

Equine Herpesvirus

Introduction¹

Equine Herpesvirus (EHV) is found everywhere in horse populations.

This virus is very successful and has evolved with the Equidae family and adapted its sophisticated life cycle to exploit its host animal to ensure efficient spread and in turn persistence within the horse population. There are 9 strains of EHV, and for the domestic horse population EHV-1 and EHV-4 are the most important.

Transmission¹

The main route that a horse takes up the virus is inhalation through the respiratory tract via the following:

1. Direct contact between horses mainly via aerosolized droplets from respiratory tract secretions getting inhaled by another horse.
2. From people or objects carrying the virus that gets inhaled or ingested from surfaces by the horse.
3. From aborted foals, fetal membranes and placental fluids.

The most important part of the virus' life-cycle contributing to its huge success is the ability for the virus to be carried by a recovered horse not showing any clinical signs, for an extended length of time (possibly for life) which is referred to as **Latency**.

Latency is so important for two reasons:

1. Firstly, latently infected horses can reactivate and start shedding the virus which will infect new, susceptible, in-contact horses. Reactivation of a latently infected horse can be caused by stress for example traveling, transport, illness or treatment with corticosteroids. A shedding reactivated horse does not necessarily need to show clinical signs.
2. Secondly, latency allows an infected horse to go unrecognized allowing the virus to be maintained in a herd, but also the movement of latently infected horses to new yards can introduce the virus into new herds.

Clinical signs¹

EHV can cause:

1. Respiratory disease. Caused by both EHV-1 and EHV-4.
2. Abortions. Usually in the last third of pregnancy with no warning signs or respiratory disease preceding the abortion. Mostly caused by EHV-1.
3. Neurological disease. Mostly caused by EHV-1, EHV-4 is rare. Sporadic (although outbreaks have been recorded affecting 30 – 40 % of horses in a yard) and uncommon, but can have devastating consequences resulting in possible euthanasia. Field evidence suggests it is becoming more common, leading people to believe the virus that is circulating has an increased ability to cause disease to the nervous system.

There are some speculations that EHV may cause suppression of the horse's immune system which may make the animal more susceptible to other viruses and/or may also cause persistent, chronic fatigue syndrome¹. These viruses can also have a major economic impact by interfering with a horse's ability to compete, move or breed¹. A horse that has recovered from respiratory disease may face longer-term detrimental effects on athletic performance.

Diagnosis¹

Usually not possible to diagnose on clinical signs alone and samples need to be sent to a laboratory for confirmation.

Prevention and control²

To limit the economic and welfare burden of EHV infections in horses you want to:

1. Decrease the disease severity in horses exposed to the virus
2. Decrease the spread of viral infections

To achieve these goals you need a combination of vaccination and implementing preventative herd management strategies.

In conclusion, equine herpesvirus is a highly successful pathogen that has a major economic and welfare impact on all sectors of the horse industry¹.

Speak to your vet regarding a management and vaccination plan that will work in your yard.

References:

1. Slater J. Equine Herpesviruses. *Equine Infectious Diseases (Second Edition)*. 2014; 14:151-168.
2. Allen G.P. *et al.* Equid herpesvirus 1 and equid herpesvirus 4 infections. *Infectious Diseases of Livestock*. 2004; 76:829-859.

For animal use only.

EquiVac[®] EHV-1/4. Reg. No.: G3428 (Act 36/1947). Each ml contains Equine Herpesvirus type 1 (EHV-1) and type 4 (EHV-4) with thimerosal, polymyxin B and neomycin as preservatives.

Pneumabort-K[®]+1b . Reg. No.: G1752 (Act 36/1947). Each ml contains formaldehyde - inactivated Equine Herpesvirus 1p and 1b with an oil adjuvant.

For full prescribing information refer to the package insert approved by the medicines regulatory authority.

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