Orbital Cellulitis Guideline

Aims of Orbital Cellulitis Guideline:

- To provide recommendations to assist in the initial management of orbital cellulitis
- To provide rapid access to specialist clinical assessment, neuroimaging and treatment in a safe clinical environment.
- To provide an accurate diagnosis in all patients, detecting those with orbital abscess, sub-periosteal abscess and intracranial involvement.
- To prevent sight loss and intracranial complications.

Initial Assessment - Complete as much as possible:

- Visual Acuity
- Pupil reactions
- Vital signs
- Eye movements
- Colour vision

Signs of Orbital Involvement requiring Imaging:

- Eye lid erythema and swelling precluding eye exam
- Proptosis
- Chemosis (swelling of conjunctiva)
- Pain on eye movements
- Restricted eye movements
- Relative afferent pupil defect

Patient <16y: Admit under Paediatrics at UHW. Commence IV antibiotics with urgent (within 24 hours) ENT/Ophthalmology input.

Patient > 16 with orbital signs present:

1. Prompt IV access, FBC, U&E, LFT, CRP, ESR, blood cultures (if febrile and systemically unwell).

2. Prompt IV antibiotics as per orbital cellulitis antimicrobial recommendation. For adults: antibiotics should be initiated without delay by the first receiving team. Consider prescribing topical nasal steroids and topical decongestants if a sinonasal source for the infection is suspected (e.g. preceding coryzal symptoms).

3. Urgent (within 2 hours) CT orbits with contrast. Request must clearly state history, examination and working diagnosis of orbital cellulitis. Discuss all cases with **duty radiologist (not on call radiologist) who is available at all times** on all three sites via switch board or through:

UHH X-ray Reception: 5740/574	**UHH X-ray Secretaries: 5787**
UHM Duty Radiologist: 404166	**UHW CT Control Room: ext 6575/6529**

On the radiology request, state the clinical area the patient is in and where they should return once imaging is complete.

4. Discuss all cases with Ophthalmology / ENT on admission

CT FINDINGS

Orbital or sub periosteal abscess/evidence of sinus disease: Discuss with ENT for admission at UHM. Joint care with ENT + Ophthalmology.

Evidence of Intracranial spread or cavernous sinus thrombosis: Discuss with ENT/neurosurgery/ neurology

No abscess/sinus disease. Discuss with ophthalmology. Consider alternative diagnosis e.g. pre-septal cellulitis. If patient requires admission due to sepsis/co-morbidities, then admit under medics with daily ophthalmology review.

Adult Antibiotic Guidelines for Orbital Cellulitis:

IV Ceftriaxone 2g once a day (or 12 hourly if intracranial extension)
+ IV Flucloxacillin 1g to 2g every 6 hours
+ Oral/IV Metronidazole **400mg**/500mg every 8 hours

Penicillin intolerance/Mild penicillin allergy (rash):

IV Ceftriaxone 2g once a day
+ Oral/IV Metronidazole **400mg**/500mg every 8 hours

Anaphylaxis with Penicillin or True Penicillin Allergy:

IV Vancomycin (as per NHSL calculator)
+ Oral/IV Ciprofloxacin **500mg**/400mg every 12 hours
+ Oral/IV Metronidazole **400mg**/500mg 8 hourly.

Criteria for Oral step down:

- Clinical improvement in signs of infection e.g. improved ocular signs (eyelid swelling and erythema, improved ocular motility, vision). Sepsis criteria and inflammatory markers improving.
- Oral route of antibiotics available (no longer NBM, no absorption issues).
- No clinical need for prolonged IV therapy.

Intravenous to Oral switch therapy (IVOST):

- Oral Co-amoxiclav 625mg every 8 hours for **minimum** of 10 days

Penicillin allergy:

- Oral Co-trimoxazole 960mg every 12 hours **+** Clindamycin 300mg every 6 hours for **minimum** of 10 days.

Take consideration for renal function – as doses may need adjusted for patients

Liaise with an infection specialist if poor response to antibiotics

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