Acute Rhinosinusitis in Children and Adolescents

**Possible signs and symptoms of acute rhinosinusitis (present <4 weeks):**
1) Nasal discharge 5) Fever
2) Nasal congestion 6) Cough
3) Facial pressure or pain 7) Ear pressure or fullness
4) Maxillary dental pain 8) Anosmia

**Clinical picture suggestive of acute rhinosinusitis?**
( clinical diagnosis – radiographs are not necessary)

- Present for more than 10 days and not improving
- Worsening after initial improvement
- Severe symptoms (temperature ≥ 39 C or 102.2 F with purulent discharge, facial pain/tenderness, periorbital swelling)

**Likely viral etiology, antibiotic therapy not indicated**
Start therapy to relieve obstruction and alleviate symptoms
- NSAIDs or acetaminophen
- Nasal saline washes

**Bacterial etiology more likely, initiate antibiotic therapy and nasal saline washes**

**1st line:**
- Amoxicillin-clavulanate 90/6.4 mg/kg/day divided BID (max 875mg BID) OR
- Cefpodoxime 10mg/kg/day divided BID (max 400mg BID) OR
- Cefuroxime 30mg/kg/day divided BID (max 500mg BID)

Duration: 7-10 days

**Change antibiotic therapy if drug-resistant infection suspected**

**Antibiotic treatment within last 4-6 weeks OR Severe symptoms OR Daycare attendee**

**1st line:**
- Amoxicillin 80-90mg/kg/day divided BID or TID (max 1gm BID) for 7-10 days

If immediate hypersensitivity PCN allergy:
Azithromycin 10mg/kg on day 1 (max 500mg), then 5mg/kg (max 250mg) days 2-5

Absence of clinical response within 7 days

Consider drug-resistant infection, ongoing sinus obstruction, alternative etiologies, or complications*

**Key points**
- Most cases of acute rhinosinusitis are due to viral infections
- Purulent yellow or green nasal discharge alone is not predictive of bacterial infection
- Antibiotic therapy for acute viral sinusitis will not shorten duration of illness or prevent bacterial infection
- Use the strict criteria below for diagnosis of bacterial sinusitis

**References:**

*Consider complications of acute sinusitis: may include meningitis, orbital cellulitis, osteomyelitis of sinus bones, invasive fungal superinfection