Orbital Cellulitis

Orbital cellulitis is inflammation involving the soft tissues of the orbit residing posterior to the orbital septum, typically attributed to infection.

**ASSESSMENT**

Perform a standard history and physical exam (HPE). In children, there are often simultaneous or antecedent upper respiratory infection or “sinus” symptoms including nasal congestion, facial pain, rhinorrhea and cough.

Attempt to differentiate orbital cellulitis from periorbital (or pre-septal) cellulitis during HPE. Check visual acuity if possible, ocular motility and alignment, and pupils. Proptosis, ocular misalignment or limited normal eye motility suggest orbital cellulitis. If the child appears systematically unwell with fussiness, lack of playfulness and/or is febrile, suspect orbital cellulitis. Palpate and retropulse the globe through closed lids to check for globular softness or tension. A tense orbit demonstrating resistance strongly indicates for an emergency referral.

**MANAGEMENT/TREATMENT**

If you suspect orbital cellulitis or cannot rule it out, obtain orbital imaging — usually CT with contrast. Consider imaging for systemically ill-appearing patients with ocular and eyelid signs of periorbital cellulitis as well. Empiric oral antibiotics are reasonable for periorbital cellulitis in patients with less severe symptoms.

**WHEN TO REFER**

Refer patients with orbital cellulitis to Cincinnati Children’s Emergency for pediatric ophthalmology and otolaryngology consultation to facilitate rapid imaging, ophthalmologic exam, labs and IV antibiotics. Patients with orbital cellulitis typically require hospitalization for at least 72 hours.

If you have clinical questions or wish to make an urgent referral, contact a Pediatric Ophthalmologist via Physician Priority Link® at 513-636-7997 or 1-888-987-7997.

For non-urgent questions, email eye@cchmc.org.

If you would like additional copies of this tool, or would like more information, please contact the Physician Outreach and Engagement team at Cincinnati Children’s.
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Inclusion Criteria
- Swollen eyelids

Patient Presents

Standard Workup
- Patient Medical History
- Family History
- Physical Exam

Reduced eye motility or proptosis?

Red conjunctiva?
- No
- Yes

Suspect periorbital cellulitis

Suspect infectious conjunctivitis

Is the patient well-appearing?
- No
- Yes

Consider further outpatient evaluation and management

For urgent issues, or to speak with the specialist on call 24/7, call the Physician Priority Link® at 1-888-987-7997.