Best Practices in the Management of Patients with Acute Bronchitis/Cough

Reiterated studies and meta-analyses have demonstrated no significant benefit from antibiotics in otherwise healthy persons.

Antibiotic administration is associated with allergic reactions, Helicobacter pylori infection and future antibiotic resistance in the treated patient and the community.

Educate and Advise Patients

Most patients want a diagnosis, not necessarily antibiotics. Explain to the patient that most bronchitis is a viral illness, and coughs are either viral or reactive airway disease. It is important to emphasize that antibiotics may have serious side effects and may create resistance to antibiotics in the patient or their family.

This strategy is associated with equal or superior patient satisfaction. Set appropriate expectations for the duration of symptoms, i.e., cough may last for up to four weeks. Give symptomatic relief such as codeine-based cough suppressants, NSAIDS, multi-symptom OTC medications, and possibly bronchodilators if there is any bronchospasm.

Caution patients regarding symptoms (such as high fevers and shortness of breath) that indicate more severe disease.

Recommend Vaccination

Prevent respiratory infections by vaccination:

- Influenza vaccination for all persons > 6 months of age, particularly older and younger patients and those with concomitant significant illnesses.
- Pneumococcal vaccination for those with concomitant significant illnesses and all persons > 65 years old who have not had a prior vaccination within 5 years.
- Pertussis immunization is recommended for nonpregnant adults of any age who have not had prior Tdap vaccination: promptly, if they have or anticipate having close contact with an infant less than 12 months of age (e.g., parents, grandparents, childcare providers, and healthcare practitioners); and for all others, once, in the place of one of their routine every-10-year tetanus boosters. Considerations for pregnant and postpartum patients are more complicated. See http://www.cdc.gov/mmwr/preview/mmwrhtml/rr5704a1.htm.

For more information or additional materials, visit www.aware.md.

Supporting Organizations

American Academy of Pediatrics
California District Association 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
Urgent Care College of Physicians

Endorsing Organizations

Physician Assistants
California Academy of Family Physicians
Nurse Leaders
California Academy of Family Physicians
Molina Healthcare of California
California Society of Health

CMA Foundation
3835 North Freeway Boulevard, Suite 100
Sacramento, CA 95834
For more information visit our website:
www.aware.md

Reference Articles

Acute Bacterial Sinusitis:

Pharyngitis:

Nonspecific Cough Illnesses/Acute Bronchitis/Pertussis:

Nonspecific URI:

Community Acquired Pneumonia:

For more information visit our website: www.aware.md
### Adult Clinical Practice Guideline Summary

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<th>Illness</th>
<th>Indications for Antibiotic Treatment</th>
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<td><strong>Acute Bacterial Sinusitis</strong></td>
<td><strong>When to Treat with an Antibiotic:</strong> 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. 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 hypoxia and fatigue, in conjunct with some or all of the above. <strong>When NOT to Treat with an Antibiotic:</strong> Nearly all cases of acute 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.</td>
<td>Streptococcus pneumoniae Nontypeable Haemophilus influenzae Moraxella catarrhalis</td>
<td><strong>Antibiotic Duration:</strong> 7 to 10 days. Failure to respond after 72 hours of antibiotics; Reevaluate patient and switch to alternate antibiotic.</td>
<td><strong>1st Line:</strong> Amoxicillin <strong>Alternatives:</strong> Amoxicillin-clavulanate Oral cephalosporins: not first generation and not cepham (i.e. cefpodoxime, cefuroxime, cefdinir, etc.) Respiratory quinolone (levofloxacin, moxifloxacin)</td>
<td>American Academy of Allergy, Asthma &amp; Immunology (AAAAI) American Academy of Family Physicians (AAFP) American College of Physicians (ACP) Centers for Disease Control and Prevention (CDC) Sinus and Allergy Health Partnership (SAHP)</td>
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<td><strong>Pharyngitis</strong></td>
<td><strong>When to Treat with an Antibiotic:</strong> Streptococcus pyogenes (Group A Strept) Symptoms of sore throat, fever, headache. Physical findings include: Fever, tonsillohypopharyngeal 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.</td>
<td>Streptococcus pyogenes</td>
<td><strong>Group A Strept:</strong> Treatment reserved for patients with positive rapid antigen detection or throat culture. <strong>Antibiotic Duration:</strong> Generally 10 days</td>
<td><strong>1st Line:</strong> Penicillin V Benzathine penicillin G Amoxicillin</td>
<td>ACP, CDC Infectious Diseases Society of America (IDSA) Institute for Clinical Systems Improvement (ICSI)</td>
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<td><strong>When NOT to Treat with an Antibiotic:</strong> Most pharyngitis cases are viral in origin. The presence of the following is uncommon with Group A Strept, and point away from using antibiotics: conjunctivitis, cough, rhinorrhea, diarrhea, and absence of fever.</td>
<td></td>
<td>Routine respiratory viruses</td>
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<td><strong>Non-specific URI</strong></td>
<td><strong>When NOT to Treat with an Antibiotic:</strong> 90% of cases are nonbacterial. Literature failure to use antibiotics in adults without history of chronic bronchitis or other co-morbid conditions.</td>
<td></td>
<td><strong>Uncomplicated:</strong> Not Indicated</td>
<td><strong>Chronic COPD:</strong> Amoxicillin, trimethoprim-sulfamethoxazole, tetracyclines</td>
<td>AAF, ACP, CDC, IDSA</td>
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<td><strong>When NOT to Treat with an Antibiotic:</strong> Antibiotics not indicated in patients with uncomplicated acute bacterial bronchitis. Symptoms suggestive of a chronic bronchitis exacerbation and of COPD, usually smokers. In patients with severe symptoms, rule out other more severe conditions, e.g. pneumonia. Testing is recommended either prior to or in conjunction with treatment for pertussis. Testing for pertussis is recommended particularly during outbreaks and according to public health recommendations.</td>
<td></td>
<td></td>
<td><strong>Other:</strong> Chlamydia pneumoniae, Chlamydia psittaci, Mycoplasma pneumoniae, Bordetella pertussis</td>
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<td><strong>Outpatient Community Acquired Pneumonia</strong></td>
<td><strong>When to Treat with an Antibiotic as an Outpatient:</strong> Perform CXR to confirm the diagnosis of pneumonia. Evaluate for outpatient management. Consider pre-existing conditions, calculate Pneumonia Severity Index (PSI ≤ 90 for outpatient management) or CURB-65 (0 or 1 for outpatient management). Visit <a href="http://www.discoverystatus.org">www.discoverystatus.org</a> for more information. Sputum gram stain and culture are recommended if active alcohol abuse, severe obstructive/structural lung disease, or pleural effusion.</td>
<td>Streptococcus pneumoniae Mycoplasma pneumoniae Haemophilus influenzae Chlamydia pneumoniae</td>
<td><strong>Empiric Therapy:</strong> Healthy with no DRSP** risk factors: Macrolide***, consider doxycycline Presence of co-morbidity, antibiotic use within 3 months**** or risk of DRSP Respiratory quinolone or combination of a ß-lactam plus a macrolide (or doxycycline as an alternative to the macrolide). <strong>Antibiotic duration:</strong> Minimum of 5 days; discontinue once afebrile for 48 – 72 hours. Consider alternative agents for macrolide-resistant S. pneumoniae in any patient including those without co-morbidities <strong>DRSP:</strong> Drug-resistant S. pneumoniae *** Azithromycin or Clarithromycin **** Choose a class of antibiotic that differs from the prior antibiotic</td>
<td><strong>1st Line:</strong> Macrolide (azithromycin or clarithromycin) Doxycycline (alternative to macrolide) <strong>8-Lactam Alternatives:</strong> (to be given with a macrolide) High dose amoxicillin or amoxicillin-clavulanate Cefalosporins (cefuroxime, cefixime) <strong>Other Alternative:</strong> Respiratory quinolone (moxifloxacin, levofloxacin) 750mg QD</td>
<td>Infectious Diseases Society of America / American Thoracic Society (IDSA/ATS) ICSI</td>
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<td><strong>Non-specific URI</strong></td>
<td><strong>When NOT to Treat with an Antibiotic:</strong> Not indicated; however, non-specific 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 non-pharmacologic treatment.</td>
<td>Viral</td>
<td></td>
<td>Not indicated.</td>
<td>AAF, ACP, CDC, ICSI, IDSA</td>
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This guideline summary is intended for physicians and healthcare professionals to consider in managing the care of their patients for acute respiratory tract infections. While the summary describes recommended courses of intervention, it is not intended as a substitute for the advice of a physician or other knowledgeable healthcare professional. These guidelines represent best clinical practice at the time of publication, but practice standards may change as more knowledge is gained.