To:Vermont Health Care Providers and Health Care FacilitiesDate:May 31, 2024From:Hilary Fannin, MPH, Epidemiologist

Meningococcal Disease Cases Linked to Travel to the Kingdom of Saudi Arabia: Ensure Pilgrims are Current on Meningococcal Vaccination

On May 20, 2024, the Centers for Disease Control and Prevention issued a <u>health alert</u> and a <u>level 1 travel alert</u> about meningococcal disease in travelers to the Kingdom of Saudi Arabia (KSA), especially those taking part in pilgrimage activities. Since April 2024, 12 cases of meningococcal disease linked to KSA travel for Umrah (Islamic pilgrimage to Mecca) have been reported to national public health agencies in the United States (five cases), France (four cases), and the United Kingdom (three cases). Of these 12 recent cases, 10 were in people who traveled to KSA and two were close contacts. Most cases were caused by serogroup W, but one U.S. case was due to serogroup C, and another involved an unknown serotype. Most patients were unvaccinated and isolates from three patients suggest resistance to ciprofloxacin.

Background

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 often presents as meningitis with symptoms that may include fever, headache, stiff neck, nausea, vomiting, photophobia or altered mental status. Meningococcal disease may also present as a meningococcal bloodstream infection with symptoms that may include fever, chills, fatigue, vomiting, cold hands and feet, severe aches and pains, rapid breathing, diarrhea, or, in later stages, a petechial or dark purple rash (purpura fulminans - photo). While initial symptoms of meningococcal disease can at first be nonspecific, they worsen rapidly and can become life-threatening within hours. Survivors may experience long-term effects such as deafness or amputations of the extremities.

Immediate <u>antibiotic treatment</u> for meningococcal disease is critical. Blood and cerebrospinal fluid (CSF) cultures are indicated for patients with suspected meningococcal disease. Health care providers should not wait for diagnostic testing or receipt of laboratory results before initiating treatment for suspected cases of meningococcal disease.



Meningococcal disease outbreaks have occurred previously in conjunction with mass gatherings, including Hajj, the annual pilgrimage to Mecca. The most recent global outbreak of meningococcal disease associated with travel to KSA for Hajj was in 2000–2001 and was primarily caused by the capsular serogroup NmW. This year, Hajj begins on June 14.

Since 2002, KSA has required that all travelers aged one year or older performing Hajj (religious Islamic pilgrimage to Mecca at a specific time of year) or Umrah (Islamic worship at Mecca any other time of year) provide documentation of **either**:

- a) MenACWY quadrivalent polysaccharide vaccine (MPSV4 is no longer available in the United States) within the last 3 years administered at least 10 days before arrival **or**
- b) MenACWY quadrivalent conjugate vaccine within the last 5 years administered at least 10 days before arrival.

This requirement aligns with ACIP recommendations for revaccination of U.S. travelers to endemic areas who received their last dose 3–5 or more years previously (depending on the age at most recent dose received). Nevertheless, meningococcal vaccination coverage among Umrah travelers is known to be incomplete. **Travelers must receive their MenACWY vaccine at least 10 days before arrival for protection.**

Close contacts of people with meningococcal disease should receive antibiotic chemoprophylaxis as soon as possible after exposure, regardless of immunization status, ideally less than 24 hours after the index patient is identified. While ciprofloxacin, rifampin and ceftriaxone are typically the first-line antibiotics recommended for use as chemoprophylaxis, ciprofloxacin-resistant strains of *N. meningitidis* have been emerging in the U.S. and globally. CDC recently released <u>implementation guidance</u> for the preferential use of other recommended prophylaxis antibiotics in areas with multiple cases caused by ciprofloxacin-resistant strains. **Rifampin, ceftriaxone or azithromycin should be preferentially considered** instead of ciprofloxacin as prophylaxis for close contacts in the U.S. of meningococcal disease cases associated with travel to KSA.

Requested Actions

- Review the CDC Health Advisory <u>Meningococcal Disease Cases Linked to Travel to the</u> <u>Kingdom of KSA (KSA): Ensure Pilgrims are Current on Meningococcal Vaccination</u>.
- Recommend vaccination with MenACWY conjugate vaccine for people considering travel to KSA to perform Hajj or Umrah (Islamic pilgrimages) and <u>routine meningococcal</u> <u>vaccination</u> for adolescents and other people at increased meningococcal disease risk.
- Providers enrolled in the Vermont Child Vaccine Program or Vermont Adult Vaccine Program can utilize state-supplied vaccine for all Vermonters under 65 years of age in



accordance with ACIP recommendations. This includes the use of MenACWY vaccines for individuals meeting travel-based vaccine recommendations.

- Patients aged 65 and older should also receive vaccination in accordance with ACIP recommendations through primary care providers, pharmacies, or travel clinics.
- Patients aged 2-23 months will need the Menveo 2-vial product. Contact the Health Department Immunization Program at AHS.VDHImmunizationProgram@Vermont.gov with any questions.
- Maintain a heightened index of suspicion for meningococcal disease among symptomatic people who have recently been in KSA and among close contacts of people who have recently been in KSA, regardless of vaccination status.
- **Report all suspected cases of meningococcal disease immediately** to the Health Department's Infectious Disease Epidemiology program (802-863-7240, option 2; available 24/7) at the time of initial clinical suspicion. **Do not wait for laboratory confirmation to report.**
- Preferentially consider using rifampin, ceftriaxone or azithromycin instead of ciprofloxacin as prophylaxis for close contacts in the United States of meningococcal disease cases associated with travel in KSA.

Additional Resources

- Travelers must receive their MenACWY vaccine at least 10 days before arrival for protection. This year, Hajj begins on June 14.
- <u>CDC Clinical Information: Meningococcal Disease</u>
- <u>CDC Meningococcal Vaccination: Information for Healthcare Professionals</u>
- <u>CDC Yellow Book 2024: Meningococcal Disease</u>
- CDC MMWR Notes from the Field <u>Cases of Meningococcal Disease Associated with</u> <u>Travel to Saudi Arabia for Umrah Pilgrimage - United States, United Kingdom, and</u> <u>France, 2024</u>
- Acute meningococcemia clinical images and diagnostic pearls are <u>available in VisualDx</u>.
- Access to VisualDx is provided by the Health Department at no cost to all Vermont clinicians. If you want to get access, you can find information <u>here</u>.

If you have any questions, please contact Hilary Fannin at: <u>AHS.VDHVaccinePrevEpi@Vermont.gov</u>



To be removed from the HAN or have your information updated please email the Vermont HAN Coordinator at: <u>vthan@vermont.gov</u>.

HAN Message Type Definitions

Health Alert: Conveys the highest level of importance; warrants immediate action or attention.

Health Advisory: Provides important information for a specific incident or situation; may not require immediate action.

Health Update: Provides updated information regarding an incident or situation; unlikely to require immediate action.

Info Service Message: Provides general correspondence from the Vermont Department of Health, which is not necessarily considered to be of an emergent nature.

