



# **IACLE Distance Learning Program (DLP)**

## **Phase 3 Assignment 9:**

**Course content covered:**

**D3: Soft Contact Lens Complications**

**D4: Dry Eye & Contact Lenses**

**From the New IACLE Contact Lens Course (New ICLC)**



## ASSIGNMENT 9

Read the questions carefully and record your answers on the answer sheet template

1. **A conventional SCL wearer complains of a sudden reduction in CL tolerance and wearing time in both eyes, along with burning and stinging upon CL insertion. Slit-lamp biomicroscopy reveals generalized conjunctival hyperaemia and diffuse corneal staining. What is the MOST likely cause of their problems?**
  - a. CL Acute Red Eye (CLARE)
  - b. Bacterial conjunctivitis
  - c. CL front surface deposits
  - d. A solution sensitivity reaction
  
2. **Which one of the following is NOT usually a sign of CLARE?**
  - a. Diffuse stromal infiltrates
  - b. A watery discharge
  - c. Central corneal oedema
  - d. Significant epithelial staining
  
3. **Which one of the following is typical of a CL-induced peripheral ulcer (CLPU)?**
  - a. Increases in size over time
  - b. Bowman's layer remains intact
  - c. Usually occurs in or near the central cornea
  - d. Is accompanied by anterior chamber involvement
  
4. **Which clinical observation is MOST likely to result in patient symptoms?**
  - a. Corneal vascularization
  - b. Epithelial microcysts
  - c. A SEAL (superior epithelial arcuate lesion)
  - d. Epithelial staining associated with solution toxicity
  
5. **Which statement regarding SEALS is CORRECT?**
  - a. Usually 3 to 5 mm from the limbus
  - b. Stain with fluorescein but not with Rose Bengal
  - c. Usually in or around the 3 & 9 o'clock positions
  - d. More common in female presbyopes
  
6. **The MOST significant factor in the aetiology of CL-induced acute red eye (CLARE) is:**
  - a. SCL EW
  - b. Being female
  - c. Change of seasons
  - d. Having worn CLs for 3 years or more



7. Which of the following is probably NOT a contributing factor to the aetiology of SEALs?
- Tight upper eyelids
  - Inadequate CL flexure
  - Tight CL fitting
  - Hypoxia
8. All of the following have been proposed as possible factors contributing to microbial keratitis (MK) EXCEPT:
- Inadequate post-lens tear film (PLTF) volume
  - Deposits on the CL surface
  - Stagnation of the PLTF
  - Poor patient compliance
9. Which one of the following factors is the LEAST likely to cause, or result in, an ocular immunological reaction?
- Micro-organisms
  - Denatured tear proteins
  - Components of CL care products
  - Finger-borne lens contaminants
10. When differentiating corneal endothelial guttata from endothelial blebs, which statement is INCORRECT?
- Blebs are transient, guttata are not
  - Guttata involve an endothelial area equivalent to several cells
  - Guttata tend to appear to be convex while blebs appear to be concave
  - Guttata do not necessarily appear black
11. Which one of the following factors is LEAST likely to result in corneal vascularization?
- Tight fitting, high-BVP hydrogel CL
  - High-BVP, SiHy CL
  - Lactic acid accumulation under a thick hydrogel CL
  - Inflammatory mediators
12. Which one of the following factors is MOST likely to cause CL-induced ocular discomfort?
- Solution-mediated toxicity
  - A well-finished, thin-edged CL design
  - A near-new, molded hydrogel CL
  - A two-week old, disposable EW CL



13. Which statement regarding SCL-induced oedema is INCORRECT?
- Diffuse
  - Involves the entire cornea
  - Greater peripherally than centrally
  - Occurs in an anterior-posterior direction
14. Which of the following is the LEAST useful in differentiating epithelial microcysts from mucin balls, vacuoles, bullae, and dimple veiling?
- Reversed or unreversed effect on incident illumination
  - Size
  - Colour
  - Marginal retro-illumination
15. Which one of the following is probably the MOST 'efficient' means of preventing ocular complications of CL wear?
- Wearer selection
  - CL selection
  - Wearer education
  - Regular after-care examinations
16. When a conventional  $-9.00$  D hydrogel CL is worn during eye closure, the topographical corneal swelling could best be described as:
- Much less swelling in the corneal periphery than the corneal centre
  - Slightly less swelling in the corneal periphery than the corneal centre
  - Uniform corneal swelling across the cornea
  - Greater swelling under the thickest part of the lens than either the corneal centre or periphery
17. What should be a practitioner's FIRST action in the effective management of a CL wearer presenting with an ocular complaint?
- Measure visual acuity
  - Take a thorough case history
  - Perform slit-lamp biomicroscopy
  - Assess the CL fit
18. Which statement regarding epithelial microcysts is INCORRECT?
- Small,  $20\mu\text{m}$ , usually circular
  - Located in the central and paracentral cornea
  - Refractive index is higher than the surrounding medium
  - Behave like concave refractors



- 19. Compared with daily wear (DW), CLs worn on an extended wear (EW) basis increases the likelihood of corneal infection (MK) by:**
- 1.5 to 2.5X
  - 3 to 8X
  - 10 to 24X
  - About 40X
- 20. Which one of the following is NOT a typical sign of CL care solution sensitivity?**
- Mucopurulent discharge
  - Corneal infiltrates
  - Punctate epithelial staining
  - Changes in the palpebral conjunctiva
- 21. Microorganism adhesion is seen maximally on:**
- HEMA-based hydrogel CLs
  - 2<sup>nd</sup> Generation SiHy CLs
  - 1<sup>st</sup> Generation SiHy CLs
  - Rigid Gas Permeable CLs
- 22. What slit-lamp microscope magnification range is required for microcyst observation?**
- 30X-40X
  - 20X-25X
  - 15X-20X
  - 10X-15X
- 23. Oral intake of dietary Omega 3 fatty acids is a possible management strategy for:**
- Corneal Oedema
  - CL-induced acute red eye (CLARE)
  - Corneal vascularization
  - CL discomfort
- 24. Lid wiper epitheliopathy (LWE) can cause:**
- CL discomfort (CLD)
  - CLARE
  - CLPU
  - SEALs
- 25. Which one of the following conditions is the MOST common aetiology of dry eye syndrome?**
- Aqueous deficiency
  - Mucin deficiency
  - Lipid abnormalities
  - Lid surfacing abnormalities



- 26. Which one of the following signs is NOT consistent with the condition of dry eye?**
- Debris in the tear menisci
  - Increased maximum blink interval (MBI)
  - A reduced tear meniscus
  - Rose Bengal staining of damaged epithelia
- 27. Which one of the following is NOT an effect of a CL on the adapted anterior eye?**
- Altered mucus production
  - Tear film hypotonicity
  - Altered menisci along upper and lower lid margins
  - Increased tear film evaporation
- 28. In the case of the tear film in a closed eye, which one of the following statements is INCORRECT?**
- Increased production of albumin
  - Increased production of sIgA
  - Increased reflex secretion
  - Increased susceptibility to inflammation
- 29. The bromothymol blue test is used to measure which one of the following**
- Tear pH
  - Tear osmolality
  - Tear viscosity
  - Tear tonicity
- 30. Which of the following is not a management strategy for a dry eye case due to surface abnormalities?**
- Taping the eyelids shut
  - Requesting a tarsorrhaphy
  - Scleral or miniscleral CLs
  - Eyelid hygiene