



## **University of California Santa Barbara (UCSB) Meningococcal Disease Outbreak Information for UCSB Students and their Physicians – November 22, 2013**

### **Current situation**

Since November 11, 2013, three UCSB students have been diagnosed with meningococcal disease. This constitutes an outbreak. All known close contacts of the ill students have been contacted and have received preventive antibiotics (postexposure chemoprophylaxis).

### **Is there a vaccine against this infection?**

The first two cases in the outbreak have been found to have serogroup B meningococcal disease. Serogroup B disease is not prevented by the meningococcal vaccines currently licensed in the United States, which protect against serogroups A, C, W135 and Y. There is currently no licensed vaccine in the United States that covers serogroup B. As such, students who have been vaccinated against bacterial meningitis may still be vulnerable to infection with serogroup B.

### **What about Bexsero®, the vaccine against serogroup B I've heard about?**

A vaccine designed to offer protection from serogroup B disease was licensed in Europe and Australia in 2013. This vaccine is not licensed in the United States and has not been evaluated by the federal Food and Drug Administration (FDA) for safety and efficacy. Use of an unlicensed vaccine can only be done with the approval of the FDA. The approval process is complex and takes time. Santa Barbara County, UCSB, the California Department of Public Health (CDPH) and the Centers for Disease Control (CDC) have already had preliminary discussions about the vaccine. Santa Barbara County and UCSB will be monitoring the situation closely and continuing to explore the possibility of vaccination. Santa Barbara County defers to the CDC on questions related to the Bexsero® vaccine.

### **Is there a link between the cases in Santa Barbara and Princeton?**

Although the Princeton meningococcal disease cases were also caused by serogroup B, there is NO LINK between the UCSB cases and the Princeton outbreak. This is not unexpected, as cases of meningococcal disease can occur sporadically in college settings since this population has an increased risk.

### **How does meningococcal disease spread?**

Meningococcal disease is spread from person to person. The bacteria are spread by exchanging respiratory and throat secretions during close or lengthy contact (for example, coughing/ kissing/ sharing cigarettes/ sharing cups), especially if living in the same dorm or household.

Most people carry the bacteria in their throats without ever getting meningococcal disease. Since 10% of people carry the bacteria at any one time, most cases of meningococcal disease appear to be random and aren't linked to other cases. Although anyone can get meningococcal disease, adolescents and college freshmen who live in dormitories are at increased risk. The bacteria that cause meningococcal disease are less infectious than the viruses that cause influenza.



### **What can you do to prevent the spread of the disease on campus and in the community?**

- Cover your mouth and nose when coughing or sneezing
- Clean your hands frequently with soap and water or an alcohol-based hand rub.. Clean your hands before eating.
- Practice healthy habits such as not sharing utensils, water bottles or other items contaminated by the saliva or respiratory secretions of another person.
- Stay home when you are sick and avoid other people who are ill, if possible.

### **What else can I do?**

Research has shown that smokers and people exposed to smoke are at increased risk of meningococcal infection. In addition, viral illnesses like influenza may increase the risk of meningococcal disease.

Therefore, it may be helpful to also:

- Avoid crowded, smoky settings.
- Protect yourself from influenza by getting a flu shot.

### **What should I do now?**

Individuals should remain vigilant (have increased awareness) for the signs and symptoms of meningococcal disease. These include:

- High fever
- Severe headache
- Rash
- Body aches/joint pain
- Nausea/vomiting
- Increased sensitivity to light
- Confusion
- Stiff neck

Anyone with the signs or symptoms of meningococcal disease should seek medical care immediately. Early treatment of meningococcal disease is critical as the infection can quickly become life-threatening. UCSB students and staff are urged to pay particular attention to this advice in light of the recent cases.

### **Is there medication available to prevent infection?**

Sometimes, *Neisseria meningitidis* bacteria spread to other people who have had close or lengthy contact with a patient who has meningococcal disease. People in the same household, roommates, or anyone with direct contact with patient's oral secretions (saliva) such as a boyfriend, girlfriend, or a sexual partner would be considered at increased risk of getting the infection. People who qualify as close contacts of a person with meningococcal disease should receive antibiotics to prevent them from getting the disease. This is known as prophylaxis.



### **How are close contacts to the ill students in Santa Barbara being treated?**

People who have had close contact (e.g., living in the same dorm, kissing, sharing eating utensils or food, sharing drinks, sharing cigarettes, etc.) are being given antibiotics. The UCSB Student Health Center and the Public Health Department are working jointly to identify and treat close contacts with antibiotics. At this time, we have provided antibiotic prophylaxis to over 300 UCSB students.

### **I received a dose of cipro because I was a close contact of someone who had meningococcal disease. How long am I protected?**

Those who have had close contact with a person with meningococcal disease are recommended to receive preventive antibiotics such as ciprofloxacin. The purpose of the antibiotic is to eliminate carriage of the strain of the bacteria that caused infection in the case; it does not offer long-term protection against meningococcal disease and the effects wear off within 1-2 days. If there was another exposure to a case, another dose of cipro would be needed.

### **Is there a test that can be done to see if I have been exposed to meningococcal disease?**

There is no recommendation to test people without symptoms who might have been exposed to someone with meningococcal disease. If you think you might have had close contact with someone who has been diagnosed with or has symptoms of meningococcal disease, call or see your healthcare provider. He or she can work with public health officials to determine if you should receive antibiotics to prevent infection.

**While you are on break, if you think you may have the signs or symptoms of meningococcal disease or that you are a close contact of someone with meningococcal disease and have not been treated, please contact a healthcare provider and provide him/her with this fact sheet.**

### **Information for Healthcare Providers of UCSB Students**

#### **UCSB students with signs and symptoms consistent with meningococcal disease**

If a UCSB student presents to you with signs and symptoms consistent with meningococcal disease, we encourage you to have a low threshold for testing for meningococcal disease at this time.

Onset of meningococcal disease can be insidious and nonspecific but is often abrupt with fever, chills, malaise, myalgia, limb pain, prostration, and a rash that initially can be macular, maculopapular, petechial, or purpuric. The maculopapular rash is indistinguishable from the rash caused by some viral infections. Less common manifestations of meningococcal disease include conjunctivitis, pneumonia, febrile occult bacteremia, septic arthritis, and chronic meningococemia.\*

Cultures of blood and CSF are indicated for patients with suspected meningococcal disease. Cultures of scrapings of petechial or purpuric lesions, synovial fluid, and other usually sterile body fluid specimens yield the organism in some patients.\*

**UCSB students requesting antibiotic postexposure prophylaxis for meningococcal disease**

The Santa Barbara Public Health Department and the UCSB Student Health Center have tried to contact all known close contacts of the UCSB meningococcal disease cases. However, some students who may have had close contact with cases may not have been identified and may contact you for postexposure chemoprophylaxis. We encourage you to provide this for UCSB student patients who contact you. The following table contains the CDC recommendations for meningococcal disease postexposure chemoprophylaxis. Currently, most close contacts receive ciprofloxacin unless it is contraindicated.

**Recommended chemoprophylaxis regimens for contacts\***

Age	Dose	Duration	Efficacy	Cautions
<b>Rifampin<sup>a</sup></b>				
<1 month	5 mg/kg, orally, every 12 h	2 days		
≥1 month	10 mg/kg (maximum 600 mg), orally, every 12 h	2 days	90–95%	Can interfere with efficacy of oral contraceptives and some seizure and anticoagulant medications; can stain soft contact lenses.
<b>Ceftriaxone</b>				
<15 year	125 mg, intramuscularly	Single dose	90–95%	To decrease pain at injection site, dilute with 1% lidocaine.
≥15 year	250 mg, intramuscularly	Single dose	90–95%	To decrease pain at injection site, dilute with 1% lidocaine.
<b>Ciprofloxacin<sup>a,b</sup></b>				
≥1 month	20 mg/kg (maximum 500 mg), orally	Single dose	90–95%	Used routinely for those ≥18 years of age. Per 2011 AAP recommendations, ciprofloxacin can be considered for those <18 years of age based on risk/benefit assessment. See: <a href="http://pediatrics.aappublications.org/content/128/4/e1034.full.pdf">http://pediatrics.aappublications.org/content/128/4/e1034.full.pdf</a> CDPH and CDC consider it reasonable to use single-dose ciprofloxacin for <i>N. meningitidis</i> chemoprophylaxis in children ≥5 years of age given that reports of adverse events in children have been rare after widespread use in children.
<b>Azithromycin</b>	10 mg/kg (maximum 500 mg)	Single dose	90%	Not recommended routinely; equivalent to rifampin for eradication of <i>Neisseria meningitidis</i> from nasopharynx in one study.

\***Penicillin** is often appropriate as treatment, but is not appropriate for prophylaxis.

<sup>a</sup> Not recommended for use in pregnant women.

<sup>b</sup> Use only if fluoroquinolone-resistant strains of *N meningitidis* have not been identified in the community. See: CDC. Emergence of fluoroquinolone-resistant *Neisseria meningitidis*—Minnesota and North Dakota, 2007–2008. *MMWR*. 2008;57(7):173–175 at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5707a2.htm>. In limited testing to date, ciprofloxacin-resistant *N. meningitidis* isolates have been detected in one case in California and three cases in the Midwest. Please contact CDPH for updates on the prevalence of resistant strains.

\*Adapted from: American Academy of Pediatrics. Meningococcal Infections. In Pickering LK, Baker CJ, Kimberlin DW, Long SS, eds. *Red Book: 2012 Report of the Committee on Infectious Diseases*. Elk Grove Village, IL.