Haemophilus influenzae type b (Hib) Case and Contact Management

Adapted from: **Red Book: 2018-2021 Report of the Committee on Infectious Diseases**. 31st ed. Itasca, IL: American Academy of Pediatrics, 2018: 367-375 and CDPH "<u>Invasive</u> <u>Haemophilus influenzae Public Health Investigation Quicksheet</u>," June 2016, accessed 12/27/2018.

See <u>Haemophilus influenzae Disease For Clinicians</u> for more information.

Case (Invasive Hib disease <5 years of age)

- Report the case to Epidemiology & Assessment within one (1) working day Phone: 714-834-8180 Fax: 714-560-4050
- Place case in respiratory isolation (droplet precautions) until 24 hours after start of appropriate antimicrobial therapy
- If case was treated with a regimen other than cefotaxime or ceftriaxone (e.g., treated with meropenem, ampicillin, or chloramphenicol), give case rifampin (see dosage below) at the end of therapy for invasive infection to eradicate Hib colonization, IF;

case is younger than 2 years of age, OR

- case has a susceptible household contact (see definition below).
- If the case received treatment with ceftriaxone or cefotaxime, rifampin is NOT necessary.
- Note: Children younger than 24 months of age with Hib invasive infection can remain at risk of developing a second episode of disease. These children should be immunized starting 1 month after onset of disease, or as soon as possible thereafter, according to the ageappropriate schedule for unimmunized children and <u>as if they had received no previous Hib</u> <u>vaccine doses</u>. See 2018 *Red Book* Table 3.13 page 372 and Table 1.12 page 37.

Household contacts

For this situation, household contacts are defined as people residing with the case or who spent 4 or more hours with the case for at least 5 of the 7 days preceding the day of hospital admission for the case.

- Give rifampin (<u>see dosage below</u>) to ALL non-pregnant household contacts if the household has ANY susceptible contacts, defined as the following:
 - 1. a child under age 12 months who has not completed the primary Hib series, **OR**
 - 2. a child younger than 4 years of age who is unimmunized or incompletely immunized* (defined below), **OR**
 - 3. an immunocompromised child (regardless of age or immunization status).
- Prophylaxis should be initiated as soon as possible. If household contacts are unable to fill prescriptions or you are unable to contact them, refer contacts to Epidemiology & Assessment at 714-834-8180 as soon as possible.
- Vaccinate children who are unimmunized or incompletely immunized* (defined below) for Hib
- Inform household that any exposed child who develops a febrile illness should be evaluated by a physician as soon as possible.

Day care, nursery school, or child care center contacts

- Chemoprophylaxis with rifampin (<u>see below for dosage</u>) should be considered for ALL day care, preschool, or child care center attendees and child care providers when 2 or more cases of invasive disease have occurred in the facility within 60 days <u>and</u> unimmunized or incompletely immunized* (<u>see below</u>) children attend the facility. Please refer any child care exposures as soon as possible to Epidemiology & Assessment at 714-834-8180 for follow-up.
- Unimmunized or incompletely immunized* (see below) children should receive a dose of vaccine if age-appropriate and should be scheduled for completion of the recommended agespecific immunization schedule.

*Definition of complete immunization:

- at least 1 dose of conjugate vaccine at 15 months of age or older
- 2 doses between 12 and 14 months of age
- a 2- or 3- dose primary series when younger than 12 months with a booster dose at 12 months of age or older. NOTE: the primary series for Hib is 2 doses for the PRP-OMP Hib-containing vaccine [PedvaxHIB (Merck)] and 3 doses for the PRP-T Hib-containing vaccines [ActHIB (Sanofi Pasteur), Hiberix (GlaxoSmithKline), and Pentacel (DTaP/IPV/Hib; Sanofi Pasteur)]. When sequential doses of different vaccine products are used or there is uncertainty about which product was used, 3 doses of any of these conjugate Hib vaccines are considered sufficient to complete the primary series.

For more information about Hib immunization: <u>https://www.cdc.gov/vaccines/vpd/hib/hcp/index.html</u>.

Chemoprophylaxis with rifampin

Dosage**

- Infant less than 1 month old: dosage not established; some experts recommend 10 mg/kg once daily for 4 days
- Infants ≥ 1 month of age and Children: 20 mg/kg once daily to maximum of 600 mg daily for 4 days
- Adults: 600 mg daily for 4 days

** Rifampin is not recommended for pregnant women or persons with liver disease. Instruct patients that rifampin can stain soft contact lenses, turn urine orange, and interfere with oral contraceptives during current cycle.