

ADULT ANTIBIOTIC PRESCRIBING GUIDELINES

ADULT OUTPATIENT TREATMENT RECOMMENDATIONS 2024:

Summary of Guidelines¹

Adapted by experts in antibiotic prescribing, including primary care providers, academic infectious disease physicians, clinical pharmacists, and health care systems antibiotic stewardship leaders from across North Carolina from 2018 guidelines produced by the New York State Department of Health.



NC DEPARTMENT OF
**HEALTH AND
HUMAN SERVICES**
Division of Public Health

ACUTE RHINOSINUSITIS²⁻⁴

Most cases are viral; only 0.5-2% of viral rhinosinusitis cases are complicated by bacterial infection

Antibiotics may not help even when the cause is bacterial

DIAGNOSIS

Presentations consistent with acute bacterial sinusitis are:

- Symptoms of acute rhinosinusitis lasting ≥ 10 days without improvement
- Severe symptoms lasting ≥ 3 days: Fever $\geq 39^{\circ}\text{C}$ (102.2°F) | Purulent nasal discharge | Facial Pain
- "Double worsening," following a typical URI that lasted 5-6 days with new onset of: Fever | Headache | Increased nasal discharge

Sinus radiographs are not routinely recommended.

MANAGEMENT

Watchful waiting (up to 10 days) is encouraged for uncomplicated infections, including bacterial cases, with reliable follow-up.

Evidence-based supportive care includes:

- Saline nasal irrigation
- Intranasal glucocorticoids
- OTC analgesics and antipyretics dysfunction
- Oral decongestants when there is Eustachian tube

If a patient meets criteria for treatment and there are no risk factors for resistance:

- amoxicillin/clavulanate 875/125 mg PO BID x 5-7 days
- Penicillin-allergic patients:
 - Doxycycline 100 mg PO BID or 200 mg PO daily x 5-7 days
 - Macrolides (such as azithromycin) are not recommended due to high levels of *S. pneumoniae* antibiotic resistance (~40%).

SEE REFERENCES FOR ADDITIONAL TREATMENT OPTIONS.

ACUTE UNCOMPLICATED BRONCHITIS⁵⁻⁷

Viruses cause most cases of acute bronchitis

Cough typically lasts 5 days to 3 weeks, up to 6 weeks

DIAGNOSIS

Focus on ruling out pneumonia, which is rare among otherwise healthy adults without abnormal vital signs (heart rate >100 beats/min, respiratory rate >24 breaths/min, or oral temperature >38 °C (100.4°F)) and abnormal lung examination (focal consolidation, egophony, fremitus).

Colored sputum does not indicate bacterial infection. For most cases, chest radiography is not indicated.

Promote appropriate antibiotic use by communicating the diagnosis as a 'viral lower respiratory tract infection'.

MANAGEMENT

Routine treatment of uncomplicated acute bronchitis with antibiotics is not recommended, regardless of cough duration or if a patient is a smoker.

- Patients may benefit from symptomatic therapy:
 - Cough suppressants
 - Expectorants
 - First-generation antihistamines
 - Decongestants

SEE REFERENCES FOR ADDITIONAL TREATMENT OPTIONS, AND OTHER IMPORTANT INFORMATION.^{5,6}

PHARYNGITIS^{7, 11, 12}

Group A Streptococcus (GAS) is the only common indication for antibiotics

Only 5-10% of cases in adults are caused by GAS

DIAGNOSIS

Clinical features alone do not distinguish between GAS and viral pharyngitis; a rapid antigen detection, nucleic acid test, or a positive culture is necessary to establish a GAS pharyngitis diagnosis.

Adults with a sore throat and 2 (3 if ≥ 45 yo) or more of the following features should get a rapid test:

1. Lack of cough
2. Tonsillar exudates
3. History of fever ($>38^{\circ}\text{C}$ or 100.4°F) lymphadenopathy
4. Swollen and tender anterior cervical

Throat cultures after a negative rapid test result are not routinely recommended for adults.

MANAGEMENT

Antibiotic treatment is not recommended for patients with negative rapid test results. Antibiotics are not recommended for close contacts in the absence of a positive test.

GAS resistance to clindamycin and azithromycin is increasingly common.

First-line therapy for GAS:

- penicillin V 500 mg PO BID x 10 days
- amoxicillin 1 g PO daily or 500 mg PO BID x 10 days

Non-type I penicillin allergy:

- cephalexin 500 mg PO BID x 10 days

Immediate type I penicillin allergy:

- clindamycin 300 mg PO TID x 10 days
- azithromycin 500 mg PO daily x 5 days

NON-SPECIFIC UPPER RESPIRATORY TRACT INFECTION (URI) ^{8, 9, 10}

Most adults get 2-4 URIs annually

DIAGNOSIS

Usually last less than a week, with signs and symptoms peaking within 2 to 3 days of infection and can include:

- Runny nose or nasal congestion
- Cough
- Sneezing
- Sore throat
- Headache
- Mild body aches
- Fever (usually low-grade)

MANAGEMENT

Antibiotic treatment is not recommended for non-specific URIs.

- OTC analgesics can be given to relieve symptoms
- Decongestants combined with a first-generation antihistamine may provide short-term relief of nasal symptoms and cough.

Evidence does not support antihistamines (as monotherapy), intranasal corticosteroids, and/or nasal saline irrigation as effective treatments for cold symptom relief.

Providers and patients must weigh the benefits and harms of symptomatic therapy.

ACUTE UNCOMPLICATED CYSTITIS^{13, 14, 15}

Asymptomatic bacteriuria is common

DIAGNOSIS

Asymptomatic bacteriuria is common. To limit unnecessary antibiotic use, urine cultures should only be ordered in patients with clinical features suggestive of a UTI including:

- Dysuria
- Urinary urgency or frequency
- Suprapubic or flank pain
- Gross persistent hematuria

MANAGEMENT

First-line therapy in healthy non-pregnant, premenopausal women:

- nitrofurantoin 100 mg PO BID x 5 days (not recommended if early pyelonephritis is suspected)
- cephalexin 500 mg PO BID x 5 days
- TMP-SMX 160/800 mg PO (one DS tablet) BID x 3 days (where local resistance is <20%)
- fosfomycin 3 g PO x 1 dose (not recommended if early pyelonephritis is suspected)

Reserve fluoroquinolones (e.g. ciprofloxacin) for situations in which other agents are not appropriate.

SEE REFERENCES FOR ADDITIONAL TREATMENT OPTIONS AND OTHER IMPORTANT INFORMATION ESPECIALLY IF EARLY PYELONEPHRITIS IS SUSPECTED.

Adult Outpatient References: 1. Centers for Disease Control and Prevention. Adult treatment recommendations. Get Smart: Know When Antibiotics Work in Doctor's Offices. 2016 March 4; <https://www.cdc.gov/getsmart/community/for-hcp/outpatient-hcp/adult-treatment-rec.html>. • 2. Rosenfeld RM, Piccirillo JF, Chandrasekhar SS, et al. Clinical practice guideline (updated): adult sinusitis. *Otolaryngol Head Neck Surg.* 2015;152(2 Suppl):S1-39. • 3. Chow AW, Benninger MS, Itzhak B, et al. IDSA clinical practice guideline for acute bacterial rhinosinusitis in children and adults. *Clin Infect Dis.* 2012;54(8):e72-e112. • 4. Rosenfeld RM. Clinical practice. Acute sinusitis in adults. *N Engl J Med.* 2016 Sep 8;375(10):962-70. • 5. Albert RH. Diagnosis and treatment of acute bronchitis. *Am Fam Physician.* 2010;82(11):1345-50. • 6. Kinkade S, Long NA. Acute bronchitis. *American Family Physician.* 2016 October 1;94(7):560-565. • 7. Harris AM, Hicks LA, Qaseem A. Appropriate antibiotic use for acute respiratory tract infection in adults: Advice for high-value care from the American College of Physicians and the Centers for Disease Control and Prevention. *Ann Intern Med.* 2016, March 15;164(6):425-435. • 8. Centers for Disease Control and Prevention. About Common Cold. 2024 October 15; <https://www.cdc.gov/common-cold/about/index.html>. • 9. Fashner J, Ericson K, Werner S. Treatment of the common cold in children and adults. *Am Fam Physician.* 2012;86(2):153-159. • 10. Pratter MR. Cough and the common cold: ACCP evidence-based clinical practice guidelines. *Chest.* 2006;129(1 Suppl):72S-74S. • 11. Shulman ST, Bisno AL, Clegg HW, et al. Clinical practice guideline for the diagnosis and management of group A streptococcal pharyngitis: 2012 update by the Infectious Diseases Society of America. *Clin Infect Dis.* 2012;55(10): e86-102. • 12. Cooper RJ, Hoffman JR, Bartlett JG, et al. Principles of appropriate antibiotic use for acute pharyngitis in adults: Background. *Ann Intern Med.* 2001;134(6):509-17. • 13. Gupta K, Hooton TM, Naber KG, et al. International clinical practice guidelines for the treatment of acute uncomplicated cystitis and pyelonephritis in women: A 2010 update by the Infectious Diseases Society of America and the European Society for Microbiology and Infectious Diseases. *Clin Infect Dis.* 2011;52(5):e103-20. • 14. Colgan R, Williams M. Diagnosis and treatment of acute uncomplicated cystitis. *Am Fam Physician.* 2011;84(7):771-6. • 15. Nicolle LE, Bradley S, Colgan R, et al. Infectious Diseases Society of America guidelines for the diagnosis and treatment of asymptomatic bacteriuria in adults. *Clin Infect Dis.* 2005;40:643-

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