

The Wait and See Prescription (WASP) approach may reduce resistance to antibiotics, medical costs and adverse events due to the use of antibiotics, and improve patient satisfaction by using a shared decision model.

Acute bronchitis is one of the most common diagnoses in adults for which antibiotics are prescribed. However, the majority of cases have a non-bacterial cause, resulting in lack of efficacy of antibiotic treatment.¹ The WASP approach allows for judicious prescribing and improves patient satisfaction.

Acute bronchitis and overuse of antibiotics

- Nationally, 71% of patients diagnosed with acute bronchitis were prescribed an antibiotic between 1996 and 2010, and that number increased to 80% of primary care visits by 2010²
- U.S. regions with higher use of antibiotics have been linked to higher prevalence of *C. difficile*.³
- 1 out of 5 adult ED visits for drug-related adverse events are associated with antibiotic use.⁴

Wait and see prescription (WASP) approach¹

- The WASP approach for acute bronchitis in adults is limited to well-appearing adults who have a cough for less than 21 days or without clinical evidence of pneumonia (see algorithm below).
- Provide the patient with a prescription and instruct them to fill it only if their condition worsens at any time or does not show clinical improvement within 48–72 hours of diagnosis.

- Educate the patient about avoiding cigarette smoke and using steam to loosen secretions.
- Encourage the patient to drink plenty of fluids and get adequate rest.
- Treat pain or fever with ibuprofen or acetaminophen.

Evidence in support of WASP

- Significantly reduces antibiotic use⁶
- Unlikely to result in serious complications
- Patient satisfaction following either immediate antibiotics or WASP is very high (immediate antibiotics=92%, WASP=87%, no antibiotics=83%)

Shared medical decision-making model

- Educating patients on the benefits and risks of antibiotics
- Patient involvement in the decision of when to use antibiotics decreases use without increasing return visit rates or reducing patient satisfaction⁷

Who needs antibiotics? Adult cough illness/bronchitis* without evidence of pneumonia¹

ACUTE / <3 weeks cough

Evaluation should focus on ruling out serious illness; normal vital signs and chest exam effectively rule out pneumonia. Cough illness/bronchitis is caused by viral pathogens in >90% of cases.

Antibiotics are not effective in treating cough illness/bronchitis in patients without chronic lung disease.

Antibiotic treatment does not prevent bacterial complications such as pneumonia.

The presence of sputum and its characteristics are not helpful in distinguishing bacterial from viral infections.

Management

Do not use antibiotics for cough less than 21 days in a well-appearing adult without clinical evidence of pneumonia.

Therapeutic measures include: avoid cigarette smoke, consider bronchodilators, drink plenty of liquids, steam (e.g., from shower or bath) to loosen secretions, acetaminophen or ibuprofen as needed for fever or pain and adequate rest for symptom relief.

* The term bronchitis triggers an expectation for antibiotics and should be avoided or carefully explained. Other terms, such as “chest cold,” may be preferable.

CHRONIC / >3 weeks cough

Adults with prolonged cough or recurrent episodes can be evaluated for:

- Post-nasal drip syndrome
- Asthma or reactive airway disease
- Gastroesophageal reflux disease (GERD)
- Post-infectious cough
- Smoking or second-hand smoke exposure
- ACE-inhibitor drug cough
- Chronic bronchitis
- Bronchiectasis
- Malignancy

Other infectious agents rarely causing prolonged cough include *B. pertussis*, *M. pneumoniae* or *C. pneumoniae*.

Management

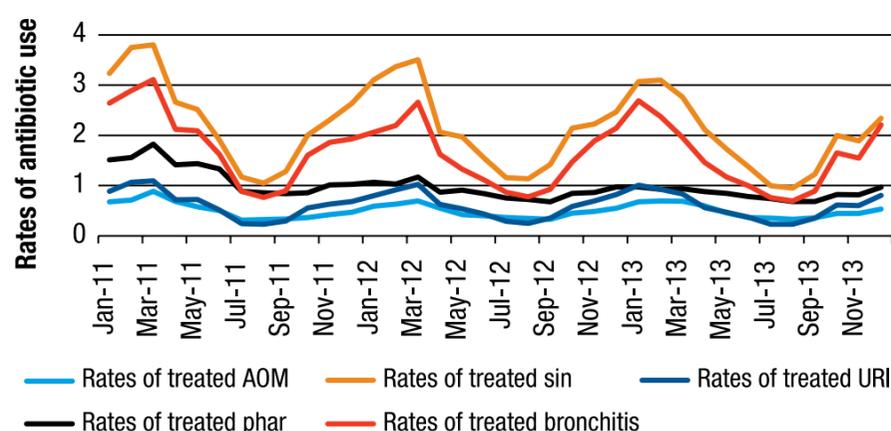
Obtain CXR.

Treat COPD exacerbation (fever, leukocytosis and purulent sputum) with amoxicillin, TMP/SMX or doxycycline, and a short course (7–10 days) of oral corticosteroids.

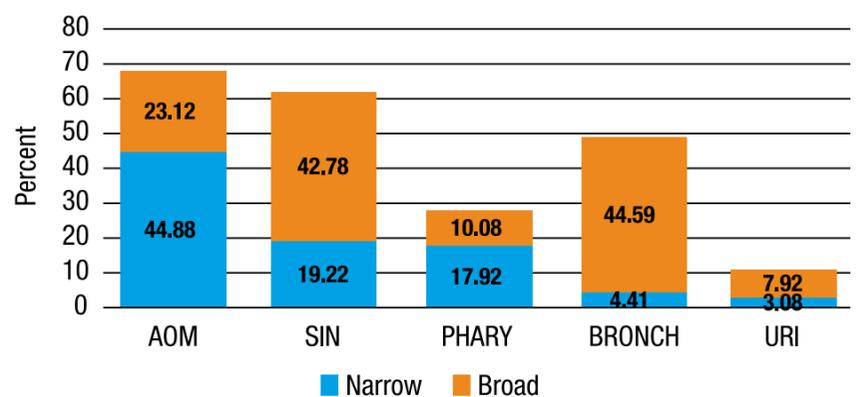
Treat confirmed *B. pertussis*, *M. pneumoniae* or *C. pneumoniae* with azithromycin or clarithromycin.

For other etiologies, direct therapy to the specific underlying cause.

Rates of antibiotic use (courses/1,000 members) for AOM, sinusitis, pharyngitis, bronchitis, and URI, adults, Oregon, 2011–2013



Broad vs. narrow spectrum antibiotic use among patients filling antibiotic prescriptions, Oregon, 2013



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