Alabama Department of Public Health (ADPH)
Alabama Emergency Response Technology (ALERT)
Health Alert Network (HAN)
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Increase in invasive meningococcal disease reported in the United States

On March 28th, 2024, the Centers for Disease Control and Prevention (CDC) is issued a Health Alert Network (HAN) Health Advisory to alert healthcare providers to an increase in invasive meningococcal disease, mainly attributable to a specific strain of *Neisseria meningitidis* serogroup Y (ST-1466). 422 *N. meningitidis* cases were reported in the United States in 2023 which is the highest annual number of cases reported since 2014. As of March 25, 2024, 143 cases have been reported to CDC for the current calendar year, an increase of 62 cases over the 81 reported as of this date in 2023.

Meningococcal disease, caused by the bacterium *Neisseria meningitidis*, is a rare but severe illness with a case-fatality rate of 10–15% even with appropriate antibiotic treatment. Meningococcal disease most often presents as meningitis, with symptoms that may include fever, headache, stiff neck, nausea, vomiting, photophobia, or altered mental status; or as meningococcal bloodstream infection, with symptoms that may include fever and chills, fatigue, vomiting, cold hands and feet, severe aches and pains, rapid breathing, diarrhea, or, in later stages, a dark purple rash. While initial symptoms of meningococcal disease can at first be non-specific, they worsen rapidly, and the disease can become life-threatening within hours. Immediate antibiotic treatment for meningococcal disease is critical. Survivors may experience long-term effects such as deafness or amputations of the extremities.

Of the six *N. meningitidis* serogroups — A, B, C, W, X, and Y — responsible for most meningococcal disease worldwide, the four serogroups B, C, W, and Y circulate in the United States. Vaccines against serogroups A, C, W, Y (MenACWY) and serogroup B (MenB) are available in the United States. MenACWY vaccines are routinely recommended for adolescents and for people with other risk factors or underlying medical conditions, including HIV. Based on updated surveillance data, 24 ST-1466 cases have now been reported in people with HIV in 2022–2023; only four were previously vaccinated with MenACWY and none were up to date on recommended doses.

Healthcare providers should be aware that cases caused by this strain are disproportionately occurring in people ages 30–60 years (65%), Black or African American people (63%), and people with HIV (15%). In addition, most cases of invasive meningococcal disease caused by ST-1466 in 2023 had a clinical presentation other than meningitis: 64% presented with bacteremia, and at least 4% presented with septic arthritis. Of 94 patients with known outcomes, 17 (18%) died; this case-fatality rate is higher than the historical case-fatality rate of 11% reported for serogroup Y cases in 2017–2021. Importantly, the serogroup Y ST-1466 isolates tested to date have been susceptible to all first-line antibiotics recommended for treatment (generally an extended-spectrum cephalosporin, such as cefotaxime or ceftriaxone) and prophylaxis (rifampin, ciprofloxacin, or ceftriaxone).

Healthcare providers should maintain a heightened suspicion for invasive meningococcal disease and start immediate antibiotic treatment for persons with suspected meningococcal disease. Blood and cerebrospinal fluid (CSF) cultures are indicated for patients with suspected meningococcal disease. Although invasive meningococcal disease may affect people of any age or demographic group, these cases have disproportionately occurred in people ages 30–60 years, Black or African American people, and people with HIV. Invasive meningococcal disease may present with bloodstream infection or septic arthritis and without symptoms typical of meningitis (e.g., headache, stiff neck) which has been seen with these cases.

For prevention, it is essential that all people recommended for meningococcal vaccination are up to date for meningococcal vaccines. All 11–12 year-olds should receive a MenACWY vaccine. Since protection wanes, CDC recommends a booster dose at age 16 years. For people at increased risk due to medical conditions (e.g., with HIV), recommended vaccination includes a 2-dose primary MenACWY series with booster doses every 3–5 years, depending on age.

Finally, immediately notify ADPH about any suspect or confirmed cases of invasive meningococcal disease at https://www.alabamapublichealth.gov/infectiousdiseases/report.html or https://epiweb.adph.state.al.us/redcap/surveys/?s=H37ENP8ADD. You may also consult ADPH for any questions about meningococcal disease treatment or contact prophylaxis, including any changes based on local meningococcal resistance patterns.

For more information
ADPH Meningococcal Disease information
https://www.alabamapublichealth.gov/immunization/meningococcal.html
Meningococcal Disease Surveillance | CDC
https://www.cdc.gov/meningococcal/surveillance/index.html
Meningococcal Disease | Manual for the Surveillance of Vaccine-Preventable Diseases | CDC
https://www.cdc.gov/vaccines/pubs/surv-manual/chpt08-mening.html
Meningococcal Disease Outbreaks and Public Health Response | CDC
https://www.cdc.gov/meningococcal/outbreaks/index.html
Clinical information | Meningococcal Disease | CDC
https://www.cdc.gov/meningococcal/clinical-info.html
Meningococcal Vaccination: Information for Healthcare Professionals | CDC
https://www.cdc.gov/vaccines/vpd/mening/hcp/index.html