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CDCHAN-00407

Rifampin/Penicillin-Resistant Strain of RB51 *Brucella* Contracted from Consumption of Raw Milk

*****Missouri health care providers and public health practitioners: Please contact your local public health agency, or the Missouri Department of Health and Senior Services' (DHSS') Bureau of Communicable Disease Control and Prevention at 573-751-6113 or 800-392-0272 (24/7), with questions regarding this Advisory. Brucellosis is a reportable condition in Missouri, per 19 CSR 20-20.020 (<https://www.sos.mo.gov/cmsimages/adrules/csr/current/19csr/19c20-20.pdf>).*****

Summary:

The Texas Department of State Health Services, with assistance from CDC, is investigating *Brucella* RB51 exposures and illnesses that may be connected to the purchase and consumption of raw (unpasteurized) milk from K-Bar Dairy in Paradise, Texas. Symptoms of brucellosis can include: fever, sweats, malaise, anorexia, headache, fatigue, muscle & joint pain, and potentially more serious complications (e.g., swelling of heart, liver, or spleen, neurologic symptoms).

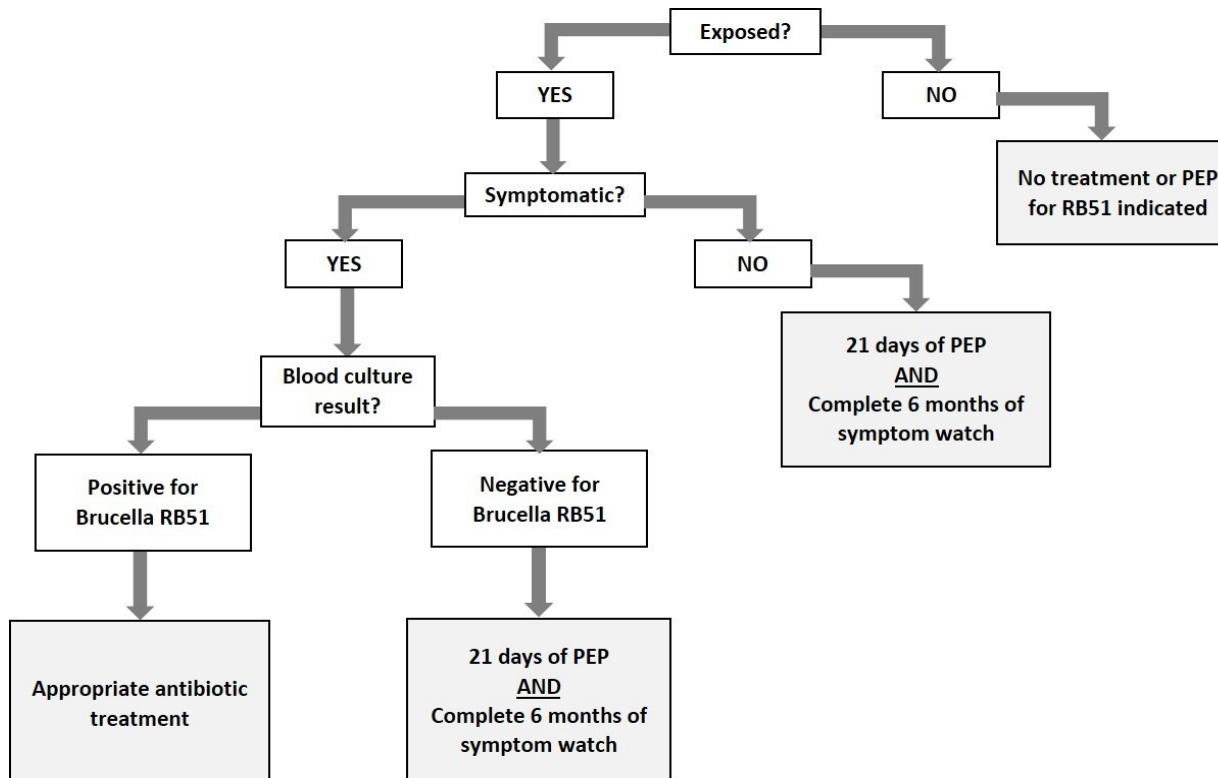
Background

A person who drank raw milk from K-Bar Dairy in Paradise, Texas, has been hospitalized with brucellosis. Milk samples from the dairy have tested positive for a *Brucella* strain called RB51. People who consumed milk or milk products from this dairy from June 1, 2017, to August 7, 2017 are at an increased risk for brucellosis and should receive appropriate post-exposure prophylaxis (PEP). They are advised to consult with their health care providers regarding PEP care and possible diagnostic testing. Please note: the incubation period for brucellosis can range from five days to six months.

Recommendations

Brucella strain RB51 is resistant to rifampin and penicillin. A combination of doxycycline and trimethoprim/sulfamethoxazole for 21 days is the recommended first-line PEP regimen for RB51 exposure. There is no serological test available to detect RB51 infection. Blood culture is the recommended diagnostic test for exposed symptomatic individuals. When ordering blood cultures to diagnose brucellosis, please advise the laboratory that blood culture may grow *Brucella* and that appropriate laboratory¹ precautions should be observed. If brucellosis occurs despite prophylaxis, treatment regimens² should be selected based on antimicrobial susceptibility results. Please see the diagram below for information on developing an evaluation and treatment plan for exposed patients. Women who are pregnant or breastfeeding should consult with their health care provider.

Treatment Decision Tree for Patients Who Were Exposed to (Consumed) Raw Milk/Raw Milk Products from K-Bar Dairy June 1, 2017 - August 7, 2017



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 <https://www.cdc.gov/foodsafety/rawmilk/raw-milk-questions-and-answers.html>

CDC-INFO

<https://www.cdc.gov/cdc-info/index.html> or 1-800-232-4636

CDC Emergency Operations Center (EOC)

770-488-7100

Bacterial Special Pathogens Branch

bspb@cdc.gov or 404-639-1711

References

¹Biosafety in Microbiological and Biomedical Laboratories

<https://www.cdc.gov/biosafety/publications/bmbl5/bmbl.pdf>

²Treatment of Brucellosis (for alternative treatment guidance)

- Ariza J *et al.* 2007. Perspectives for the Treatment of Brucellosis in the 21st Century: The Ioannina Recommendations. PLoS Med. 4(12): e317.
<http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.0040317>
- Al-Tawfiq JA. 2008. Therapeutic options for human brucellosis. Expert Rev Anti Infect Ther. 6(1): 109-120.
<http://www.ncbi.nlm.nih.gov/pubmed/18251668>
- Solera J. 2010. Update on brucellosis: therapeutic challenges. Intl J Antimicrob Agent. 36S, S18–S20.
<http://www.ncbi.nlm.nih.gov/pubmed/20692127>

Brucellosis Reference Guide

<https://www.cdc.gov/brucellosis/pdf/brucellosi-reference-guide.pdf>

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