

## **Boat Anchors, Devices or Toys? Pathways to Dry Eye Success**

### **2 Hours**

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#### **Description**

Interventional dry eye treatments are now driven by in-office devices to aid the optometrists diagnosis and treatment. We will review in-office technologies and explore why some financial outlays become your boat anchor (and not used) versus effective treatments that patients come back asking for more.

#### **Learning Objectives**

- Review DEWS III principles
- Gain knowledge of device options for treating ocular surface disease and meibomian gland dysfunction
- Learn indications and contraindications for each interventional treatment
- Learn how to incorporate new device technology into patient work flows

#### **Outline**

1. Overview of ocular surface disease toys (devices)
  - a. DEWS III: interventional treatments
  - b. Diagnostics
  - c. Light devices
  - d. Muscle stimulation device
  - e. Meibum melting devices
  - f. Massaging and compression devices
  - g. Microblepharoexfoliation devices
  - h. Esthesiometer
  - i. Plugging options
2. DEWS II vs DEWS III
  - a. Brief overview
  - b. The role of interventional dry eye
  - c. Paradigm change
  - d. Definition
  - e. Core changes from II to III
3. Why do some devices become boat anchors in your office
  - a. Financial outlay
  - b. Training of docs
  - c. Training of staff
  - d. Paradigm changes
  - e. Consumables
  - f. Return on Investment

- 4. Diagnostic devices
  - a. Meibographs
    - i. Device options
    - ii. Pictures that tell 1,000 words
    - iii. Aid in patient education
    - iv. Patient understanding
  - b. Ancillary testing
    - i. Osmolarity
      - 1. consumables
    - ii. Inflammatory markers: MMP
      - 1. consumables
    - iii. What do you need to make a clinical decision?
      - 1. Does it alter your treatment?
      - 2. How to use the data to make decisions
- 5. Light devices
  - a. IPL principles
  - b. How it works
    - i. Light and cut off filters
  - c. Why it works
    - i. Targets hemoglobin
    - ii. Targets melanin
  - d. What do we know about IPL and DED?
    - i. Introduction to evidence-based studies
      - 1. IPL history
      - 2. IPL for DED in studies
  - e. IPL general principles
    - i. Fitzpatrick skin type
      - 1. Joule changes by Fitzpatrick
    - ii. Duration of treatment, Frequency of visits
    - iii. FDA approvals
      - 1. Fitz I-IV
        - a. How to treat Fitz V and VI
      - 2. Risks by the OD of advertising non-FDA approved treatments
    - iv. FDA off-label use
      - 1. Chalazion
        - a. Off-label and avoiding the needle
      - 2. Full face
        - a. Your state law
  - f. IPL Contraindication intro
    - 1. Sun exposure to avoid
    - 2. Systemic conditions to avoid
  - g. Consumables

## 6. LLLT

- a. How it works
  - i. Photobiomodulation principles
- b. Treatment indications
- c. What do we know about DED treatments
  - i. Reds
  - ii. Mitochondria and ATP
- d. What do we know about bacteria treatments
  - i. Blues
  - ii. porphyrins
- e. LLLT contraindications
- f. Consumables

## 7. Dynamic muscle stimulation

- a. How it works
  - i. How much should we be paying attention to lid mechanics
- b. Why it works
  - i. FDA approval
  - ii. Lid mechanics role in DED
- c. Contraindications
- d. Combination treatments with light and heat
- e. Consumables

## 8. Melting devices

- a. Radio Frequency principles for MGD
  - i. Water, grounds
  - ii. Probe type
  - iii. Effectiveness and studies
  - iv. Equipment needed for DED
  - v. Frequencies, penetration depths
  - vi. Consumables
  - vii. Off label uses in optometry
    1. Can you perform and advertise aesthetic treatments
    2. Review state law principles
- b. Non-RF heat devices in-office
  - i. How it works
    1. Devices that heat in-office for patients
      - a. With massage for expression embedded into the device
    2. Devices that heat in-office for patients
      - a. With manual expression required afterwards
  - ii. Studies evaluating effectiveness of in-office heat treatments
  - iii. Cochrane review of devices

- iv. Consumables
  - c. Non-RF heat devices at-home
    - i. Review of meibum melting and why at-home has to meet specific temperatures
    - ii. Is heat alone enough or do we need massage of the glands to express
9. Massaging and compression devices
- a. NuLids and iLux
  - b. At-home massage care vs in-office provider care
    - i. Can we trust our patients with at-home care?
    - ii. In-office compression principles
  - c. Can patients self-massage effectively with their finger tips?
  - d. Consumables
10. Microblepharoexfoliation devices
- a. BlephEx, Zest
  - b. How they work
    - i. In-office treatments
  - c. Other options for staff to treat in-office
    - i. Okra based
  - d. Rx options for demodex
  - e. Are lid wipes doing anything?
  - f. Consumables
11. Ethesiometer
- a. Role of corneal sensitivity
  - b. Is dental floss good enough?
12. Plug options
- a. Permanent vs temporary
  - b. Hyaluronic acid vs traditional
13. Q&A / Discussion