



Potomac Horse Fever

Equine monocytic ehrlichiosis is caused by *Neorickettsia risticii* (formerly *Ehrlichia risticii*). Originally described in 1979 as a sporadic disease affecting horses residing in the eastern United States near the Potomac River, the disease has since been identified in various other geographic locations in the United States and Canada. The disease is seasonal, occurring between late spring and early fall in temperate areas, with most cases in July, August, and September at the onset of hot weather.

Clinical signs are variable but may include: fever, mild to severe diarrhea, laminitis, mild colic, and decreased abdominal sounds. Uncommonly, pregnant mares infected with *N. risticii* (usually in the middle trimester between 90 and 120 days) can abort due to fetal infection at 7 months of gestation.

If Potomac Horse Fever has been confirmed on a farm or in a particular geographic area, it is likely that additional cases will occur in future years. Foals appear to have a low risk of contracting the disease. Vaccination against this disease has been questioned because field evidence of benefit is lacking. Proposed explanations for this include lack of seroconversion and multiple field strains whereas only one strain is present in available vaccines.

Vaccine

The currently available commercial vaccines are killed, adjuvanted products. Two of these are also available combined with a rabies vaccine. None of the current vaccines carry a label claim for the prevention of abortion.

Vaccination Schedules

Due to the seasonal incidence of disease, vaccination should be timed to precede the anticipated peak challenge during the summer months or fall.

Adult horses, previously vaccinated: Manufacturers recommend revaccination at 6- to 12-month intervals. However, veterinarians may consider an interval of 3 to 4 months for horses in endemic areas because protection following vaccination can be incomplete and short-lived.

Adult horses, previously unvaccinated or with unknown vaccinal history: Administer a primary series of 2 doses, at a 3- to 4-week interval. Peak protection occurs 3 to 4 weeks after the second dose.

Pregnant mares previously vaccinated against PHF: Vaccinate semi-annually to annually. Schedule 1 dose to be administered 4 to 6 weeks before foaling. To date no studies have been published that examine the efficacy of PHF vaccines to prevent *N. risticii* induced abortion.

Pregnant mares unvaccinated or with unknown vaccinal history: Administer a primary series of 2 doses, at a 3- to 4-week interval. Schedule so that 2nd dose is administered 4 to 6 weeks before foaling.

Foals: Due to the low risk of clinical disease in young foals and the possible maternal antibody interference, primary immunization for most foals can begin after 5 months of age. The manufacturer's recommendation is for a 2-dose series administered at a 3- to 4-week interval. However, as with other killed products, a third dose at 12 months of age is recommended. If the primary series is initiated when foals are less than 5 months of age,

additional doses should be administered at monthly intervals up to 6 months of age to ensure that an immunologic response is achieved.

Horses having been naturally infected and recovered: Administer a primary series (as described above) or booster vaccine (if previously vaccinated) 12 months following recovery from natural infection.