

AAEP'S NEW RECOMMENDATIONS FOR RABIES VACCINATION IN HORSES

Rabies

These guidelines were updated February 2009.

Rabies is an infrequently encountered neurologic disease of equids. While the incidence of rabies in horses is low, the disease is invariably fatal and has considerable public health significance. It is recommended that rabies vaccine be a core vaccine for all equids.

Exposure occurs through the bite of an infected (rabid) animal, typically a wildlife source such as raccoon, fox, skunk, or bat. Bites to horses occur most often on the muzzle, face, and lower limbs. The virus migrates via nerves to the brain where it initiates rapidly progressive, invariably fatal encephalitis.

Vaccines:

Three vaccines are licensed for rabies prophylaxis in horses. All are inactivated tissue culture derived products. The vaccines are given by intramuscular injection and appear to be safe. Rabies is an excellent immunogen and these vaccines induce a strong serologic response after a single dose.

Challenge studies demonstrating efficacy are required for licensing of all rabies vaccines (including those labeled for use in equids in the USA), however published results are not available. The challenge studies are conducted by the vaccine manufacturers as outlined in the Code of Federal Regulations (CFR) from the United States Department of Agriculture.

Vaccination Schedules:

(Veterinarians should read the label for each specific product recommendation.)

Adult horses previously vaccinated against rabies: Annual revaccination.

Adult horses previously unvaccinated against rabies or having unknown vaccinal history: Administer a single primary dose. Revaccinate annually.

Pregnant mares, previously vaccinated against rabies: Vaccinate 4 to 6 weeks before foaling. Alternatively, veterinarians may recommend that mares be vaccinated with rabies vaccine before breeding. Duration of immunity is such that antibodies to rabies virus are maintained at sufficient levels in mares vaccinated prior to breeding as to provide passive immunity through colostrum to the foal. Administration of rabies vaccine prior to breeding of the mare reduces the number and type of vaccines given in the period prior to foaling.

Pregnant mares, previously unvaccinated or of unknown vaccinal history: Vaccinate 4 to 6 weeks before foaling.

Foals of mares vaccinated against rabies: Administer a primary series of 3 doses. The first dose of vaccine should be administered no earlier than 6 months of age. The second dose should be given 4 to 6 weeks later. The third dose should be given at 10 to 12 months of age. Revaccinate annually thereafter. This schedule avoids maternally-derived antibody (MDA) interference with induction of a serologic response in the foal.

Foals of mares NOT vaccinated against rabies: Administer a primary series of 2 doses, according to label directions. The first dose of vaccine should be administered at 3 to 4 months of age. The second dose should be given at 10 to 12 months of age. Revaccinate annually thereafter.

Foals of mares of unknown vaccinal history - Follow one of two rational options:

1. Assume the mare to be antibody-positive and follow the above recommendations for foals from mares known to be vaccinated against, i.e. administer a 3-dose primary series, starting at 6 months of age.
2. Document the rabies antibody status of the foal by testing serum collected from the foal at 24 hours of age or older, or from the dam during the peri-parturient period.* If the foal of mare is rabies antibody-negative, follow the above recommendations for foals of mares known not to be vaccinated against rabies. If the foal or mare is rabies antibody-positive, follow recommendations for foals of mares known to be vaccinated against rabies.

*Testing for rabies antibodies using the rapid fluorescence focus inhibition test (RFFIT) is available through the Kansas State Veterinary Diagnostic Laboratory, Mosier Hall O-245, 1800 Denison Avenue, Manhattan, KS 66506-5601. Further information is available at www.vet.k-state.edu/depts/dmp/service/rabies/guideline.htm.

Horses exposed to confirmed rabid animal*

Horse currently vaccinated against rabies with one of the USDA-approved rabies vaccines: Immediate revaccination by a licensed veterinarian and observation (as directed by public health officials) for 45 days for development of clinical signs of rabies.

Unvaccinated horse: Euthanatize immediately. If the owner is unwilling to have this done then horse should be closely monitored under veterinary supervision for 6 months. Public health officials may establish requirements and conditions for monitoring of exposed, unvaccinated animals.

*Rabies exposure and transmission occur only when the virus is introduced into bite wounds, into open cuts in skin, or onto mucous membranes from saliva or other potentially infectious material such as neural tissue.