## Respiratory Tract Infections

### Adult Treatment Recommendations

<table>
<thead>
<tr>
<th>Condition</th>
<th>Epidemiology</th>
<th>Diagnosis</th>
<th>Management</th>
</tr>
</thead>
</table>
| **Common cold or non-specific upper respiratory tract infection (URI)** | - The common cold is the third most frequent diagnosis in office visits, and most adults experience two to four colds annually.  
- At least 200 viruses can cause the common cold. | - Prominent cold symptoms include fever, cough, rhinorrhea, nasal congestion, postnasal drip, sore throat, headache, and myalgias. | - Decongestants (pseudoephedrine and phenylephrine) combined with a first-generation antihistamine may provide short-term symptom relief of nasal symptoms and cough.  
- Non-steroidal anti-inflammatory drugs can be given to relieve symptoms.  
- Evidence is lacking to support antihistamines (as monotherapy), opioids, intranasal corticosteroids, and nasal saline irrigation as effective treatments for cold symptom relief.  
- Providers and patients must weigh the benefits and harms of symptomatic therapy. |
| **Acute rhinosinusitis** | - About 1 out of 8 adults (12%) in 2012 reported receiving a diagnosis of rhinosinusitis in the previous 12 months, resulting in more than 30 million diagnoses  
- 90–98% of rhinosinusitis cases are viral, and antibiotics are not guaranteed to help even if the causative agent is bacterial. | - Diagnose acute bacterial rhinosinusitis based on symptoms that are:  
  - **Severe** (>3-4 days), such as a fever ≥39°C (102°F) and purulent nasal discharge or facial pain;  
  - **Persistent** (>10 days) **without improvement**, such as nasal discharge or daytime cough; or  
  - **Worsening** (3-4 days) such as worsening or new onset fever, daytime cough, or nasal discharge after initial improvement of a viral upper respiratory infections (URI) lasting 5–6 days.  
  - Sinus radiographs are not routinely recommended. | If a bacterial infection is established:  
- Watchful waiting is encouraged for uncomplicated cases for which reliable follow-up is available.  
- Amoxicillin or amoxicillin/clavulanate is the recommended first-line therapy.  
- Macrolides such as azithromycin are not recommended due to high levels of Streptococcus pneumoniae antibiotic resistance (~40%).  
- Erythromycin-resistant pneumococci are also resistant to azithromycin and clarithromycin.  
- For penicillin-allergic patients, doxycycline or a respiratory fluoroquinolone (levofloxacin or moxifloxacin) are recommended as alternative agents. |
| **Acute uncomplicated bronchitis** | - Cough is the most common symptom for which adult patients visit their primary care provider, and acute bronchitis is the most common diagnosis in these patients. | - Evaluation should focus on ruling out pneumonia, which is rare among otherwise healthy adults in the absence of abnormal vital signs (heart rate ≥ 100 beats/min, respiratory rate ≥ 24 breaths/min, or oral temperature ≥ 38 °C) and abnormal lung examination findings (focal consolidation, egophony, fremitus).  
- Colored sputum does not indicate bacterial infection.  
- For most cases, chest radiography is not indicated. | Routine treatment of uncomplicated acute bronchitis with antibiotics is not recommended, regardless of cough duration.  
Options for symptomatic therapy include:  
- Cough suppressants (codeine, dextromethorphan);  
- First-generation antihistamines (diphenhydramine);  
- Decongestants (phenylephrine); and  
- Beta agonists (albuterol). |
| **Pharyngitis** | - Group A beta-hemolytic streptococcal (GAS) infection is the only common indication for antibiotic therapy for sore throat cases.  
- Only 5–10% of adult sore throat cases are caused by GAS. | - Clinical features alone do not distinguish between GAS and viral pharyngitis; a rapid antigen detection test (RADT) is necessary to establish a GAS pharyngitis diagnosis.  
- Those who meet two or more Centor criteria (e.g., fever, tonsillar exudates, tender cervical lymphadenopathy, and absence of cough) should receive a RADT. Throat cultures are not routinely recommended for adults. | - Antibiotic treatment is NOT recommended for patients with negative RADT results.  
- Amoxicillin and penicillin V remain first-line therapy due to their reliable antibiotic activity against GAS.  
- For penicillin-allergic patients, cephalaxin, cefadroxil, clindamycin, or macrolides are recommended.  
- GAS antibiotic resistance to macrolides is increasingly common.  
- Recommended treatment course for all oral beta lactams is 10 days. |

Adapted from: [http://www.cdc.gov/getsmart/community/for-hcp/outpatient-hcp/adult-treatment-rec.html](http://www.cdc.gov/getsmart/community/for-hcp/outpatient-hcp/adult-treatment-rec.html)