ASCRS
FOR SURGEONS. FOR YOU.

ASCRS PREOPERATIVE OSD ALGORITHM

PREOPERATIVE VISIT
≥ 2 week CL holiday/
no drops within 2–4 hours prior

*START HERE

NONINVASIVE REFRACTIVE PREOP MEASUREMENTS
(e.g., keratometry, topography, optical biometry, aberrometry, etc.)

Are all measures of average keratometry within 1 D and steep axis of astigmatism within 10°?

Yes → **NEGATIVE SCREEN** (All normal) **OSD UNLIKELY**

No → **POSITIVE SCREEN** (Any abnormality) **OSD LIKELY**

OSD SCREEN

SYMPTOMS?
1. ASCRS Preop OSD Questionnaire

SIGNS?
2. +/- Osmolarity
3. +/- Inflammatory Marker (MMP-9)
4. +/-NI-TBUT

To help establish OSD subtype and visual significance
OPTIONAL NONINVASIVE OSD TESTS
(e.g., meibography, lactoferrin/IgE, OCT TMH, OSI, LLT, NI-esthesiometry)

CLINICAL EXAM (LLPP) FROM LEFT TO RIGHT

- **Look:** At face/skin, blink, lids, lashes, interpalpebral surface, tear meniscus, "look down" for collarettes
- **Lift:** Upper lid, examine superior surface
- **Pull:** Assess lid laxity 'floppy eyelids,' fornices, lacrimal gland
- **Push:** Meibomian gland expression
- +/-Corneal Sensitivity Testing
- **Stain** *(dye instillation)*: Corneal staining? TBUT? +/-Schirmer's IOP?

OSD RULED OUT
No symptoms/**No** signs/**Normal** exam/**No** corneal staining

OSD RULED IN
Any combination of abnormal signs and/or symptoms; visual significance based on results of above

- **NEUROPATHIC PAIN** VS. **EARLY SITUATIONAL OSD/DED**
  ⊕ Symptoms/**No** signs/**Normal** Exam/⊖ Stain
  - *NO elective refractive surgery if neuropathic pain*
  - **NON-VISUALLY SIGNIFICANT OSD (NVS-OSD)**
    (e.g., normal cornea, normal topography/regular astigmatism, reliable and consistent refractive measurements)
    - **SURGERY PROCEEDS**
      Counsel patient OSD/pain may worsen postoperatively; start prophylactic treatment
- +/- Symptoms, < Signs → **NON-VISUALLY SIGNIFICANT OSD (NVS-OSD)**
- **NEUROTROPHIC**
  No Symptoms/⊕ Signs/⊕ Exam/⊕ Stain
- > Signs → **VISUALLY SIGNIFICANT OSD (VS-OSD)**
  (e.g., corneal abnormality, central PEE, irregularly irregular astigmatism, fluctuating vision, etc.)
  - **SURGERY DELAYED**
    Refractive measurements unreliable; identify all OSD subtypes
    - **EXPOSURE/LID MALPOSITION** (e.g., lagophthalmos, floppy eyelid)
    - **DRY EYE DISEASE** EDE (MGD) > ADDE
    - **LUMPS & BUMPS** (e.g., EBMD, nodules)
    - **CONJUNCTIVITIS** (e.g., allergic, infectious)
    - **TREATMENT PLAN**
      Based on subtype and severity of each OSD; combined medical and procedural interventions
      - Next office visit in 2–6 weeks; start at **beginning** of algorithm.
      - **ONCE VS-OSD IS CONVERTED TO NVS-OSD**

OPTIONAL INVASIVE REFRACTIVE TESTS
(e.g., immersion and/or contact A, B scans, etc.)
Finalized refractive surgical plan (e.g., IOL, LRI, LVC, etc.)

NEXT VISIT IS SURGERY

*END HERE