Contact Lens Technology for the New Generation of Presbyopes

Course Outline

I. Who are we talking about? (5 mins)
   a. What age to start?
   b. Occupation/activity considerations
   c. Working distances
   d. Candidate selection and managing expectations

II. Getting started (5 mins)
   a. Rx considerations
      i. Astigmatism
         1. Regular
         2. Irregular
      ii. Add
   b. Pupil size
   c. Lid anatomy
   d. Line of sight
   e. Cornea shape
      i. HVID

III. Established designs (15 mins)
   a. Lens optic design options
      i. Center near vs distance
      ii. Translating designs
   b. Types of lenses available and clinical success
      i. Soft multifocals for the presbyope
         1. Power profiles
         2. Assessing optics with over topography
            a. Pupil size considerations
            b. Centration of optics
      ii. Gas permeable lenses
         1. Simultaneous designs
            a. Front vs back surface asphericity
         2. Translating designs
            a. Segmented vs progressive
      iii. Scleral lenses
         1. Simultaneous aspheric
            a. Center distance
            b. Center near
   c. Clinical examples/cases
      i. Presentation of patient data
      ii. Explanation of how to fit different types of lenses
      iii. Assessing the lens fit on the eye
      iv. Troubleshooting
         1. Clinical end points

IV. New designs (10 mins)
- a. Extended depth of focus
  - i. How it works
  - ii. How to use it
- b. Soft lenses
  - i. Decentered optics
- c. Scleral lenses
  - i. Decentered optics
    1. How to implement
    2. How to measure
- d. Discuss clinical study on scleral multifocals
  - i. Centered optics
  - ii. Decentered optics
  - iii. Regular corneas vs irregular

V. Quality versus Quantity of vision (5 mins)
- a. What should be used as refractive targets in office?
- b. Most common subjective complaints with multifocal lens designs
  - i. Ghosting
  - ii. Glare
  - iii. Halos
  - iv. Double letters
  - v. Blurry vision
  - vi. 3D effect
- c. Role of over-refraction
  - i. When does it help?
  - ii. When does it cover up?

VI. Methodologies of improving subjective visual response (5 mins)
- a. Soft versus gas permeable options
  - i. Decentered lens optics
  - ii. Wave front guided lenses
  - iii. Extended depth of focus
- b. Hybrids as an addition tool in your toolbox
  - i. Center-near versus center-distance

VII. Additional Troubleshooting Tools (5 mins)
- i. Plasma treatment vs Hydrapeg
- ii. Material selected
- iii. Solutions and rewetting drops