HAEMOPHILUS INFLUENZAE TYPE b (Hib) POST-EXPOSURE PROPHYLAXIS

I. DEFINITION:

Haemophilus influenzae are gram-negative coccobacilli that may be either encapsulated (types a–f) or unencapsulated (nontypeable). Virulence appears to be associated with capsulation. On the basis of specific capsular polysaccharides, six different types have been distinguished (designated types “a” through “f”). Haemophilus influenzae type b (Hib) is the only type for which there is a vaccine and public health control measures are necessary.

II. ETIOLOGY AND EPIDEMIOLOGY:

See Epi Manual

III. MANAGEMENT PLAN:

A. An Acute Disease Service (ADS) epidemiologist consults with the Communicable Disease Nurse (CDN) to discuss identification of contacts and recommendations for post-exposure prophylaxis (PEP).

B. Clients who are identified as contacts and recommended to receive PEP should be directed to an appropriate resource to receive their PEP prescription.

1. The object of chemoprophylaxis is to prevent Hib disease in children under 4 years of age by eradicating nasopharyngeal carriage in all primary contacts.

2. Chemoprophylaxis is only recommended for persons that had direct exposure to the case patient. Refer to the Epi Manual for guidance regarding categories of contacts and PEP recommendations.

3. The majority of secondary cases in households occur within the first seven days after hospitalization of the index case. Thus, antibiotic prophylaxis of contacts should be instituted as rapidly as possible.

4. The following two options describe where contacts should be referred for their PEP prescription.

   a. Post-exposure prophylaxis option #1 (use of external resources):
      1) Refer client to his/her private physician, or
      2) Urgent care center or other “a.m./p.m.” clinic, or
      3) The hospital physician treating the source case.

   b. Post-exposure prophylaxis option #2:
      1) Personnel at the local county health department (CHD) who are legally authorized to prescribe (i.e., medical director, contract physician, physician assistant, family nurse practitioner, pediatric nurse practitioner) may provide prescriptions within the scope of their licensed specialty area if none of the listed resources in option #1 are available. An alternative option is to collaborate with a local clinical partner (i.e., clinician that operates an area free clinic) legally authorized to prescribe to provide the prescriptions.
      2) The CDN can coordinate providing a prescription to a Hib contact with the Regional Director or District Nurse Manager (DNM) and the person with prescriptive authority using the
following steps:

i. Contact the CHD Regional Director and/or DNM to discuss circumstances involving unavailability of external resources as defined above in option #1.

ii. If decision is made to provide a prescription for PEP via the CHD, request client(s) to come to the CHD.

iii. Open a limited service record on each person, unless current record is open.

iv. Perform an assessment of each individual’s allergies, age, and body weight and refer to the dosage for PEP. Obtain name of pharmacy where client will fill prescription.

v. The person with prescriptive authority will complete an order that includes the contact’s name, date of birth, weight, and calculated PEP information (antibiotic name and dose) (ODH 303M).

vi. The person with prescriptive authority will then contact the pharmacy designated by the client to inform the pharmacist of the circumstances.

vii. For clients who are unable to afford costs for antibiotic prophylaxis, the CDN will discuss with the CHD Regional Director or DNM to determine if the course of antibiotics recommended for PEP is available through the CHD.

C. Rifampin is the drug of choice in prevention of the development of secondary disease among close contacts exposed to a case of Hib. (See Treatment Notes).

<table>
<thead>
<tr>
<th>Age</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children 1 month or older and adults</td>
<td>20 mg/kg (maximum dose 600 mg) once daily for 4 days</td>
</tr>
<tr>
<td>Infants less than 1 month of age</td>
<td>Not yet been established, suggest: 10 mg/kg once daily for 4 days</td>
</tr>
</tbody>
</table>

*Consultation with an expert in infectious diseases is recommended for contacts in whom rifampin is contraindicated.


D. Special Consideration:

Treatment Notes:

1. Rifampin is contraindicated with history of allergy to rifamycin, acute hepatic disease, pregnancy or lactation.
2. Clients who are allergic to rifampin or a rifamycin must be referred to a private provider for treatment. All referrals are made using the ODH 399 Referral Form.
IV. CLIENT EDUCATION/COUNSELING:

A. Report potential side effects to medication. Side effects to Rifampin include orange discoloration of urine, discoloration of soft contact lenses (removal recommended for duration of chemotherapy), discoloration of teeth, nausea, vomiting, and diarrhea.

B. May interfere with efficacy of oral contraceptives and some seizure prevention and anticoagulant medications.

C. Rifampin should not be taken during pregnancy.

D. If taking antacids, take them at least 1 hour after rifampin has been taken.

E. Many prescription medications may interact with rifampin, increasing the risk of side effects or decreasing effectiveness.

REFERENCES:


