MENINGITIS, MENINGOCOCCAL - USA (07): (CALIFORNIA, NEW JERSEY) COLLEGE, ADDITIONAL CASE, NEW VACCINE

A ProMED-mail post
<http://www.promedmail.org>
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[1]
Date: Mon 2 Dec 2013
Source: Edhat Santa Barbara, Santa Barbara County Public Health Department Report [edited]
<http://www.edhat.com/site/tidbit.cfm?nid=125496>

The Santa Barbara County Public Health Department (PHD) and the University of California, Santa Barbara (UCSB) have confirmed a 4th case of meningococcal disease in a UCSB undergraduate student. All 4 students with meningococcal disease became ill within a 3-week time period of November 2013. One case has resulted in permanent disability.

A number of steps have been taken to minimize the spread of the disease including:
- Providing preventive antibiotics to more than 500 students who were identified as close contacts of the initial 3 ill students and close contacts of the fourth case have also been identified and have received antibiotics.
- Providing information on meningococcal disease and strategies for prevention to all students, staff and faculty at UCSB.
- Ongoing consultation with the Centers for Disease Control and Prevention (CDC).
- Providing information about the outbreak to healthcare providers across the state to raise awareness.

No currently available disease prevention and control strategies can ensure that no additional cases will occur as part of this outbreak.
However, the PHD and UCSB are working jointly with the California Department of Public Health to implement a number of actions that have the potential to reduce the risk of future cases.
Any possible impact of these actions to prevent additional cases is unknown.

In the setting of an ongoing outbreak of a serious disease, we believe that these actions are reasonable. While these actions may not prevent additional cases, we hope they may reduce the number of persons exposed to the outbreak strain of _Neisseria meningitidis_ bacteria.

Therefore, this week we will be:
- Providing antibiotics to additional individuals who we believe may have already been exposed to the bacteria based on a scientific assessment of the social networks of existing cases. These students will be directed to obtain antibiotics at UCSB no later than Tuesday.
[3 Dec 2013] and will be directed to take the medication onsite.
- Informing all students, staff, and faculty at UCSB about the importance of seeking medical care if they are ill (especially if they have signs and symptoms of meningococcal disease such as fever and headache) as timely treatment is very important to recovery. Even students who have been given preventive antibiotics can become ill depending on the timing of exposure; preventive antibiotics only offer protection for about one day, so students can become ill if exposed to the bacteria again in the future.
- Informing all students, staff and faculty at UCSB of the importance of maintaining healthy personal habits during the normal stressful exam period (such as, good sleep, nutrition, and hygiene behaviors) and staying home when ill to minimize exposure to others.
- Suspending specific social events on campus, that is, parties sponsored by Greek organizations, in an effort to interrupt transmission of the outbreak strain in social networks.

These actions are initiated with the goal of protecting health and preventing additional cases of meningococcal disease. They are important and compliance is greatly appreciated!

If there are any new developments with the meningococcal disease outbreak in our community, these will be communicated in a timely manner.

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[2]
Date: Mon 2 Dec 2013
Source: NBC News/Health [edited]

Parties and other social events may be curtailed at the University of California, Santa Barbara after a 4th case of meningitis was confirmed in a potentially deadly outbreak that has left one student permanently disabled.

Santa Barbara County public health officials on Monday [2 Dec 2013] urged the school to suspend some campus events, including Greek fraternity and sorority parties, after an 18-year-old male student was diagnosed as the 4th case in a month.

Three of the cases at UCSB have been caused by the B strain of meningitis bacteria, which is not covered by a US vaccine recommended for college students, officials said in a release. Officials are still waiting to confirm the strain in the latest case.

The infection kills at least 1 in 10 people who contract it and leaves about 20 percent of those who survive with permanent problems, including limb loss and mental retardation, according to
the Centers for Disease Control and Prevention. Health officials declined to say how the student in the UCSB outbreak had been disabled.

An outbreak of meningitis B across the country at Princeton University in New Jersey has been caused by the same strain, but with a different genetic fingerprint than the UCSB cases, CDC officials said.

Santa Barbara health officials also warned that certain students who may have been exposed to infection will be directed to receive antibiotics to prevent illness no later than Tuesday [2 Dec 2013] -- and to take the medication onsite. More than 500 students considered to be close contacts of those who are ill have been given the drugs already, but preventive antibiotics may protect only for about one day and students who are exposed again can get sick, officials noted.

They're urging students to seek medical care at the 1st sign of symptoms, which can include fever, stiff neck and headache. "In a setting of an ongoing outbreak of a serious disease, we believe that these actions are reasonable," health officials said in a statement.

University officials said they weren't "suspending" social gatherings, but were asking students to refrain from participating in "social events that involve close personal contact, alcohol, and/or smoking and where eating utensils and cups/glasses may be shared."

"All the existing cases appear to have had close personal contact," they added in an email to the campus community.

At Princeton, where 8 students associated with the New Jersey school have been sickened since March [2013], health officials are planning to start a mass vaccination on Monday [2 Dec 2013] with an imported vaccine that covers meningitis B. The vaccine, called Bexsero, is approved in Europe and Australia, but not in America.

So far, there are no plans to request a similar intervention in California, a CDC spokesman said, noting that that could change.

"We are working in close collaboration with state and local health officials to monitor the outbreak at UCSB," said Jason McDonald. "And we are prepared to work with partners to make the serogroup B meningococcal vaccine available if the circumstances of this outbreak warrant its use."

Each outbreak requires individual consideration about the number of cases, the timing, and the characteristics of the bacteria that cause the outbreak, he added.

Bacterial meningitis is a dangerous infection of the protective membranes that cover the brain and the spinal cord, known as the meninges. It is spread through respiratory droplets or secretions exchanged through close contact such as coughing or kissing.
Teens and young adults are especially vulnerable to the disease because they spend a lot of time together in close quarters such as dorms, coffee shops, and bars, with plenty of potential to swap germs. At any one time, 5 percent to 10 percent of the population may carry the bacteria in their throats, but only a small proportion develops infections. Exposure to smoke and getting a respiratory illness, like a cold, can increase the chance of infection, CDC says.

Cases have dropped sharply in the US in recent years, but between 800 and 1200 are typically reported annually. The worry is that between 10 percent and 12 percent of those who get the fast-moving infection die, and about 20 percent of those who recover can wind up with severe side effects including deafness, mental retardation, and limb amputations, according to the CDC.

Meningitis vaccines licensed in the US cover only 4 strains that cause illness: A, C, Y, and W-135. Scientists have worked for decades to create a vaccine to prevent infection with the meningitis B strain.

Meanwhile, a case of meningitis that sickened an employee at another New Jersey college, Monmouth University, was determined to be caused by the C strain of meningitis. That person remains hospitalized, but is recovering, a spokeswoman said.

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[The news releases above report one additional case, the 4th, of meningococcal meningitis in a 3-week period in a student at the University of California Santa Barbara (UCSB) campus. Previous ProMED-mail posts reported that the 3 prior cases at UCSB were caused by _Neisseria meningitidis_ serogroup B, and that additional molecular typing showed that the UCSB outbreak was unrelated to an outbreak on the Princeton University campus that is also due to _N. meningitidis_ serogroup B. However, we are not told if the 4th case of meningococcal meningitis at UCSB is also due to serogroup B; that information is still pending.

The 2nd news release says that the case of meningococcal meningitis in an employee at another New Jersey college, Monmouth University, was caused by a different serogroup, _Neisseria meningitidis_ serogroup C and thus unrelated to the Princeton or UCSB outbreaks.

The 2nd news release also says that the investigational serogroup B vaccine, Bexsero, is at the present time not being planned for UCSB. Princeton University is expected to use the Bexsero vaccine that is not otherwise available for use in the US. Current FDA-approved meningococcal vaccines are not effective against _N. meningitidis_ serogroup B; only the Bexsero serogroup B meningococcal vaccine would be expected to be effective in the face of a serogroup B outbreak.
For further discussion of invasive meningococcal disease on a college campus, see moderator ML's comments in ProMED-mail postings:
Meningitis, meningococcal - USA (06): (NJ, CA) college, sg B, genotyping 20131130.2083185, Meningitis, meningococcal - USA (05): (NJ) college, sg B, vaccine 20131125.2073662; Meningitis, meningococcal - USA (04): (CA,NJ) college, sg B, vaccine 20131122.2069150; Meningitis, meningococcal - USA: (PA) 20090218.0674; and Meningitis, meningococcal - USA (03): (NJ) college, sg. B, new vaccine 20131117. - Mod.ML]