ACUTE RHINOSINUSITIS

Diagnosis of Acute Rhinosinusitis
Purulent* nasal discharge ± fever accompanied by either:
- Nasal obstruction
- Facial pain, pressure, or fullness

Likely viral Upper Respiratory Tract Infection (URI)
OR
Search for alternative diagnosis

Likely acute rhinosinusitis: Viral or bacterial

Clinical course of signs & symptoms (if any of the following):
- Severe symptoms for ≥3-4 days, characterized by high fever (>39°C) with purulent nasal discharge
- Persistent symptoms & not improving for >10 days
- Initial improvement over 5-6 days, followed by worsening or “double-sickening”

Likely Viral Rhinosinusitis
See supportive care options below

Possible Acute Bacterial Rhinosinusitis

Initiate first-line therapy + symptom management

Improvement after 3-5 days?

Yes
- Complete 5 days of antimicrobial therapy

No
- Broaden coverage or switch to different class of antibiotic

Improvement after 3-5 days?

Yes
- Complete 7 days of antimicrobial therapy

No
- Rule out complications and other causes of illness; if diagnosis of acute bacterial sinusitis is confirmed, prescribe alternative antibiotic

*Purulent secretions should be thick and copious. The changing color of the secretions does not distinguish between viral and bacterial infections.
### Indications

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<td>Acute Bacterial Rhinosinusitis</td>
<td>Streptococcus pneumonia, Haemophilus influenzae, Moraxella catarrhalis, Streptococcus pyogenes, Staphylococcus aureus, Gram-negative bacilli, Anaerobes, Respiratory viruses</td>
<td>1st line: Amoxicillin/clavulanate 875mg/125mg PO q12 hr&lt;br&gt;PCN allergy: Doxycycline 100mg PO q12 hr&lt;br&gt;Add anaerobic coverage with metronidazole 500mg PO q8 hr if odontogenic source leading to sinusitis&lt;br&gt;2nd line (after initial treatment failure): Levofloxacin 500mg PO q24 hr&lt;br&gt;Add anaerobic coverage with metronidazole 500mg PO q8 hr if odontogenic source leading to sinusitis</td>
<td>Uncomplicated Acute Bacterial Rhinosinusitis: 5 days for patients who have improvement in symptoms within 3-5 days&lt;br&gt;Acute Bacterial Rhinosinusitis after failing initial therapy, transitioned to second line therapy: 7 days for patients who have improvement in symptoms within 3-5 days</td>
<td>Potential adjunctive therapies to offer include:&lt;br&gt;- Hydration&lt;br&gt;- Analgesics&lt;br&gt;- Antipyretics&lt;br&gt;- Nasal corticosteroids&lt;br&gt;- Nasal saline irrigation&lt;br&gt;- Patients who have been exposed to amoxicillin/clavulanate in the last 30 days may be considered for doxycycline as initial therapy.&lt;br&gt;- Streptococcus pneumonia has local resistance rates to azithromycin of ~50%, and azithromycin therefore is not recommended for treatment of acute bacterial rhinosinusitis.&lt;br&gt;- Doxycycline is contraindicated in pregnant patients.&lt;br&gt;- Adjust levofloxacin and amoxicillin/clavulanate for renal dysfunction.&lt;br&gt;- In a patient without severe disease, who is non-pregnant, without CHF, DM, pulmonary disease, immunodeficiency, or prior sinus surgery, a watchful waiting approach is reasonable after discussion and shared decision-making with the patient. Follow-up should be arranged, and if no improvement after 7 days, starting antibiotics should be considered.&lt;br&gt;- This guideline does not address patients with severe immunocompromise (i.e. on prednisone &gt; 20mg po daily, ≥ 2 immunosuppressants, active hematologic malignancy, active malignancy on chemotherapy, neutropenia, HIV with CD4&lt;200). Those patients require an individualized approach for evaluation and management, and are outside of the scope of this guideline.</td>
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### References

Chow AW et al. IDSA Clinical Practice Guideline for acute Bacterial Rhinosinusitis in Children and Adults. CID. 2012: 54.