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HEALTH ADVISORY

JUNE 18, 2015

Chicago Reports Invasive Meningococcal Disease among Men Who Have Sex with Men; Recommendations for San Francisco

On June 3 the Chicago Department of Health (DPH) reported a cluster of invasive Serogroup C meningococcal disease (IMD) among men who have sex with men (MSM) since mid-May 2015. Characteristics of cases include HIV-positive status and the use of digital apps to meet sexual partners. Chicago DPH has recommended meningococcal vaccination for local HIV-positive MSM, as well as for local MSM regardless of HIV status who have close or intimate contact with multiple partners, or who seek partners through the use of digital applications.

SFDPH Continues to Monitor: The San Francisco Department of Public Health (SFDPH) has been closely monitoring IMD locally. There have been no cases of IMD reported among San Francisco MSM since 2011.

IMD is transmitted by close or intimate personal contact. Individuals who wish to reduce their risk of contracting meningococcal disease should consult with their provider regarding vaccination and modification of risk behaviors. Serogroup C is contained in the currently available meningococcal conjugate vaccines; however, vaccination is not 100% effective in preventing IMD.

Actions requested of SF clinicians:

- 1. Meningococcal vaccination should be offered to San Francisco MSM and male-to-female transgender persons, regardless of HIV status, who expect close or intimate contact with MSM currently residing in, or traveling from Chicago.** To achieve protection, vaccination should be completed at least 7-10 days prior to potential exposure. Increased travel and events such as festivals during the summer and fall may increase exposure risk.
- 2. Immediately report** all San Francisco residents with suspected or confirmed meningococcal disease to the 24/7 Communicable Disease Control Unit (CDCU) of SFDPH at (415) 554-2830. After hours page the on-call physician. Do not wait to report until the diagnosis is culture-confirmed; any delay in reporting compromises the ability to identify close contacts and ensure they receive timely antibiotic prophylaxis. SFDPH can assist with coordinating Polymerase Chain Reaction (PCR) testing if needed.

Invasive Meningococcal Disease Background and Transmission

IMD results from *Neisseria meningitidis* bacteria which can cause meningitis (infection of the tissues surrounding the brain and spinal cord) or septicemia (infection of the blood). Even if diagnosed early and treated with appropriate antibiotics, IMD still sometimes results in death, permanent brain damage, hearing loss, or kidney failure. Symptoms usually occur 1-10 days after exposure, and often within 4 days.

IMD is transmitted by contact with spit, phlegm, mucus, or other fluids from the nose or mouth of someone who already has, or is in the process of developing, meningococcal disease. Typically this occurs from kissing,

intimate or sexual contact, sneezing or coughing, living in a crowded space together, or sharing drinks, cigarettes or eating utensils with someone who is infected (who may not show signs of disease).

Clinical Description – Prompt Recognition of Cases is Key

Prompt recognition and antibiotic treatment of meningococcal disease is critical. Symptoms of meningitis may include sudden onset of fever, headache, and stiff neck, accompanied by nausea, vomiting, photophobia, and altered mental status. Symptoms of septicemia may include fatigue, nausea, vomiting, cold hands and feet, chills, severe muscle aches or abdominal pain, rapid breathing, diarrhea, and a petechial or purpuric rash.

The following may be helpful in making the diagnosis:

- A thorough examination of the skin, conjunctiva and pharynx for petechiae, with particular attention to pressure zones beneath clothes, the palms and the soles
- Severe muscle or abdominal pain, particularly when there is no apparent alternative etiology
- Blood pressure values that are in the normal range but are actually low considering the heart rate, temperature, and severity of illness (e.g., BP 100/60 with a heart rate of 140).
- Platelet counts between 100,000-150,000/mm³.

While any one finding does not necessarily indicate IMD, the constellation of findings warrants closer scrutiny and consideration of antibiotic therapy. Antibiotics should not be delayed to obtain diagnostic specimens.

Vaccination and other Prevention Measures

One dose of meningococcal conjugate vaccine (Menactra® or Menveo®) is recommended for most adults at increased risk of IMD. Persons with HIV should receive a 2-dose primary series, administered 8-12 weeks apart, as evidence suggests that persons with HIV may not respond optimally to a single dose.

While highly effective, vaccination is not 100% effective. Those wishing to further reduce their risk of contracting IMD should consider avoiding contact with spit, phlegm, mucus, or other fluids from the nose or mouth of other persons, especially persons not well known to the individual. In addition, vaccine efficacy wanes over time; adults with ongoing increased risk of IMD are recommended to receive a booster dose every 5 years.

Post-exposure Prophylaxis

For post-exposure antimicrobial prophylaxis of known contacts, a one-time dose of 500 mg of ciprofloxacin is generally the first line treatment for adults, and rifampin 10 mg/kg every 12 hours for 2 days is the treatment of choice for most children. Prophylaxis should be initiated as soon as possible after exposure, but may be effective when begun up to 14 days after the last exposure. Because secondary cases can sometimes occur several weeks or more after exposure to an IMD case, meningococcal vaccination is often recommended in addition to chemoprophylaxis.

Additional Resources:

Centers for Disease Control and Prevention:

- Meningococcal Disease Information page: cdc.gov/meningococcal/index
- Prevention and Control of Meningococcal Disease cdc.gov/mmwr/preview/mmwrhtml/rr6202a1
- Meningococcal Vaccine Information Statement: <http://www.cdc.gov/vaccines/hcp/vis/vis-statements/mening.html>

California Department of Public Health:

- Detailed post-exposure prophylaxis recommendations: cdph.ca.gov/programs/immunize/Documents/Meningquicksheet.pdf

San Francisco Department of Public Health:

- Meningococcal Disease page: sfcdcp.org/meningococcal.html