

Q FEVER (Coxiella burnetii)

You are receiving this handout because your job puts you at increased risk of exposure to *C. burnetii* bacteria, also known as Q fever.

What is Q Fever?

Q fever, a zoonotic disease caused by the bacterium *Coxiella burnetii*, can cause acute or chronic illness in humans. These bacteria naturally infect some animals, such as goats, sheep, and cows. These bacteria are found in the birth products (i.e. placenta, amniotic fluid), urine, poop, and milk of infected animals. The disease was first recognized in Australia among slaughterhouse workers. The causative bacterium was not known at the time, so it was called Q or "query" fever. This bacterium was discovered in 1937.

How can I get it?

People get infected by breathing in dust that has been contaminated by infected animal feces, urine, milk, and birth products that contain *Coxiella burnetii*. Birth products are the most likely to transmit as the highest numbers of bacteria are shed in amniotic fluids and placenta. It can also be transmitted via a tick bite, ingesting unpasteurized milk or cheese, and rarely, person-to-person. It is also resistant to heat, drying, and many common disinfectants. This enables it to survive for a long time in the environment.

What are the symptoms?

Q fever can cause both acute and chronic illnesses. The symptoms of acute illness are very nonspecific and vary from person to person. They include:

- High fever (up to 105F)
- Fatigue
- Severe headache
- General malaise
- Muscle aches and pains
- Chills or sweats
- Cough
- Nausea

How can I keep myself from getting it?

- Vomiting
- Diarrhea
- Abdominal pain
- Chest pain

Almost half of the people who are infected don't have any symptoms. People at greatest risk for significant illness are those with a history of heart valve problems, arterial aneurysms, or vascular grafts. Pregnant women and those whose immune system is suppressed are also at increased risk. If you have any of these risk factors, you should avoid high-risk exposures such as farm animal birthing.

If you are otherwise healthy, you should wear gloves and a mask with face shield (standard precautions) when participating in an animal birth, clearing birthing materials or any close handling of an animal. You should shower and change clothes at the end of the day before leaving the work facility. If you suspect

an animal has Q fever (a common symptom is an early abortion of a fetus), you should isolate the animal and contact veterinary personnel to consider diagnostic testing.

References

- Center for Disease Control and Prevention. (2019, January 15). *Q fever: Information for healthcare providers*. Retrieved May 23, 2020, from https://www.cdc.gov/qfever/healthcare-providers/index.html
- Anderson, A., Bijlmer, H., Fournier, P.-E., Graves, S., Hartzell, J., Kersh, G. J., Limonard, G., Marrie, T. J., Massung, R. F., McQuiston, J. H., Nicholson, W. L., Paddock, C. D., & Sexton, D. J. (2013, March 29). *Diagnosis and management of Q Fever – United States, 2013: Recommendations from CDC and the Q Fever Working Group*. Centers for Disease Control and Prevention: Morbidity and Mortality Weekly Report (MMWR). Retrieved May 23, 2020, from https://www.cdc.gov/mmwr/preview/mmwrhtml/rr6203a1.htm