

Laboratory

BRUCELLOSIS

Protocol Overview and Methods:

The causative agents of Brucellosis are a group of bacteria in the genus *Brucella*. The species most likely to cause infection are *Brucella abortus*, *Brucella melitensis*, *Brucella suis* and *Brucella canis*. The organisms are slow growing, faintly staining, small, gram-negative coccobacilli. These bacteria usually grow within 72 hours of culture, but may take up to 10 days.

The Delaware Public Health Laboratory (DPHL) can test for *Brucella spp.* using culture and molecular real time polymerase chain reaction (qPCR) methods.

- Culture methods are used to grow the organism on agar plates.
 Biochemical testing and other methods can be performed to rule out or confirm *Brucella spp.* organisms. These methods can also help to determine the species of the *Brucella* organism.
- Molecular methods are used to detect specific segments of deoxyribonucleic acid (DNA) that these organisms contain. If present, DNA segments from *Brucella spp.* are amplified until there is a sufficient quantity for the instrument to detect. Any positive qPCR result is considered preliminary until a positive culture result is obtained.

Contact Information: DPHL Director: 302-223-1520. Answering service is available at

the same number during non-business hours.

For More Information: 24/7 CDC Emergency Contact Number: 1-888-295-5156

http://www.cdc.gov/az/