



GLANDERS AND MELIOIDOSIS

Protocol Overview and Methods:

The causative agent of Glanders is *Burkholderia mallei*, a faintly staining gram-negative coccobacillus. *Burkholderia mallei* is a contagious and rare disease of equines, which is often fatal when transmitted to humans.

Burkholderia pseudomallei, a gram-negative bi-polar staining rod, is the causative agent of Melioidosis. *Burkholderia pseudomallei* is a disease of humans and other mammals.

The Delaware Public Health Laboratory (DPHL) can test for both *Burkholderia mallei* and *pseudomallei* using culture and molecular real time polymerase chain reaction (qPCR) methods. Both methods are used together for confirmation.

- Culture methods are used to grow the organism on agar plates. Biochemical testing and other methods can be performed to rule-out or confirm either *Burkholderia mallei* or *Burkholderia pseudomallei*.
- Molecular methods are used to detect specific segments of deoxyribonucleic acid (DNA) that these organisms contain. If present, DNA segments from both *Burkholderia mallei* and *Burkholderia pseudomallei* organisms 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/>