Whooping Cough Epidemic: What You Should Know

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Last week, news reports confirmed that whooping cough is now an epidemic in California. Physicians have since been inundated with calls from concerned patients. As the disease spreads both in California and nationwide it is important that the public inform themselves about pertussis (whooping cough), both what it is and what their vaccine and treatment options are.

Having had whooping cough does not provide life long immunity. Adolescents and adults who have previously had the infection in childhood may have milder forms of whooping cough which may go undetected and diagnosed as a bronchitis or a simple cough. From beginning to end, the stages of whooping cough can last 2-3 months earning the name the 100-day cough. What is whooping cough?

Pertussis (whooping cough) is a contagious illness caused by the Bordatella pertussis bacterium. In the United States it used to be a common childhood illness known as the 100-day cough named after the characteristic "whoop" sound heard during cough attacks. The bacteria spreads easily from contact with an infected child or adult in the first 2-3 weeks of the infection, usually before the illness is properly diagnosed.

The incubation period is commonly 7-10 days, with a range from 6-21 days. Like many illnesses, pertussis starts with a cold-like stage (the most contagious phase) that of familiar symptoms such as runny nose, sneezing, low-grade fever, and mild cough. Within one to two weeks, the child begins to experience worsening of the cough. These develop into attacks or coughing spells that come in fits of rapid coughs followed by the characteristic long inspiration with a crowing sound or high-pitched whoop, from which it earns its name. Choking, gagging or vomiting while coughing may be triggered from the thick mucus build up in the lungs. In more severe cases a child may turn blue in the face, also known as cyanosis. Although the child may be exhausted immediately following a coughing spell, he often appears and acts normal in between coughing fits.

Complications of Pertussis

The most common complication associated with whooping cough is pneumonia.

Although the bacteria can lead to ear infections, dehydration, convulsions, and, in rare instances, brain damage or death. Pertussis poses a greatest risk to infants and small children due to the small size of their air passages. For this reason, they are at the highest risk for pertussis and its complications compared to older children and adults.

How Common is Whooping Cough?

The Center for Disease Control (CDC) reports that the incidence of whooping cough has decreased 98% since the inception of the vaccine. In the holistic medical community, it is generally felt that pertussis is less severe now than in the past due to improvements in sanitation, nutrition, and education, and because of more sophisticated medical treatments for complications. In the United States, approximately 10,000 cases were reported in 2003, with outbreaks occurring every three to four years. Approximately half of whooping cough cases occur in children less than five years old; thirteen children died of pertussis in the United States in 2003. Pertussis can account for nearly 7% of all adult coughs.

The rate of pertussis, however, has increased steadily since the 1980s. It is estimated that only one third of pertussis cases in the US are actually reported. Overall, adolescents and adults have seen increases in whooping cough, most likely attributable to their immunity waning in the years following the vaccine.

Whooping Cough Vaccine

The pertussis vaccine is given as a part of the DTaP (diphtheria, tetanus, and acellular pertussis) series beginning at two months of age. There are five doses given at two months, four months, six months, fifteen to eighteen months, and four to six years old. The severe complications caused by the original whole-cell pertussis vaccine led to the development of acellular vaccines (acellular pertussis 'aP'), while the publicity surrounding the original pertussis vaccine complications is to a large extent responsible for the current public awareness about vaccine injuries.

Vaccine Reactions

Complications to the vaccine are well documented and include local swelling, fever, high-pitched screaming, convulsions, mental retardation, disabilities, and death. Reactions to acellular form of the pertussis vaccine are milder compared to the whole-cell vaccine; however, severe reactions to the acellular vaccine also occur, including encephalitis and death. The pertussis vaccine is only given to children less than seven years of age as it can cause severe reactions over the age of seven.

DTaP causes serious complications in less than 1% of injections. These complications include:

- fever greater than 105 degrees F (30 in 10,000 doses)
- non-stop crying (<1 in 100 doses)
- seizure (6 in 10,000 doses)
- an episode where the child becomes limp, pale, and less alert (6 in 10,000 doses)
- Protection lasts approximately 5-10 years. Whooping cough is now more common in adults than in the past because they did not have whooping cough in childhood and did not develop permanent

immunity.

The pertussis vaccine should not be given to children who have a history of convulsions, brain disorder, or abnormal development. Some of my families have refused the pertussis shot if there is a family history of seizures.

Treatment for whooping cough

See your pediatrician if you suspect your child has whooping cough. It will usually last approximately six weeks no matter the treatment. Because Pertussis is contagious, avoid contact with others.

Standard treatment includes the general support of rest and liquids. Your doctor will prescribe an antibiotic such as erythromycin or zithromax as it is felt that the antibiotic renders your child less contagious. While it remains questionable whether the antibiotic changes the course of the illness, people are generally no longer considered contagious after the fifth day on antibiotics.

See your healthcare provider if you suspect you or your child has whooping cough.

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