

Adult Care

Outpatient Treatment Recommendations for Common Infections: Summary of Guidelines¹

The quick initiation of antibiotics to treat infections has been proven to save lives; however, antibiotics can have serious side effects, including adverse drug reactions and *Clostridium difficile* infection. Unnecessarily prescribed antibiotics place patients at risk for serious adverse events and provide patients with no clinical benefit. The misuse of antibiotics has also contributed to an increase in antibiotic resistance, which has become one of the most serious threats in public health. The Centers for Disease Control and Prevention estimates more than two million people are infected with antibiotic-resistant organisms, resulting in approximately 23,000 deaths annually.



BE ANTIBIOTICS AWARE
SMART USE, BEST CARE

Acute rhinosinusitis²⁻⁴

90-98% of cases are viral.

Antibiotics may NOT help even if cause is bacterial.

Diagnosis

Symptoms of acute bacterial rhinosinusitis are:

- Severe (>3-4 days), fever $\geq 39^{\circ}\text{C}$ (102.2°F) and purulent nasal discharge or facial pain;
- Persistent without improvement, such as nasal discharge or daytime cough for at least 10 days beyond the onset of viral upper respiratory symptoms; or
- "Double worsening", such as worsening or new onset fever, daytime cough, headache or nasal discharge within 10 days after initial improvement of a viral URI

Sinus radiographs are NOT routinely recommended.

Management

If bacterial, watchful waiting encouraged for uncomplicated infections with follow-up.

Evidence-based supportive care:

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

Macrolides (such as azithromycin) are NOT recommended due to high levels of *S. pneumoniae* antibiotic resistance (~40%).

If mild/moderate and no risk factors for resistance:

- amoxicillin/clavulanate 500/125 mg PO 3x/day or 875/125 mg PO 2x/day x 5-10 days (Some experts recommend amoxicillin.)

If severe disease or risk factors for resistance (>65 yo, antibiotics within 30 days, recent hospitalization, $\geq 10\%$ penicillin non-susceptible *S. pneumoniae*, immunocompromised):

- amoxicillin/clavulanate 2 g/125 mg PO 2x/day x 7-10 days

Penicillin-allergic patients:

- doxycycline 100 mg PO 2x/day or 200 mg PO 1x/day x 5-10 days

Pharyngitis^{7,10,11}

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

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

Diagnosis

Clinical features alone do NOT distinguish between GAS and viral pharyngitis;

A rapid antigen detection test is necessary to establish a GAS pharyngitis diagnosis.

Adults with 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
4. Swollen and tender anterior cervical lymphadenopathy

Throat cultures after negative rapid test are NOT routinely recommended for adults.

Management

Antibiotic treatment is NOT recommended for patients with negative rapid test results.

GAS resistance to clindamycin and azithromycin is increasingly common.

First-line therapy for GAS:

- penicillin V 250 mg PO 4x/day or 500 mg PO 2x/day x 10 days
- amoxicillin 1 g PO 1x/day or 500 mg 2x/day x 10 days

Non-type I penicillin allergy:

- cephalexin 500 mg PO 2x/day x 10 days
- cefadroxil 1 g PO 1x/day x 10 days
- clindamycin 300 mg PO 3x/day x 10 days
- azithromycin 500 mg PO 1x/day x 5 days
- clarithromycin 250 mg PO 2x/day x 10 days

Immediate type I penicillin allergy:

- clindamycin, clarithromycin, or azithromycin as dosed above

See references for additional treatment options and other important information.

Resources

Antimicrobial stewardship is based on the "three Ds", the right drug, the right dose and the right duration. To learn more about the 7 core elements of antimicrobial stewardship, visit <http://www.health.ri.gov/healthcare/about/antimicrobialstewardship/>

For more information, call RIDOH's Center for Acute Infectious Disease Epidemiology at 401-222-2577. To learn more about RIDOH's Antimicrobial Stewardship and Environmental Cleaning Task Force, visit <http://www.health.ri.gov/partners/taskforces/antimicrobialstewardship/>

For more information and to download free patient education resources from RIDOH, visit <http://health.ri.gov/antibiotics>

For more information and to download free patient education resources from CDC, visit <https://www.cdc.gov/antibiotic-use/>

To order free patient resources from CDC, visit <https://wwwn.cdc.gov/pubs/CDCInfoOnDemand.aspx> and select "Antibiotic Use"

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Acute uncomplicated bronchitis⁵⁻⁷

Viruses cause >90% 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.

Management

Routine treatment of uncomplicated acute bronchitis with antibiotics is NOT recommended, regardless of cough duration.

Patients may benefit from symptomatic therapy:

- Cough suppressants
- Expectorants
- First-generation antihistamines
- Decongestants

Common cold or non-specific upper respiratory tract infection^{8,9}

Most adults get 2-4 colds annually

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 nasal saline irrigation as effective treatments for cold symptom relief.
- Providers and patients must weigh the benefits/harms of symptomatic therapy.

Acute uncomplicated cystitis¹²⁻¹⁴

Diagnosis

Nitrites and leukocyte esterase are the most accurate indicators of acute uncomplicated cystitis

Antibiotic treatment of asymptomatic bacteriuria is NOT recommended for healthy adults EXCEPT:

- pregnant women
- before some urological procedures

Management

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

- nitrofurantoin 100 mg PO 2x/day x 5 days (nitrofurantoin is NOT recommended if suspicious for early pyelonephritis)
- TMP-SMX 160/800 mg PO (one DS tablet) 2x/day x 3 days (where local resistance is <20%)
- fosfomycin 3g PO x 1 dose (not recommended for early pyelonephritis)

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>.
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Always remember to prescribe the right antibiotic, at the right dose, for the right duration, and at the right time.

