

Fact Sheet

Equine Viral Arteritis (EVA)

What is EVA?

Equine viral arteritis (EVA) is a contagious disease caused by equine arteritis virus (EAV) that is present in many equine populations worldwide.

Although not considered life-threatening in otherwise healthy, older horses, EVA is of industry concern because it can result in economically significant outbreaks of abortion in pregnant mares and very infrequently, death in young foals, as well as establishment of a long-term carrier state in stallions.



What causes EVA?

- The disease is caused by equine arteritis virus (EAV)
- EAV has the ability to cross the placental barrier and cause abortions or the birth of a congenitally infected live but diseased foal in mares exposed to infection very late in gestation
- The virus can also persist in the reproductive tract of a percentage of infected stallions for a variable period of time
- Although the virus is not considered especially resistant outside the body, it will retain its infectivity in semen or other biological material for an extended period if these are kept frozen. EAV stimulates a long-lasting immunity that protects against development of clinical disease and establishment of the carrier state in stallions

How is EVA transmitted?

EAV is spread most frequently through direct contact with an acutely infected horse and exposure to infective aerosolised respiratory secretions. While EAV is shed in various secretions and excretions by the acutely infected individual, it is present in greatest concentration in respiratory tract secretions and in the semen of stallions.

Introduction of EAV onto studs can occur by several means. It can be through a visiting mare, a nurse mare or teaser stallion either subclinically infected with the virus or incubating the infection. Experience has shown, however, that many outbreaks originate from the introduction of a carrier stallion or the use of infective fresh-cooled or frozen semen. Since carrier stallions shed EAV solely in semen, they can only transmit the infection by the venereal route. In mares that abort due to EAV, viral exposure occurs by the respiratory route through direct contact with an acutely infected horse, usually an unprotected mare recently bred with infective semen. Congenitally acquired infection in foals occurs infrequently in mares infected with the virus very late in pregnancy.



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What are the clinical signs of EVA?

Where clinical signs of EVA develop, the onset of illness occurs within 3-7 days of exposure, depending primarily on route of exposure. Signs of the disease can vary widely in range and severity and may persist for several days up to two weeks. Typical cases of EVA present with any combination or all of the following:

- Fever
- Swelling of the dependant parts of the body (limbs, scrotum, sheath, mammary glands)
- Loss of appetite and depression
- Swelling above or around one or both eyes, conjunctivitis and ocular discharge
- Stiffness of gait
- Skin rash frequently localised to the head or neck but sometimes generalised



Abortion may supervene in pregnant mares and very uncommonly, pneumonia, and enteritis (inflammation of the intestines) in young foals. Abortion can occur from early to late pregnancy.

Stallions affected with EVA that develop fever and scrotal oedema of some duration, are likely to experience a period of temporary infertility.

How is EVA diagnosed?

- It is not possible to base a diagnosis of EVA solely on clinical evidence of the disease
- It is important to seek veterinary assistance if faced with a suspected case/outbreak of EVA
- Laboratory confirmation of a provisional clinical diagnosis of the disease should be obtained as soon as possible so the necessary measures to restrict spread of the infection can be implemented without any delay

What is the treatment for EVA?

There is no specific anti-viral therapy for EVA. Since the vast majority of cases of the disease make uneventful clinical recoveries, symptomatic treatment is only indicated in severe cases of infection associated with high fever and extensive oedema, especially in stallions.

Adequate sexual rest and treatment with non-steroidal anti-inflammatory drugs and diuretics are indicated in such individuals. At the present time, there is no proven non-surgical means of successfully eliminating the carrier state in the stallion.



How do you prevent EVA?

All breeding stallions should be vaccinated every 6 months against EVA to prevent establishment of the carrier state. Similarly, all colt foals should be vaccinated between 9 and 12 months of age for the same reason. Carrier stallions can continue to be used commercially, provided they are bred only to EVA-vaccinated mares or mares previously naturally infected with EAV. Where artificial insemination is used, special attention should be paid to determining the infectivity status of shipped semen, especially if imported from abroad.

For further information, please contact your local
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