

What is pertussis (whooping cough)?

Pertussis is caused by the *Bordetella pertussis*, and can cause severe spells of coughing that lasts weeks to months. These spells can interfere with eating, drinking, sleeping and breathing. Pertussis can lead to pneumonia, convulsions, encephalitis and sometimes death (especially in young children). In adolescents and adults the most common symptom is a prolonged cough lasting over 2 weeks.

Who can get pertussis?

Pertussis can occur at any age. It is most commonly diagnosed in infants less than one year old, but anyone can get it.

How is pertussis spread?

Pertussis is spread through the air after an infected person coughs or sneezes.

What are the symptoms of pertussis?

Pertussis often begins with cold-like symptoms (runny nose and irritating cough). Within one to two weeks the cough develops into coughing spells, where the patient has violent coughs, and struggles for breath. A gasping for air, which produces a high-pitched whooping sound, (mainly in infants), follows the coughing, and gives the disease its name. This whoop is almost never heard in older children or adults. In all ages, these coughing spells frequently occur at night, and can be followed by vomiting and cyanosis. Between spells, the person usually appears to be well. Adults, teens, and those vaccinated typically have milder symptoms.

How long is an infected person able to spread pertussis?

Without effective antibiotic treatment an infected person can spread the disease from the time he or she starts coughing through 21 days after the start of the cough. After five days of treatment with an appropriate antibiotic, the patient is no longer considered infectious.

Can a person get pertussis again?

Yes. Disease does not confer lifetime immunity. Up-to-date vaccinations significantly reduce the risk of disease.

How is pertussis diagnosed?

A properly obtained nasopharyngeal swab or aspirate is essential for optimal test results. Nasopharyngeal swab testing kits (consisting of slides, media and swabs in mailing containers) can be ordered from the State Hygienic Laboratory (SHL) at (319) 335-4500 or www.shl.uiowa.edu/kitsquotesforms/. The best test for pertussis is the Polymerase chain reaction (PCR) test, which is available at SHL.

What is the treatment for pertussis?

Early treatment with an appropriate antibiotic will reduce the severity and length of illness. Unfortunately, antibiotics given more than 21 days after the cough began will not change the course of illness and is not recommended. However, for certain high-risk

settings or individuals, healthcare providers may consider extending the period for initiating treatment up to 6 weeks after symptoms start.

How should those around a pertussis patient be treated?

Symptomatic contacts need evaluation and treatment as warranted.

All household contacts and other close contacts determined to be at high risk for severe pertussis or in contact with someone at high risk and who are asymptomatic, should receive post exposure prophylaxis (PEP), regardless of age or vaccine status.

When continued transmission of pertussis is evident, multiple rounds of antibiotics are not recommended unless:

- 1) the close contact is determined to be at high risk, or
- 2) the close contact has close contact with persons at high risk.

Rather than repeating a course of antibiotics, close contacts determined not to be at high risk and not to have close contact with persons at high risk, should be monitored for onset of signs and symptoms of pertussis for 21 days.

If repeat prophylaxis is appropriate, the additional points should be considered:

- If the repeat exposure occurred less than 5 days after completion of the initial course of azithromycin (5 day course), no additional prophylaxis is needed.
- If the repeat exposure occurred more than 5 days after completion of the initial course of azithromycin or if a different prophylactic antibiotic (Clarithromycin, Erythromycin, or TMP-SMZ) was prescribed for the first exposure, another course of antibiotics should be prescribed.

Vaccination status should be assessed and brought up to date.

How can pertussis be prevented?

Pertussis may be prevented through routine immunization.

Instruct everyone to cover their mouth and nose when coughing and sneezing and to wash hands frequently. Everyone, including healthcare providers should be up-to-date on pertussis vaccine (the new tetanus booster contains pertussis vaccine).

When examining a person with a cough illness, a surgical mask should be worn for protection. Wearing of a mask at the appropriate times will reduce the need for post-exposure antibiotics. Remember, prophylactic antibiotics are recommended regardless of vaccine status.

Where can you get more information or call for consultation?

Iowa Department of Public Health, Center for Acute Disease Epidemiology, (800)362-2736 or visit:

www.idph.state.ia.us/CADE/DiseaseIndex.aspx?disease=Pertussis