OPHTHALMOLOGY INFECTION GUIDANCE

NHS Tayside

- **STOP and think before you prescribe antimicrobials. Does your patient actually have an infection that requires treatment? Always document the indication and planned duration for antibiotics in the medical notes and for hospital inpatients on the medicine chart/HEPMA.**
- **All recommendations are for non pregnant adults and doses assume normal renal and hepatic function.**
- **Adjust treatment based on results of microbiology samples**

Conjunctivitis

Treat only if severe, most cases are viral or self limiting. Advise meticulous hand washing and avoid sharing of personal items. Do not wear contact lenses until 24 hours after treatment completed and all symptoms resolved.
Bacterial conjunctivitis is usually unilateral and also self limiting, 65% of cases resolved by day 5.
1st line: bathe/clean eyelids regularly to remove crusting
2nd line: Chloramphenicol 0.5% eyedrops applied four times daily for less severe infections or if needed every 2 hours initially then reduce frequency 4 times daily. Alternative: chloramphenicol 1% ointment 4 times daily. Continue for 48 hours after resolution. See link for warnings.
3rd line: Send swab prior to treatment. Fusidic acid 1% eye drops applied bd (Note: no gram negative activity). Continue for 48 hours after resolution.
Seek specialist advice if very severe, vision affected or infection persists for >10-14 days after treatment initiated.
Consider *Chlamydia trachomatis* or gonococcal infection if sexually active – if positive refer to guidance for systemic treatment and discuss contact tracing with patient.

Blepharitis

1st line: Lid hygiene
Ensure adequate treatment of any co-existing condition e.g. dry eye syndrome, seborrhoeic dermatitis or ocular rosacea

2nd line: Ensure at least 4 weeks of lid hygiene measures used first
Chloramphenicol 1% ointment bd for 6 weeks (continue lid hygiene measures and administer ointment after)
If chloramphenicol contra-indicated use fusidic acid 1% bd

3rd line: If topical antibiotics are ineffective, or if there are signs of Meibomian gland dysfunction or acne rosacea
Continue twice daily lid hygiene
Azithromycin 500mg day 1 then 250mg od days 2-5

Ophthalmic Shingles

Start treatment ideally within 72 hours but up to 7 days after onset of rash. Refer to Ophthalmology if there are clinical signs or symptoms of eye involvement.
Oral aciclovir 800mg 5 x day or valaciclovir 1g tds (7 days) + lubricating eye drops if lesions near eyelid

Note: Topical antiviral NOT routinely required for this indication.
If recommended by ophthalmology: Ganciclovir 0.15% eye gel 5 x daily – see link for warnings re potential teratogenicity (aciclovir eye ointment has been discontinued).

Peri- orbital/Pre-septal Cellulitis

Co-amoxiclav PO 625mg tds or IV 1.2g tds
(Pencillin allergy: PO Clindamycin <50kg 300mg tds 50-90kg 450mg tds >90kg or very severe illness 600mg tds or 450mg qds)
Duration: 7-10 days If any concerns seek specialist opinion from Ophthalmology

Orbital Cellulitis

Medical Emergency: Transfer to hospital immediately and refer to ENT and/or Ophthalmology.
Ceftriaxone IV 2g bd + Flucloxacillin IV 2g qds + Metronidazole 400mg PO TDS *(only use IV if oral route not available)*
(Penicillin allergy: seek specialist infection advice)
Step down to Co-amoxiclav PO 625mg tds (10-14 days total)

Corneal Ulcers (Microbial Keratitis)

Refer all cases to Ophthalmology urgently. Send samples/contact lenses to microbiology for culture prior to treatment. Review all treatment at 48 hours.

Unless stated eyedrops are recommended hourly initially reducing frequency as per ophthalmology review

Empirical Treatment:
Ulcer <1mm: Ofloxacin 0.3% eye drops
Ulcer ≥1mm: Ofloxacin 0.3% eye drops (Alternative: Gentamicin 1.5% eye drops + Cefuroxime 5% eye drops)

Targeted Treatment:

Bacterial As per sensitivities

Herpes simplex Ganciclovir 0.15% eye gel 5 x daily until healing then 3 x daily for 7 days (Maximum duration 2 weeks)

Fungal Amphotericin 0.15% eye drops (as per ophthalmology review)
If not responding: Voriconazole 1% eye drops (as per ophthalmology review) (Alternative: Natamycin 5% if available)
Seek ID/Micro advice if systemic antifungals required

Acanthamoeba Propamidine 0.1% + Chlorhexidine 0.02% eye drops hourly reducing frequency as per ophthalmology review
Alternative to Propamidine: Hexamidine 0.1% Alternative to Chlorhexidine: Polihexanide 0.02%

Endophthalmitis

Sight threatening infection which may occur after penetrating injuries, ocular procedures or bacteraemia.
Urgent referral to Ophthalmology for prompt assessment and treatment.
Send sample of intra-ocular fluid for culture prior to intra-vitreal antibiotics and blood cultures if signs of sepsis.
Seek Infection specialist advice if systemic antibacterials or antifungals required.

Administer intra-vitreal antibiotics ideally within 1 hour: Vancomycin (1mg/0.1ml) + Amikacin (0.4mg/0.1ml)
or Vancomycin (1mg/0.1ml) + Ceftazidime (2.25mg/0.1ml)
Repeat after 48 hours adjusting antimicrobials based on microbiology results.
Intra-vitreal antifungal: Amphotericin 5 micrograms/0.1ml

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