

Health Advisory: Brucellosis Outbreak Associated with Soft Cheese in Twin Cities

Minnesota Department of Health, Thu, July 1 12:00 CDT 2021

Action Steps

Local and tribal health department: Please forward to hospitals, clinics, urgent care centers, emergency departments, pharmacies, and convenience clinics in the Metro area only: **Anoka, Carver, Dakota, Hennepin, Ramsey, Scott and Washington** counties.

Hospitals, clinics and other facilities: Please forward to infection preventionists, infectious disease physicians, emergency department staff, hospitalists, and primary care clinicians.

Health care providers:

- Test for brucellosis in patients with febrile illness who report having consumed soft cheese brought from Mexico.
- Culture blood or other relevant specimens and alert the laboratory of suspected diagnosis. Serological testing for *Brucella* may be ordered through clinical reference laboratories as well, but this is not considered confirmatory testing.
- Recommend antimicrobial prophylaxis, symptom watch, and serologic monitoring for anyone who reports that they ate this cheese, even if they are not symptomatic. For more information call: 651-201-5414.
- Treat brucellosis with doxycycline and rifampin for a minimum of 6-8 weeks. Consult an Infectious Disease specialist.
- [Report suspected or confirmed brucellosis cases \(https://www.health.state.mn.us/diseases/brucellosis/report.html\)](https://www.health.state.mn.us/diseases/brucellosis/report.html) to MDH immediately by phone to 651-201-5414 or 877-676-5414.

Background

Three Minnesotans, and a possible 4th, were recently diagnosed with infections caused by *Brucella melitensis*. All reported eating soft cheese that was brought into Minnesota from Mexico and distributed privately. The cheese was distributed in the Twin Cities metro area. It was wrapped in tinfoil and had no other markings on the packaging. The cases had illness onsets the end of May to the beginning of June 2021.

Brucella melitensis, one of the causative agents of brucellosis, is a Tier 1 select agent. Local exposure to *B. melitensis* occurs rarely in the United States, but is common in countries where *B. melitensis* is still endemic in the dairy animal population, including Mexico. Approximately 75% of brucellosis cases in the United States are due to consumption of unpasteurized dairy products from these areas.

Symptoms of brucellosis are varied and nonspecific and may include fever, headache, night sweats, arthralgia, headache, fatigue, anorexia, myalgia, and weight loss. Foodborne cases of brucellosis often present with signs of systemic illness, rather than gastrointestinal illness, though

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nausea, vomiting, and abdominal pain are reported in a subset of cases. Disease manifestations can include lymphadenopathy, arthritis/spondylitis, meningitis, or focal organ involvement (endocarditis, orchitis/epididymitis, hepatomegaly, splenomegaly). Splenomegaly occurs in 20-30% of cases and lymphadenopathy in 10-20% of cases. The incubation period is highly variable, but the average is 2-4 weeks. Because of the nonspecific symptoms, brucellosis can be misdiagnosed as other febrile illnesses. Initial presentation among the three Minnesotans ranged from fever and headache to severe illness with aortic vegetation.

Person to person spread of brucellosis is extremely rare. Outside of foodborne consumption, the most common exposures occur in laboratory settings. It is critical to inform the laboratory when brucellosis is suspected so that laboratory personnel can use appropriate lab practices.

Recommendations

- Consider brucellosis in patients with a compatible illness and consumption of soft cheese, even if they do not know it is from Mexico. Cases may be unaware of the cheese source.
- Call MDH to inquire whether asymptomatic patients who consumed the cheese should be prescribed 3 weeks of prophylactic antibiotics. MDH is attempting to contact people who may have been exposed, but may be unable to contact everyone.
- If brucellosis is suspected, culture blood, or other relevant specimens. *Brucella* is most commonly diagnosed from the blood. A confirmed culture of *B. melitensis* from any clinical specimen is considered diagnostic for brucellosis.
- When ordering specimen cultures to diagnose brucellosis, advise the laboratory that cultures may grow *Brucella*, and the laboratory personnel should observe appropriate laboratory safety precautions. *Brucella* is easily laboratory-acquired.
- Treatment of brucellosis consists of doxycycline and rifampin for at least 6 weeks. Other antibiotics may be considered in patients with contraindications to these antibiotics.
- If *B. melitensis* is identified or an organism is suspicious for *B. melitensis* contact MDH by phone within 24 hours (651-201-5414 or 877-676-5414). If your laboratory has a possible isolate of *Brucella*, or questions about an isolate, call the MDH-PHL on-call Emergency Preparedness phone: 612-282-3723.

For More Information

- [CDC: Brucellosis \(https://www.cdc.gov/brucellosis/index.html\)](https://www.cdc.gov/brucellosis/index.html)
- [MDH Brucellosis \(https://www.health.state.mn.us/diseases/brucellosis/index.html\)](https://www.health.state.mn.us/diseases/brucellosis/index.html)
- [Clinical Laboratory Preparedness and Response Guide, Association of Public Health Labs and American Society for Microbiology \(https://www.aphl.org/aboutAPHL/publications/Documents/WORK_BlueBook.pdf\)](https://www.aphl.org/aboutAPHL/publications/Documents/WORK_BlueBook.pdf)

A copy of this HAN is available at: [MDH Health Alert Network \(http://www.health.state.mn.us/han\)](http://www.health.state.mn.us/han)

The content of this message is intended for public health and health care personnel and response partners who have a need to know the information to perform their duties.