



Potomac Horse Fever

Disease Name: Potomac Horse Fever (PHF), (Equine Monocytic Ehrlichiosis, Equine ehrlichial colitis, or Acute Equine Diarrhea Syndrome, *Neorickettsia risticii*)

Disease Type: Potomac Horse Fever (PHF) is a non-contagious, infectious equine disease caused by the rickettsial organism (an intracellular parasite). The disease can affect horses of any age, breed or sex. PHF cases usually occur in summer and fall, but may occur in any season depending on weather conditions.

Transmission: Aquatic insects, such as caddisflies, mayflies, damselflies and dragonflies, containing the rickettsia trematodes are ingested and cause inflammation in the intestine. Transmission can occur through whole blood transfusion from an infected horse. Transmission can also be due to exposure to freshwater snails. Transmission through the placenta can cause abortion. There is no evidence of transmission from horse to horse.

Frequency/Risk Factors: Risk is increased for horses housed near (within approximately 5 miles) a freshwater stream, river or irrigated pasture in endemic areas. Increased ingestion of insects can occur with nighttime use of barn lights, which attract parasitized insects.

Incubation period: 1-3 weeks.

Carrier status: PHF is not contagious.

Latency: Infected horses pose no risk of infection to other horses.

Clinical signs and symptoms: Highly variable:

- Fever as high as 107° F can occur 7-14 days before onset of colitis
- Diarrhea: variable, ranging from absent to severe
- Depression associated with lack of appetite and lethargy
- Laminitis (with or without diarrhea) may progress from mild to severe
- Mild to moderate colic
- Decreased gastrointestinal sounds
- Edema of limbs, ventral body, and prepuce of males
- Abortion due to transplacental transmission

Diagnosis: Diagnosis is made by a veterinarian using PCR to detect DNA from the rickettsial organism in the feces, blood, serum or aborted fetal tissue. Detection of increased serum titer can be used to make a diagnosis. Diarrhea caused by PHF can be identical to diarrhea from other intestinal infections. Testing for coinfection by other possible causes of diarrhea such as salmonella and clostridium should be performed.

Equine Disease Communication Center:

Treatment: Tetracycline antimicrobials are used under the supervision of a veterinarian. Fever and diarrhea usually resolves within 72 hours of treatment. In severe cases intravenous fluids, antibiotics and non-steroidal anti-inflammatory drugs may be indicated to hydrate the horse and treat shock.

Prognosis: The prognosis depends on the severity of the disease. Although a majority of treated horses have resolution of clinical signs within 72 hours, shock and laminitis occurring during the infection can be life threatening.

Prevention: A vaccine is available, but does not always prevent the disease. Vaccination appears to lessen the severity of the disease and is recommended in areas known to have an increased risk for the disease.

Biosecurity: Horses with diarrhea should be isolated until contagious diseases are ruled out.

Zoonosis: PHF does not affect other animals or humans.