

## Alaska Public Health Alert

### Unexpected number of invasive *Haemophilus influenzae* type b cases in Southcentral Alaska

October 9, 2019

#### Introduction

Since September 1, 2019, five cases of invasive *Haemophilus influenzae* type b (HIB) have been confirmed in Southcentral Alaska. Following the introduction of HIB-containing vaccine in 1991, rates of HIB in Alaska declined dramatically. On average, [the Section of Epidemiology \(SOE\) records only 1-2 cases per year; the last case of HIB documented in Alaska was in 2017](#) and the last reported increase was in 2009.<sup>1</sup> *Haemophilus influenzae* (Hi) is a gram-negative bacteria that can cause meningitis and invasive infections such as bacteremia, pneumonia, epiglottitis, cellulitis, and septic arthritis. There are several different serotypes (a-f) that are determined by laboratory testing; type b is vaccine-preventable. The purpose of this *Health Alert Network* message is to notify Alaska health care providers about this unexpected number of HIB cases.

#### Summary of Cases

- Ages of patients have ranged from 2 months to 46 years; three patients were <10 years old.
- All five patients live in the Anchorage or Mat-Su area.
- None of the five patients were clearly epidemiologically linked to each other.
  - Two patients were reported to have experienced homelessness; however, it is not clear if they were specifically known to each other.
- Vaccination was not indicated for three patients based on age. One child was fully immunized; one infant who was eligible to receive the Hib vaccine was not vaccinated.
- All five were hospitalized and none died.

#### HIB Surveillance

The Alaska SOE collaborates with the Anchorage-based Centers for Disease Control and Prevention's Arctic Investigation Program (AIP) to conduct surveillance for invasive *Haemophilus influenzae*. AIP routinely performs serotyping on isolates; and can also sequence isolates in the event of an unusual cluster such as this one. Serotype results inform SOE's public health response. Antimicrobial chemoprophylaxis is indicated for selected close contacts to Hib patients.<sup>2</sup>

#### Health Care Provider Information

- Ensure timely Hib vaccination for young children.
  - In Alaska, three doses of PedvaxHIB® at ages 2, 4 and 12–15 months constitute a complete series.
  - Dose 3 should not be given prior to age 12 months.
  - Children receiving dose 1 at age >7 months require fewer doses to complete a series.

- Hib vaccine is also indicated for selected older children and adults who are at increased risk for invasive Hib disease.<sup>2</sup>
- Report cases of invasive *Haemophilus influenzae* within 2 days to the Alaska Section of Epidemiology at (907) 269-8000 or 800-478-0084 (after hours).
- Send all invasive *H. influenzae* isolates to AIP for serotyping; call 907-729-3400 for shipping details.
- [Offer chemoprophylaxis per CDC guidelines:<sup>2</sup>](#)
  - For all household contacts in the following circumstances:
    - Household with at least 1 contact younger than 4 years of age, other than index case, who is unimmunized or incompletely immunized;
    - Household with a child younger than 12 months of age who has not completed the primary 3-dose Hib series;
    - Household with a contact who is an immunocompromised child, regardless of that child's Hib immunization status or age.
  - For preschool and childcare center contacts when 2 or more cases of Hib invasive disease have occurred within 60 days.
  - For the index patient when he/she is treated with a regimen other than cefotaxime or ceftriaxone if younger than 2 years OR if there is a household member who is a susceptible contact.

## Resource

Alaska Section of Epidemiology. *Haemophilus influenzae* Invasive Disease webpage. Available at: <http://dhss.alaska.gov/dph/Epi/id/Pages/HFlu.aspx>

## References

1. Alaska Epidemiology *Bulletin*. "Four Cases of Invasive *Haemophilus influenzae* Type b – Southwestern Alaska, 2009". No. 19, July 18, 2009. Available at: [http://www.epi.alaska.gov/bulletins/docs/b2009\\_19.pdf](http://www.epi.alaska.gov/bulletins/docs/b2009_19.pdf)
2. CDC. Prevention and Control of *Haemophilus influenzae* Type b Disease. Recommendations of the Advisory Committee on Immunization Practices (ACIP). *MMWR*, February 28, 2014. Available at: <https://www.cdc.gov/mmwr/pdf/rr/rr6301.pdf>

*This message is sent to you as a service of the State of Alaska DHSS, Division of Public Health, through the Section of Epidemiology, 3601 C Street, Suite 540, Anchorage, Alaska 99503, (907) 269-8000. The Section of Epidemiology maintains a 24-hour Emergency Number, 1-800-478-0084. Website: <http://dhss.alaska.gov/dph/Epi>*