

## **What's the Solution? Update on Contact Lens Care and Compliance**

Susan J. Gromacki, O.D., M.S., F.A.A.O., F.S.L.S.

Director, Contact Lens Service

Washington Eye Physicians & Surgeons

711 Wayne Ave, Silver Spring, MD 21036

301-589-2211

[sgromacki3@hotmail.com](mailto:sgromacki3@hotmail.com)

New advances in scleral lenses and specialty lens designs have necessitated new paradigms for cleaning these contact lenses. Improper handling and care can impede success with these high-tech lenses. With another solution recall this past year, the U.S. Food and Drug Administration has once again taken the initiative to ascertain the safety of contact lens care products. This lecturer will present you the highlights from her invited presentation to the 2017 FDA Ophthalmic Devices Panel; FDA's recommendations; latest care products for your newest contact lens materials and designs; optimum methods of specialty contact lens care; biofilms; compliance; research; and what is planned for the future.

### **Objectives:**

1. To learn the importance of contact lens care.
2. To learn the differences between contact lens care products.
3. To learn the state of the market, including new formulations here and on the way.
4. To review scleral lens insertion and removal techniques.
5. To discuss the optimal methods for cleaning and disinfecting GP, hybrid, and soft specialty contact lenses, including scleral lenses.

### **I. Contact Lens Care: Recent History**

- A. The contact lens-associated keratitis outbreaks: lessons learned
- B. Solution uptake and release

### **II. New Materials, New Technologies**

- A. Hydrogel Lens Care
  1. Terminology
  2. Understanding lens care components
  3. Multipurpose systems
    - a. Surfactants/cleaners

- b. Chelating/sequestering agents
- c. Buffers
  - i. borate
  - ii. phosphate
  - iii. citrate
- d. Antimicrobials/disinfectants
  - i. polyhexamethylene biguanide (PHMB)
  - ii. alexidine
  - iii. polyquaternium-1 (Polyquad)

B. Products

**III. GP cleaning & disinfection**

- A. Brands/characteristics
- B. Scleral lens care
  - 1. Disinfection: Chemical vs. peroxide
  - 2. Fogging/debris prevention
  - 3. Filling the lens: saline/AT

**IV. Infectious Keratitis: bacterial, fungal, and protozoan**

**V. Contact Lens Care for the Newest Contact Lens Designs and Materials**

- A. Scleral Gas Permeable Contact Lenses
- B. Hybrid Contact Lenses
- C. Thick soft contact lenses for Irregular Corneas

**VI. Industry News and Information**

- A. International Prescribing and the U.S. market
- B. Recalled solutions
- C. Private label/ “generic” solutions
- D. Who needs a daily cleaner?
  - 1. Miraflo replacement
- E. Industry impact on contact lens care products

**VII. United States Food and Drug Administration (FDA) activities**

**VIII. New Research in Contact Lens Care and Compliance**

**IX. The Future**