Invasive Meningococcal Disease



Facts for Health Professionals

Surveillance

Invasive disease caused by **Neisseria meningitidis** includes meningitis, septicemia, and other infections. Any suspected or confirmed case of invasive **N. meningitidis** is an emergency and should be reported immediately by telephone to the <u>local health department</u>, which must inform the NJDOH Communicable Disease Service. If the local health department cannot be reached, the NJDOH can be notified by calling (609) 826-5964 on weekdays or (609) 392-2020 after hours, on weekends and holidays. Prompt case reporting ensures that chemoprophylaxis of contacts occurs in a timely manner, and that isolates are obtained and submitted for susceptibility testing and serogrouping.

Indications for chemoprophylaxis

Contacts of any confirmed <u>or suspected</u> case of invasive meningococcal disease require immediate evaluation for chemoprophylaxis, regardless of vaccination status. Prophylaxis is given to close contacts meeting the criteria below who were exposed to the case during the 7 days before onset of symptoms, or while the case is symptomatic, but has not yet received 24 hours of appropriate antibiotic therapy. Contacts for whom chemoprophylaxis is recommended are:

- ★ All members of the patient's household, especially young children.
- → Healthcare & EMS workers who may have been exposed to the patient's oral/nasal secretions through <u>unprotected</u> mouth-to-mouth resuscitation, intubation, or suctioning.
- → Childcare or preschool attendees who were in the classroom with the patient in the 7 days prior to onset. Classmates in kindergarten or above are generally not considered close contacts.
- → Persons who may have had contact with the patient's oral secretions through kissing, or sharing food, drink or eating utensils in the 7 days prior to onset.
- → Persons who ate or slept in the same dwelling as the patient in the 7 days prior to onset.
- → Airline passengers seated directly next to the index case during flights lasting >8 hours (gate to gate) OR within one seat in any direction from an index case on flights of any duration if the index case was coughing or vomiting during flight

Chemoprophylaxis is <u>not recommended</u> for casual contacts, but may be indicated in other circumstances. Determination of the need for prophylaxis beyond those listed above should be made in consultation with NJDOH. Prophylaxis should be initiated as soon as possible following exposure; however, prophylaxis delayed up to 2 weeks may still be effective. The use of nasopharyngeal cultures of asymptomatic contacts to determine the need for prophylaxis is <u>not</u> recommended. All symptomatic contacts should be referred immediately for medical evaluation, regardless of prophylaxis status.

NOTE: Only <u>invasive</u> *N. meningitidis* infections (identified in a specimen collected from a normally <u>sterile</u> body site) are reportable and require prophylaxis for close contacts. Up to 10% of persons are asymptomatic, transient nasopharyngeal carriers of *N. meningitidis* strains that are largely nonpathogenic. Therefore, a positive culture or PCR result in a specimen such as throat, sputum, or skin lesion would not constitute an invasive (reportable) case.

Chemoprophylaxis

Recommended Antibiotic Prophylaxis Regimens for Meningococcal Disease			
Drug	Age of Contact	Dosage	Route & Duration
Rifampin ^{a,b}	Infants aged < 1 month	5mg/kg body weight q12h	Orally x 2 days
	≥ 1 month	10mg/kg body weight q12h (max 600 mg per dose)	Orally x 2 days
Ceftriaxone	< 15 years	125 mg	Single IM dose
	≥ 15 years	250 mg	Single IM dose
Ciprofloxacin ^a	≥ 1 month	20mg/kg body weight (max 500 mg per dose)	Single oral dose

^aNot recommended for use in pregnant women.

Immunization

As of 2024, there are three types of meningococcal vaccines used in the United States:

- Meningococcal conjugate or MenACWY vaccines
- Serogroup B meningococcal or MenB vaccines
- Pentavalent meningococcal or MenABCWY vaccine

MenACWY is routinely recommended by the CDC's Advisory Committee on Immunization Practices (ACIP) for certain people including:

- All children and adolescents aged 11 18 years
- College freshmen living in dormitories
- Microbiologists routinely exposed to isolates of N. meningitidis
- Military recruits
- International travelers and citizens residing in endemic or hyperendemic areas
- Persons with anatomic or functional asplenia
- Persons with terminal complement component disorders

ACIP recommends MenB for persons aged 10 years and older at elevated risk for meningococcal disease. Those at elevated risk include:

- Persons with certain medical conditions and occupations
- Persons identified to be at increased risk because of a serogroup B meningococcal disease outbreak

As of 2017, meningococcal polysaccharide vaccine (MPSV4, Menomune) is no longer available in the United States.

More information is available at https://www.cdc.gov/vaccines/vpd/mening/index.html

Where can I get more information on Neisseria meningitidis?

- Your local health department http://www.localhealth.nj.gov
- NJ Department of Health http://www.nj.gov/health/cd
- Centers for Disease Control & Prevention http://www.cdc.gov

This information is intended for educational purposes only and is not intended to replace consultation with a healthcare professional.

Adapted from Centers for Disease Control and Prevention

^bCan interfere with the efficacy of oral contraception and some seizure anticoagulant medications. May stain body fluids red and can stain soft contact lenses.