

Careful Antibiotic Use: Cough Illness/Bronchitis

This article is the second in a series developed by the Centers for Disease Control and Prevention (CDC) to provide physicians with guidance in using antibiotics judiciously when treating children with upper respiratory illnesses. Armed with the latest research concerning the emerging health threat of drug resistant pathogens and with patient-friendly answers to the most often asked questions, physicians can properly treat bronchitis and also help parents understand that antibiotics are not always the best choice for their children when they have a cough.

Cough illness/bronchitis is principally caused by viral pathogens.¹ Airway inflammation and sputum production are nonspecific responses and do not imply a bacterial etiology. Authors of a meta-analysis of six randomized trials in adults concluded that antibiotics were ineffective in treating cough illness/bronchitis.² Additionally, antibiotic treatment of upper respiratory infections do not prevent bacterial complications such as pneumonia.³ Clinicians should follow these guidelines for judicious use of antibiotics:

Do not use antibiotics to treat the following condition:

- Cough <10-14 days duration in well-appearing child without physical signs of pneumonia.

Consider antibiotics for these conditions:

- Suspected pneumonia, based on fever with focal exam, infiltrate on chest x-ray, tachypnea, or toxic appearance.
- Prolonged cough (>10-14 days without improvement), which may suggest specific illnesses (eg, sinusitis) that warrant antibiotic treatment.⁴
- Suspected mycoplasma or pertussis in a child >5 years. (Treat with a macrolide such as erythromycin.)⁵

When parents demand antibiotics,

- Acknowledge the child's symptoms and discomfort.
- Promote active management with nonpharmacologic treatments.
- Give realistic time course for resolution.
- Provide parents with health education materials to help them understand that the risks of antibiotic treatment can outweigh the benefits.

References

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Questions & Answers for Parents

Cough Illness

What should I do if my child has a cough?

Take your child to the doctor if the cough lasts longer than 10 days or if there are other serious problems like pain and fever. The doctor will examine your child carefully to decide which treatment is best.

What causes a coughing illness?

Coughing is a way the body tries to get rid of anything that is bothering the throat. A child with a cold or allergies may cough when mucous from the nose runs down the throat and irritates it. A cold is a viral infection that goes away by itself within two weeks.

What is the best treatment for a cough?

Most often the best treatments are simple actions or medications that help children feel better and get well on their own. Antibiotics are usually not the right choice at the beginning of a coughing illness. Antibiotics cannot cure viral infections or stop an irritation in the throat. Antibiotics should be used only for infections caused by bacteria. Your doctor can determine what is causing your child's cough and prescribe the best treatment.

Are antibiotics ever needed for a cough?

Yes. A cough can be caused by a bacterial infection in the sinuses (sinusitis) or in the lungs (pneumonia). Whooping cough (pertussis) is also caused by bacteria. Laboratory tests may be done to see if the illness is caused by bacteria. In these cases the doctor would treat your child with antibiotics.

Why not take antibiotics just to be safe?

Treating every cough illness with antibiotics can be harmful in many ways. Everyone has many types of bacteria in their bodies that need to be there. For example, some normal bacteria are necessary for the body to digest food right. Also, some of the body's good bacteria help fight other bacteria that cause disease. Every time someone is treated with antibiotics, many of the good bacteria are killed. Some harmful bacteria often survive treatment with antibiotics and become drug resistant. Drug resistant bacteria are harder to kill with the usual antibiotics. **So remember...Antibiotics should not be used if the only problem the child has is a cough that does not last longer than two weeks.**

Stop the Spread of Infection:
Keep Your Sick Child Home From School or Daycare!

Stop your child from spreading serious germs to other children at daycare. Sometimes your sick child needs to stay home. Keep your child at home when he or she has any of the following:



- Fever over 100.4° F (38° C)
- Diarrhea
- Rash
- Pink-eye
- Vomiting

Call your doctor if you are not sure about what to do or if you have questions.

 IDEAS Division
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Note: One of the most important factors in infection control, especially among school children and their caretakers, is proper hand washing habits. See the March 30, 1998, issue of DPN for a patient education flier on proper handwashing (<http://www.tdh.state.tx.us/phpep/dpn/issues/dpn58n07.pdf>).

Update on ACIP Vaccination Recommendations for Meningitis and for Rotavirus

The Advisory Committee on Immunization Practices (ACIP) has modified its guidelines for use of the polysaccharide meningococcal vaccine to prevent bacterial meningitis, particularly for college freshmen who live in dormitories, a group found to be at modestly increased risk of meningococcal disease relative to other persons their age. At its October 20, 1999, meeting, ACIP recommended that those who provide medical care to this group give them and their parents information about meningococcal disease and the benefits of vaccination. Vaccination should be made easily available to freshmen who wish to reduce their risk of disease. Other undergraduate students also can choose to be vaccinated.

Neisseria meningitidis is an important cause of bacterial meningitis and sepsis among children and young adults in the United States. A single dose of the recommended currently available vaccine will decrease risk of disease caused by *N. meningitidis* serogroups A, C, Y, and W-135. The vaccine does not protect against serogroup B. Although it is highly effective against serogroups C and Y, which caused 70% of cases among college students in 1998-1999, it does not confer 100% protection. Further information regarding meningococcal disease, its symptoms, and the vaccine is available at the following websites:

<http://www.cdc.gov/ncidod/dbmd/diseaseinfo/>
<http://www.acha.org/special-prj/men/faq.htm>.

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ACIP Recommendations, cont.

On October 22, 1999, ACIP recommended that Rotashield[®], the only US-licensed rotavirus vaccine, no longer be used for infants in the United States. Recent scientific research data indicate a strong association between Rotashield[®] and intussusception (bowel obstruction) among some infants during the first 1-2 weeks following vaccination. Parents should be reassured that their children who received rotavirus vaccine before July and remain well are not at increased risk for intussusception now. *For more information about vaccines, call the Centers for Disease Control and Prevention (CDC) Hotline at (800) 232-2522 (English) or (800) 232-0233 (Spanish). For more information about managing diarrhea in children, visit the CDC website at <http://www.cdc.gov>.*

DPN Renewal Deadline Is December 31!

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