

The Dawn of a New Age-Presbyopia

Selina R. McGee, OD, FAAO

KEY LEARNING OBJECTIVES:

- **Describe** presbyopia and the prevalence today.
- **Review** current treatment options available, including therapeutics, surgical options, spectacles, and contact lenses.
- **Interpret** the case reports published in the literature with pharmaceutical pipeline therapeutics and nonpharmaceutical presbyopia-correcting options like multi-focal contact lenses, orthokeratology, sclerotic, corneal in-lays, and implant lenses.
- **Discuss** best practices for conversations with presbyopic patients.
- **Implement** presbyopia protocols within any eyecare modality/practice.
- **Build** a presbyopia pillar within your practice.

1. Presbyopia

a. New Classification system

- Mild
- Moderate
- Advanced

b. Prevalence

- Worldwide
- US
- Emmetropic Presbyopia
 1. Opportunities
 2. 31 million purchasing OTC readers
 - a. No ECP
 - b. Disease state capture

2. The Frustration Factor

- a. Patients
- b. 90% of patients are currently frustrated with their options
- c. Difference between age groups
 - Mild
 - Moderate
 - Advanced
- d. Doctor frustration
 - Missed opportunities for deeper education beyond presbyopia
 - Current MF contact lens capture rate
 - 1. Soft Lenses
 - 2. GP
 - 3. Specialty Lenses

3. Current Traditional Treatment

- a. Spectacles
 - SV
 - Bifocal
 - PAL
 - Reading glasses
 - Workspace design
 - Pipeline
- b. Contact Lenses
 - SV with readers
 - MF
 - 1. Distance center multifocals
 - a. Soft lenses
 - i. Sphere
 - ii. Toric
 - b. Hybrid lenses
 - c. GP lenses
 - 2. Near center multifocals
 - a. Soft lenses
 - i. Sphere
 - ii. Toric

- b. Hybrid lenses
 - c. Scleral lenses
 - 3. Decentered multifocal optics
 - a. Line of sight
 - b. Nasally located
 - c. New designs that address nasally decentered line of sight
 - i. Soft lenses
 - ii. Scleral lenses
- Monovision
- Orthokeratology
 - 1. Myopic
 - a. Smaller treatment zone in non-dominant eye
 - 2. Hyperopic
 - a. Induces myopia in non-dominant eye
- Pipeline Contact Lens Options
- c. Surgical
 - Excimer Laser
 - Femtosecond with intrastromal procedure
 - CK-historical
 - Corneal Inlays
 - 1. Historical
 - 2. Pipeline
 - MF IOL
 - 1. Availability
 - Femtosecond laser softening of the crystalline lens
 - Light adjusting IOL's
- d. Emerging Pharmaceutical Options
 - Small aperture optics
 - 1. Spectacle pin-hole
 - 2. Corneal pin-hole
 - 3. Iris plane pin-hole
 - What is depth of focus and how can it be increased using medications?

- Review drugs being investigated to increase DOF
 - Discuss research and evidence for these approaches
 - 1. Pilocarpine
 - 2. Carbachol
 - 3. Aceclidine
 - Can drugs be used to slow presbyopia progression and restore accommodation?
 - 1. Design
 - 2. Pupil Size
 - 3. Adverse Events
 - 4. Study Endpoints
 - Review drugs being investigated that address lens changes/accommodation loss
 - 1. Vuity
 - 2. Carbachol + brimonidine tartrate
 - 3. CSF-1
 - 4. PRX-100
 - 5. UNR844
 - 6. Eyenovia
 - 7. Occuphire
 - 8. Lenz Therapeutics
 - 9. OSRx compounded
 - Pitfalls and advantages of miotic drugs
 - 1. Design
 - 2. AE's
 - 3. Study Endpoints
 - 4. Current Lit Review and Study Results of all pipeline therapeutics
 - Discuss research and evidence for these approaches
- e. Case Reports
- Emmetropic presbyope
 - 1. Spectacle
 - 2. Contact Lens
 - 3. Surgical

4. Pharmacologic

- Myopic presbyope
 1. Spectacle
 2. Contact Lens
 3. Surgical
 4. Pharmacologic
- Hyperopic presbyope
 1. Spectacle
 2. Contact Lens
 3. Surgical
 4. Pharmacologic

4. Marketing for Presbyopia