



Glanders

Disease Name: Glanders, farcy, Malleus

Disease Type: Bacterial (*Burkholderia mallei*)

Transmission: Glanders is spread through direct physical contact in horses affected with nasal or pulmonary forms of the disease. Horses can also contract the disease through ingestion of contaminated food or water, or through contact with contaminated surfaces such as stalls, water buckets/troughs, feed buckets, tack, and transport vehicles.

Frequency: Glanders is an OIE (World Organization of Animal Health) listed equine disease and a foreign disease (transboundary disease) in the United States. It is immediately reportable to the USDA and State Animal Health Officials in all 50 states and territories.

Incubation period: In natural infection, the incubation period can be weeks to months. The cutaneous form of the disease (farcy) can be apparent 1-5 days, where as horses with the pulmonary (lung) form can show clinical signs 10-14 days after infection.

Carrier status: Infected horses are carriers and can transmit the disease to other horses, other animals, and humans through direct contact or contamination of skin abrasions or inhalation of secretions.

Shedding period: Affected animals that are not showing clinical signs can be carriers and can shed the bacteria.

Latency: The latent form is often found in the lungs with no clinical signs.

Severity: High. Acutely affected horses usually die within a few days to several weeks.

Clinical signs and symptoms: Glanders can present in several forms, nasal, pulmonary and cutaneous, depending on the location of the primary area of infection. The course of the disease may be acute or chronic.

Clinical signs associated with early infection or sub-clinically/asymptomatically infected carriers (**Occult Glanders**) can be non-specific or non-existent, emphasizing the importance of these horses as a source of infection.

Nasal Form

- Begins with high fever, poor appetite, difficult breathing and coughing
- A highly infectious, thick, yellowish-green nasal discharge
- Thick crusty eye discharge
- Swellings in the nose, pharynx or trachea may produce visible ulceration and form scars
- Regional lymph nodes are enlarged

Pulmonary Form

Equine Disease Communication Center: Disease Factsheet

- Usually requires several months to develop; first manifests itself through fever, difficulty breathing, severe coughing episodes, or a persistent dry cough
- Diarrhea and increased urination may also occur; all leading to a progressive loss of condition

Cutaneous Form (farcy)

- Develops slowly over an extended period.
- Initially coughing, difficulty breathing, fever, and enlarged and inflamed lymph nodes leading to weight loss and debilitation.
- Nodules develop under the skin along lymphatics of the face, legs, ribs or ventral abdomen. Nodules may rupture and ulcerate resulting in skin inflammation.

Diagnoses: All manipulations with potentially infectious material must be performed in a laboratory that meets the requirements for Containment Group 3 pathogens. USDA regional office or a state animal health official should be contacted immediately if a case of Glanders is suspected.

Treatment: There is no cure for Glanders. Antibiotic therapy does not appear to be effective in horses.

Prognosis: Glanders is incurable.

Prevention: There is no vaccine available for Glanders. Critical to effective prevention and control of glanders is prompt identification, euthanasia and appropriate disposal of all positive cases of the disease. *Burkholderia mallei* is killed by direct sunlight, desiccation and common disinfectants. Affected premises shall be quarantined and movement controls strictly enforced.

Biosecurity: Infected horses must be euthanized or quarantined under direction of the USDA and State Animal Health Officials with separation from non-infected horses by at least 200 yards to prevent spread of the disease.