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HEALTH ADVISORY

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TWO CASES OF MENINGOCOCCAL DISEASE IN SRO RESIDENTS IN THE TENDERLOIN

Two cases of invasive meningococcal disease (IMD) have been diagnosed in females staying in single room occupancy hotels (SROs) in the Tenderloin neighborhood of San Francisco, with onset of symptoms on 9/14/13 and 9/16/13. So far these cases have not been directly linked to one another. However, there may be additional cases of meningococcal disease occurring in this population. Because this infection is associated with altered mental status that can initially appear to be due to drug use or other causes, we request that clinicians be alert for additional cases.

ACTIONS REQUESTED OF ALL CLINICIANS:

1. **Be alert** for additional cases compatible with meningococcal disease, especially among persons with altered mental status, those who use drugs, and residents of or visitors to the Tenderloin neighborhood.
2. Immediately (within 1 hour) **report** all suspect cases of meningococcal disease to the 24/7 Communicable Disease Control Unit (CDCU) at (415) 554-2830. Do not wait for laboratory confirmation to report a clinically suspected case. Any delay in reporting may compromise the ability to identify close contacts and ensure they receive antibiotic prophylaxis.
3. As soon as meningitis or meningococcal infection is suspected, notify your facility's **infection control professional** and implement appropriate **infection control precautions**
4. Obtain blood and CSF **cultures** prior to administration of antibiotics if possible to enhance detection of *N. meningitidis*. SFDPH can assist with coordinating Polymerase Chain Reaction (PCR) testing if needed.
5. Assist CDCU as requested to **identify close contacts** of cases of meningococcal disease. If the patient is severely ill or about to be intubated, attempt to identify contacts prior to intubation if possible.

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).

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 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. However, if it is possible to obtain specimens without delaying treatment, clinicians should obtain blood and CSF for culture prior to antibiotic administration.

CASE REPORTING

Report should be made immediately (within 1 hour) to the Communicable Disease Control Unit 24/7 (415) 554-2830 **and** to your facility's Infection Control Professional (ICP) if:

- Meningococcal disease is a suspected etiology of the presentation, OR
- Gram-negative diplococci or *N. meningitidis* are detected in blood, CSF, or another sterile site specimen

INFECTION CONTROL PRECAUTIONS

N. meningitidis is spread by direct or indirect contact with oral secretions, saliva and respiratory droplets. Patients are infectious from 7 days before symptom onset until 24 hrs after effective antibiotics have been administered.

- If meningococcal disease is suspected, use droplet precautions until patient has received 24 hours of effective treatment:
 - Put patient in a private room; if not possible, mask patient and keep at least 3 feet away from other patients.
 - Limit movement and transport of the patient; if transport is essential, mask the patient.
 - Health care personnel should wear a mask when within 3 feet of the patient.
- Work with your ICP to implement precautions. Consult with Public Health for guidance.

POST-EXPOSURE PROPHYLAXIS AND PREVENTION

- For post-exposure antimicrobial prophylaxis of known contacts, rifampin, ceftriaxone, ciprofloxacin, or azithromycin are appropriate drugs for adults. 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.
- Meningococcal vaccine is not sufficient for post-exposure prophylaxis, and may not be protective when given within the disease incubation period. However, 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.
- Vaccine may be administered to unvaccinated close contacts who qualify for vaccine under ACIP recommendations and to unvaccinated recovered cases.
- If the case has serogroup A, C, W-135 or Y disease, meningococcal conjugate vaccine may also be considered for unvaccinated:
 - Persons who are not close contacts who qualify for vaccine under ACIP recommendations to help reduce anxiety about exposure; and
 - Close contacts older than 2 months of age who do not qualify for vaccine under ACIP recommendations. Children vaccinated before the age recommended by ACIP should receive another dose of vaccine at the recommended age.

ADDITIONAL RESOURCES:

San Francisco Department of Public Health:

Meningococcal Disease page: sfcdcp.org/meningococcal.html

Centers for Disease Control and Prevention:

- Meningococcal Disease Information page: 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

Meningococcal Vaccine Information Statement: cdc.gov/vaccines/pubs/vis/downloads/vis-mening.pdf