

# Acute Rhinosinusitis in Non-Pregnant Adults

## Key points

- Most cases of acute rhinosinusitis are due to viral infections
- Purulent yellow or green nasal discharge alone is not predictive of bacterial infection
- Antibiotic therapy for acute viral sinusitis will not shorten duration of illness or prevent bacterial infection
- Use the strict criteria below for diagnosis of bacterial sinusitis

## Possible signs and symptoms of acute rhinosinusitis (present <4 weeks):

- |                          |                             |
|--------------------------|-----------------------------|
| 1) Nasal discharge       | 5) Fever                    |
| 2) Nasal congestion      | 6) Cough                    |
| 3) Facial pressure/pain  | 7) Ear pressure or fullness |
| 4) Maxillary dental pain | 8) Anosmia                  |

Clinical picture suggestive of acute rhinosinusitis?  
(clinical diagnosis – radiographs are not necessary)

Yes

No

Present for more than 10 days and not improving  
OR  
Worsening after initial improvement  
OR  
Severe symptoms (moderate-severe pain or temperature  $\geq 38.3$  C or 101 F)

Consider alternative etiologies

No

Yes

Likely viral etiology,  
antibiotic therapy  
not indicated

Bacterial etiology  
more likely, initiate  
antibiotic therapy and  
nasal saline washes

Antibiotic treatment  
within last 4-6 weeks?

Start therapy to relieve obstruction  
and alleviate symptoms

Yes

No

**1<sup>st</sup> line:**  
**Amoxicillin-clavulanate**  
875mg BID for **7-10 days**  
OR  
**Levofloxacin** 500mg QDay  
for **7-10 days**

**1<sup>st</sup> line:**  
**Amoxicillin** 500mg TID  
for **7-10 days**  
  
Alternatives (7-10 days):  
Doxycycline 100mg BID or  
TMP-SMX 1DS BID

- NSAIDs or acetaminophen for pain
- Nasal saline washes
- Consider:
  - Topical glucocorticoid (nasal)
  - Decongestants (nasal or systemic)

Duration more than 10 days  
OR  
Worsening symptoms\*

Absence of clinical response  
within 7 days

**Change antibiotic  
therapy if drug-resistant  
infection suspected**

Consider drug-resistant infection,  
alternative etiologies, or complications\*

**Note:** This is intended only as a guide for evidence-based decision-making; it is not intended to replace clinical judgment. Assess for antibiotic allergies and use alternative agents as appropriate. Suggested antibiotic doses are for normal renal function; adjust for renal impairment when necessary.

**References:** Clinical Practice Guideline: Adult Sinusitis. Otolaryngology – Head and Neck Surgery 2007; 135:S1-S3; <http://www.cdc.gov/getsmart/campaign-materials/info-sheets/adult-acute-bact-rhino.html> (accessed 12/30/09)

\*Complications of acute sinusitis may include meningitis, orbital cellulitis, osteomyelitis of sinus bones, invasive fungal superinfection