

## Best Practice Guidelines for Pediatric Acute Bacterial Sinusitis Based on 2013 AAP Guidelines\*

### I. Diagnosis and Screening

A clinical diagnosis of acute bacterial sinusitis can be made in a child with acute upper respiratory symptoms and any of following three criteria:

- **Persistent** symptoms of nasal discharge or cough >10 d without improvement
- **Worsening** course or new onset of symptoms after initial improvement
- **Severe** onset of symptoms = T >39 C and purulent nasal discharge for 3 d

Imaging studies are NOT recommended in uncomplicated acute sinusitis, as they may be abnormal in children with both uncomplicated URI and uncomplicated sinusitis.

Imaging is recommended for suspected orbital or CNS complications of sinusitis. Obtain contrast-enhanced CT of paranasal sinuses +/- MRI with contrast for the following

- Orbital complications (more common): swollen eye, proptosis, impaired EOM function

DDX: periorbital or pre-septal cellulitis, abscess, orbital cellulitis, cavernous venous thrombosis

- CNS Complications ( less common): severe headache, photophobia, seizure, focal neuro findings

DDX: subdural empyema, venous thrombosis, abscess, meningitis

### II. Treatment

- Consider watchful waiting for 3 d before treating those with **persistent** symptoms for at least 10 d
- For diagnosis based on **worsening** symptoms or **severe** onset: treat with antibiotic ASAP
- Recommended antibiotics:

Amoxicillin 45 mg/kg/d div BID vs. 90 mg/kg/d div BID (for resistant *S pneumoniae*)

Without or with clavulanate (for B lactamase + bacteria *M catarrhalis*, *H influenzae* )

- Antibiotics NOT recommended as routine first-line: azithromycin and oral third generation cephalosporins (due to *S pneumoniae* resistance)

### III. Surveillance and Indication for Consultation

If persistent or worsening symptoms, need to re-assess and either add antibiotic or adjust antibiotic.

For orbital or CNS complications confirmed with imaging: consult ophthalmology, ENT, neurosurgery, or ID as needed.

### IV. References

- Chow, A., et. al. 2012. IDSA Clinical Practice Guideline for Acute Bacterial Rhinosinusitis in Children and Adults.
- Hersch, A., et. al. 2013. Principles of Judicious Antibiotic Prescribing for Upper Respiratory Tract Infections in Pediatrics. Pediatrics Vol 132 No 126: 1148-1154.
- \*Wald, E., et al. 2013. Clinical Practice Guideline for the Diagnosis and Management of Acute Bacterial Sinusitis in Children Aged 1 to 18 Years. Pediatrics Vol 132.