Scleral Lenses for Normal Corneas

Course Title: Scleral Lenses for Normal Corneas

Course Length: 1 Credit Hour

Course Objectives (3/credit hour)

1. At the completion of the program, the attendee should understand the differences of a scleral contact lens to other contact lens types
2. At the completion of the program, the attendee should understand the indication for prescribing scleral contact lenses for normal corneas
3. At the completion of the program, the attendee should have a basic understanding of how to prescribe, assess and troubleshoot scleral lens problems for normal corneas

Course Description:
Scleral lenses are the fastest growing category of custom specialty contact lenses. They have a wide variety of uses and increasingly are becoming the lens of choice for irregular cornea patients, however, these lenses are also useful for normal corneas in the treatment of severe dry eye and ocular surface disease. A clear understanding of these lenses will allow practitioners to add this technology to their treatment regimen in a variety of cases.

Timed Outline:

I. Introduction **Time:** 5 minutes
   a. How is a scleral lens different from other lens
      i. Soft lens vs. scleral lens
         1. Material
      ii. Hybrid lens vs. scleral lens
         1. Design
      iii. Corneal GP lens vs. Scleral lens
         1. Material
         2. Design
         3. Prescription

II. What type of patients are Scleral Lens Candidates? **Time:** 5 minutes
   a. Why should I consider scleral lenses for patients with normal corneas?
      i. Do you have patients with dry eye?
         1. Aqueous deficient
         2. Exposure keratitis
            a. Bell's Palsy
         3. Filamentary keratitis
      ii. Who want to wear CL but can't due to:
         1. Dryness
         2. Prescription
         3. Handling
   b. Challenging Prescriptions
      i. Existing GP lens wearers
         1. Bitoric GP lenses with chronic 3/9 staining
         2. Problems with decentration
         3. Corneal molding/spectacle blur rehabilitation

III. Basic Scleral Lens Assessment **Time:** 15 minutes

a. Free space evaluation after initial application
    i. Blue LED hand held light – assess for air bubbles, centration, size vs. Horizontal visible iris diameter
b. Slit Lamp evaluation
    i. Sagittal height discussion and evaluation
    ii. What is the optimal clearance over the cornea?
    iii. How much limbal clearance is necessary?
    iv. What do the peripheral curves look like?
        1. Compression/Blanching of conjunctival vessels
c. Additional online resources
    i. Sclerallenssociety.org
    ii. Laboratory Website
    iii. YouTube
d. Tools and solutions necessary for application and removal
    i. Inhalation solution (0.9% Sodium Chloride) 3 or 5mL vials
        1. Purilens Plus PF (Purilens Corp), ScleraFill, Lacripure
    ii. DMV scleral cup tool, DMV removal tool – DMV corporation
    iii. Lighted LED stand? – Dalsey Adaptives
    iv. Hand mirror
    v. GP lens soaking solution
        1. Boston Original, Boston Advanced, Boston Simplus
        2. UniquepH
        3. ClearCare
    vi. Cleaners
        1. Boston Advanced Cleaner
        2. Progent

IV. Additional special testing **Time:** 10 minutes

a. Pentacam/OCT/imaging
    i. Is this equipment necessary to prescribe and monitor patients?

V. Management **Time:** 10 minutes

a. Is the management of a scleral lens patient different than other CL patients?
b. Is hypoxia a concern?
c. 6 month follow up?
    i. Limbal assessment?
    ii. Corneal epitheliopathy?
    iii. Conjunctival compression after lens removal?

VI. Scleral Lens Designs and commercial availability **Time:** 5 minutes

a. Where can I order scleral lenses from?
    i. Many or most custom GP laboratories have their own scleral lens design
    ii. Differences in lens designs from different labs

VII. Questions & Wrap Up **Time:** 5-10 minutes