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Equine Herpes Virus Infection

The very mention of equine herpes strikes fear in any horse owner's heart. Now, the recent outbreaks in this region of the paralysis-causing neurological form of this virus (EHV-1) has veterinarians and owners of race horses and pleasure mounts on alert. Precautionary measures by the owners combined with protective state oversight can keep this devastating disease at bay. By understanding the cause of EHV-1, signs of infection and prevention, owners play an essential role in protecting their horses.

The cause of EHV-1—referred to as rhinopneumonitis, or rhino—is most commonly associated with viral respiratory disease in younger horses. While it is the respiratory form of this equine virus that has the greatest economic impact, resulting in lost training time, lost revenue and escalating veterinary bills, it is the neurological form that has emerged in outbreaks throughout January and February in five states nationwide, three here this area—Delaware, Maryland and Pennsylvania.

In early January EHV-1 was diagnosed in some horses at Baltimore's Pimlico Race Course. These horses, which began showing signs of paralysis consistent with neurological EHV-1, was soon confirmed by lab tests. By that time, several horses already in the advanced stage of neurological paralysis, leaving no hope for recovery, were euthanized.

Anyone involved with horses can learn the signs that may indicate EHV-1, which infects the horse's central nervous system. Signs occur 6 to 10 days after infection. The symptoms typically appear quickly, and may or may not follow clinical respiratory disease. Among the signs are mild to complete paralysis, stumbling when walking, incapable of standing and, sometimes, the inability to pass urine. At this point, three things could happen: the horse will progress to coma and death, be euthanized because of secondary complications, or stabilize and recover.

Once infected, horses, more often than not, will become life-long hosts for the virus. While this does not mean that the horse will be a life-long shedder of EHV-1 virus, the virus will make the horse its home for years and years. Scientists estimate that between 50 to 80 percent of infected horses become latent carriers, which is no danger *unless* the virus is reactivated. The horse then becomes a virus source for other horses. The scary part is that the neurological EHV-1 virus isolates appear to share a very distinct genetic mutation that suggests that it is a changed (mutated) virus from the EHV-1 virus that causes respiratory and abortion disease.

What does this mean for the horse owner? In the real-world of preventing EHV-1 infections. Whether you face an outbreak of neurological EHV-1, or an abortion storm, or upper respiratory herpes, you must follow the same strict rules of prevention, management, and biosecurity. This three-step approach is to isolate the horse, enhance the horse's immune system and prevent stress.

First, keep a horse isolated from all other horses to reduce the chance of infection. This is most difficult in the horse community, however, since the very heart of the equine industry is interaction. A EHV-1-positive horse requires a three-week quarantine at the absolute minimum. This may be too brief a period, since the virus can live free in the environment for more than two weeks and live on the horse's coat for 42 days. Owners with more than one horse can minimize the risk of transmitting EHV-1 between horses by not using the same equipment, such as brushes, water buckets, bits, halters, and lead shanks.

Eliminating horse stress has two benefits: a non-stressed horse has a much better immune system, and stress appears to play a role in the reactivation of the latent virus. Transportation of horses, especially long distances, is very taxing to the animal. Racing, training, shows and illness also make a horse tense. On the other hand, well-balanced diet, plenty of turnout and exercise, social contact and fresh air are stress relievers for horses.

Preventing EHV-1 infection with vaccinations is a possibility; however, no vaccines are labeled to prevent the neurological form EHV-1. Vaccination against neurological EHV-1 has been disappointing thus far, but scientists are working on it. Discuss all vaccination and booster schedules with your veterinarian to determine the best program for each horse.

Once horses contract EHV-1 disease, there is no effective treatment, only supportive therapies to reduce symptoms, such as fever, as well as management of patient comfort and secondary infections.

Delaware horse owners and folks intending to transport horses into the First State for racing or showing should be aware that on Feb. 3, 2006, Delaware state veterinarian Edwin Odor mandated that a *Certificate of Vaccination for Equine Influenza and Rhinopneumonitis* (EHV-1) must be presented to authorities. The certificate must bear a date within 90 days of entry.