

HAEMOPHILUS INFLUENZAE TYPE b (Hib) FACT SHEET

Overview

Haemophilus influenzae type b, or Hib, can cause a variety of diseases such as meningitis (inflammation of the coverings of the spinal column and brain), blood stream infections, pneumonia, arthritis and infections of other parts of the body. Before Hib vaccine, Hib disease was the leading cause of bacterial meningitis among children under 5 years old in the United States. About 20,000 children acquired severe Hib disease each year, and nearly 1,000 died.

Haemophilus influenzae is a bacteria that is not related to the influenza virus that causes influenza, or flu.

Signs and Symptoms

Symptoms may include fever, lethargy, vomiting and a stiff neck. Other symptoms depend upon the part of the body affected. The incubation period for Hib disease is unknown but is probably less than one week.

Causes and Transmission

Hib may be transmitted through contact with mucus or droplets from the nose and throat of an infected person. The contagious period varies. Unless treated, it may be transmitted for as long as the Hib organism is present in the nose and throat, even after symptoms have disappeared.

Risk Factors

Hib disease can occur in any age group. Due to widespread use of Hib vaccine in children, very few cases are now reported each year in Pennsylvania. Hib is now diagnosed more often in the elderly and in unimmunized children.

Immunocompromised persons are also more likely to develop Hib infections. Medical conditions linked to an increased risk of Hib infection are:

- Sickle cell disease;
- Asplenia (no spleen);
- HIV (human immunodeficiency virus) infection;
- Antibody and complement deficiency syndromes;
- Receipt of chemotherapy or radiation therapy for malignant neoplasms; and
- Receipt of hematopoietic stem cell transplant.

Complications

If Hib meningitis occurs, a certain portion of those who recover may suffer long-lasting neurologic problems such as learning problems, hearing loss and/or mental retardation. Hib meningitis is fatal in about 3 to 6 percent of cases.

Tests and Diagnosis

Hib is usually diagnosed using a sample of bodily fluid such as spinal fluid or blood. The fluid is tested for *Haemophilus influenzae* type b bacteria. 2

Treatments

Antibiotics are used to treat serious infections. Most invasive cases require hospitalization.

The drug Rifampin is used in some circumstances as preventive treatment (prophylaxis) for persons who have been exposed to Hib. Since severe disease is generally limited to young children, only close contacts who have incompletely vaccinated children under 2 years of age in their households need prophylactic antibiotics.

Prevention

There are currently several Hib vaccines licensed by the United States Food and Drug Administration (FDA) for use in children as early as 2 months of age. Immunization authorities recommend that all children be immunized with an approved Hib vaccine beginning at 2 months of age, and Hib vaccine is now a routine component of the national child immunization schedule. Recommendations for scheduling of subsequent doses vary depending on the manufacturer. Therefore, it is important to consult with your physician regarding Hib vaccination.

Disease Patterns

Prior to widespread use of the Hib vaccine, two peaks in Hib incidence were noted: one peak in September through December and another peak in March through May. Due to vaccination, very few Hib cases are reported, and patterns are not discernable.

Additional Information

Centers for Disease Control and Prevention: <http://www.cdc.gov/hi-disease/about/>

This fact sheet provides general information. Please contact your physician for specific clinical information.

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