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## HEALTH ADVISORY

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### **Additional Cases of Invasive Meningococcal Disease in Men Who Have Sex with Men in New York City; Updated Recommendations for San Francisco**

On March 6 the New York City Dept. of Health and Mental Hygiene (NYC-DOHMH) reported 4 new cases in 2013 of invasive meningococcal disease (IMD) in men who have sex with men (MSM), bringing the total to 22, and expanded its recommendations for meningococcal vaccination of MSM residing in NYC.

**No Local Outbreak.** The San Francisco Department of Public Health (SFDPH) has been closely monitoring IMD locally. There have been no cases of IMD reported in the past 12 months among San Francisco MSM, and in California there are no reported outbreaks of IMD currently among MSM or other residents.

**SFDPH Continues to Monitor.** Physicians and laboratories are legally required to immediately (within 1 hour) report all new cases of IMD, and SFDPH investigates all such reports promptly and thoroughly.

**Update to SF Recommendations.** For certain MSM planning travel to NYC, SFDPH is aligning its meningococcal vaccination recommendations with those of NYC-DOHMH.

**Risk Reduction.** 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. The NYC outbreak involves meningococcal serogroup C, one of the 4 serogroups contained in the vaccine; however, vaccination is not 100% effective in preventing IMD.

#### **Actions requested of SF clinicians who provide care for MSM:**

1. **Be aware** of NYC-DOHMH Updated Recommendations (3/6/2013) to offer meningococcal vaccine to the following NYC residents: (a) All HIV-infected MSM; and (b) MSM, regardless of HIV status, who regularly have close or intimate contact with other men met either through an online website, digital application (“app”), or at a bar or party.
2. **Meningococcal vaccination should be offered to San Francisco MSM and male-to-female transgender persons, regardless of HIV status, whose travel plans include visiting NYC with an expectation of close or intimate contact with MSM in NYC.** To achieve protection, vaccination should be completed at least 7-10 days prior to potential exposure.
3. **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. 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. After hours press “1” and “1” again to page the on-call physician.

## **Invasive Meningococcal Disease Background and Transmission**

IMD results from *Neisseria meningitidis* bacteria which cause meningitis by infecting tissues surrounding the brain and spinal cord and which can also cause bacteremia or septicemia (infection of the blood). Even if diagnosed early and treated with 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 yet 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 (sensitivity to light), and altered mental status. Symptoms of bacteremia or septicemia may include fatigue, nausea, vomiting, cold hands and feet, chills, severe muscle aches or abdominal pain, rapid breathing, diarrhea, and appearance of a petechial or purpuric rash (dark purple spots that do not blanch with pressure).

NYC-DOHMH has suggested that 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/mm<sup>3</sup>.

While any individual finding does not necessarily indicate IMD, the constellation of findings warrants closer scrutiny and consideration of antibiotic therapy.

Antibiotic treatment 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 (see below). 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.

The Advisory Committee on Immunization Practices (ACIP) recommends routine vaccination with one of the above meningococcal conjugate vaccines for adolescents age 11- 12 years, with a booster dose at age 16 years. ACIP also recommends routine vaccination for persons at increased risk for meningococcal disease (those with persistent complement component deficiencies, anatomic or functional asplenia including sickle cell disease, microbiologists exposed to isolates of *N. meningitidis*, college students living in residence halls, military recruits, and persons who travel to or reside in areas in which meningococcal disease is hyperendemic or epidemic).

While highly effective, vaccination is not 100% effective. In a US Centers for Disease Control & Prevention (CDC) study, vaccination of adolescents with a meningococcal conjugate vaccine was shown to prevent about 82% of vaccine-strain IMD within a 1-year timeframe. Vaccine efficacy wanes over time; adults with ongoing increased risk of IMD are recommended to receive a booster dose every 5 years.

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.

### **Post-exposure Prophylaxis**

For post-exposure antimicrobial prophylaxis of known contacts, rifampin, ceftriaxone, ciprofloxacin, or azithromycin are appropriate drugs for adults, and the drug of choice for most children is rifampin. Chemoprophylaxis should be initiated as soon as possible after exposure, but may be effective 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:**

#### **New York City:**

- Health Alert Page: [a816-health29ssl.nyc.gov/sites/NYCHAN/WebPages/home.aspx](http://a816-health29ssl.nyc.gov/sites/NYCHAN/WebPages/home.aspx)
- 3/16/2013 Health Alert: [a816-health29ssl.nyc.gov/sites/NYCHAN/Lists/AlertUpdateAdvisoryDocuments/2013-03%20HAN%20IMD%20in%20MSM.pdf](http://a816-health29ssl.nyc.gov/sites/NYCHAN/Lists/AlertUpdateAdvisoryDocuments/2013-03%20HAN%20IMD%20in%20MSM.pdf)
- Provider FAQ: [nyc.gov/html/doh/downloads/pdf/cd/mening-provider-faq.pdf](http://nyc.gov/html/doh/downloads/pdf/cd/mening-provider-faq.pdf)
- Patient Fact Sheet: [nyc.gov/html/doh/downloads/pdf/cd/imd-patient-factsheet.pdf](http://nyc.gov/html/doh/downloads/pdf/cd/imd-patient-factsheet.pdf)

#### **Centers for Disease Control and Prevention:**

- Meningococcal Disease Information page: [cdc.gov/meningococcal/index](http://cdc.gov/meningococcal/index)
- Prevention and Control of Meningococcal Disease (ACIP): MMWR March 22, 2013 / 62(RR02); 1-22. [cdc.gov/mmwr/preview/mmwrhtml/rr6202a1](http://cdc.gov/mmwr/preview/mmwrhtml/rr6202a1)
- Meningococcal Vaccine Information Statement: [cdc.gov/vaccines/pubs/vis/downloads/vis-mening.pdf](http://cdc.gov/vaccines/pubs/vis/downloads/vis-mening.pdf)

#### **San Francisco Department of Public Health:**

- Meningococcal Disease page: [sfcdcp.org/meningococcal.html](http://sfcdcp.org/meningococcal.html)