



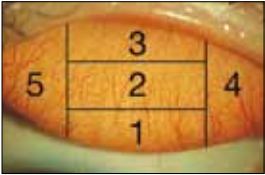
# GRADING SCALES

	1. VERY SLIGHT	2. SLIGHT	3. MODERATE	4. SEVERE
<b>BULBAR REDNESS</b>				
<b>LIMBAL REDNESS</b>				
<b>LID REDNESS (area 2)</b>				
<b>LID ROUGHNESS: WHITE LIGHT REFLEX (areas 1, 2)</b>				
<b>LID ROUGHNESS: FLUORESCEIN (area 2)</b>				
<b>CORNEAL STAINING: TYPE</b>				
<b>CORNEAL STAINING: DEPTH</b>				
<b>CORNEAL STAINING: EXTENT (area 5)</b>				
<b>CONJUNCTIVAL STAINING</b>				

## APPLICATION OF GRADING SCALES

- Patient management is based on how much the normal ocular appearance has changed.
- In general, a rating of slight (grade 2) or less is considered within normal limits (except staining).
- A change of one grade or more at follow up visits is considered clinically significant.

## PALPEBRAL CONJUNCTIVAL GRADES



- The palpebral conjunctiva is divided into five areas to grade redness and roughness.
- Areas 1, 2 and 3 are most relevant in contact lens wear.

## ADVERSE EFFECTS WITH CONTACT LENSES

### CLPC CONTACT LENS PAPPILARY CONJUNCTIVITIS

Inflammation of the upper palpebral conjunctiva



#### Signs

- Redness
- Enlarged papillae
- Excess mucus

#### Symptoms

- Itchiness
- Mucus strands
- Lens mislocation
- Intolerance to lenses

### INFILTRATES

Accumulation of inflammatory cells in corneal sub-epithelial stroma.  
Inset: high magnification view



#### Signs

- Whitish opacity (focal) or grey haze (diffuse)
- Usually confined to 2-3mm from limbus
- Localized redness

#### Symptoms

- Asymptomatic or scratchy, foreign body sensation
- Redness, tearing and photophobia possible

### CLARE CONTACT LENS ACUTE RED EYE

An acute corneal inflammatory episode associated with sleeping in soft contact lenses



#### Signs

- Unilateral
- Intense redness
- Infiltrates
- No epithelial break

#### Symptoms

- Wakes with irritation or pain
- Photophobia
- Lacrimation

## POLYMEGETHISM



## VASCULARIZATION



Vessel extension beyond translucent limbal zone is recorded (mm)

## STROMAL STRIAE and FOLDS



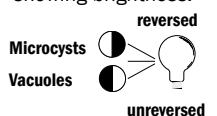
One striae = 5% edema  
One fold = 8% edema  
(each additional striae or fold indicates 1% more edema)

Record number observed

## MICROCYSTS and VACUOLES



Located in epithelium. Identified by side showing brightness.



Record number observed

## CORNEAL STAINING GRADES

- Staining assessed immediately after single instillation of fluorescein using cobalt blue light and wratten 12 (yellow) filter over the slit lamp objective.
- The cornea is divided into five areas. The type, extent and depth of staining are graded in each area.



#### Type

- 1 Micropunctate
- 2 Macropunctate
- 3 Coalescent macropunctate
- 4 Patch

#### Extent Description

- 1 ≤5%
- 2 6-15%
- 3 16-30%
- 4 >30%

#### Depth Description\*

- 1 Superficial epithelium
- 2 Deep epithelium, delayed stromal glow
- 3 Immediate localized stromal glow
- 4 Immediate diffuse stromal glow

\* Based on penetration of fluorescein and slit lamp optic section

## EROSION

Full thickness epithelial loss over a discrete area



#### Signs

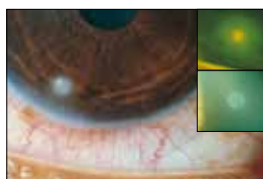
- No stromal inflammation
- Immediate spread of fluorescein into stroma

#### Symptoms

- Can be painful
- Photophobia
- Lacrimation

## CLPU CONTACT LENS PERIPHERAL ULCER

Round, full thickness epithelial loss with inflamed base, typically in the corneal periphery which results in a scar. Insets: with fluorescein, scar



#### Signs

- Unilateral, "white spot"
- Localized redness
- Infiltrates
- Post healing scar

#### Symptoms

- Varies from foreign body sensation to pain
- Lacrimation and photophobia may occur

## INFECTED ULCER

Full thickness epithelial loss with stromal necrosis and inflammation, typically central or paracentral



#### Signs

- Intense redness
- "White patch" (raised edges)
- Infiltrates
- Epithelial and stromal loss
- Anterior chamber flare
- Conjunctival and lid edema

#### Symptoms

- Pain, photophobia
- Redness, mucoid discharge
- ↓ VA (if over pupil)