Haemophilus B Vaccination Program
Question and Answers

Prepared by

Military Vaccine (MILVAX) Agency,
Office of The Army Surgeon General, U.S. Army

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www.vaccines.mil

877-GET-VACC

vaccines@amedd.army.mil

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Questions and Answers

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Adapted from the Immunization Action Coalition (with permission) and the Centers for Disease Control and Prevention (CDC).

The Disease

Overview

1) What is Haemophilus Type B disease?
Haemophilus type b disease is caused by bacteria called Haemophilus influenzae type b, or Hib for short. Sometimes it's called "H. flu."

There are six different types of this bacteria: a through f. Type b organisms account for 95% of all strains that cause serious Hib disease, and this is the type against which the Hib vaccine protects.

2) How common is Hib disease in the United States?
Before the introduction of a Hib vaccine, H. influenzae type b (Hib) was the leading cause of bacterial meningitis among children under five years old in the United States. Every year about 20,000 children under five got severe Hib disease and about 1,000 individuals died. More than half of children who developed severe Hib disease were less than 12 months of age. Since 1988, when a Hib vaccine was first introduced, the rate of Hib disease has decreased more than 99%. From 1996 through 2000, an average of about 70 children per year were reported with Hib disease.

3) Can you get Hib disease more than once?
Yes. A child with Hib disease may not develop protective levels of antibodies. Children less than 24 months of age who have recovered from invasive Hib disease should be considered unimmunized and receive the Hib vaccine as soon as possible.

4) How does Hib disease spread?
Hib disease is spread from person-to-person by direct contact or through respiratory droplets. It is not highly contagious. Usually the organisms remain in the nose and throat, but occasionally the bacteria spread to the lungs or bloodstream and cause a serious invasive disease in the infected individual.

5) How long does it take to show signs of Hib disease after being exposed?
The incubation period of Hib disease is unknown, but could be as short as a few days.

Symptoms

1) What are the symptoms of Hib disease?
A person with invasive Hib disease can have different symptoms depending on what body systems are affected. See next question.

2) How serious is Hib disease?
Hib disease can be very serious. The most common type of serious Hib disease is meningitis, an infection of the membranes covering the brain (from 50% to 65% of cases). Symptoms of Hib meningitis are fever, severe headache, decreased mental status, and stiff neck. The mortality rate is 2% to 5%. In addition, 15% to 30% of survivors suffer some permanent neurologic damage, including blindness, deafness, and mental retardation. Another 17% of serious Hib cases include epiglottitis, an infection and swelling in the throat that can cause life-threatening airway blockage. Other symptoms of invasive Hib disease include: pneumonia (15%), joint infection (8%), skin infection (6%), and bone infection (2%).

Complications

1) How do I know if my child has Hib disease?
The diagnosis of Hib disease is usually made based on one or more laboratory tests using a sample of infected body fluid, such as blood or spinal fluid.

2) Is there a treatment for Hib disease?
Hib disease is treated with antibiotics for 10 to 14 days. Most cases require hospitalization. Even with antibiotic treatment, about 5% of all children with Hib meningitis die from the disease.

The Vaccine

Overview

1) When did Hib vaccine become available?
The first Hib vaccine was licensed in the United States in 1985; however, it was effective only for older children. An improved vaccine, the Hib conjugate vaccine, was licensed in December 1987.

2) What kind of vaccine is it?
The Hib conjugate vaccine is made by chemically bonding ("conjugating") a sugar (polysaccharide) to a protein. The sugar is one that makes up the surface capsule of the bacteria. This is an inactivated vaccine, it cannot cause an infection.

3) Is there more than one brand of Hib vaccine?
There are several brands of Hib vaccine, including two that are combined with another vaccine (one with DTaP vaccine and another with hepatitis B vaccine). The number of doses needed depends on the brand of vaccine given. Conjugate Hib vaccines may be given interchangeably if the original brand is unknown or unavailable.

4) Who should get this vaccine?
All infants should receive Hib vaccine as part of their routine immunization (unless they have a medical reason not to). As Hib disease is rare in children older than five years, Hib vaccine is not routinely recommended for people five years or older.

5) Is Hib vaccine recommended for anyone five years or age or older?
Some older children and adults who are at increased risk for invasive Hib disease may be vaccinated. High-risk individuals include those with asplenia (e.g., sickle cell disease, after spleen removal), immune deficiency, immune-suppression from cancer chemotherapy, and HIV infection. A previously unvaccinated person with one of these high-risk conditions should be given a dose of any licensed Hib vaccine.

6) How many doses of Hib vaccine are required for the childhood series?
Three to four doses are needed, depending on the brand of Hib vaccine used. Children should get Hib vaccine at two months, four months, possibly six months (depending on the brand of vaccine), and 12 to 15 months of age. Hib vaccine should not be given to a child younger than six weeks of age, as this might reduce his/her response to subsequent doses.

7) My 18-month-old toddler has never received Hib vaccine. Does she still need to get the series?
All children 12 months of age or older should receive at least one dose of Hib vaccine. Hib vaccine is not routinely recommended for people five years or older.

8) Will receiving the Hib shot protect my baby from ever getting meningitis?
Hib vaccine prevents a major cause of meningitis. But meningitis is also caused by other viruses and bacteria. Hib vaccine will only protect against meningitis caused by Hib bacteria.

9) Who recommends this vaccine?
The Centers for Disease Control and Prevention (CDC), the American Academy of Pediatrics (AAP), and the American Academy of Family Physicians (AAFP) all recommend this vaccine.

10) How safe is this vaccine?
Adverse events following receipt of Hib conjugate vaccine are rare. The most common reactions are local reactions at the injection site, such as warmth, redness, and swelling. Up to one out of 20 children may develop a fever over 101° F.

11) How effective is this vaccine?
All the Hib vaccines licensed for use are good at producing immunity to serious Hib disease. More than 95% of infants will be protected after two or three doses.

Administration

1) How is this vaccine given?
The Hib vaccine is given as an injection into the muscle.

Contraindications

1) Who should NOT receive Hib vaccine?
Anyone who has ever had a life-threatening allergic reaction to a previous dose of Hib vaccine should not get another dose. Children younger than six weeks of age should not get Hib vaccine. Persons with a moderate or severe acute illness should postpone receiving the vaccine until their condition has improved. Developed in cooperation with the Immunization Action Coalition and the Centers for Disease & Control and Prevention (CDC).