



Bulletin No. 14

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Haemophilus Influenzae Type b Invasive Disease -  
Recommendations for Antibiotic Prophylaxis

Haemophilus influenzae type b is the leading cause of meningitis in the United States. Age-specific incidence rates are highest among children less than 1 year of age and decrease steadily thereafter. The case-fatality ratio is approximately 3-7%, and neurologic sequelae are common. In addition, Haemophilus influenzae type b causes numerous other invasive diseases, including epiglottitis, pneumonia, cellulitis, and bacteremia. Epidemiologic studies conducted in Alaska by the Centers for Disease Control, Alaska Investigations Laboratory, since 1977 have documented a high incidence of Haemophilus influenzae invasive disease in Alaska. Cases of Haemophilus influenzae type b invasive disease have occurred in Eskimo children with an incidence of disease 10 times that seen in Caucasian children.

In a previous Communicable Disease Bulletin (No. 19, week ending October 1, 1982) Dr. Milt Lum shared the results of the studies conducted by himself and other investigators at the Centers for Disease Control. At that time, no secondary cases of invasive Haemophilus influenzae type b disease had been documented among exposed children in households, nursery schools, or day care centers. However, between January and March, 1983, in two instances secondary cases of Haemophilus influenzae meningitis were documented in children in the same household, and in two instances co-primary cases occurred among a household member in one case and a baby-sitting contact in the second.

In December, 1982, the Centers for Disease Control published preliminary guidelines for implementation of chemoprophylaxis for contacts of patients with invasive haemophilus disease. Based on accumulating evidence of increased risk of disease in household contacts less than 4 years of age, and the efficacy of Rifampin in eliminating carriage of H. influenzae organisms and preventing secondary cases of disease, we now recommend that:

1. Household contacts who develop symptoms suggestive of Haemophilus influenzae type b disease, such as fever or headache, should be evaluated promptly by a physician.
2. In any household in which a case of invasive Haemophilus influenzae has occurred and in which another child less than 4 years of age resides, all members of the household, including adults, should receive Rifampin in a dosage of 20 mg/kg per dose once daily (maximum dose 600 mg/day) for four days; dose for neonates (less than 1 month) is 10 mg/kg once daily for four days.
3. Chemoprophylaxis should be instituted as rapidly as possible following onset of disease in the index case. If more than 7 days have passed since the last contact with the index case, chemoprophylaxis is not indicated.
4. The index case should be treated with the same Rifampin regimen before discharge from the hospital.
5. Nasopharyngeal culturing for presence of haemophilus influenzae organisms should not be employed as a guide for chemoprophylaxis.
6. Rifampin should not be used in pregnant women because it is teratogenic in laboratory animals.
7. At this time we do not recommend routine institution of Rifampin chemoprophylaxis in day care center classrooms or among baby-sitting groups. Consultation to develop specific recommendations based on individual circumstances is available from the Epidemiology Office, 561-4406.

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#### IMPORTANT CORRECTION - ACKNOWLEDGMENT OF AUTHORSHIP

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