

### V3 Orbital cellulitis Guidelines for Adults and Children 21.9.20. Author: Mrs S Mackenzie

**Pre-septal Cellulitis**  
 ---See HDFT 'Eye infection' guidance

**Roles & Responsibilities**  
*Paediatrics/Medicine: Medical management (antibiotics, bloods, fluids)*  
*Ophthalmology: Ophthalmic management (assessment, decision making, imaging review)*  
*ENT: Sinus management (Sinus assessment, surgical drainage of collection)*

**Orbital/ Peri-ocular Cellulitis**  
 --Clinical assessment  
 -- Nasal symptoms (URTI, rhinorrhoea, drip, congestion)  
 -- Exclude life threatening differentials e.g. cerebral abscess, necrotising fasciitis

**Severe**

**Mild/Moderate**

**Clinical assessment: "Severe"**  
 ---Reduced vision, relative afferent pupil defect (RAPD) present  
 ---Severe reduction in ocular movements  
 ---Proptosis

**Clinical assessment: "Mild/ Moderate"**  
 ---Normal vision, no relative afferent pupil defect (RAPD) present  
 ---Moderate reduction in ocular movements

**Immediate Management**  
 Admit under ophthalmology, ENT & paediatrics/medicine  
 Urgent ENT opinion  
**First-line antibiotics:**\* iv piperacillin/tazobactam  
**penicillin allergy:** iv aztreonam + iv vancomycin + iv metronidazole  
 Otrivine nasal drops bd  
 Mark area of inflamed skin

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**Investigations**

- CT orbits, sinuses & cerebral cortex (Consider neuroradiology opinion)
- FBC, CRP
- Blood cultures (prior to antibiotics if possible)
- Nasal & conjunctiva swabs

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- +/- Consider CT at this time
- FBC, CRP
- Blood cultures (prior to antibiotics if possible)
- Nasal & conjunctiva swabs

**Management**

- Review within 2-4 hours
- Ophthalmology consultant-led decision making
- Orbital abscess: Consider ENT (+/- Maxillofacial) drainage, although may respond to iv antibiotics
- **Improving:** One week oral antibiotics (review swab results), follow-up OPA 1 week
- **Not improving:** consider differential diagnosis, antibiotic resistance

**Management**

- Daily review, discussion with on call ophthalmology consultant until improvement
- Review antibiotics with culture results
- CT imaging after 48-hours of iv antibiotics if no improvement or deterioration

\*MRSA +ve (or previous MRSA): add iv vancomycin if on first-line regime