Cough tips for cold & flu season

By Angie Sparks, MD, FAAFP, Family Medicine

Clinical questions
In a coughing adult outpatient, how can I distinguish between the common cold, bronchitis (chest cold), pneumonia, and pertussis? What are the treatment considerations for a cough lasting longer than 10 days?

Key points
If you suspect:
- Acute bronchitis, the approach is similar to what you’d do for the "common cold"—same viral causes but with longer cough duration and more severe symptoms.
- Pneumonia, order a chest X-ray—imaging is necessary for correct diagnosis.
- Pertussis, limit the spread. Mask, swab, document, notify the health department, and isolate... then treat.

Recommendations

Acute bronchitis
Cough due to inflammation of the trachea and bronchi, diagnosed clinically. Cough averages 18 days up to 8 weeks and is often accompanied by low-grade fever, wheezing, and sputum production. Sputum color is not a sign of bacterial infection. Treatment is supportive care.

Based on past experience with inappropriate prescribing, many patients may associate the term "bronchitis" with antibiotic treatment and assume they will need both an office visit and a prescription for the same condition in the future. Saying "chest cold" instead of "bronchitis" may help patients understand why antibiotics won’t help with this condition, increase their satisfaction with appropriate treatment, and improve access to care for other patients.

Antibiotics?
Antibiotics provide no therapeutic or prophylactic benefit in bronchitis, but they may cause harm. Patients should not be prescribed antibiotics for this self-limited, common viral condition and should receive supportive care instead.

Pneumonia
Clinical definition includes fever and an infiltrate on chest imaging.

Indications for chest X-ray in a coughing patient are:
- Pulse > 100 bpm
- RR > 24 bpm
- Temperature > 100° F or > 38° C
- Dyspnea
- Bloody or rusty sputum
- Focal consolidation, egophony, or fremitus on chest exam
- Also consider imaging if the cough has been present longer than 4 weeks.
In patients over 75 with suspected pneumonia, the signs may be more subtle and are less likely to include fever or tachycardia.

In an otherwise healthy patient, the absence of these findings is sufficient to rule out pneumonia.

**Antibiotics?**

*Patients with pneumonia confirmed on chest X-ray should be treated with antibiotics in most cases.* Antibiotics for pneumonia should not be prescribed on clinical suspicion alone because clinical suspicion is less than 50 percent specific in detecting pneumonia.

**Pertussis**

A highly contagious, vaccine-preventable, bacterial disease with classic paroxysms of whooping cough and post-tussive emesis. Usually, there is known exposure or an outbreak in the community.

If you suspect pertussis in a symptomatic adult:

- Document your suspicion using ICD-10 code "Whooping Cough or Pertussis-like syndrome" A37.90 or "Whooping Cough due to organism" A37.80.
- **Obtain a nasopharyngeal swab and have it tested:** check with your local lab for which swab and test to use. Send a specimen even if the patient has been immunized.
- Notify the local health department, and
- Isolate the patient from work, school, and other public activities for 5 days.

It is optimal to collect the specimen within 2 weeks of symptom onset; however, this can be extended to 4 weeks after onset as long as antibiotics have not been started. When obtaining specimens, wear gloves and a mask with eye protection.

Do not empirically treat symptomatic patients without pertussis lab testing, as this might make getting a correct diagnosis impossible and, in turn, expose others to pertussis.

**Antibiotics?**

*Treatment: Antibiotics rarely shorten the illness or help with its symptoms; however, azithromycin is typically used to treat patients with pertussis because it might help limit the spread of the disease.*

*Prophylaxis: Asymptomatic close contacts of patients with pertussis should receive antibiotic prophylaxis,* even if they have previously been immunized. It is not necessary to collect a specimen/perform a culture for these patients.

**What helps a viral cough? How can I help my adult patients feel better?**

- Do express empathy and perform a directed physical exam-the therapeutic placebo effect of caregiver warmth and empathic reassurance is real! Letting patients know we care can help them feel better when they have a miserable cough.
- Use the SmartPhrase .AVSURI12ANDUP to offer symptom management information.
- Consider dextromethorphan or guaifenesin.
- Suggest use of throat lozenges, warm liquids, and honey.
- Offer absence notes for work and other activities to facilitate self-care, including rest and fluids.
- Mask the patient while they are in health care facilities to avoid viral spread. Encourage covering coughs and handwashing.
- Vaccination can prevent some coughs. Update your patients' influenza, pertussis, and pneumococcal vaccines if needed.
- Don't prescribe codeine, which is not effective. Harms include constipation, respiratory depression, somnolence, and potential for abuse and diversion.
- Antibiotics will not prevent the development of pneumonia in someone with a cough. Don't prescribe them for this purpose.
How could this change my practice?
Most coughing outpatients will not benefit from antibiotics and may be harmed by them. Avoiding the common pitfalls of diagnosis and treatment of cough will help improve patient care and access during a high-demand time of year in our medical centers.

Why did we choose this topic?
As we move into cold and flu season, we want to be sure our teams to have all the information they need to help our patients, provide medically excellent and evidence-based care, and to use antibiotic resources wisely.

The HEDIS® measure for “bronchitis appropriate treatment” tracks the percentage of individuals 18–64 years of age who do not receive antibiotics within 3 days of being diagnosed with acute bronchitis.

For convenience, KPWA tracks the inverse of the measure—i.e., the number of adult patients who are given antibiotics for acute bronchitis.

Through October 2017, the Network performance on the KPWA measure was 62.8%. This means that we are still prescribing antibiotics inappropriately to 62.8% of our adult patients with acute bronchitis. We want this figure to be lower; for HEDIS purposes, our target is 37.1%.

Resources
Choosing Wisely [www.choosingwisely.org](http://www.choosingwisely.org)

**Acute Uncomplicated Bronchitis (Adults)**
Consider posting this Washington State Department of Health handout in your clinic.

**KP Washington Health Research Institute blog post on antibiotic stewardship at KPWA**
Dr. Angie Sparks describes key strategies of peer-comparison reporting and leaders supporting a learning community.

References

