FACT SHEET

Understanding Equine Protozoal Myeloencephalitis (EPM)

What Is EPM?

Equine protozoal myeloencephalitis (EPM) is the most common infectious neurologic disease in horses. It's caused by one of two protozoan parasites—*Sarcocystis neurona* or *Neospora hughesi*—with *S. neurona* the most common culprit. Opossums carry the parasite and shed it in their feces. It gets transmitted to horses when they ingest food or water contaminated by the opossum feces. Once the parasite enters the horse's central nervous system, it makes its way to the brain and spinal cord, where it causes damage and inflammation, leading to neurologic signs. Horses cannot spread the parasite to other horses.

Clinical Signs

The clinical signs of EPM vary between horses and can be mild to severe. Common signs include:

- Ataxia (lack of coordination).
- Weakness.
- Gait abnormalities.
- Difficulty swallowing.
- Muscle atrophy (wasting).
- Abnormal behavior.
- Asymmetry.
- In severe cases, seizures.

These signs can be subtle and gradual, making it difficult to diagnose EPM without a proper examination. They can also be caused by other conditions, so it's essential to work with your veterinarian to obtain an accurate diagnosis.

Diagnosis

The only way to truly diagnose EPM is via a post-mortem exam. However, if your horse is displaying neurologic signs, your veterinarian can conduct various tests, including a comprehensive clinical examination, spinal tap, and bloodwork, to exclude all other causes of neurologic disease and narrow a diagnosis down to EPM. Currently, most veterinarians' test of choice is the serum:cerebrospinal fluid antibody titer ratio.

Treatment and Management

If your horse is diagnosed with EPM, your veterinarian might recommend a combination of medications, including ponazuril or diclazuril, sulfadiazine/pyrimethamine, and the antioxidant vitamin E. About 60% of affected horses improve after receiving an FDA-approved treatment. Researchers report that around 10% relapse within three years of discontinuing treatment.

When to Call Your Vet

Contact your veterinarian:

- If your horse shows any of the abovementioned signs of neurologic disease.
- If current treatment regimens are ineffective, because some horses require a different or extended round of medication.
- If your horse's clinical signs worsen.