

AUTHORED BY STACEY OKE, DVM, MSC; REVIEWED BY STEPHEN REED, DVM, DIPL. ACVIM

The American Association of Equine Practitioners recommends annual rabies vaccination for horses to prevent this fatal disease that threatens horse and human health

RABIES is a severe, rapidly progressing neurologic disease that can affect all mammals, including horses, dogs, cats, skunks, wolves, foxes, raccoons, and bats.¹ Despite the widespread availability of rabies vaccines, approximately 50-80 horses are infected, and die, as a result of rabies every year in the United States.²

Rabies is also important because it is zoonotic, meaning it can spread to humans, and is therefore a reportable disease. All horses with behavioral changes and central nervous system disorders should be examined by a veterinarian as soon as possible after onset of clinical signs to minimize human exposure to the rabies virus.

When rabies is strongly suspected it is a good idea to wear gloves and keep a list of individuals that have been in contact with the horse. It is also important for the owners to realize that a post-mortem examination is essential.

HOW DO HORSES GET RABIES?

Rabies is a preventable viral infection of the nervous system and salivary glands. The rabies virus is spread through saliva. In most cases the virus is directly spread when an infected animal bites another animal. Alternately, an animal can become infected if the saliva from an infected animal contaminates an open wound or a mucous membrane (e.g., the lining of the mouth, eyes, or nasal cavity).

Horses often become infected when they encounter a wild animal behaving abnormally in their pasture. The rabid animal might bite the inquisitive horse, usually on the muzzle, head, or

lower limbs. Once the virus enters an animal's body, it spreads to the central nervous system (i.e., the brain and spinal cord) via peripheral spinal nerves. Once in the central nervous system, the virus causes massive encephalitis (inflammation of the brain) and subsequently spreads to the salivary glands, where it replicates and is shed.

CLINICAL SIGNS

Most horses usually begin showing clinical signs of rabies between two and six weeks after exposure to the virus. Infrequently, it can take much longer for the signs to develop—as long as 12 to 52 weeks.³

The clinical signs of rabies are widely variable, which makes it challenging for a veterinarian to quickly make a definitive diagnosis.⁴ The most common clinical sign of rabies is a change in behavior: Infected horses are often dull and depressed, but can become aggressive or fearful. A low grade fever is also usually present.¹ In some instances, horses have even presented for colic.

Other signs of rabies infection include the following^{1,2}:

- ◆ Ataxia (incoordination);
- ◆ Head-pressing and circling;
- ◆ Difficulty swallowing;
- ◆ Muscle tremors or convulsions;
- ◆ Lameness;



Rabies is a zoonotic disease, which means it poses risk to horses, humans, dogs, cats, other farm animals, and wildlife.

- ◆ Tenesmus (painful spasm of the anal sphincter);
- ◆ Dilated pupils and photophobia (aversion to light);
- ◆ Abnormal chewing and biting;
- ◆ Tenderness at the site where the bite occurred; and
- ◆ Hyperesthesia (hypersensitivity to stimulus).

Ultimately, infected horses become unable to rise and can fall into a semicoma or coma.

DIAGNOSIS

Rabies can only be diagnosed post-mortem by submitting the horse's head to a local public health laboratory to identify the rabies virus using a test called fluorescence antibody. One of the hallmark signs of rabies is how quickly the disease progresses. This helps distinguish

rabies from other neurologic diseases that can look like rabies (such as neurologic equine herpesvirus; Eastern, Western, and Venezuelan equine encephalomyelitis; West Nile virus; equine protozoal myeloencephalitis; and botulism). Lead poisoning and trauma to the head or spinal cord can also mimic rabies.

Considering the only way to diagnose rabies is by removing the horse's head, it's imperative veterinarians rule out all other potential diseases before suspecting rabies. Nonetheless, rabies should also be considered in any horse behaving abnormally or with signs of neurologic disease to minimize human exposure.

TREATMENT

There's no treatment for

horses diagnosed with rabies, and once clinical signs are apparent, the disease is invariably fatal. Because rabies is reportable, all suspected cases need to be managed in concert with state or federal authorities. In general, if an owner/caretaker knows that a horse has been exposed to another rabid animal and the horse has been vaccinated more than 30 days prior, revaccinate the horse, isolate him, and monitor for signs of disease for 45 days. If the horse is unvaccinated, the quarantine period is six months.⁵

Humans having contact with a rabid horse might receive post-exposure rabies treatment.

If you see a bite on your horse, wash the wound with a soap solution, iodine, or a quaternary ammonium disinfectant to help

decrease the chances of him contracting the rabies virus.⁵

PROGNOSIS

Although the course of disease is variable, most horses usually die within two to four days of showing clinical signs, if they have not already been euthanized. If a horse is receiving supportive care (e.g., horses that are being tested to rule out other neurologic disease), it can take up to two weeks before a horse succumbs to rabies.

PREVENTION

The best prevention for rabies is vaccination, which is why the American Association of Equine Practitioners (AAEP) considers rabies a core vaccine, meaning all horses should be vaccinated against it. Commercially avail-

able vaccines are considered safe and extremely effective.

The AAEP currently recommends vaccinating adult horses annually and vaccinating mares in foal either before breeding or four to six weeks before the anticipated foaling date. Foals and weanlings less than 12 months of age should receive an initial series of three vaccines (the timing depends on

the mare's vaccination status). Thereafter, horses are vaccinated annually (even if the vaccine is labeled as a three-year product).⁶

Owners should also vaccinate all dogs and cats (even those hard-to-catch barn cats) that reside on the premises against rabies to limit the spread of disease from wild animal populations to resident horses.

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