

ASSIGNMENT 10

Material Covered:
Units 5.3, 5.4 and 5.5 of Module 5
of the IACLE Contact Lens Course

ASSIGNMENT 10

Read the questions carefully and record your answers on the answer sheet provided.

1. **Which one of the following statements regarding the use of H₂O₂ in the disinfection of soft contact lenses is NOT true?**
 - a. Suitable for all lens types
 - b. Cleaning and rinsing prior to disinfection is not necessary
 - c. Recommended disinfection time in 3% H₂O₂ is 6 hours
 - d. Can be formulated without preservatives

2. **A new rigid gas permeable (RGP) lens shows persistent wettability problems on the eye. What is the most likely cause of this problem?**
 - a. Excessive lens polishing during manufacture
 - b. Abnormalities in the glands of Krause
 - c. Inadequate edge clearance
 - d. Excessive tearing during the adaptation period

3. **What is the best way for a patient to remove RGP lens lipid deposits?**
 - a. Use an enzymatic cleaner weekly
 - b. Polishing the lens surface
 - c. Switch to hydrogen peroxide disinfection
 - d. Using an alcohol-based surfactant cleaner

4. **Which one of the following is an enzymatic cleaner that incorporates a combination of protease, lipase, and amylase?**
 - a. Papain
 - b. EDTA
 - c. Pancreatin
 - d. Subtilisin-A

5. **A patient who wears conventional soft contact lenses complains of a sudden reduction in lens tolerance and wearing time in both eyes, as well as burning and stinging upon lens insertion. Slit-lamp biomicroscopy reveals generalized conjunctival hyperaemia and diffuse corneal staining. What is the MOST likely cause of his problems?**
 - a. Contact Lens Acute Red Eye (CLARE)
 - b. Bacterial conjunctivitis
 - c. Lens front surface deposits
 - d. A solution sensitivity reaction

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6. **Which one of the following enzymatic protein removers is formulated specifically for use in hydrogen peroxide lens care systems?**
- Pancreatin
 - Subtilisin A
 - Papain
 - Subtilisin B
7. **Each of the following statements regarding the polymeric disinfectants used in multi-purpose contact lens solutions is true, EXCEPT:**
- Low toxicity, low incidence of sensitivity reactions
 - Large molecular size prevents absorption into lens matrix
 - Very effective against *Acanthamoeba* cysts
 - Rubbing and rinsing of the lens is still required
8. **A patient who only wears his contact lenses occasionally should be advised to store his lenses in which one of the following:**
- Unneutralized hydrogen peroxide
 - Multipurpose solution
 - Unpreserved saline solution
 - Distilled water
9. **All of the following are functions of re-wetting/lubricating eye drops for soft lenses, EXCEPT:**
- Flushing irritating particles from the eye and lens
 - Rehydrating lenses
 - Facilitating easy lens removal
 - Alleviating symptoms of dryness and discomfort
10. **Which one of the following is NOT an essential step in soft contact lens care and maintenance?**
- Disinfection
 - Protein removal
 - Rinsing
 - Cleaning
11. **An RGP lens has a hard, matt-looking deposit on both its front and back surfaces that is difficult to remove. This deposit also causes reduced lens wettability and patient comfort. Which type of deposit is it MOST likely to be?**
- Lipids
 - Calcium
 - Jelly bumps
 - Protein

12. Which statement regarding thermal disinfection of soft contact lenses is NOT true?

- a. Can cause lens discolouration
- b. Not very effective
- c. Denatures tear protein deposits on lenses
- d. Incompatible with some lens materials

13. What is the function of the buffer system in contact lens solutions?

- a. To adjust and maintain solution pH
- b. To enhance the solution's viscosity
- c. To adjust the solution's osmolality
- d. To improve lens wettability

14. What is the minimum time needed for exposure to 3% H₂O₂ to effectively inactivate bacteria?

- a. 5 minutes
- b. 15 minutes
- c. 30 minutes
- d. 60 minutes

15. Which one of the following statements is TRUE?

- a. RGP lens materials are more rigid than PMMA
- b. High Dk RGPs for daily wear are more deposit prone than their low Dk counterparts
- c. Rigid lenses should preferably be cleaned between the thumb and forefinger
- d. When an RGP lens is stored dry, its BOZR will flatten temporarily

16. Which one of the following is NOT a principal function of a soft lens rinsing solution?

- a. Emulsification of oils and lipids on the lens surface
- b. Removal of residual cleaner
- c. Rehydration of the lens
- d. Removal of loosened lens contaminants

17. Which one of the following deposits is MOST likely to accumulate on fluoro-siloxane contact lens materials?

- a. Rust spots
- b. Jelly bumps
- c. Lipid deposits
- d. Denatured protein

18. With regard to papain, which statement is NOT true?

- a. It is a protein-specific enzyme
- b. Derived from the pancreas of the pig
- c. Can bind to lens materials and cause sensitivity reactions
- d. Recommended lens soaking time is 15 minutes

- 19. Which one of the following is a chelating agent, usually used as an antimicrobial enhancer in combination with other preservatives?**
- a. Thimerosal
 - b. ATAC
 - c. Chlorhexidine
 - d. EDTA
- 20. The amount of deposits that accumulate on an RGP lens is largely independent of:**
- a. Tear quality
 - b. Lens care regimen
 - c. Dk of lens material
 - d. Wearing schedule