

EQUINE VACCINATIONS

Tetanus

- Lock jaw
- Caused by a bacteria which releases a product that affects the brain.

Toxoid should be given-

- Initially in 2 injections 4 - 8 weeks apart
- every year as a booster
- To 8-week old foal suckling an immune mare
- To a 1 day old foal suckling a non-immune mare

Antitoxin should be given-

- To an injured horse that has not been previously immunized
- Foals not able to suckle
- Foals suckling a non-immune mare

Equine Encephalomyelitis

“Sleeping sickness”

- A viral disease that causes derangement of the central nervous system

Eastern (EEE) and Western
(WEE) strains are similar but not
the same

EEE and WEE vaccinations given-

- A 2 injections
- Annually as boosters
- For the first time in a 12 week old foal

Venezuelan Equine Encephalomyelitis

- (VEE)
- Similar to EEE and WEE, but this strain has a public health threat
- Foreign animal disease

VEE vaccine

- Given to horses at risk or in endemic areas
- Not given to pregnant mares
- Given to foals at least 24 weeks of age
- Given as a booster every 2 years

Equine Influenza

- A viral disease that causes coughing and flu like symptoms

Vaccinate

- As weanlings and yearlings
- Every year as booster
- Racehorses - vaccinate every 60 -90 days
may decrease incidence of respiratory
diseases

Equine Rhinopneumonitis

- A viral disease causing respiratory signs and abortions in pregnant mares

Vaccinate

- After 3 months of age
- A annual booster
- Mares should receive killed product 5th, 7th, and 9th months of gestation
- Racehorses - Vaccinating every 60 - 90 days may decrease incidence of respiratory tract diseases

Strangles

- A bacterial disease that most commonly affects the respiratory tract and lymph nodes

Strangles vaccines

- Intranasal vaccine
 - Vaccine squirted in the nostril
 - Produces good immunity which is concentrated in the upper respiratory tract
 - Modified live strain of bacteria
 - Minimal side effects

Strangles vaccine is reserved for
farms where a problem exists

Potomac Horse Fever - History

- 1979 - First described in Maryland
- 1984 - *E. risticii* found to be the cause
- 1987 - Confirmed in 25 states
- 1988 - Confirmed in 32 states, Canada, and France
- 1998 - Intermediate host (snails) identified

Rickettsia

- Obligate intracellular pathogen
- Smaller than bacteria
- More complex than viruses

Potomac Horse Fever

- No breed, sex, or age predilection
- Occurs mainly in summer months
- Snail concentrates organism, ingested by horses grazing snail infested pasture
- Infectious but not contagious
- Associated with bodies of water
- High seropositive rate - 60+% in Midwest

Potomac Horse Fever

- Incubation 1 - 3 weeks
- Two Phases
 - Phase 1 - mild: lasts no longer than 24 hours
 - Phase 2 - severe: fever, loss of appetite, diarrhea, laminitis, fatality rate 5 - 10%, if untreated many more die or are put down due to severe laminitis
 - Diarrhea leads to dehydration and other complications

PHF - Vax

- Aluminum hydroxide adjuvant
- Two doses 2 -3 weeks apart
- Yearly as booster
- Give in spring

Neurologic Disease

- Equine protozoal myelitis
- Viral Infection
 - Herpes virus, EEE, WEE
- Vertebral instability “Wobblers”

Equine protozoal myelitis

- Caused by a protozoal parasite
 - *Sarcocystis faculata*
- Parasite of opossums and birds
- Horses are accidentally infected and are dead end hosts
- Parasite reproduces in central nervous system and causes neurologic disease

Equine protozoal myelitis

- Signs - Depend on location of the parasites in the central nervous system, but usually horses lose ability to place legs correctly. Horse appears “drunk” or “wobbly”
- Diagnosis - Spinal tap to look for antibodies against parasite in CSF
 - High number of false positives

Equine protozoal myelitis - Treatment

- Pyrimethamine/ sulfa drug combination recommended treatment
 - Need to treatment for long periods of time (over 6 months) with 80% success rate
- Other anti-protozoal drugs being tested, but none currently on the market labeled for horses

Equine Infectious Anemia

- Retrovirus - similar to AIDS virus
- Once a horse is infected, it remains infected and contagious to other horses for life
- Antibodies are not protective
- Reportable disease - The **Coggin's Test** tests for EIA

EIA - Signs

- Horse develops high fever, leg swelling, depression, and will not eat. Horse may die at this point.
- Repeated bouts of high fever and other signs that get less and less severe over time
- Repeated bouts of high fever and other signs that get worse and worse until horse dies
- Anemia

Equine Infectious Anemia

- There is no treatment for EIA
- Horse needs to be put to sleep or stabled in approved housing at least 100 yards from other horses
- Passes through placenta and colostrum from mare to foal. Not 100% of the time.