopia Surgery—The Final Frontier?**

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**Description:** The development of new advanced surgical technology combined with a growing and ageing patient population is driving multiple technologies to develop a surgical solution for presbyopia. This course will review state-of-the-art and evolving surgical technologies for the correction of age related near vision issues along with the changing delivery systems geared towards a new breed of educated and connected patients.

**Time:** 1 Hour

**Cope:** 43615-RS

**Course Outline:**

1. **Current Surgical Options for Presbyopia**
   a. Scleral Expansion
   b. Conductive Keratoplasty
   c. Multifocal IOLs
   d. Accommodative IOLs
   e. Implantable Corneal Inlays
   f. Multifocal Lasik
   g. PresbyLasik
   h. Presbyond
   i. Femto-Intracor

2. **What are the causes of Presbyopia?**
   a. Helmholtz 1885—loss of lenticular elasticity
   b. Schactar 1992—crowding of the anterior chamber
   c. Measurement of the amplitude of accommodation
   d. Theoretical considerations and practical treatments

3. **Scleral Expansion**
   a. History and theory
   b. Early methods
   c. Current Technique
   d. Presview Band Insertion
   e. Results and complications
   f. Role of Scleral Implants

4. **Conductive Keratoplasty**
   a. The monovision experience
      i. Patient selection
      ii. Contact lens trials
      iii. Patient counseling
   b. Theory of CK
   c. Surgical design and technique
d. How much myopia can we induce?
e. Relation of post-op refractive myopia and amplitude of accommodation
f. Duration of action
g. Enhancing CK with Lasik, PRK

5. Presbyopia Correcting IOLs
   a. Multifocal
      i. AMO ReZoom
   b. Diffractive
      i. Alcon ReStor
      ii. AMO Tecnis
   c. True Accommodating IOLs
      i. Crystalens
      ii. Synchrony Dualens
   d. Mechanisms of diffractive and multifocal IOLs
      i. Preoperative assessment
         1. Patient Selection
      ii. Surgical Issues
         1. Centration
         2. Management of Astigmatism
      iii. Postoperative Management
      iv. Results and management of patient expectations
   e. Mechanism of action of true accommodating IOLs
      i. Surgical Technique
      ii. Results, refinements and future development needs
   f. Critical Issues with Accommodating IOLs
      i. Pricing and reimbursement
      ii. Pre-operative assessment and patient selection
      iii. Management of patient expectations
      iv. Psychological assessment
      v. Surgical technique and reproducibility
      vi. Role of Femto cataract surgery

6. Multifocal Lasik
   a. Topography of the presbyopic treatment
   b. Laser creation if the bi-focal shape
   c. FDA Studies
   d. Results and future

7. PresbyLasik and Presbyond
   a. Spherical aberration and its role in traditional Lasik
      i. relation to corneal shape
      ii. relation to depth of field
   b. Can we reduce spherical aberration during laser surgery?
   c. Techniques and results
      i. PresbyLasik with Visx technology
         1. FDA labeling and double carding
         2. Use of the wavefront data to increase prolation
         3. Results
ii. Presbyond with Meditec MEL80 technology

8. Implantable Corneal Inlays
   a. Presbia Flexivue MicroLens
      i. Theory and design
      ii. Central optical powers
      iii. Surgical technique
      iv. Flap thickness and corneal integrity
      v. Complications
   b. Kamra
      i. Pinhole theory
      ii. Kamra design
      iii. Implantation technique
      iv. Replaceability

9. Femto Presbyopic Solutions
   a. Intracor
      i. European experience
      ii. Technique
      iii. Potential drawbacks

10. Summary
    a. Size and evolution of the presbyopic market
    b. Lessons from CK
    c. How to talk to patients about presbyopia and surgical options
    d. Selecting your surgeon
    e. Comanagement of the presbyopia surgical patient
    f. What the future may hold