

Meningococcal Disease

Definition:

Meningococcal disease is caused by bacteria called *Neisseria meningitidis*.

Signs and symptoms:

Meningococcal disease presents most commonly as meningitis (an infection of the lining of the brain and spinal cord) and/or meningococemia (a bloodstream infection). Symptoms of meningitis include: acute onset of fever, intense headache, nausea, vomiting, stiff neck, rash and altered mental status. Symptoms of meningococemia include: high fever, hypotension, shock, and a petechial or purpuric rash.

Transmission:

Neisseria meningitidis is found in the nose and throat. Approximately 10 percent of the population is an asymptomatic carrier of the bacteria. Despite widespread colonization, invasive disease is quite rare. A person can become sick when the bacteria enter the blood stream. The bacteria spread from person to person through small droplets of saliva or nasal secretions. Close personal contact is usually required to transmit the bacteria (activities include: kissing and sharing drinks or smoking materials). Transmission does not result from casual contact, contact with inanimate surfaces or from food.

Diagnosis:

Meningococcal disease is usually diagnosed by growing *Neisseria meningitidis* bacteria from a sample of blood or spinal fluid.

Role of the School Nurse:

Prevention

- Meningococcal conjugate vaccine (MCV4) is recommended for persons at 11 or 12 years of age, with a booster dose at 16 years of age. For adolescents who receive the first dose at 13 through 15 years of age, a one-time booster dose should be administered, preferably at age 16 through 18 years. Healthy persons who receive their first routine dose at or after age 16 years do not need a booster dose.
- Teach students and staff to cover their noses and mouths when sneezing or coughing.
- Promote proper hand washing particularly after using facial tissues or having contact with respiratory secretions to prevent the spread of disease.

Treatment Recommendations

- If invasive disease is suspected, the student should be referred immediately to their primary care provider or local emergency department for further evaluation.
- Persons with invasive disease are typically treated with an antibiotic that is effective in reducing nasopharyngeal carriage of *Neisseria meningitidis*.

Exclusions

Students should be excluded from school and social activities as soon as meningococcal disease is suspected. A person is considered infectious from 7 days prior to symptom onset to 24 hours after initiation of appropriate antibiotic therapy.

Reporting Requirements

Invasive meningococcal disease is a reportable condition and should be reported immediately upon recognition or strong suspicion to Maine CDC at 1-800-821-5821.

Resources:

- Maine CDC Meningococcal Disease website (including fact sheet)
<http://www.maine.gov/dhhs/boh/ddc/epi/airborne/meningococcal.shtml>
- Federal CDC Meningococcal Disease website
<http://www.cdc.gov/meningitis/about/faq.html>
- Immunization Action Coalition website (including vaccine information)
http://www.immunize.org/askexperts/experts_men.asp