



## GLANDERS

<b>Agent information:</b>	Glanders is caused by the bacterium, <i>Burkholderia mallei</i> , an aerobic, gram-negative, non-spore-forming bacillus. Disease occurs primarily in solipeds (horses, donkeys, and mules), but humans are also susceptible. The organism exists in nature only in infected susceptible hosts and is not found in water, soil, or plants. In humans, glanders may occur in three forms: as an acute localized infection, as a rapidly fatal septicemic illness, or as an acute pulmonary infection. Glanders is associated with infections in laboratory workers because very few organisms are required to cause disease.
<b>Transmission:</b>	Person-to-person transmission is rare.
<b>Signs and symptoms:</b>	<p><b>Inhalation</b> (Incubation 10 to 14 days): Symptoms include fever, chills, sweats, myalgias, headache, pleuritic chest pain, cervical adenopathy, splenomegaly, and generalized papular/pustular eruptions. The disease manifests as pneumonia, bronchopneumonia, or lobar pneumonia, with or without bacteremia.</p> <p><b>Dermal:</b> Localized infection with nodule formation and lymphadenitis.</p> <p><b>Mucocutaneous:</b> Mucopurulent discharge from the eyes, nose, or lips, with subsequent development of granulomatous ulcers and abscesses.</p>
<b>Protective measures:</b>	<p>Follow appropriate Body Substance Isolation (BSI) precautions, with use of Personal Protective Equipment (PPE).</p> <p><b>Standard Precautions:</b> Hand washing before and after all patient contacts and contact with patient care equipment.</p> <p><b>Contact Precautions:</b> Use of gloves, gown, and eye protection.</p> <p><b>Airborne Precautions:</b> Initiate droplet precautions for persons with flu-like illness or confirmed infection, including wearing masks (fit tested, NIOSH-approved N-95 respirator) when in contact with patient. Victims presenting immediately after aerosolized exposure require decontamination.</p>

**Emergency Medical Services and Preparedness Section**  
**24/7 Emergency Contact Number: 1-888-295-5156**  
**Contact Number: 302-223-2999**



- Decontamination of PPE and equipment:** Equipment can be decontaminated using soap, water, and 0.5% hypochlorite solution (one part household bleach to 10 parts water) can be used as appropriate or if gear had any visible contamination. Note that bleach may damage some types of firefighter turnout gear (one reason why it should not be used for biological agent response actions). After taking off gear, response workers should shower using copious quantities of soap and water.
- Prophylaxis:** No vaccine available.
- Treatment:** Because human cases of glanders are rare, mainstream treatments are not yet well established. Antibiotics are the mainstay of therapy and duration is 60 to 150 days.
- Reporting:** Any suspect cases should be reported immediately to the Division of Public Health, Office of Infectious Disease Epidemiology: 1-888-295-5156.
- Additional information:** For additional information, visit the Centers for Disease Control and Prevention website: <https://www.cdc.gov/glanders/>.