

Endorsing Organizations

- American Academy of Urgent Care Medicine
- American College of Physicians – California
- Association of California Nurse Leaders
- California Academy of Family Physicians
- California Academy of Physician Assistants
- California Association of Nurse Practitioners
- California Pharmacists Association
- California Society of Health-System Pharmacists
- Urgent Care Association of America

Supporting Organizations

- Aetna Health of California
- Blue Cross of California
- Blue Shield of California
- CalOptima
- Care 1st Health Plan
- Health Net of California
- Health Plan of San Joaquin
- Inland Empire Health Plan
- Kaiser Permanente
- LA Care Health Plan
- Molina Healthcare
- National Medical Health Card Systems, Inc.
- Santa Barbara Regional Health Authority

Over-the-Counter and Self Care for Viral Infections

Antibiotic treatment does not cure viral infections. Antibiotics can be harmful if they are given when not needed. The treatments recommended below will help your patient feel better while their body’s own defenses are defeating the virus.

The medicines below can be used according to the package instructions, or as directed by a healthcare provider.

Symptoms	Home Remedies	Over-the-Counter Generic Name & Brand Name Examples
Fever, Aches and Pain	<ul style="list-style-type: none"> • Sponge bath • Cool compress • Bed rest • Heating pad on sore muscles 	<p>Analgesics</p> <ul style="list-style-type: none"> • Acetaminophen (Tylenol) • Ibuprofen (Advil, Motrin IB, Nuprin) • Naproxen (Aleve)
Cough or Sore Throat	<ul style="list-style-type: none"> • Drink more fluids • Room humidifier • Gargle (warm salt water) 	<p>Expectorant</p> <ul style="list-style-type: none"> • Guaifenesin (Robitussin, Mucinex) <p>Antitussives</p> <ul style="list-style-type: none"> • Dextromethorphan (Delsym) <p>Combination Products</p> <ul style="list-style-type: none"> • Robitussin DM
Stuffy or Runny Nose	<ul style="list-style-type: none"> • Steam inhalation • Saline nose drops or spray • For red, raw nose, dab on petroleum jelly or salve or use tissues with lotion 	<p>Decongestants</p> <ul style="list-style-type: none"> • Pseudoephedrine (Sudafed) • Oxymetazoline (Afrin) • Phenylephrine (Sudafed PE, Neo-Synephrine) <p>Antihistamines</p> <ul style="list-style-type: none"> • Loratadine (Alavert, Claritin) • Diphenhydramine (Benadryl) • Chlorpheniramine (Chlor-Trimeton) • Clemastine (Tavist Allergy)

Antiviral Therapies for Influenza

Given within 48 hours of the onset of flu symptoms oseltamivir and zanamivir can reduce the duration of uncomplicated influenza A and influenza B. These agents are also effective in preventing influenza and may be CONSIDERED for unvaccinated persons or those vaccinated after the start of local influenza activity.

This compendium was designed to summarize appropriate antibiotic treatment of common adult outpatient infections. It is based on guidelines and recommendations from leading medical experts and professional organizations in the U.S.

This guideline summary is updated annually.

Acute Bacterial Sinusitis:

1. The Sinus and Allergy Health Partnership. Antimicrobial Treatment Guidelines for Acute Bacterial Rhinosinusitis. Executive Summary. SUPPLEMENT OTOLARYNGOLOGY-HEAD AND NECK SURGERY, 2004; 130: 1-45.

2. Piccirillo, JF., Clinical Practice. Acute Bacterial Sinusitis. N ENGL J MED. 2004 Aug 26; 351 (9): 902-10.

3. Snow, V. et. al., Clinical Practice Guideline Part 1: Principles of Appropriate Antibiotic Use of Acute Sinusitis in Adults: Background. ANNALS OF INTERNAL MEDICINE, 2001; 134: 498-505.

Pharyngitis:

1. Institute for Clinical Systems Improvement. Acute Pharyngitis Health Care Guideline. Executive Summary. www.ICSI.org. May 2005.

2. Cooper, R., et. al., Principles of Appropriate Antibiotic Use for Acute Pharyngitis in Adults: Background. ANNALS OF INTERNAL MEDICINE, 2001; 134: 509-517.

3. Bisno, A., et. al., Diagnosis and Management of Group A Streptococcal Pharyngitis: A Practice Guideline – IDSA. CLINICAL INFECTIOUS DISEASES, 1997; 25: 574-583.

Non-specific Cough Illness/Acute Bronchitis:

1. Gonzales, R. et. al., Principles of Appropriate Antibiotic Use for Treatment of Acute Respiratory Tract Infections in Adults. ANNALS OF EMERGENCY MEDICINE, 2001; 37: 690-697. (Reprinted from ANNALS OF INTERNAL MEDICINE, March 2001)

2. Gonzales, R., et. al., Principles of Appropriate Antibiotic Use for Treatment of Uncomplicated Acute Bronchitis: Background. ANNALS OF INTERNAL MEDICINE, 2001; 134: 521-529.

3. Hooton, T., Antimicrobial Resistance: A Plan of Action for Community Practice. AMERICAN FAMILY PHYSICIAN, 2001; 63: 1034-1039.

NonSpecific URI:

1. Gonzales, R. et. al., Principles of Appropriate Antibiotic Use for Treatment of Acute Respiratory Tract Infections in Adults: Background, Specific Aims and Methods. Clinical Practice Guideline. ANNALS OF INTERNAL MEDICINE, 2001; 134: 479-486.

2. Gonzales, R., et. al., Principles of Appropriate Antibiotic Use for Treatment of Acute Respiratory Tract Infections in Adults: Background. Clinical Practice Guideline Part 2. ANNALS OF INTERNAL MEDICINE, 2001; 134: 490-494.

3. Gonzales, R. et. al., Antibiotic Prescribing for Adults with Colds, Upper Respiratory Tract Infections, and Bronchitis by Ambulatory Care Physicians. JAMA, September 17, 1997; 278: 901-904.

For more information visit our website at:

www.aware.md

AWARE is a project of the California Medical Association Foundation, in collaboration with a number of clinical, public health and consumer organizations designed to increase appropriate antibiotic prescribing and lower antibiotic resistance in California.

Acute Respiratory Tract Infection Guideline Summary

Developed as part of the Alliance Working for Antibiotic Resistance Education (AWARE) Project.

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CMA Foundation AWARE Project Adult Clinical Practice Guidelines Compendium Summary

Illness	Indications for Antibiotic Treatment	Pathogen	Antimicrobial Therapy	Antibiotic	Organizational Guidelines Reviewed									
Acute Bacterial Sinusitis	<p>When to Treat with an Antibiotic: Diagnosis of acute bacterial sinusitis may be made in adults with symptoms of a viral URI that have not improved after 10 days or that worsen after 5-7 days.</p> <p>Diagnosis May Include Some or All of the Following Symptoms or Signs: Nasal drainage, nasal congestion, facial pressure/pain (especially when unilateral and focused in the region of a particular sinus), postnasal discharge, anosmia, fever, cough, maxillary dental pain, ear pressure/fullness. Less frequent signs and symptoms include hyposmia and fatigue, in conjunction with some or all of the above.</p> <p>When Not to Treat with an Antibiotic: Nearly all cases of acute bacterial sinusitis resolve without antibiotics. Antibiotic use should be reserved for moderate symptoms that are not improving after 10 days, or that are worsening after 5-7 days, and severe symptoms.</p>	<p><i>Streptococcus pneumoniae</i></p> <p>nontypeable <i>Haemophilus influenzae</i></p> <p><i>Moraxella catarrhalis</i></p> <p>Mainly viral pathogens</p>	<p>Antibiotic duration: 10 to 14 days</p> <p>Failure to respond after 72 hours of antibiotics: Reevaluate patient and switch to alternate antibiotics.</p>	<p>1st Line:</p> <ul style="list-style-type: none"> Amoxicillin <p>Alternatives:</p> <ul style="list-style-type: none"> Amoxicillin-clavulanate Cefpodoxime Cefuroxime Cefdinir Respiratory quinolones (levofloxacin, moxifloxacin) <p>For β-Lactam Allergy: Trimethoprim-sulfamethoxazole, doxycycline, azithromycin, clarithromycin</p>	<p>American Academy of Allergy, Asthma & Immunology (AAAAI)</p> <p>American Academy of Family Physicians (AAFP)</p> <p>American College of Physicians (ACP)</p> <p>Centers for Disease Control and Prevention (CDC)</p> <p>Sinus and Allergy Health Partnership (SAHP)</p>									
Pharyngitis	<p>When to Treat with an Antibiotic: <i>Streptococcus pyogenes</i> (Group A Strep): Symptoms of sore throat, fever, headache.</p> <p>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 detection before using antibiotics; negative rapid antigen detection tests may be confirmed with a throat culture.</p> <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 Strep, and point away from using antibiotics: conjunctivitis, cough, rhinorrhea, diarrhea, and absence of fever.</p>	<p><i>Streptococcus pyogenes</i></p> <p>Routine respiratory viruses</p>	<p>Group A Strep: Antibiotic Duration: 10 days</p>	<p>1st Line:</p> <ul style="list-style-type: none"> Penicillin V Benzathine penicillin G <p>Alternatives:</p> <ul style="list-style-type: none"> Amoxicillin Oral cephalosporins Clindamycin <p>For β-Lactam Allergy: Erythromycin</p>	<p>ACP</p> <p>CDC</p> <p>Infectious Diseases Society of America (IDSA)</p> <p>Institute for Clinical Systems Improvement (ICSI)</p>									
Nonspecific Cough Illness/ Acute Bronchitis	<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 severe conditions, e.g. pneumonia.</p> <p>When Not to Treat with an Antibiotic: 90% of cases are nonbacterial. Literature fails to support use of antibiotics in adults without history of chronic bronchitis or other co-morbid conditions.</p>	<p><i>Bordetella pertussis</i></p> <p><i>Chlamydophila pneumoniae</i></p> <p><i>Mycoplasma pneumoniae</i></p> <p>Mainly viral pathogens</p>	<p>Uncomplicated: Not indicated</p>	<p>Uncomplicated: Not indicated</p> <p>Chronic COPD:</p> <ul style="list-style-type: none"> Amoxicillin, trimethoprim-sulfamethoxazole or doxycycline <p>Other:</p> <ul style="list-style-type: none"> <i>Bordetella pertussis</i>, <i>Chlamydophila pneumoniae</i>, <i>Mycoplasma pneumoniae</i> - erythromycin or doxycycline 	<p>AAFP</p> <p>ACP</p> <p>CDC</p> <p>IDSA</p>									
Nonspecific URI	<p>When Not to Treat with an Antibiotic: Antibiotics not indicated; however, nonspecific URI is a major cause of acute respiratory illnesses presenting to primary care practitioners. Patients often present expecting some treatment. Attempt to discourage antibiotic use and explain appropriate treatment.</p>	<p>Viral</p>	<p>Not indicated</p>	<p>Not indicated</p>	<p>AAFP</p> <p>ACP</p> <p>CDC</p> <p>ICSI</p> <p>IDSA</p>									
Outpatient Community-Acquired Pneumonia (CAP)	<p>When to Treat with an Antibiotic as an Outpatient: Perform CXR to confirm the diagnosis of pneumonia especially if patient has 2 or more signs or symptoms: Temp > 100 F (37.8 C), pulse > 100, decreased breath sounds, rales, RR > 20. If CXR shows infiltrate, consider pre-existing conditions and calculate Pneumonia Severity Index (PSI \leq 90 for outpatient management). Visit http://pda.ahrq.gov/clinic/psi/psi.htm to download PDA version of PSI. Sputum gram stain and culture are desirable.</p> <p>When Not to Treat with an Antibiotic as an Outpatient: Consider inpatient admission if PSI score > 90, unable to tolerate orals, unstable social situation, or if clinical judgment so indicates.</p>	<p><i>Streptococcus pneumoniae</i></p> <p>Atypical pathogens: <i>Mycoplasma pneumoniae</i>, <i>Chlamydophila pneumoniae</i>, <i>Legionella species</i></p> <p><i>Haemophilus influenzae</i></p>	<p style="text-align: center;">Empiric Therapy</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #f4a460;">No recent antibiotics</th> <th style="background-color: #f4a460;">Antibiotic use within 3 months*</th> </tr> </thead> <tbody> <tr> <td style="background-color: #f4a460;">Healthy</td> <td style="background-color: #f4a460;">Macrolide</td> <td style="background-color: #f4a460;">Respiratory quinolone or combination of advanced macrolide with either high dose amoxicillin or amoxicillin-clavulanate</td> </tr> <tr> <td style="background-color: #f4a460;">Co-morbid**</td> <td style="background-color: #f4a460;">Advanced macrolide or respiratory quinolone</td> <td style="background-color: #f4a460;">Respiratory quinolone or combination of advanced macrolide with a β-lactam</td> </tr> </tbody> </table> <p>*Choose a class of antibiotic that differs from the prior antibiotic **COPD, diabetes, renal disease or CHF, or malignancy</p> <p>Advanced macrolide includes azithromycin or clarithromycin Antibiotic duration: 7-14 days (5 days for azithromycin and levofloxacin), 10-21 days for Legionnaires' disease</p>	No recent antibiotics		Antibiotic use within 3 months*	Healthy	Macrolide	Respiratory quinolone or combination of advanced macrolide with either high dose amoxicillin or amoxicillin-clavulanate	Co-morbid**	Advanced macrolide or respiratory quinolone	Respiratory quinolone or combination of advanced macrolide with a β -lactam	<p>1st Line:</p> <ul style="list-style-type: none"> Macrolides (azithromycin, erythromycin or clarithromycin) Respiratory quinolones (levofloxacin, moxifloxacin) <p>β-Lactam Alternatives:</p> <ul style="list-style-type: none"> High dose amoxicillin High dose amoxicillin-clavulanate Oral cephalosporins (cefepodoxime, cefprozil, cefuroxime) 	<p>IDSA</p> <p>ICSI</p>
No recent antibiotics		Antibiotic use within 3 months*												
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