MANAGEMENT OF CORNEAL CONDITIONS IN EYE CASUALTY

ACUTE BACTERIAL KERATITIS (including ACUTE CONTACT LENS RELATED KERATITIS)

Immediate management:

(a) <1 mm infiltrate / epithelial defect:

g Ofloxacin one hourly daytime for 48 hours and thereafter 4×/day +
oc chloramphenicol nocte for 7 days +
g Cyclopentolate 1% bd

(b) >1 mm infiltrate / epithelial defect:

Send corneal scrape and contact lens for gram stain & C/S to microbiology (no need for PCR)
g Ofloxacin +/- g Penicillin (or g Cefuroxime) hourly day & night 48 hours; thereafter 6×/day +
oc chloramphenicol nocte for 7 days +
g Cyclopentolate 1% bd

Senior review: Any unusual features or suspicion of acanthamoeba / fungal keratitis - discuss with corneal team/consultant (PCR samples can be sent if agreed by corneal team)

Follow up: review in eye casualty in 72 hours and reduce antibiotic drops to 4 to 6×/day
(persistent hourly drops are TOXIC to the corneal epithelium and can DELAY the recovery)

HERPES SIMPLEX KERATITIS

Immediate management:

(a) Epithelial: oc acyclovir 3% (1st line) (*2nd line: 0.15% Ganciclovir*) 5x/day for 2 weeks
(b) Disciform: oc acyclovir 3% (1st line) (*2nd line: 0.15% Ganciclovir*) 5x/day (or PO Aciclovir 400 mg 3-5 ×/day particularly inocular surface disease) PLUS g Dexamethsone 0.1% 4×/day tapering over 4 weeks

Senior review: If contact lens wearer, consider discussing with corneal fellow/consultant

Follow up: Not needed for typical dendrite; PCFU 2 to 3 weeks for other cases
If recurrent herpetic keratitis, ask GP to refer to LOCAL corneal unit for long-term management

ADENOVIRAL KERATO-CONJUNCTIVITIS

Immediate management:

Clinical diagnosis (PCR usually not required)
Ocular and hand hygiene
g ocular lubricants 4x/day +/- g Acular 3x/day
Avoid topical steroids as it leads to long-term steroid dependency

Follow up: Discharge / SOS

MARGINAL KERATITIS

Immediate management:

g Maxitrol 4x/day tapering over 3 weeks
Treat associated blepharitis / Rosacea

Senior review: If diagnosis in doubt

Follow up: PCFU 2-3/52**.** If multiple episodes, ask GP to refer to LOCAL eye unit

RECURRENT CORNEAL EROSIONS

Immediate management:

Debride corneal epithelium with moist sponge/cotton bud if dead heaped up epithelium
oc Chloramphenicol 4x/day for 5 days +/- g Cyclo 1% bd for 2 days, followed by
g Hyabak 4x/day and oc Xailin night / Vitapos nocte for at least 2 weeks

Senior review: Not usually required

Follow up: Discharge/ SOS. If multiple episodes, ask GP to refer to LOCAL corneal unit

CORNEAL FOREIGN BODY

Immediate management:

Remove foreign body if not too deep and consider plating if unusual material.
oc Chloramphenicol 4x/day for 5 days +/- g Cyclopentolate 1% bd

Senior review: If very deeply embedded or unusual material

Follow up: Not usually required. Discharge / SOS

CORNEAL ABRASION

Immediate management:

oc chloramphenicol 4x/day +/- g Cyclopentolate 1%
stat **Follow up:** Discharge / SOS

CORNEAL GRAFT REJECTION

(Uveitis in corneal graft is rejection until proven otherwise)

Immediate management:

g Dexamethasone one hourly day (+/- night) for 3-5 days
+ oc Betnesol nocte for 7 days +
g Cyclopentolate 1% bd for 5 days

Senior review: Discuss with corneal fellow/consultant if pulsed iv Methylprednisolone and/or oral steroids is required

Follow up: By corneal team in one week or sooner

CORNEAL GRAFT LOOSE SUTURE

Immediate management:

Remove loose suture from recipient side and check for wound leak.
g Chloramphenicol 4x/day and g Dexamethsone 4x/day.
If signs of infection, send suture material for C/S

Senior review: If wound leak or any concerns, discuss with corneal fellow/consultant

Follow up: PCFU in 1 to 2 weeks and notes to corneal team

ACUTE CORNEAL HYDROPS

Immediate management:

g lubricants 4x/day and PRN +/- g Cyclopentolate 1% bd +/- g 5% Sodium chloride 4x/day (g FML if clinic appointment is already booked)

Follow-up: PCFU 4 weeks. Ask GP to refer to LOCAL corneal unit for long-term management

CHEMICAL EYE INJURY

Immediate management:

pH: This is a priority before any further history or examination. Irrigate copiously until pH is neutral (about 7)
Double evert the upper lids and remove any retained particulate matter

Further Assessment:

Assess Limbal ischaemia. Get senior help If any uncertainty about limbal ischaemia Assess extent of corneal and conjunctival involvement
Check IOP (and fundus if possible, particularly in severe cases)

Treatment:

Use preservative free topical medications
g Chloramphenicol PF 4x/day
g Dexamethasone PF 4-8 x/day
g Hyloforte 8x/day
g Cyclopentolate 1% PF bd
g Sodium ascorbate 10% 4-6x/day (Do not use in acid burns)
Manage raised IOP
PO Vitamin C 1g bd
PO Doxycycline 50-100 mg bd
Oral analgesia

Senior review: If pH not normalising or more than 50% of the bulbar conjunctiva is staining.

Discuss with the corneal fellow/consultant if limbal ischaemia is greater than 4 clock hours or opaque cornea with obscuration of iris details

Follow up: Severe cases - Consider admission (or review 1-3 days in eye casualty)
Mild cases - Review in PCFU / eye casualty in a week.