

FROM START TO FINISH

Special Edition

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Equine Herpes Virus

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In light of the recent equine herpes cases and quarantines at Monmouth Park, the following tutorial is designed to assist our clients in the management of their horses to prevent this potentially fatal disease.

There exists 8 different types of Equine Herpes Virus (EHV), the most common are EHV-1 and EHV-4, and they are ubiquitous in the horse population. EHV-4 is thought to be a common cause of respiratory disease, especially in young racehorses. The respiratory form of equine herpes is also known as Rhinopneumonitis. EHV-1, on the other hand, is more commonly associated with neurological disease and abortion. When EHV-1 progresses to the neurological disease it is called Equine Herpesvirus Myeloencephalopathy.

Most horses have been infected with herpes by the time they are yearlings, but after initial infection, the virus can remain dormant and inactive. Similar to herpes viruses in people, horses, once infected, are infected for life, and the disease commonly emerges when the animal is stressed. These dormant or latent infections allow herpes viruses to persist. Unfortunately, there is no test to detect latent infections in horses.

Once infected with EHV-1 or EHV-4, the onset of respiratory symptoms may not appear for 2-10 days. These symptoms are usually initially characterized by a fever, loss of appetite, and depression. As the virus progresses, the animal will usually develop a mucous nasal discharge and can have enlarged lymph nodes under the jaw or behind the throat latch. Affected horses may also cough, but coughing is not usually a symptom of the disease.

Severity of the symptoms can vary from mild to more severe.

An EHV-1 infection may progress from the respiratory disease into the neurological disease. The clinical signs may start as simply as a change in gait to, as the virus progresses, the horse appearing stiff and showing signs of weakness, and in coordination of the limbs. Generally, the hind limbs are more severely affected. Eventually and more characteristically, the horse will assume the “dog sitting position” where the horse is unable to use its hind limbs to arise into a standing position. Other neurological signs can be urinary incontinence where the horse may dribble urine, the inability to pass manure, loss of tail tone, and blindness. The neurological disease, like the respiratory disease, can range in severity. The affected horse could show only mild neurological signs or could be completely recumbent, unable to stand. Recumbent horses, due to their size, are very difficult to manage and usually develop secondary conditions due to being down that can be fatal. The disease itself can also lead to death if severe enough.

Complete prevention of equine herpes is not possible, but vaccination is definitely helpful and is thought to decrease the severity and duration of the respiratory disease.

Diagnosis of EHV-1 can be made based on the animal's symptoms and detection of the virus from a nasal swab or blood serum sample. Once diagnosed, however, there is no specific treatment for the viral infection. Although some have tried anti-viral medications, treatment is generally supportive of the animal's condition. Depending on the severity of the disease, the afflicted horse is generally put on a

course of anti-inflammatory drugs and IV fluids. The horse may not be able to eat or drink and may have to be fed through a stomach tube. In addition, recumbent animals may have to be treated with antibiotics due to any secondary bacterial infections they may get as a result of being down.

Complete prevention of equine herpes is not possible, but vaccination is definitely helpful and is thought to decrease the severity and duration of the respiratory disease. Two vaccines are commonly used, a modified live vaccine and a combination Influenza and EHV-1 and 4 killed vaccine. Both are useful, but recent research has shown that the modified live vaccine may be better at preventing the neurological form of herpes.

In the face of an outbreak of equine herpes, the best defense is isolation of infected horses and strict hygiene. The virus can spread by both the air and by contact directly with the infected horse or indirectly through contaminated water buckets etc. Sick horses should be kept in a separate facility and everything the animal has come in contact with destroyed or cleaned with a disinfectant, such as bleach. Personnel in contact with the infected animal should be limited and must follow strict isolation protocol. In addition, all horses that were potentially in contact with the sick horse should be isolated and monitored for symptoms. During this time, rectal temperatures should be taken 2-3 times per day. Horses that were exposed can be tested for the disease 7 days after contact, but should be isolated for at least 21 days, as the incubation period can sometimes be longer than the normal 2-10 days.

Although EHV will probably never be eradicated from horses, with proper management, we can contain the disease and minimize both economic and emotional losses. ●