ACUTE UNCOMPLICATED SINUSITIS (Children < 18 years)

**Symptoms and Diagnosis**

**URI/VIRAL SINUSITIS**  
(>95% of cases)  
Upper respiratory infection with mild to moderate nasal discharge lasting 1-10 days  
OR  
Severe symptoms lasting 1-2 days  
- Fever (T ≥ 39°C/102°F) AND one or both of the following:  
  - Purulent nasal discharge  
  - Facial pain  

**NOTE:** Thick, colored, or purulent nasal secretions do NOT necessarily indicate bacterial infection.

**BACTERIAL SINUSITIS**  
(<5% of cases)  
Persistent illness without improvement for >10 days  
OR  
Severe symptoms lasting ≥ 3 days at the beginning of the illness  
- Fever (T ≥ 39°C/102°F) AND one or both of the following:  
  - Purulent nasal discharge  
  - Facial pain  

Worsening symptoms after initially improving from a typical upper respiratory infection that lasted 5–6 days  
- New fever  
- Headache  
- Increased purulent nasal discharge

**Treatment**

**SYMPTOMATIC TREATMENT**  
(effective for viral and bacterial infections)  
- Extra rest, hot drinks, oral hydration  
- Analgesics/antipyretics, as needed  
- Nasal saline irrigation (such as “Neti Pot”) using boiled, sterile, or filtered water  
- Nasal corticosteroid spray for patients with allergic rhinitis—may take up to 14 days for effective symptom relief  
- OTC decongestants may be helpful for some patients but should not be used in those < 4 years  
- Avoid cigarette smoke; offer smoking cessation resources, if indicated

Offer positive recommendations using this Symptomatic Prescription Pad: [https://go.usa.gov/xRPXy](https://go.usa.gov/xRPXy)

**NOTE:** See back for help when discussing non-antibiotic treatment plan with patients.

**WATCHFUL WAITING**  
Acceptable to observe mild bacterial sinusitis for 3 additional days before prescribing antibiotic if follow up is assured and focus instead on symptomatic treatment (see left and back).

**FIRST-LINE ANTIBIOTIC THERAPY**  
- Amoxicillin (high-dose)

**NOTE:** If use of amoxicillin in prior month or failure to improve on amoxicillin, prescribe amoxicillin-clavulanate.

**SECOND-LINE ANTIBIOTIC THERAPY**  
- Amoxicillin-clavulanate  
- Cefdinir, cefuroxime, or cefpodoxime  
- Doxycycline (ONLY for age > 8 years)

**NOTE:** Due to severe side effects, FDA recommends against the routine usage of fluoroquinolones in uncomplicated infections. Alternatives are preferred. See other side for dosing information.
WATCHFUL WAITING
- May NOT be reasonable for patients with immune deficiency, cystic fibrosis, or other major co-morbidities
- Provide assured follow-up and antibiotics if not improved after 48-72 hours of watchful waiting, or sooner if worsening

BEST PRACTICES FOR COMMUNICATING WITH PATIENTS
- Identify and validate patient’s and parent’s concerns
- Provide clear recommendations including specific symptom treatment and contingency plan for if symptoms worsen
- Confirm agreement and answer questions
- Provide education about antibiotic use and associated risks, including bacterial resistance and C. difficile

POTENTIAL HAZARDS ASSOCIATED WITH ANTIBIOTIC USE
- May cause significant side effects, such as antibiotic-associated diarrhea and allergic reactions
- Can increase the risk of carrying a drug-resistant organism which may decrease the effectiveness of antibiotics in the future and make an infection more severe
- Can result in a diarrheal disease caused by C. difficile which can be severe and even fatal

Visit CDC’s Common Illnesses index at https://go.usa.gov/xRPXH for patient education materials.

### Antibiotic Therapy for Bacterial Sinusitis

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<th>DRUG</th>
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| Amoxicillin           | Child high-dose: 80-90 mg/kg/day PO divided in 2 doses, max 2 gm/dose  
                       | NOTE: High-dose amoxicillin is recommended for pediatric sinusitis because >10% Strep pneumoniae isolates are non-susceptible in Washington. | 7-10 days for most |
| Amoxicillin-clavulanate | Child high-dose: 90mg/kg/day (amoxicillin component) PO divided in 2 doses, max 2 gm/dose  
                        | NOTE: High-dose amoxicillin-clavulanate is recommended for pediatric sinusitis because >10% Strep pneumoniae isolates are non-susceptible in Washington. | 10-14 days for severe disease, immunocompromised, or after treatment failure |
| Cefdinir              | Child: 14 mg/kg daily PO divided in 1-2 doses |                  |
| Cefuroxime            | Child: 30 mg/kg/day PO divided in 2 doses  |                  |
| Cefpodoxime           | Child: 10 mg/kg/day PO divided in 2 doses  |                  |
| Doxycycline           | Child: 2.2 mg/kg/day PO divided in 2 doses |                  |

IMAGING AND REFERRAL
If worsening or no improvement after two courses of antibiotics or if concern for orbital/CNS complications of bacterial sinusitis, order contrast-enhanced CT scan (preferred) or MRI of the paranasal sinuses and refer to the appropriate specialist.

ANTIBIOTIC ALLERGY
Most patients who report antibiotic allergies, particularly penicillin class allergies, do not have true drug allergies. It is important to carefully evaluate reported drug allergies starting with a history before determining whether an alternative agent is indicated.

NOTE: This guidance is not meant to replace the clinical judgment of the individual provider or establish a standard of care.

REFERENCES