



FREQUENTLY ASKED QUESTIONS: *HAEMOPHILUS INFLUENZAE* TYPE B DISEASE



1. What is *Haemophilus influenzae* type b disease?

Haemophilus influenzae is a bacterium that is found in up to 80% of healthy people. There are six serotypes designated a-f. Serotype b (Hib) is a major cause of invasive infections in infants and young children, and its sequelae include pneumonia, epiglottitis, meningitis and permanent brain damage.

2. What are the symptoms of Hib disease?

Hib infection leads to a manifestation of various disease conditions such as:

- **Meningitis**

Inflammation of the membranes of the brain and spinal cord. This is one of the commonest invasive manifestations of Hib and is characterised by fever, headache and stiff neck

- **Pneumonia**

The other serious manifestation of Hib disease, characterised by fever, cough with sputum production, chest pain and respiratory distress

- **Epiglottitis**

Inflammation of the epiglottitis characterised by a rapidly sore throat, noisy breathing and fever

- Complications of Hib disease include hearing loss (as a result of otitis media), vision impairment, mental retardation and cerebral palsy.

3. Why is Hib disease a health problem in South Africa and the world?

It is estimated that Hib causes at least 3 million cases of serious disease and between 400 000-700 000 deaths each year in young children. Rarely occurring in infants under 3 months and after the age of 6 years, the diseases burden is highest between 4 and 12 months. In both developed and developing countries Hib is the dominant cause of non-epidemic meningitis in this age group, and is frequently associated with severe neurological sequelae even if treated promptly and adequately with antibiotics.

In Africa, there are between 100 000-160 000 deaths due to Hib disease per annum. A South African study has shown that approximately 20% of serious bacterial pneumonia was caused by the Hib bacterium.

4. Who is at risk?

- Hib disease is most common in children under five years of age; children between four and 12 months are most at risk.
- Close contact with older children increases the risk of Hib infection.

5. How is Hib transmitted?

By aerosolised droplets through sneezing or coughing from infected persons to susceptible individuals.

6. What is the treatment following Hib infection?

Therapy is through cefotaxime, ceftriaxone, or ampicillin in combination with chloramphenicol. Ampicillin is never used alone as therapy since 10% to 40% of Hib isolates are ampicillin resistant.

7. How is Hib prevented?

Most Hib infections can only be prevented by Hib vaccine. A small proportion of cases can be averted by giving antibiotics to members of households where children have been infected, but this amounts to only 1 to 2% of cases.

8. Who should get the Hib vaccine?

All children should receive Hib vaccine from the age of six weeks.

9. How and when is the Hib vaccine given?

Hib vaccine is given by injection to the left thigh for all three doses, administered at 6, 10 and 14 weeks in combination with DTP

10. Should HIV positive individuals be vaccinated against Hib?

As Hib can cause opportunistic infections in individuals with HIV infection, it is recommended that they be vaccinated with Hib vaccine. The vaccine is safe, though the response is lower than in individuals with no HIV infection.

10. What are the side effects of the Hib vaccine?

The Hib vaccine is very safe with no known serious reactions. Mild reactions include soreness, swelling and redness at the site of injection, and a mild fever.

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