



Acute Rhinosinusitis in Adults

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This **clinical guide** is provided for information purposes and is not a substitute for the practitioner's judgment.

GENERAL

VIRUS: most cases of rhinosinusitis and associated with a common cold

- 0.5-2% of viral rhinosinusitis infections progress into bacterial superinfection.

Pathogens responsible for 70% of acute bacterial rhinosinusitis infections:

- *Streptococcus pneumoniae*
- *Haemophilus influenzae*

Other pathogens less frequently isolated:

- *Moraxella catarrhalis*
- *Streptococcus pyogenes*
- *Staphylococcus aureus*

DIAGNOSIS

- Symptoms of bacterial rhinosinusitis and viral rhinosinusitis **overlap**.
- Questionnaire aims to identify the main symptoms:
 - Unilateral facial or dental pain
 - History of greenish rhinorrhea, anterior or posterior
 - Nasal obstruction/congestion
- Acute bacterial rhinosinusitis:
 - Differentiation from viral sinusitis rests essentially on the duration and severity of the symptoms
 - Severe symptoms/deterioration of general health
 - Deterioration of symptoms after 5-7 days
 - Persistent symptoms without improvement for **AT LEAST** 7 days
 - High fever or important deterioration of general health: suspect underlying complications and refer immediately
 - Alarm symptoms: intense headache, periorbital swelling/redness, meningeal irritation etc.
- Physical examination (nasal speculum or otoscope):
 - Visualize purulent secretions between middle turbinate and lateral nasal wall (middle meatus)
 - Topical decongestant can aid the visualization
 - Tenderness during palpation/percussion of sinus
- Radiography: not required routinely
 - Consider simple plain films of sinus when diagnosis is unclear:
 - ♦ Maxillary sinus: Waters view preferred
 - ♦ Other sinuses: posteroanterior (PA) and lateral views
 - Complete opacification or air-fluid level: **only valid diagnostic criteria** for rhinosinusitis

TREATMENT GUIDELINES

- **Most cases of rhinosinusitis are viral: no antibiotic treatment.**
- **Most cases of rhinosinusitis resolve spontaneously within 10-14 days.**
- Close observation is a valid treatment option for patients with a mild condition.
- Adjuvant therapy for symptomatic relief useful for all patients with rhinosinusitis:
 - Analgesic/antipyretic
 - Saline nasal solution/nasal irrigation
 - Oral or topical decongestant (MAX 3 consecutive days to avoid rebound congestion)
 - Topical corticosteroid: adjuvant therapy likely useful in patients with an allergic component or in patients with recurrent episodes
- In the treatment of mild acute bacterial rhinosinusitis the efficacy of antibiotics to relieve symptoms is modest and adverse effects must be taken into consideration.
- In acute rhinosinusitis there is usually no advantage of extending treatment over 10 days.
- Amoxicillin constitutes first-line therapy except in case of allergy.

There is no indication for the use of azithromycin in acute bacterial rhinosinusitis.

Treatment for healthy patients with uncomplicated acute bacterial rhinosinusitis

Antibiotic	Oral dosage	Duration*
First-line therapy		
Amoxicillin	500 mg every 8 hours	10 days
In case of allergy[†]		
Trimethoprim-sulfamethoxazole (Septra DS [®] generic)	160-800 mg every 12 hours	10 days
Cefuroxime axetil (Ceftin [®])	250 mg every 12 hours	7 days
Clarithromycin (Biaxin Bid [®]) (Biaxin XL [®])	500 mg every 12 hours or 1 000 mg every 24 hours	7-14 days
Second-line therapy[†]		
Amoxicillin-clavulanate potassium (Clavulin [®])	500 mg every 8 hours or 875 mg every 12 hours	10 days
Levofloxacin (Levaquin [®])	500 mg every 24 hours	10 days
Moxifloxacin (Avelox [®])	400 mg every 24 hours	7 days

Indications for second-line therapy

- High resistance suspected
- Use of antibiotics in previous 3 months[‡]
- Failure to respond to first-line therapy after 72-96 hours[‡]
- Immunosuppressed patient
- Frontal or sphenoid sinusitis

* According to the notice of compliance delivered for these products.

† In cases of type-1 penicillin allergy, cephalosporins are not a treatment option. The antibiotics used in case of allergy are usually listed in alphabetical order of their generic name. Only one brand name product is listed although several manufacturers may market other brand names.

‡ In this case, an antibiotic from a different class should be used.

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- Please note that other references have been consulted.

