Vaccines and Your Horse

With Spring's arrival, many horse owners turn their attention to "spring shots" and their horses annual wellness visit. This is the only planned veterinary visit of the year for most clients and often presents a larger, one-time expense. Why, then, is it so necessary? And which ones are necessary for your horse?

Vaccines are used to stimulate the immune system and produce antibodies against one or many diseases. In general, vaccinations in animals have not been studied or shown to have the long term immune effects that vaccines have in people - thus, boostering vaccines on a yearly basis is not only helpful but necessary to protect the animal against the disease. However, if the animal has never had the vaccine, a booster in 3-4 weeks is necessary to allow the body to produce enough initial antibodies to protect itself against attack of the actual disease.

The American Association of Equine Practitioners, or AAEP, recommends a core group of vaccinations for all horses. Other vaccines, called risk-based vaccinations, should be given only if the horse is in risk of certain disease exposure. More information on these recommendations can be found at http://www.aaep.org/info/guidelines-48

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There have only been a few cases of rabies in equids in the last decade in the North East. However, this virus is always fatal if contracted. It is primarily spread by bites of wild animals, including raccoons, possums, and skunks. Symptoms include excessive salivation, difficulty swallowing, lack of coordination, aggressive behavior, hyper excitability, colic, convulsions, or paralysis. Because of its fatal nature, and its risk to the human population, Rabies vaccination is recommended for horses annually.

These viruses are spread by mosquitos in late summer and early fall. Humans are also extremely susceptible to these viruses, yet horse-to-horse and horse-to-human transmission is extremely unlikely. Wild birds and rodents serve as the reservoir, and a mosquito must have bitten an infected animal before transmitting it to horses or people. EEE is almost always fatal; approximately 90% of cases die if the disease is contracted. WEE is less fatal but very dangerous — 50% of cases are fatal. Three cases of EEE were diagnosed in Massachusetts last year, 181 cases nationwide. WEE is less common in the New England area, more common in the western part of the country. Initial symptoms of both EEE and WEE include mild to severe fever, poor appetite and stiffness. EEE will often progress to severe neurological symptoms often including head pressing, blindness, circling, head tilt and muscle fasciculations and death. The vaccine, often combined with WNV and Tetanus, is only maximally effective for 6 months. Thus, most horses in Massachusetts and Rhode Island should be vaccinated NO EARLIER than mid-April. This allows for good coverage through a potentially warm October. Horses that travel to the southern states should receive the vaccine every 6 months.

This virus is also spread by mosquitos from infected birds and rodents with the highest incidence in late summer and early fall. 338 cases of WNV were reported nationwide in horses last year, 25,000 cases since 1999. Although no cases were confirmed last year in Massachusetts, the state is still considered a high risk area. The fatality rate of WNV is approximately 33%, with 40% of survivors still exhibiting clinical signs of the virus 6 months post exposure. Both systemic and neurologic abnormalities occur with WNV: mild to moderate fever, poor appetite, abdominal pain and gait abnormalities. Neurologic deficits occur suddenly and progress rapidly; muscle fasciculations, most notable at muzzle and eyelids, is a common symptom. Horses in the New England area should be vaccinated NO EARLIER than mid-April, and those traveling to the southern states should be boosterized after 6 months.

Most doctors recommend that people get vaccinated for tetanus every 10 years. Horses, however, are extremely sensitive to Clostridium tetani and should be vaccinated yearly. This anaerobic bacteria lives in the soil, and a horse is usually exposed to it by inoculation into a deep wound. Once infected into tissues, the bacteria produces a toxin that spreads quickly through the bloodstream. Horses take on a stereotypic “sawhorse” stance (see image), with a stiff gait, rapid muscle contractions, and fever. As the disease progresses, the horse may not be able to stand up and is extremely reactive to exterior stimuli. Death may result from increased spasm of respiratory musculature. If your horse has a deep wound, and his last tetanus shot was over 6 months, a booster is recommended.

Please Note:
EEE/WEE, West Nile Virus and Tetanus are combined into one vaccine.
Non-Core Vaccinations

Equine Influenza is a highly contagious virus that is transmitted through the air. The incubation period for influenza is 1 to 3 days, and infects the upper respiratory tract primarily with little to no pulmonary (lung) involvement. Clinical symptoms of influenza appear 3 to 5 days after exposure to the virus. Severity of these symptoms is related to the strain of the virus and the immune system of the individual. Horses usually experience a sudden onset of fever (103-105°F), a clear or cloudy nasal discharge, poor appetite, depression and a dry, deep cough. Secondary bacterial infections may occur. Horses remain infectious 3 to 6 days after the last signs of illness. Regular vaccination significantly reduces the population at risk, which includes those who are young, travel, show, or are exposed to a changing population of horses at home. The vaccines are good at producing an immune response, but the response is relatively short lived. In fact, many large shows are currently requesting horses be vaccinated for Influenza within three months of the show. Be sure to have this information on hand for the upcoming show season when planning your spring shots. Frequent boosting of this vaccine may be necessary.

Similar to the flu, “rhino” is highly contagious and spread through the air or when a horse is in direct contact with respiratory secretions. Two main variations occur: EHV1 and EHV4. EHV1, in addition to causing respiratory disease, causes abortions, neonatal death, and neurologic disease. EHV4 is primarily a respiratory disease, mostly in young horses. Symptoms of the respiratory disease is similar to influenza: clear nasal discharge, dry cough and fever. The vaccine, paired with influenza, should be given at the same interval as influenza to horses deemed “at risk” - young horses, pregnant mares, and horses that are exposed to a large and changing population of horses. At risk horses should receive the vaccine every six months. Pregnant mares should receive the vaccine at month 5, 7, and 9 of their pregnancy.

Originally described in 1979 affecting horses in the Potomac River Valley, Potomac Horse Fever is a bacterial injection caused by Neorickettsia risticii. It now has been identified in other regions of the United States, including New York and Connecticut. The disease is mostly seasonal, occurring in the warmer months in most temperate regions with most cases seen in July, August and September. Clinical signs are variable, but can include fever, mild to severe diarrhea, and decreased abdominal sounds that can lead to colic. If PHF has been confirmed on a farm, it is very likely that future cases with be affected with the bacteria in years to follow. Response to vaccination is short lived, so vaccination should be administered shortly before the summer season. Although the risk of PHF is low in Massachusetts, we recommend that horses living close to standing water (ponds, swamps) be vaccinated against this disease.

Strangles is the highly contagious disease caused by the bacteria, Streptococcus equi. Young horses are especially at risk due to their naive immune system, but any horse can be infected. The bacteria is spread by direct contact by infected horses or through indirect contact with infected water troughs, grooming equipment, stalls, pastures, or human hands. *Streptococcus equi* can persist on a farm despite exposure to sunlight and disinfectants, and can serve as a reservoir of infection for any new horse arriving on a previously infected farm. Clinical signs include fever, poor appetite or difficulty eating, harsh respiratory noise, large lymph nodes and/or a thick cloudy nasal discharge. Any horse exposed to a large or changing population of horses should be vaccinated for strangles. ANY new horse brought into your barn, especially from an sales auction, should be quarantined as a strangles suspect for 1 month as the virus can linger in horses that appear healthy.
Spring has finally sprung, which means its time to put away winter blankets, start thinking about show season, and schedule your yearly vaccination and wellness visit! Please see our website to find the vaccination day in your area! These vaccine days are offered regionally for a reduced farm call of $30. Remember, these visits are for vaccines only and, due to the popularity of these visits, we ask that you are flexible with your schedule. Go to www.massequine.com, click the Services button and scroll down to the Vaccinations tab for information.

Feedback is always appreciated! Email: MassEquineNewsletter@gmail.com

Fun Facts

Paint vs Pinto?
A Paint horse is a horse with color that only has Quarter horse, Paint Horse or Thoroughbred bloodlines. A Pinto horse is a horse with color that is of any breeding. Tennessee Walking Horses, Gypsy Vanners, and Miniature Horses often have Pinto varieties.

So, a Paint is always a Pinto, but a Pinto is not always a Paint!