HEALTH ALERT NETWORK BROADCAST
MESSAGE ID: 01242019 16:00
FROM: CO-CDPHE
SUBJECT: HAN Advisory – CDC advisory on third U.S. case of RB51 Brucella
RECIPIENTS: Local Public Health Agencies / ID Physicians / Infection preventionists
RECIPIENT INSTRUCTIONS: Local Public Health Agencies - for your information only - forward to providers in your jurisdiction at your discretion

HEALTH ADVISORY | CDC advisory on third U.S. case of RB51 Brucella | Jan. 24, 2019

Key points

- CDC released a HAN yesterday regarding New York and Pennsylvania’s investigation of Brucella RB51 exposures that may be connected to consuming raw (unpasteurized) milk from Miller’s Biodiversity Farm in Quarryville, Pennsylvania.
- There is no evidence milk from the dairy in Pennsylvania was shipped to Colorado. We do not know if any Colorado residents have consumed milk from the Pennsylvania dairy. Raw milk in Colorado is only legally available to consumers through herd shares. CDPHE recommends people don’t consume milk that has not been pasteurized.
- No cases of brucellosis RB51 from consuming raw milk have been reported in Colorado.
- Colorado has been free of brucellosis in animals since 1995. It is not known what percentage of dairies within the state continue to vaccinate cattle against Brucella.
- Clinicians who suspect a patient has brucellosis should contact CDPHE at 303-692-2700 or 303-370-9395 (after hours) for guidance.
- The preferred test for Brucella diagnosis is an isolate from blood culture.

For more information

CDC HAN attached
Third Case of Rifampin/Penicillin-Resistant Strain of RB51 Brucella from Consuming Raw Milk

Summary
The New York State Department of Health and Pennsylvania Department of Health are investigating Brucella RB51 exposures that may be connected to consuming raw (unpasteurized) milk from Miller’s Biodiversity Farm in Quarryville, Pennsylvania. Symptoms of brucellosis can include fever, sweats, malaise, anorexia, headache, fatigue, muscle and joint pain, and potentially more serious complications (e.g., endocarditis, hepatomegaly, splenomegaly, and neurologic symptoms). In pregnant patients, Brucella infections can be associated with miscarriage. Symptom onset can occur anywhere from five days to six months following exposure. As of January 22, 2019, exposures have been identified in 19 states: Alabama, California, Connecticut, Florida, Georgia, Iowa, Maryland, Massachusetts, Michigan, Minnesota, Mississippi, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Rhode Island, South Carolina, and Virginia.

Background
This investigation is associated with the third known case of brucellosis from Brucella RB51 due to raw milk acquired in the U.S., since August 2017. A New York resident, who drank raw milk purchased from Miller’s Biodiversity Farm in Quarryville, Pennsylvania, was diagnosed with brucellosis in November 2018. Milk samples from the dairy tested positive for Brucella strain RB51. People who consumed raw milk or raw milk products from this dairy since January 2016 may have been exposed.

- Patients who are still within six months of the date they last consumed the raw milk are at an increased risk for brucellosis and appropriate post-exposure prophylaxis (PEP) is recommended, along with six months of symptom monitoring. Please see diagram below.
- If patients are outside of the six-month window following their last consumption of the raw milk and have or develop an illness consistent with brucellosis, a blood culture should be obtained prior to starting any treatment, preferably while the patient is symptomatic.

Brucella strain RB51 is a live-attenuated cattle vaccine strain, which can be shed in milk and can cause infections in humans. RB51 is resistant to rifampin and penicillin. There is no serological test available to detect RB51 infection. Blood culture is the recommended diagnostic test for exposed individuals who are symptomatic.¹

Recommendations
The Centers for Disease Control and Prevention (CDC) recommends the following:

1. A 21-day course of both doxycycline and trimethoprim/sulfamethoxazole for first-line PEP for RB51 exposure.² If brucellosis occurs despite prophylaxis, treatment should be pursued; alternative options should be considered for those with contraindications to the stated PEP and treatment regimens.² Please note that RB51 is resistant to rifampin and penicillin.
2. When ordering blood cultures to diagnose brucellosis, please advise the laboratory that blood culture may grow Brucella and that appropriate laboratory containment and precautions should be observed.³
3. Advise patients to discard any leftover or stored, raw milk or raw milk products from this dairy farm.
Please see the diagram below for information on developing an evaluation and treatment plan for patients who consumed raw milk or raw milk products from Miller’s Biodiversity Farm since January 2016, and are still within the six-month window following their last known exposure.

Treatment Decision Tree for Patients Who Consumed Raw Milk or Raw Milk Products from Miller’s Biodiversity Farm in Quarryville, Pennsylvania

Exposed?

Symptomatic?

Yes

No

Blood culture result?

Positive for Brucella RB51

No treatment or PEP for RB51 indicated

21 days of PEP AND Complete 6 months of symptom watch

Negative for Brucella RB51

Appropriate antibiotic treatment

21 days of PEP AND Complete 6 months of symptom watch

Note: Testing for asymptomatic patients is not recommended.

References

1Laboratory Diagnostics – RB51

2Treatment of Brucellosis

3Biosafety in Microbiological and Biomedical Laboratories
For More Information
Risks from Unpasteurized Dairy Products
https://www.cdc.gov/brucellosis/exposure/unpasteurized-dairy-products.html

Exposure to RB51 through Raw Milk or Milk Products: How to Reduce Risk of Infection
https://www.cdc.gov/brucellosis/clinicians/rb51-raw-milk.html

Symptoms of Brucellosis
https://www.cdc.gov/brucellosis/symptoms/index.html

Brucellosis and Expecting Mothers
https://www.cdc.gov/brucellosis/exposure/expecting-mothers.html

Raw Milk Questions and Answers

Brucellosis Reference Guide

For general, non-urgent inquiries during business hours (8:00 AM to 8:00 PM EST):
CDC-INFO
https://www.cdc.gov/cdc-info/index.html or 1-800-232-4636

For emergencies, 24/7:
CDC Emergency Operations Center (EOC)
770-488-7100

For clinicians and health departments during business hours (8:30 AM to 4:30 PM EST):
Bacterial Special Pathogens Branch
bspb@cdc.gov or 404-639-1711

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- **Health Alert**: Requires immediate action or attention; highest level of importance
- **Health Advisory**: May not require immediate action; provides important information for a specific incident or situation
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- **HAN Info Service**: Does not require immediate action; provides general public health information

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