



Differential Diagnosis

- foreign body
- seasonal/environmental allergies
- recurrent/back-to-back viral rhinitis or nasopharyngitis
- GERD

Fever and rhinorrhea in >4 years old

Consider bacterial sinusitis

If considering the diagnosis of bacterial sinusitis in a child younger than 4, please consult a pediatrician.

Persistent Illness
Nasal discharge and daytime cough for >10 days **with no improvement**

Observe for 3 days. Follow-up by phone or by appointment.

If no improvement

Worsening Course
One week of worsening nasal discharge, daytime cough, and fever after initial improvement

Severe Onset
Fever >102°F and purulent nasal discharge for >3 consecutive days

Treatment

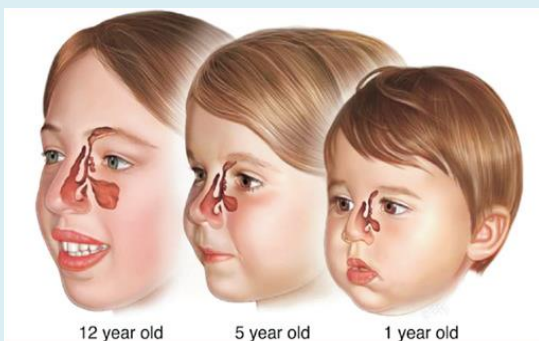
1st line High-dose Augmentin 45 mg/kg/dose PO BID for 10-14 days
 2nd line Cefdinir 14 mg/kg/dose PO daily for 10-14 days
Try to avoid using cephalosporins. They are less effective at treating the most common organisms that cause sinusitis.
For PCN allergy: Please obtain a pediatrics consult. Do not prescribe azithromycin or Septra. The most common pathogens in pediatric sinusitis have high resistance rates to these antibiotics. Try to avoid fluoroquinolones.

Follow-up by phone or by appointment at 3 days. If no improvement, consider broadening to next line of treatment.

Follow-up 10-14 days after starting treatment. If still symptomatic, consider ENT consult.

NOTE: 90-98% of pediatric sinus infections are caused by viruses. When caused by bacteria, the most common pathogens are non-typeable *Haemophilus influenzae*, *Streptococcal pneumoniae*, and *Moraxella catarrhalis*.

Sinus Development in Children



- Maxillary: present at birth, fully developed at 12 years
- Ethmoid: present at birth, fully developed at 12 years
- Frontal: present at 3 years, fully developed at 18-20 years
- Sphenoid: present at 8 years, fully developed at 12-15 years

Source: https://www.google.com/search?rlz=C36&h=740&tm=sch&sa=1&ei=rTlHWt3rC1HRJAP4hKalCA&q=sinus+development&oc=sinus+development&gs_l=psy-ab_3_067k1D150530k1Bj0i830k1.34240.34657.0.35299.2.2.0.0.0.200.398.0j1j1.2.0...0...1c.1.64.psy-ab.0.2.395...030k1.0rSFh1aHlq74#imgrc=IDSBxCtrFOAkWM.&sp=1518811500752

Imaging

Do not routinely obtain imaging studies in suspected sinusitis unless there is concern for a complication like orbital or CNS involvement.

Do not treat sinusitis, in the absence of symptoms, if it is an incidental finding on an imaging study.

Adjuvant Therapies

- Saline nasal spray
- Steam
- Oral hydration
- Tylenol and ibuprofen
- Do not routinely give decongestants and antihistamines (especially Benadryl). They have been proven ineffective in children and are unsafe under 6 years old.

This guideline is designed for the general use of most patients but may need to be adapted to meet the special needs of a specific patient as determined by the medical practitioner.
 Approved by MSEC 11/2/21.
 Click [here](#) to see the supplemental resources for this guideline.
If comments about this guideline, please contact Leslie_Herrmann@ykhc.org.