

# Equine Herpesvirus - Rhino/Neuro

## Equine Herpesvirus

There has been one confirmed case of the neurological form of EVH-1 in southern Alberta. EHV-1 neuro cases have also been reported in Washington State and Colorado. Some of the confirmed cases have been traced to a National Cutting Horse Association event in Ogden, Utah held early this May.

The following is an information article on the disease and recommendations for prevention and vaccination. Please do not hesitate to call us with further questions. The American Association of Equine Practitioners (AAEP) has more information at <http://www.aaep.org/ehv.htm>

Equine herpesvirus is a COMMON DNA virus that occurs in horse populations worldwide. The 2 most common strains are:

EVH-1 - causes abortion, respiratory disease and neurological disease.

EVH-4 - usually causes only respiratory disease but can cause abortion also.

Respiratory disease is most common in weaned foals and yearlings - often in autumn and winter. Older horses are more likely to transmit the virus **WITHOUT SHOWING SIGNS** of the disease. EHV-1 myeloencephalitis (the neurological form) results from widespread vascular injury after the virus damages blood vessels involved in the blood brain barrier. This form of the disease can occur singularly or in outbreaks affecting 20-50% of the population. They may or may not be associated with a previous or ongoing EVH-1 respiratory disease outbreak.

## Clinical Signs

Fever: commonly unnoticed and may be the only clinical sign.

Respiratory disease: fever, coughing, nasal discharge.

Neonatal foals infected in utero are usually abnormal from birth: weakness, jaundice, respiratory distress, central nervous signs, and often death in 3 days.

Abortion: no warning signs, late pregnancy (usually 8+ months) but as early as 4 months gestation.

Neurological Disease: Incoordination of hind (occasionally fore) limbs, urine retention/dribbling, bladder atony, recumbancy, these signs may be preceded by fever and respiratory signs.

## **Incubation**

After infection the incubation period may be as short as 24 hours - more typically is 4-6 days but can be longer.

## **Transmission**

Aerosol: most common route

Inhalation of droplets from coughing or snorting horses. Shedding by respiratory route typically lasts for 7-10 days but can persist in the environment much longer - as much as several weeks.

**SHEDDING TIME OF ORGANISM PAST RESOLUTION OF CLINICAL SIGNS IS LIKELY 1 WEEK BUT POSSIBLE FOR UP TO 21 DAYS OR MORE.**

Indirect transmission:

Fomites are a significant transmission factor. These include any inanimate object that came into contact with a shedding horse such as bridles, brushes, trailers, blankets, clothing, buckets, railings etc. The virus can be viable for several weeks in the environment. Abortifed fetuses, fetal membranes and/or fluids are also contagious.

## **Diagnostic Testing**

Virus Isolation -

PCR - a specific DNA test on nasal swabs and in some cases blood.

Serology - antibody titres - sometimes difficult to interpret as vaccinations also results in high antibody titres.

## **Treatment**

As this is a viral infection treatment is limited to supportive care and in some respiratory cases secondary bacterial infections are treated with antibiotics.

## **Prevention and Biosecurity**

Booster vaccination of healthy animals that have had the vaccine before could be beneficial and is not known to lead to complications. Unvaccinated animals that may have been exposed may not have enough time to get a series of vaccines completed but there are some benefits to vaccinating in the face of an outbreak. For a complete list of recommendations on vaccination please visit the AAEP's website at <http://www.aaep.org/ehv.htm>

Direct horse to horse contact should be avoided and prompt use of hand sanitizer by individuals that are handling potentially infected or shedding horses. Disinfecting or not sharing brushes/bits/buckets.

