Pediatric Orbital Cellulitis Pathway
Evidence Based Outcome Center

EXCLUSION CRITERIA
- Known or clinically obvious orbital trauma
- Known malignancy or immunodeficiency
- Abnormal orbit or maxillofacial anatomy
- Clinical signs of severe sepsis/shock

Inclusion Criteria
Children > 6 months of age with periorbital edema with any of the following:
- Pain with EOM
- Ophthalmoplegia
- Proptosis
- Chemosis
- Conjunctivitis

Signs of optic nerve or CNS involvement?
- Change in visual acuity
- Severe headache
- Pupillary defect
- Altered Mental Status
- Bilateral symptoms
- Seizure

YES → STAT CT Sinus with IV contrast
Urgent consult with Ophthalmology/ENT for surgical intervention

NO → Antibiotic Therapy:
Clindamycin
13 mg/kg IV q8h | max 600mg/dose
AND
Ceftriaxone
75mg/kg IV q24h | max 2000mg/dose

CT Sinus with IV contrast

Laboratory Tests:
- CBC
- CRP
- Blood Culture

Consult infectious disease specialist

Evidence of orbital disease?

YES → 1 **Document (if able):**
- Visual Acuity
- Limitations in EOM
- Ability to open eye
- Degree of proptosis
- Mental status

2 **Medical Management:**
- Oxymetazoline nasal spray BID
- Nasal saline irrigation/spray BID
- Fluticasone nasal spray (≥4years old)
- Elevate HOB 30°
- BID visual acuity, symptom documentation
- Serial photographs of involved eye (if able)
- Laboratory Tests: CBC, CRP, & Blood Culture

Discuss:
- Pediatric Ophthalmology
- Pediatric ENT

Worsening in 24h or no improvement in 48h?

YES → Consider Repeat CT - MRI/MRV if concern for intracranial or venous complications

Improved imaging?

NO → Consult infectious disease
Consider broadening antibiotic therapy

Discuss with Ophthalmology and ENT regarding surgical intervention.

Manage Off Pathway

YES → Continue Medical Management[2] AND Antibiotic Therapy

NO → Worsening in 24h or no improvement in 48h?

NO → **DISCHARGE CRITERIA**
- Improved periobital edema (able to fully open eye)
- Afebrile for minimum of 48 hours

YES → 1. Transition to oral antibiotics
First-Line Antibiotic:
(Refer to Addendum 1 for antibiotic guidance)
TOTAL 14 day course of antibiotic therapy IV + PO

2. Prescribe probiotics

3. Outpatient ENT, Ophthalmology follow-up appointment scheduled prior to discharge.

→ **DISCHARGE**

NO → Manage Off Pathway

Antibiotic Therapy:
Vancomycin
15 mg/kg IV q6h | max 1000mg/dose
AND
Ceftriaxone
100mg/kg/day IV divided q12h | max 2000mg/dose

Consider IMC/ICU consult based on clinical status
Consider MRI/MRV +/- LP to r/o cavernous sinus thrombosis or CNS spread of infection