

Burkholderia mallei

Glanders is an infectious disease that is caused by the bacterium *Burkholderia mallei*. Symptoms of glanders commonly include fever with chills and sweating, muscle aches, chest pain, muscle tightness, headache, nasal discharge and/or light sensitivity (sometimes with excessive tearing of the eyes). The particular symptoms experienced, however, will vary depending on the type of infection.

Risk Assessment: Direct contact with cultures and infectious materials from humans or animals, exposure to infectious aerosols and droplets, ingestion or parenteral inoculation.

- **Localized Infection:** If there is a cut or scratch in the skin, a localized infection with ulceration may develop within 1-5 days at the site where the bacteria entered the body. Swollen lymph nodes also may be apparent. Infections involving the mucous membranes in the eyes, nose and respiratory tract will cause increased mucus production from the affected sites. Dissemination to other locations in the body may occur 1-4 weeks after infection.
- **Pulmonary Infection:** Glanders often manifests itself as pulmonary infection. In pulmonary infections, pneumonia, pulmonary abscesses and pleural effusion can occur. Chest X-rays will show localized infection in the lobes of the lungs.
- **Bloodstream Infection:** Without treatment, glanders bloodstream infections are usually fatal within 7-10 days.
- **Chronic Infection:** The chronic form of glanders involves multiple abscesses within the muscles and skin of the arms and legs or in the lungs, spleen and/or liver.

Laboratory employees may be exposed to aerosols and infectious droplets if using automated biochemical systems, manual multi-test kits or single biochemical tests for identifications outside of a bio-safety cabinet.

If an employee may have been exposed, seek immediate medical attention.

References: <http://www.phac-aspc.gc.ca/lab-bio/res/psds-ftss/msds25e-eng.php>;
<http://www.cdc.gov/glanders/symptoms/index.html>; <http://www.cdc.gov/glanders/>;
<http://www.cdc.gov/glanders/treatment/index.html>; http://wwwnc.cdc.gov/eid/article/14/7/07-1501_article.htm

Referred cultures confirmed by the Illinois Department of Public Health (IDPH) laboratories must be reported to the U.S. Centers for Disease Control and Prevention (CDC) by IDPH and by the submitting laboratory.

- Each facility will complete APHIS/CDC Form 4 which is to be sent to CDC within seven calendar days of the identification of the select agent.
- If an exposure has occurred, the facility must complete APHIS/CDC Form 3. Form 3 must be sent to CDC within seven calendar days of the identification of the select agent.
- Forms and instructions are available at www.selectagents.gov.

For questions concerning testing or reporting, contact the Illinois Department of Public Health Division of Laboratories.

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