

***Equine Infectious Anemia Outbreak in California's Racing Quarter Horses provides good reason to review barn management and bio-security practices.***

*by Katie Flynn, Equine Staff Veterinarian, California Department of Food and Agriculture*

Horse owners are familiar with a "Coggins;" the "piece of paper" required for entry into some horse shows and sales and/or interstate movement. Many may overlook the fact that this "piece of paper" is essential to protecting the health of the national equine population from Equine Infectious Anemia (EIA), also known as swamp fever. The recent detections of EIA in the racing Quarter Horse populations in California and Texas increase the need for awareness of this potentially fatal blood borne disease in horses, donkeys and mules.

Best barn management and bio security practices are the best defense against EIA, for which this is no known treatment.

EIA is caused by a virus closely related to the Human Immunodeficiency Virus (HIV). Clinical signs of EIA vary from an asymptomatic horse, not showing any signs of disease, to a horse with a fever showing signs of lethargy, weight loss, anemia and/or swelling of the legs, chest and abdomen. Natural disease transmission occurs when a deer or horse fly bites and consumes a blood meal from an infected horse and transfers the virus to another horse.

As California's racing Quarter Horse investigation indicates, people can introduce the virus to a horse through the use of infected blood or blood products or through the use of blood contaminated equipment such as needles, syringes, surgical instruments, dental equipment, tattooing equipment or any other equipment.

Infected horses become lifelong carriers that pose a risk of infection to other horses. The Animal Health Branch of the California Department of Agriculture has investigated the largest EIA outbreak in years. Since 2012, diagnostic testing confirmed a total of 34 racing Quarter Horses positive for EIA. The age range of these EIA positive horses is 3 to 8 years old with an

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average age of 4.6 years. The investigation identified approximately 250 exposed horses, on 19 premises, that tested negative on the initial and 60-day retest after removal of the positive horse.

The management options for an EIA positive horse are humane euthanasia or restrictive lifetime quarantine of the individual horse at least 200 yards from other horses. Thirty-three of the EIA positive horses were euthanized and one was moved to a premises for quarantine isolation.

Disease investigations indicate the positive horses were involved in Quarter Horse racing and potential exposure to high-risk practices such as sharing of needles and other medical equipment and the use of contaminated blood products. Due to change of ownership, lack of lip tattoos and difficulty reading lip tattoos, the training and racing history of positive horses were difficult to obtain. Although difficult to verify, there is evidence suggesting some of the positive horses participated in unsanctioned "bush track" racing.

Evidence does point to disease spread through contaminated multi-dose drug vials. In this situation, the contamination occurs when a new needle and a used syringe are utilized for drug administration. Infected blood contained within the hub of the used syringe contaminates the drug vial, resulting in disease spread with subsequent withdrawal of the drug and administration.

Should horse owners be worried about EIA? The recent upswing in positive EIA cases in the racing Quarter Horse Population is a cause for concern, as retired racing Quarter Horses enter second careers in the breeding shed, rodeo world, show arena or backyard pleasure, trail or ranch horse and have the potential to spread EIA. One undetected case can lead to a large regional, national or international outbreak given the right conditions. All horse owners are encouraged to practice good biosecurity and avoid sharing needles, syringes, blood or blood products between horses.

Owners concerned with potential exposure to EIA should contact their veterinarian to discuss testing for EIA. A serologic (blood) test confirms the diagnosis of EIA. The two most commonly used serologic tests are the agar gel immunodiffusion (AGID), commonly known as the Coggins test, and the enzyme-linked immunosorbent assay (ELISA). A positive test indicates the presence of EIA specific antibodies. The ELISA test can detect antibodies earlier than the Coggins test. As the ELISA test may produce false positive results, the confirmatory test for EIA is the AGID test.

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For more information visit [www.cdfa.ca.gov/ahfss/Animal\\_Health/EquineInfectiousAnemia.html](http://www.cdfa.ca.gov/ahfss/Animal_Health/EquineInfectiousAnemia.html) or contact Dr. Katie Flynn, Equine □ Staff Veterinarian, Animal Health Branch of the California Department of Food and Agriculture at 916-900-5039 or [kflynn@cdfa.ca.gov](mailto:kflynn@cdfa.ca.gov)