Equine Herpes Virus 1 (EHV-1)

What is EHV-1?

Equine herpes virus 1 is an alphaherpesvirinae that infects most horses at some point in their lives and will cycle between latency and virulence. It can manifest in different severities ranging from a runny nose in an unstressed adult horse to mortality in a young immunosuppressed foal.

Prevention of EHV-1

Limit the chances of an outbreak:
- Physically divide horses based on predisposing factors
- Limit endogenous (stress-induced) and exogenous (via new horses) sources of EHV-1
- Vaccinate to improve herd immunity

Decrease the extent of an outbreak:
- Disinfect contaminated areas
- Isolate infected horses
- Send diagnostic samples to lab
- Improve hygiene and biosecurity

Predisposing factors to EHV-1

- Age, season, and geographical distribution of horse populations
- Viral strain
- Immune status (has the animal been previously exposed?)
- Pregnancy status
- Mixing of horses from different backgrounds
- The presence of subclinical carrier horses (recurrent infections)
- More prevalent in closed populations

Sources

- Ask the veterinarian answered by Dr. Katherine Robinson, DVM. Western College of Veterinary Medicine, field service.
**Ask the Veterinarian**

1. **What are the costs associated with the treatment of EHV-1?**
   - Most therapy is supportive in nature.
   - Treatment may be a few days to several weeks depending on severity of clinical signs.
   - Horses are quarantined for 2-3 weeks and the associated care and treatment may cost approximately $2300, but is very dependent on the clinic.

2. **Should I vaccinate my horse against EHV1?**
   - While there are vaccines labeled for prevention of respiratory and abortive forms of EHV, there are no vaccines that claim to protect against the neurologic form of the disease.
   - I still recommend vaccinations for horses that have busy show or travel schedules or are housed in a boarding facility with high turnover of horses.

3. **Is there any other information you would like to tell owners about EHV-1?**
   - If you suspect a horse has neurologic EHV-1, act quickly.
     - Isolate that horse from all others.
     - Handle horses with suspected infection last (i.e. feed and do other chores only after all other horses have been dealt with).
     - Use barrier precautions (i.e. change clothes or have specific coveralls to use when dealing with that horse).
     - Use separate buckets, brushes, etc. for the sick horse.
     - Call your veterinarian and say you are suspicious of EHV-1.
     - The vet may change their schedule so they don't see any other horses that day.
     - Start taking temperatures on all horses on the property.
     - Stop any horse movement from or onto the property until you have a confirmed diagnosis.
     - Let boarders/neighbours know that you are suspicious of EHV-1.

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**What are the clinical signs of EHV-1?**

1. An acute respiratory infection for two weeks after infection
   - Fever
   - Anorexia
   - Depression
   - Coughing
   - Nasal discharge

2. **Myeloencephalitis (neurological signs)**
   - Paralysis of limb on one side (usually)
   - Ataxia (wobbly on feet)
   - Hind limb and tail weakness
   - Urinary incontinence

3. **Abortion of foals**
   - Usually seen late pregnancy
   - Placental and uterine damage

4. **Pathological lesions**
   - Hemorrhage in the brain, spine, or meninges
   - Pneumonia
   - Vasculitis and thrombosis
   - In some cases, there may be no lesions present

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http://www2.ca.uky.edu/gluck/biblioehv1.asp