

## **Dry Eye Disease: Diagnosis and Treatment Pearls from the Trenches (1 hour)**

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### Summary

With the amount of current information available regarding dry eye disease, it can sometimes become overwhelming to assimilate it into clinical meaningful ways. This course will highlight clinically applicable diagnostic and treatment pearls to optimize the outcomes for your dry eye patients and introduce a process in the practice to efficiently manage this ubiquitous condition.

### Learning Objectives

- 1) Discussion of the diagnostic tests available to help in diagnosing and monitoring treatment success including effective creation of diagnostic protocols
- 2) Understand logical incorporation of treatments into the busy clinical practice
- 3) Utilize the information to optimize patient outcomes through review of case presentations

### Course Outline

- 1) Understanding the Pathophysiology and Prevalence
  - a. Understanding the causes:
    - i. Poor aqueous production
    - ii. Deficient mucin layer
    - iii. Deficient lipid layer
  - b. Understanding the creation of a hyperosmotic tear film
    - i. The creation of a pro-inflammatory environment
  - c. Understand the inflammatory consequences
  - d. Discuss potential effects on the conjunctiva and cornea
- 2) How will the process work in your practice?
  - a. What does your process in your practice currently look like?
  - b. How will you identify dry eye patients
  - c. When do you have the discussion with patients
  - d. When/how do you begin treatment?
  - e. Different types of patient encounters
    - i. New patient coming in with chief complaint of dry eye
      1. How will this occur?
      2. Will there be certain diagnostics that occur before you see them?
      3. Will you see the patient first and then order the tests?
    - ii. Patient referred in for dry eye treatment

- iii. Patient discovered during routine exam
      - 1. Will there be any screening that occurs?
      - 2. Will technicians be empowered to run certain diagnostics?
      - 3. How will you identify these patients during the exam?
      - 4. Will you begin treatment?
    - f. Different philosophies
      - i. Begin diagnostics and treatments during exam
      - ii. Re-schedule for diagnostics and treatment
- 3) Creating efficiencies in the process:
  - a. Diagnosis
    - i. Case history
      - 1. Standardized questionnaires
        - a. OSDI
        - b. SPEED
    - ii. Diagnostic work up
      - 1. Anterior examination process along with some clinical pearls
        - a. Eyelashes
          - i. Collarettes
          - ii. Volcano sign
        - b. Eyelids
          - i. Margin irregularity
          - ii. Lid seal
        - c. Meibomian glands
          - i. Function
          - ii. Structure (advanced imaging)
        - d. Fluorescein stain/lissamine green stain
          - i. Ocular surface – cornea, conjunctiva
          - ii. Tear film
        - e. Phenol red thread/schirmers
        - f. Tear osmolarity
        - g. Inflammation levels
  - b. Determine the contributory cause
    - i. Accumulate the diagnostic information and assess the major contributory reason for the cause of the ocular surface imbalance
    - ii. Will likely be a contributory through multiple pathways
- c. Create a treatment plan
  - i. Determine major contributory path signs and symptoms
  - ii. Begin treatment
    - 1. Environmental modifications
    - 2. Artificial Tears
    - 3. Supplements
    - 4. Prescription Treatment
      - a. Topical corticosteroids
      - b. Nasal spray
      - c. Oral antibiotics

- d. Cyclosporine 0.09%
- e. Lifitegrast 5%
- f. Cyclosporine 0.05%

Meibomian gland function

- 5. Daily thermal therapy
- 6. Lipiflow
- 7. TearCare
- 8. iLux

- iii. Neural stimulation
- iv. Autologous serum
- v. Punctal plugs

- 4) Follow-up visits
  - a. Monitor therapy
  - b. Identify those measurable markers including: case history (standardized questionnaire), physical exam and monitoring compliance with therapy
  - c. Keys to succeeding with therapeutic regimens
- 5) Importance of managing condition
  - a. Discuss the disconnect that is sometimes noticed between the signs and symptoms of dry eyes
    - i. Review current literature to describe this further
  - b. Develop a standard protocol
  - c. Understanding the logic behind actively managing dry eyes
- 6) Case Presentations Illustrating concepts discussed to guide the attendee through the whole process and implement confidently into their practices