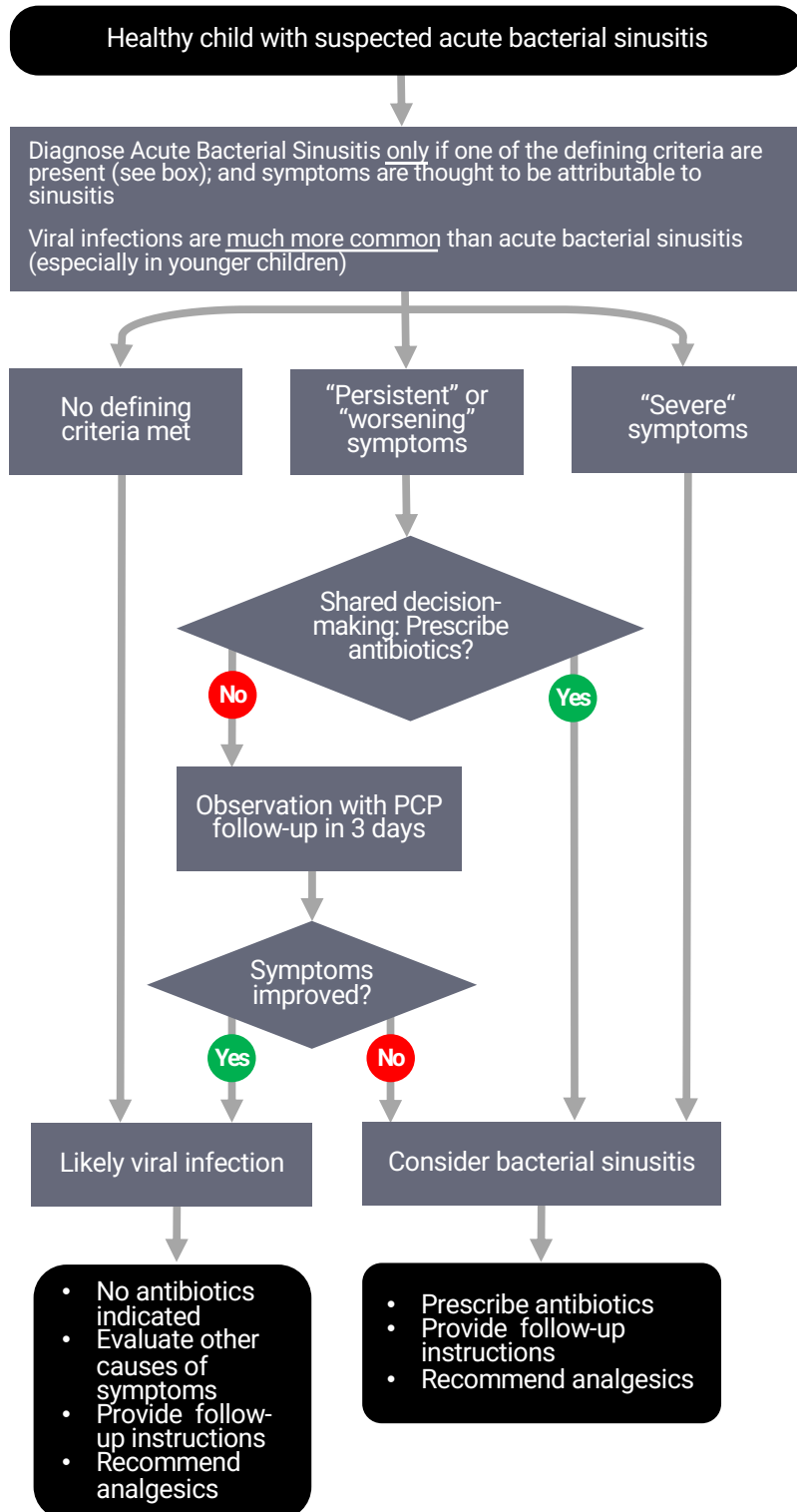


Acute Bacterial Sinusitis

Emergency Department / Urgent Care / Primary Care
Age ≥ 1 year



Defining criteria for sinusitis

- **Persistent** - symptoms lasting longer than 10 days **without** improvement
- **Worsening** - "substantial and acute" worsening nasal discharge or daytime cough, or new fever after initial URI improvement (often day 6-7)
- **Severe** - fever ≥ 39 AND onset with purulent* nasal discharge for ≥ 3 days

In the vast majority (92%-98%) of patients, nasal drainage, whether clear, green or yellow drainage is from a virus. Even with "persistent" or "worsening" symptoms, the majority of infections are viral and will not respond to antibiotics

Sinus Development and Symptoms

Maxillary and ethmoidal sinuses are small but present at birth. Sphenoidal and frontal sinuses only partially develop around 2-3 years of age and remain rudimentary until around age 5-6. Full development of these air-filled cavities does not occur until 12-20 years of age. For these reasons, headache and facial pain are more prevalent in older adolescents and adults, and bacterial sinusitis is rare in young children

Testing considerations

Obtain a contrast-enhanced CT or MRI with contrast for suspicion of orbital or CNS complications of acute bacterial sinusitis (eye pain, proptosis, eyelid or forehead swelling, severe headache, altered mental status)

Preferred treatment - Amoxicillin

90 mg/kg/day divided BID w/ max 4000 mg/day for 5-7 days

- Meets persistent or worsening criteria: 5 days
- Meets severe criteria: 7 days

Other treatment considerations

PCN allergy (Non-anaphylaxis) - Cefdinir 14 mg/kg/day divided BID X 5-7 days. Refer to Pediatric Antibiotic Allergy Testing Service (PATS).

PCN and cephalosporin allergy - Levofloxacin (see Lexicomp dosing)

Failure to improve on antibiotics in 72 hours - clinical reassessment for complications or alternate etiology

Amox in last 30 days - high-dose (ES) Augmentin X 5-7 days

References

Wald ER, Applegate KE, Bordley C, et al.; American Academy of Pediatrics. Clinical practice guideline for the diagnosis and management of acute bacterial sinusitis in children aged 1 to 18 years. Pediatrics. 2013 Jul;132(1):e262-80.

