

Health Alert: Meningococcal disease (*N. meningitidis*)

Georgia Department of Public Health Requests Reports of
Suspect Meningococcal Disease Cases

Action Steps:

Local health departments: *Please forward to hospitals and clinics in your jurisdiction.*

Hospitals and clinics: *Please distribute to infectious disease doctors, infection preventionists, emergency department physicians, intensive care physicians, neurologists, radiologists, primary care providers, and pediatricians.*

Summary

During 2023 and 2024, the Georgia Department of Public Health (DPH) has confirmed an increase in the number of invasive meningococcal disease infections. To date, there have been 28 reports of meningococcal infections across thirteen counties in Georgia resulting in 4 deaths. Emergence of antibiotic resistance to Ciprofloxacin has been described nationally and includes Georgia. DPH is working with public health districts to ensure close contacts of the cases have received antibiotic prophylaxis and remain up to date with their vaccinations. DPH urges healthcare providers to maintain heightened awareness for patients with meningococcal disease.

Clinical Presentation

Bacteria called *Neisseria meningitidis* cause meningococcal disease. It is a highly contagious illness and is spread primarily by sharing respiratory or throat secretions (saliva or spit). The bacteria spreads to people who have had close or lengthy contact with a patient with meningococcal disease. Those at risk include people in the same household, roommates, and anyone with direct contact with patient's oral secretions, such as a kissing partner. The incubation period of meningococcal disease is typically 3 to 4 days, with a range of 1 to 10 days. Invasive infection of the bacteria can cause meningitis or meningococemia (meningococcal septicemia). With meningococcal meningitis, the bacteria infect the spinal cord and lining of the brain, causing swelling. Meningitis is characterized by high fever, headache, and stiff neck. Other symptoms may include nausea, vomiting, confusion, sleepiness, and photophobia (sensitivity to light). With meningococemia, the bacteria enter the bloodstream and can cause high fever, low blood pressure, and severe tiredness. Meningococemia is sometimes associated with a characteristic rash caused by bleeding into the skin, which appears as pinpoint spots that do not lose color when pressed or patches of bluish discoloration that look like bruises.

Reporting

Invasive meningococcal disease is a notifiable disease and suspect cases should be reported to the Georgia Department of Public Health immediately (O.C.G.A. §31-12-2). Call your District Health Office or the DPH Acute Disease Epidemiology Section at 404-

657-2588 during business hours Monday through Friday, or 1-866-PUB-HLTH (1-866-782-4584) after-hours on evenings and weekends. Do not await laboratory results before reporting.

Laboratory Testing

Meningococcal disease is diagnosed by culture of *N. meningitidis* from a normally sterile site (e.g., blood, CSF) or purpuric lesions. Meningococcal disease may also be diagnosed through detection of *N. meningitidis*-specific nucleic acid in a specimen obtained from a normally sterile site using a validated polymerase chain reaction (PCR) assay. Although culture remains the gold standard for diagnosis of meningococcal disease, PCR is useful for detection of *N. meningitidis* from clinical samples, particularly when a patient was treated with antibiotics prior to specimen collection. Identification of gram-negative diplococci identified in a sterile site specimen strongly suggests *N. meningitidis* but is not confirmatory.

All isolates of *N. meningitidis* recovered from sterile sites should be forwarded to the Georgia Public Health Laboratory (GPHL), Bacteriology Unit. Isolates should be submitted as pure cultures. Consultation with DPH should occur regarding submission of primary cerebrospinal fluid specimens that tested positive by PCR but did not result in a cultured isolate. Please contact DPH Acute Bacterial Core Surveillance Epidemiology Unit at 404-657-2588 during business hours Monday through Friday, or 1-866-PUB-HLTH (1-866-782-4584) if you have any questions or concerns about forwarding isolates or specimens to GPHL.

Vaccination

Currently, there are two types of meningococcal vaccines available in the United States:

- 1) Meningococcal conjugate or MenACWY vaccines (Menactra®, Menveo®, and MenQuadfi®). These vaccines prevent 4 serogroups of meningococcal disease (A, C, W, Y).
- 2) Serotype B meningococcal or MenB (recombinant) vaccines (Bexsero® and Trumenba®). These vaccines help protect against serotype B.

The CDC recommends conjugate vaccination (MenACWY) for all preteens and teens at age 11 or 12 with a booster dose at age 16. Children and adults who are at increased risk of meningococcal disease are also recommended to receive this vaccine. Children who are between 2 months and 10 years old should be vaccinated if they have complement component deficiency, take a complement inhibitor, have HIV, have a damaged or removed spleen, or are part of a risk group due to a serotype A, C, W, or Y meningococcal disease outbreak. College freshmen living in residence halls, adults who are military recruits, and those traveling to countries in which the disease is hyperendemic or epidemic should also be vaccinated. For the serotype B vaccines, it is recommended that these are given as a 2-dose series to people 16 through 23 years old who are not at increased risk of meningococcal disease and as a 3-dose series to people who are 10 years and older with increased risk of disease. Certain preteens and teens should get this type of vaccine if they have complement component deficiency, take a complement inhibitor, have a damaged or removed spleen, or are part of a risk group due to a serotype B meningococcal disease outbreak.

Meningococcal vaccines are very effective at protecting those who are vaccinated, but data suggest that the vaccines do not provide protection to the unvaccinated community through herd immunity. Available data also suggest that booster doses for these vaccines are critical, as protection levels wane in within 5 years of receiving a first dose of MenACWY or within 2 years of MenB.

Actions Requested of Healthcare Providers:

- Consider meningococcal disease in patients presenting with symptoms of meningitis (such as high fever, headache, and stiff neck), sepsis (high fever, low blood pressure, severe tiredness, and characteristic rash), or those who have had close contact with an individual with meningococcal disease.
- Obtain appropriate clinical specimens. Laboratory testing for meningococcal disease is required for confirmation (see Laboratory Testing section above).
- Report suspect cases of invasive meningococcal disease **IMMEDIATELY** by calling your District Health Office or the DPH Acute Disease Epidemiology Section at 404-657-2588 during business hours Monday through Friday, or 1-866-PUB-HLTH (1-866-782-4584) after-hours on evenings and weekends.
- Ensure patients are up to date on their vaccinations according to CDC's recommended schedules for children and adults. Please refer to CDC's guidance available here: <https://www.cdc.gov/vaccines/vpd/mening/index.html>.
- Georgia Public Health Departments ensure antibiotic prophylaxis to all close contacts of a patient in order to prevent spread of the disease. Providers in the community coordinating antibiotic prophylaxis should use alternatives to Ciprofloxacin, especially in the Atlanta area, and consult their District Health Office with questions.

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