

Team (County): _____

Team Members

Team Member ID #

2013 NC State 4-H Hippology Senior Team Problem KEY (200 points)

You have 5 minutes to prepare and 10 minutes to write your response as a team (15 minutes total)

Each year in January you consult with your veterinarian and have the core vaccines excluding rabies administered to your horse. In the past you have not vaccinated for rabies due to no reports of wildlife in your area having the disease. However, this year Animal Control has captured several suspect rabid skunks and raccoons. The Center for Disease Prevention has suggested that people in the area have their pets vaccinated for rabies. Briefly describe the virus that causes rabies, the nature of the disease including how horses maybe come infected (route of transmission), clinical signs (symptoms), diagnosis, and prevention. Also, indicate which animals may carry rabies and your decision to vaccinate for rabies.

Cause: Rabies is caused by an acute form of rhabdovirus or specifically viral encephalomyelitis (Evans et al., 1990 and HIH 680-1). The virus is zoonotic disease meaning it maybe passed from an infected animal to a person. The virus is classified as a neurotropic rhabdovirus, which explains how the virus travels from the brain to the saliva for site of infection (HIH 680-1). Rabies is commonly found in many wildlife species including raccoons, skunks, foxes, coyotes, bats as well as feral cats and dogs (HIH 680-1).

Route of Transmission: Rabies is passed from the saliva of an infected animal to another animal generally by a bite (Evans et al., 1990 and HIH 680-1).

Clinical Signs: A horse that may have clinical signs of rabies include facial and hind leg paralysis, ataxic, lethargic, depressed appetite, anorexia, grinding teeth, pupils dilation, colic, odd stance, rolling, and a change in attitude and behavior (becoming very violent or vicious in nature, generally aggressive to other animals and humans). Most noteworthy when assessing the clinical symptoms of rabies is the change in behavior, which could be classified or identified with phase I "furious" and phase II would be "dumb" or "paralytic" (Evans et al., 1990, Griffiths et al., 2008, HIH 680-1). Paralysis in the face, throat and jaw is generally a sign that the disease has progressed (Griffiths et al., 2008 and HIH 680-1).

Diagnosis: There is no current "antemortem" (pre-death) test for horses suspected to have rabies. The clinical signs of rabies are similar to other diseases that infect the spinal cord and brain of the horse including tetanus, equine herpesvirus, encephalomyelitis and trauma to the

Team (County): _____

Team Members

Team Member ID #

spinal cord.

Diagnosis (cont.): A suspect horse will need to be either monitored for 45 days or euthanized in order to test sections of the brain. The brain will be dyed with fluorescent antibody to determine the presences of the virus (HIH 680-2).

Prevention: Administer an annual vaccine to your horse(s) and pets (cats and dogs) living in the same area to prevent disease transmission. Decrease exposure to wildlife in your horses and pet's environment in both the barn and pasture setting. Beware of any behavioral changes in your horse or pets (Griffiths et al., 2008 and HIH 680-2).

Decision: Yes- prevention is cheaper than replacing your horse and it's easily administered with your other annual vaccines. Rabies is considered a core vaccine (HIH 445-7). Also, if the horse has been vaccinated then the horse will be administered a booster and monitored for 45 days prior to making a decision if it needs to be euthanized or not (Griffiths et al., 2008 and HIH, 445-7, 680-2).

No- Few cases of rabies have been reported in wildlife, even fewer in pets and none in horses in your area until this year. Also, you realize that even if your horse exhibits signs of rabies there's no cure (Evans et al., 1990, Griffiths et al., 2008 and HIH 680-2).
