Equine Viral Arteritis (EVA)

Recent outbreaks of EVA on several breeding farms in the last year has focused a great deal of attention on this perennial threat to the breeding industry. In this issue, we will explain what EVA is, and how it can be avoided.

EVA is a contagious disease of horses caused by equine arteritis virus (EAV). While it is rarely life threatening to healthy horses, it is of special concern to horse breeders because it can cause abortion in pregnant mares, death to young foals and render breeding stallions permanent carriers of the virus. In adults the disease itself resembles other viral infections like influenza and rhinopneumonitis, and frequently causes swelling of the distal limbs or head. It can only be diagnosed by laboratory testing. The virus can be spread via the respiratory route (like influenza), via venereal transmission (from stallions to mares via the semen), indirectly through contaminated tack, etc, and through the placenta from an infected mare to her unborn foal.

Geldings, mares, and sexually immature colts do not become persistently infected with EAV. What makes EAV such a problem is the permanent or long term shedding of the virus by infected stallions. Even if a stallion never shows clinical signs of the disease, the virus can remain in his reproductive tract indefinitely. The virus is then passed to the mares via his semen, whether bred by live cover or artificially inseminated. A carrier’s fertility does not seem to be adversely affected by the presence of the virus. Likewise, a stallion may recover from a natural infection, causing him to be positive to the blood test for antibodies against EAV, and not shed the virus in his semen. The best way to check your stallion’s status is to do a blood test. If he is positive, then his semen should be tested to see if he is shedding virus through
Stallions and EVA Vaccination

In order to halt the spread of this disease, many breeding farms and owners are requiring stallions to be tested and be documented free of the virus before breeding mares. Vaccination can also protect stallions from becoming carriers of the virus. Because the blood tests cannot distinguish between immunity from the vaccine and natural immunity from infection, it is essential that stallions be tested to document their EVA free status before vaccination. This is especially true for stallions that may travel to other countries or have their semen exported.

The standard protocol is to draw a blood sample and submit it to an approved laboratory for testing. Following a negative test, within 10 days of the first test a second sample is taken immediately before the vaccine is administered to document EVA free status just before vaccination.

The vaccination of young, sexually immature stallion prospects is gaining in popularity as the most effective way to stop the spread of this disease. Following an initial two shot series of vaccinations, a yearly booster is required to maintain immunity. All horses vaccinated for EVA must be isolated for three weeks following vaccination to prevent the possible spread of the virus via the respiratory route.

The AQHA has begun a voluntary program of maintaining records of the EVA status and vaccination history of stallions that will become a part of the horse’s permanent registration papers.

If you have any questions or concerns about EVA, please contact us.

If a stallion tests positive for EAV

Stallions can be exposed to the virus and become positive to the blood test for antibodies to EAV without becoming persistent shedders of the virus. One of two methods can be used to determine if they are shedding virus in their semen.

1. Two separate ejaculates are collected by an accredited veterinarian and submitted to a lab approved by the USDA.
2. The stallion can be test bred to two negative mares and the mares can be tested for the presence of the infection. If the tests on the semen or bred mares is negative, the stallion is considered free of the virus. These stallions should be vaccinated yearly and their test results carefully documented.

It is possible to safely breed to stallions actively shedding virus in the semen. A strict protocol of testing, isolation and vaccination of the mare before and after breeding must be followed.

reproductive tract (see sidebar). It is generally accepted that if a stallion has antibodies against the virus in his blood but no virus in his semen, he may be able to breed mares safely. In any case, mares bred to a positive stallion (virus in the semen) should be tested for the virus, then be vaccinated before being bred. They also need to be isolated for the testing, vaccination, and for three weeks after breeding to be sure they do not become infected and spread the virus.

Under normal circumstances there is no need to vaccinate geldings or mares that are being bred to stallions that are free of the virus.
Highlight your special-interest story with a photo.

**Highlight a special interest mini-story or staff member with a bold photo and a small amount of copy.**

Use this space to include timely horse health articles or stories about your clinic, staff or clients. Equine health articles can be purchased with your I-Bucks through the Partners In Practice Program Web site at [www.Partners-In-Practice.com](http://www.Partners-In-Practice.com).

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**Write subheads to help break up the story and call attention to a particular segment.**

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