

## 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 local health department, 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 for susceptibility testing and serogrouping, if indicated.

### Indications for chemoprophylaxis

Contacts of any confirmed or suspected case of invasive meningococcal disease require immediate evaluation for chemoprophylaxis. Prophylaxis is given to close contacts meeting the criteria below who were exposed to the case during the 10 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 unprotected mouth-to-mouth resuscitation, intubation, or suctioning.
- ✦ Childcare or nursery school attendees who were in the classroom with the patient in the 10 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 10 days prior to onset.
- ✦ Persons who ate or slept in the same dwelling as the patient in the 10 days prior to onset.

Chemoprophylaxis is not recommended 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 not recommended. All symptomatic contacts should be referred immediately for medical evaluation, regardless of prophylaxis status.

**NOTE: Only invasive infections with *N. meningitidis* are reportable and require prophylaxis for close contacts. Up to 15% of persons are asymptomatic, transient nasopharyngeal carriers of *N. meningitidis* strains that are largely nonpathogenic. Therefore, a positive culture in a specimen from 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*	Infants aged <1 mo	5mg/kg body weight q12h	Orally x 2 days
	Infants aged ≥ 1 mo, and children ≤ 18 years	10mg/kg body weight q12h (max 1200 mg per 24 hrs)	Orally x 2 days
	Adults ≥ 18 years	600 mg q12h	Orally x 2 days
Ciprofloxacin**	Adults (not licensed for people under age 18 years)	500 mg	Single oral dose
Ceftriaxone	< 15 years	125 mg	Single IM dose
	≥ 15 years	250 mg	Single IM dose

\*Not recommended for pregnant women because it is teratogenic in laboratory animals. Because the reliability of oral contraceptives might be affected by rifampin therapy, consideration should be given to using alternative contraceptive measures while rifampin is being administered. Will stain body fluids red, and may permanently stain contact lenses.

\*\*Not usually recommended for pregnant and lactating women because it causes cartilage damage in immature laboratory animals. Can be used for chemoprophylaxis of children when no acceptable alternative therapy is available. Recent literature review identified no reports of irreversible cartilage toxicity or age-associated adverse events among children and adolescents (**Source:** Burstein GR, Berman SM, Blumer JL, Moran JS. Ciprofloxacin for the treatment of uncomplicated gonorrhea infection in adolescents: does the benefit outweigh the risk? Clin Infect Dis 2002;35:S191–9).

## Immunization

Two vaccines are available, each protective against four serogroups (A, C, Y, and W-135) of *N. meningitidis*. They are a polysaccharide vaccine (MPSV4), and a polysaccharide/protein conjugate (MCV4). Although the vaccines are equally immunogenic, MCV4 is expected to have a duration of protection of at least 8 years compared with 3 to 5 years for the polysaccharide vaccine. The advent of the longer lasting conjugate vaccine brought changes to the recommendations for routine vaccination made by the CDC's Advisory Committee on Immunization Practices (ACIP). Meningococcal Conjugate Vaccine (MCV4) is now recommended:

- For all children and adolescents aged 11 – 18 years
- For college freshmen living in dormitories
- For microbiologists routinely exposed to isolates of *N. meningitidis*
- For military recruits
- For international travelers and citizens residing in endemic or hyperendemic areas
- For persons with anatomic or functional asplenia
- For persons with terminal complement component disorders

### 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 health care professional.

Adapted from Centers for Disease Control and Prevention