Summary of Recommended Guideline
Acute Sinusitis in Adults

Key Highlights:

- Most cases of rhinosinusitis are viral in origin
- Bacterial origin of rhinosinusitis is characterized by duration > 7 days, unilateral facial/dental pain and purulent nasal secretions
- Sinusitis that is bacterial in origin with mild symptoms in most cases will resolve spontaneously; moderate to severe cases may be treated with antibiotics.
- Sinus x-rays are not recommended in routine cases

1. What aspects of the clinical examination can help distinguish viral from bacterial sinusitis? (Level B Evidence)

<table>
<thead>
<tr>
<th>Useful – more likely bacterial</th>
<th>Useful – more likely viral</th>
<th>Not useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Purulent nasal discharge</td>
<td>• Symptoms lasting less than 7 days</td>
<td>• Generalized facial pain and tenderness</td>
</tr>
<tr>
<td>• Maxillary toothache (especially unilateral)</td>
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<td>• Post-nasal discharge headache</td>
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<td>• Unilateral sinus tenderness</td>
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<td>• Cough</td>
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<td>• Worsening of symptoms after initial improvement</td>
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2. What is the value of imaging in the diagnosis of acute sinusitis? (Level B Evidence)

Sinus x-ray is only of limited value due to the high prevalence of abnormal radiographic findings in both viral and bacterial sinusitis. Complete opacification and air-fluid levels are the most specific findings for ruling in bacterial sinusitis (85% and 80%, respectively), and mucosal thickening is not specific. The absence of all 3 findings, however, is sensitive in ruling out a bacterial origin (90%).

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3. What is the recommended treatment for sinusitis? (Level A Evidence)

- Individuals who have symptoms of sinusitis more consistent with a viral origin should be offered analgesics, antipyretics and decongestants for symptomatic relief.
- Among patients with symptoms consistent with bacterial sinusitis:
  - Mild symptoms will resolve without treatment in most cases.
  - Antibiotic therapy is recommended for patients with moderate symptoms lasting more than 7 days or severe symptoms of any duration.
- Recognizing that the most common pathogens in bacterial rhinosinusitis are Streptococcus pneumonia and Haemophilus influenzae the antibiotics of choice are Amoxicillin or Doxycycline or Trimethoprim-Sulfamethoxazole.

Levels of Evidence

<table>
<thead>
<tr>
<th>Rating</th>
<th>Etiology or Diagnosis Studies</th>
<th>Treatment or Efficacy Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Independent, blinded comparison with reference standard in appropriate spectrum of patients, all of whom have undergone both the diagnostic test in question and testing with the current gold standard; or validated prediction rule</td>
<td>Randomized, placebo-controlled trials with little or no heterogeneity</td>
</tr>
<tr>
<td>B</td>
<td>Independent, blinded comparison in patients not enrolled consecutively or in a narrow spectrum of patients; or nonvalidated prediction rule</td>
<td>Randomized, placebo-controlled trials with some heterogeneity; or well-designed cohort studies</td>
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<tr>
<td>C</td>
<td>Independent, blinded comparison, but reference standard not applied to all patients</td>
<td>Case series or poor cohort studies</td>
</tr>
<tr>
<td>D</td>
<td>Reference standard not applied independently or not applied in a blinded manner; or expert opinion</td>
<td>Expert opinion</td>
</tr>
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</table>

Background and Need:

The literature suggests that approximately 85% of patients presenting with acute sinusitis are prescribed antibiotics, and this is the 5th most common reason for antibiotic prescription in ambulatory practice. Acute sinusitis is estimated to be viral in origin in approximately 87% of cases, however (Level A Evidence).

The gold standard test to diagnose a bacterial cause of rhinosinusitis is a sinus puncture with aspirate and culture. This is invasive and seldom done in primary practice. There is a need for clarification as to which clinical signs and symptoms distinguish between viral and bacterial causes, and in which situations antibiotics should be used to improve outcomes.

The above recommendations were derived from the following GAC endorsed guideline(s):


Rating (out of 4): 🍓

Scope: For physicians and other health care professionals who see patients with sinusitis.

Effective Date: October, 2005
Literature Search Conducted: April, 2004
Planned Review Date: October, 2008