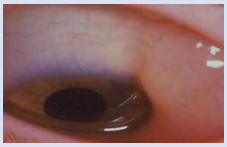
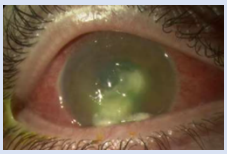
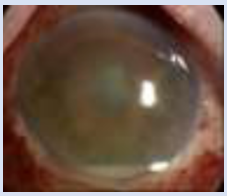
ICU Eye Care Guidelines

- Eye care should be assessed and recorded daily on the 24hour chart

Situation	Recommendation
All patients who do not meet 'opt out' criteria below	Eye ointment QDS *Prescribing info below*
Exposed cornea  *any iris (coloured part) visible when asleep/sedated?*	Eye ointment QDS + tape lid overnight (micropore*) *Alternatives to taping below*
Chemosis  *conjunctival oedema/ "bubble" in the white of the eye*	Eye ointment QDS + tape lid overnight (micropore*)
Proned and unconscious	Eye ointment + tape lids prior to proning Careful head positioning to avoid direct pressure
Red eye  *corneal opacity*  *hypopyon (white fluid level at the base of the eye)*	Examine with bright light to rule out corneal opacity If sticky, take swab + chloramphenicol ointment QDS 1 week If not sticky, increase lubrication +/- tape lids*; reassess 24hr Discuss with ophthalmology if concerned, or if corneal opacity hypopyon fixed dilated pupil

Notes and prescribing advice

'Opt out' criteria: not all patients require eye lubrication

- Patients who are not sedated and are blinking normally, with good eyelid closure, do not need ointment
- In these patients, if the eyes are comfortable, nothing is needed. If the eyes feel dry:
    - Carbomer gel, 1 drop QDS +/- PRN, is a suitable lubricant for symptomatic relief for mild dry eyes (it is thinner and less protective than ointment, but does not blur the vision)
    - Some patients on NIV or mask oxygen may benefit from this or ointment, though if it is blowing in the patient's eyes please first ensure it is fitted correctly

Applying ointment

- Using sterile water-soaked gauze, gently wipe along the lower lid from inside to out
- Apply a small line of ointment along the inside of the bottom lid (between lid and conjunctiva)

Prescribing ointment

- Xailin Night ointment is currently used in Lothian and is equivalent to Lacrilube. Ideally prescribe as:
  Xailin Night eye ointment, I application TOP both eyes QDS – avoid overnight application
- Any lubricating soft paraffin-based eye ointment is suitable
- Separate tubes for each eye are **not** required unless there is active concern about eye infection

Taping the eyes (* above):

- Micropore tape or clear eye patches work well for taping
- Consider full-time taping for severe exposure/chemosis
- If hindering communication, consider taping the eyes alternately
- If cannot tape the eyes, or taping is distressing the patient, increase frequency of eye ointment (6-8x daily) instead of tape

Beware of contact lenses

- These should be removed on admission if the patient is too unwell to manage them: check with family regarding potential contact lens use (as they may not be clearly visible) and whether they can bring their glasses in
- Fluorescein dye may be used to help identify contact lenses if any doubt

Systemic Fungaemia / fungal positive blood cultures

- If patient verbal and asymptomatic – ophthalmology review within 2 weeks
- If patient verbal and symptomatic (i.e. blurred vision) – **urgent** ophthalmology review
- If patient non-verbal (intubated or unable to communicate) – ophthalmology review within 1 week

What we are aiming to prevent

Patients in ICU are at risk of several eye problems:

- Exposure keratopathy (the clear cornea drying out and becoming damaged and opacified)
- Chemosis (conjunctival oedema – which can be a cause or consequence of exposure)
- Direct minor trauma (e.g. corneal abrasions)
- Corneal ulceration / microbial keratitis (all of the above are risk factors for this)
- Sight-threatening complications of proning (various ischaemic ocular insults; angle closure)
- Discomfort from dry eyes

Acknowledgement

Some of the recommendations and images above are adapted from the joint ICS/RCOphth guideline entitled 'Eye Care in the Intensive Care Unit', available from https://www.rcophth.ac.uk/wp-content/uploads/2020/04/Eye-Care-in-the-Intensive-Care-Unit-2020.pdf

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	Authors: Nikki Hall, Zuhair Mustafa, Cameron Ferguson
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