

Red, Green or Yellow : Understanding ocular surface staining

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Outline

I. Overview of ophthalmic dyes/filters

- A. Ophthalmic dyes
 - 1. Rose bengal
 - 2. Lissamine green
 - 3. Fluorescein (low and high molecular weight)
 - 4. Alcian blue
- B. Filters
 - 1. Wratten filter (yellow barrier filter)
 - 2. Others

II. Use of ophthalmic dyes in clinical assessment of the ocular tissues

- A. Biomicroscopic evaluation (meniscus, CL fitting)
- B. Corneal integrity (mechanical, toxic, defect)
- C. Conjunctival integrity (bulbar, palpebral)
- D. Tear film stability testing (TBUT)
- E. Nasolacrimal route patency (Jones test)
- F. Integrity of the anterior chamber (Seidel test)
- G. To facilitate other tests (ex. applanation tonometry)

III. Staining of ocular tissues

- A. Corneal staining
 - 1. In relation to;
 - a. ocular disease (herpes, dry eye, etc.)
 - b. mechanical irritation
 - c. contact lens wear
 - 2. Clinical interpretation
 - a. Staining grid (Andrasko/IER grids)
 - b. Preservative-associated transient hyperfluorescence (PATH)
- B. Conjunctival staining
 - 1. bulbar
 - 2. palpebral
 - a. upper lid margin staining-ULMS
 - b. lid wiper epitheliopathy

IV. Clinical Management

- A. Incorporating ophthalmic dyes into routine clinical care