

Guidelines for the Use of Antibiotics in Acute Upper Respiratory Tract Infections

TABLE 2

Clinical Practice Guidelines Compendium: Adults with URI

ILLNESS/PATHOGEN	INDICATIONS FOR ANTIBIOTIC TREATMENT	TREATMENT	ANTIBIOTIC
Acute bacterial sinusitis <i>Streptococcus pneumoniae</i> , nontypeable <i>Haemophilus influenzae</i> , <i>Moraxella catarrhalis</i> , mainly viral pathogens	When to treat with an antibiotic: diagnosis may be made in adults with symptoms of a viral upper respiratory infection that have not improved after 10 days or that worsen after five to seven days. Diagnosis may include some or all of the following: nasal drainage, nasal congestion, facial pressure or pain (especially when unilateral and focused in the region of a particular sinus), postnasal discharge, hyposmia, anosmia, fever, cough, fatigue, maxillary dental pain, ear pressure or fullness.	Antibiotic duration: 10 days Failure to respond after 72 hours of antibiotics: reevaluate patient and switch to alternate antibiotics	First-line therapy Amoxicillin Alternative therapy Amoxicillin/clavulanate (Augmentin), cefpodoxime (Vantin), cefdinir (Omnicef), respiratory quinolones (gatifloxacin [Tequin], levofloxacin [Levaquin], moxifloxacin [Avelox]) For beta-lactam allergy: TMP-SMX (Bactrim, Septra), doxycycline (Vibramycin), azithromycin (Zithromax), clarithromycin (Biaxin)

ILLNESS/PATHOGEN	INDICATIONS FOR ANTIBIOTIC TREATMENT	TREATMENT	ANTIBIOTIC
	<p>When not to treat with an antibiotic: nearly all cases resolve without antibiotics. Antibiotic use should be reserved for moderate symptoms that are not improving after 10 days or that worsen after five to seven days, and severe symptoms.</p>		
<p>Pharyngitis <i>Streptococcus pyogenes</i>, routine respiratory viruses</p>	<p>When to treat with an antibiotic: <i>S. pyogenes</i> (group A streptococcus infection). Symptoms of sore throat, fever, headache. Physical findings include fever, tonsillopharyngeal erythema and exudates, palatal petechiae, tender and enlarged anterior cervical lymph nodes, and absence of cough. Confirm diagnosis with throat culture or rapid antigen testing before using antibiotics; negative rapid antigen test results may be confirmed with throat culture.</p>	<p>Group A streptococcal infection, antibiotic duration: 10 days</p>	<p>First-line therapy Penicillin V (Veetids), penicillin G benzathine (Bicillin LA)</p> <p>Alternative therapy Amoxicillin, macrolides (erythromycin preferred in patients allergic to penicillin), oral cephalosporins, clindamycin (Cleocin)</p>

ILLNESS/PATHOGEN	INDICATIONS FOR ANTIBIOTIC TREATMENT	TREATMENT	ANTIBIOTIC
	<p>When not to treat with an antibiotic: most pharyngitis cases are viral in origin. The presence of the following is uncommon with group A streptococcal infection and points away from using antibiotics: conjunctivitis, cough, rhinorrhea, diarrhea, and absence of fever.</p>		
<p>Nonspecific cough illness/acute bronchitis <i>Bordetella pertussis</i>, <i>Chlamydia pneumoniae</i>/<i>Mycoplasma pneumoniae</i></p>	<p>When to treat with an antibiotic: antibiotics not indicated in patients with uncomplicated acute bacterial bronchitis. Sputum characteristics not helpful in determining need for antibiotics. Treatment is reserved for patients with acute bacterial exacerbation of chronic bronchitis and COPD, usually smokers. In patients with severe symptoms, rule out other more serious conditions (e.g., pneumonia).</p>	Uncomplicated: not indicated	<p>Chronic bronchitis and COPD: amoxicillin, TMP-SMX, or doxycycline</p> <p>Other (<i>B. pertussis</i>, <i>C. pneumoniae</i>, <i>M. pneumoniae</i>): erythromycin or doxycycline</p>

ILLNESS/PATHOGEN	INDICATIONS FOR ANTIBIOTIC TREATMENT	TREATMENT	ANTIBIOTIC
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**When not to treat
with an antibiotic:**
90 percent of cases
are nonbacterial.
Literature fails to
support use of
antibiotics in adults
without history of
chronic bronchitis or
other comorbid
condition.

**Nonspecific upper
respiratory infection**
Viral

**When not to treat
with an antibiotic:**
Antibiotics not
indicated; however,
nonspecific upper
respiratory infection is
a major etiologic
cause of acute
respiratory illnesses
presenting to primary
care physicians.
Patients often expect
treatment. Attempt to
discourage antibiotic
use and explain
appropriate
treatment.

Not indicated

None

ILLNESS/PATHOGEN	INDICATIONS FOR ANTIBIOTIC TREATMENT	TREATMENT	ANTIBIOTIC
Influenza Influenza virus	<p>When not to treat with an antibiotic:</p> <p>antibiotics not indicated. For acute treatment, supportive and symptomatic care is the standard. Characterized by abrupt onset of constitutional and respiratory signs and symptoms such as fever, myalgia, headache, rhinitis, severe malaise, nonproductive cough, and sore throat..</p> <hr/> <p>The incubation period for influenza is one to four days, with an average of two days. Adults typically are infectious from the day before symptoms begin through approximately five days after onset of illness</p>	Antibiotics not indicated, but patients often expect treatment.	Antiviral medications available for acute relief of symptoms and for prevention in some cases

NOTE: This guideline summary is intended for physicians and health care professionals to consider in managing the care of their patients for acute respiratory tract infections. Although the summary describes recommended courses of intervention, it is not intended as a substitute for the advice of a physician or other knowledgeable health care professionals. These guidelines represent best clinical practice at the time of publication, but practice standards may change as more knowledge is gained.

URI = upper respiratory infection; TMP-SMX = trimethoprim/sulfamethoxazole; COPD = chronic obstructive pulmonary disease.

Adapted with permission from California Medical Association Foundation. Alliance Working for Antibiotic Resistance Education (AWARE) clinical practice guidelines. Accessed August 3, 2006, at:http://www.aware.md/clinical/clinical_guide.asp.

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