

Equine Coronavirus (ECoV) risk assessment during horse shows

This document provides basic information regarding Equine Coronavirus (ECoV). ECoV is a recently identified contagious disease that generates a high level of concern and much communication within the equestrian community. Horses that are competing may encounter ECoV at a show or other event. ECoV is known to be transmitted by a fecal-oral route (transmission through the manure of a horse that is shedding the virus).

Good biosecurity should be practiced at all horse gatherings/ competitions which will decrease exposure to the virus. See EDCC guidelines. <http://www.equinediseasecc.org/disease-information>

Summer 2018 ECoV incidents in the Northeast Region of the USA:

During the late summer of 2018, several horses were affected by ECoV at a horse show. Most of the affected horses had the typical mild-to-moderate, self-limiting gastrointestinal disease but a small number of horses was more severely affected. ECoV is diagnosed sporadically throughout the year but is more common in the cooler months.

What we know about ECoV

- ECoV has been recognized in the last several years as a new/emerging gastrointestinal disease in adult horses (1). Only about 25% of the naturally infected horses show clinical signs.
- Approximately 10% of horses with clinical signs of fever, lethargy, anorexia (lack of appetite) or diarrhea due to ECoV also show signs of colic (abdominal pain).
- Mortality is low (3-7%). Fecal-oral infection with ECoV is currently considered as the likely exclusive form of transmission between horses (4).
- We expect that horses will shed the ECoV virus for approximately 25 days, however, longer shedding times and asymptomatic chronic shedders have been anecdotally documented.
Information about how long ECoV can survive in the environment is limited. Survival of virus in the environment depends on many factors, including presence of a porous surface, humidity, and number of viral particles present, so it is difficult to predict. General recommendations for showgrounds facilities to minimize the risk of ECoV (and other contagious disease) include the following:
 - ✓ Show ground facility managers should clean and disinfect (C and D) the entire facility several times a year as well as between closely scheduled horse shows. Manure should be removed from the stalls and premises as soon as possible, thus decreasing the likelihood of horses being exposed to contagious disease.
 - ✓ Show ground facility managers should have a biosecurity system in place prior to every event. This should include a plan for any ailment or disease that may occur at the event. Dedicated biosecurity officers (these can be specially trained show personnel) should be present at all show grounds or events. This will allow a quicker and more thorough response to a suspected contagious disease, thus minimizing potential spread and facilitating early therapy if indicated.
 - ✓ Show ground facility managers should require a CVI (Certificate of Veterinary Inspection, also known as a health certificate) prior to entry to the show grounds and should screen all horses entering the show grounds.

As a responsible equestrian planning to attend a horse show you should take basic biosecurity measures including:

- Have a current CVI, Coggins test, and other required documentation when you attend the show.
- Never bring a horse to a show if you suspect or can confirm any signs of disease such as, but not limited to, fever, lethargy, nasal discharge, coughing, diarrhea or colic.
- Ensure your horse is properly vaccinated by your veterinarian.
- During the show, monitor your horses frequently for any abnormal clinical signs and report concerns to the responsible veterinarian and/or the biosecurity showground officials.
- Minimize as much as possible your horse's exposure to possible sources of infectious disease such as other horse manure, direct contact with other horses, common water troughs or buckets, and shared tack.
- Educate yourself about equine biosecurity and ECoV;
https://www.cdfa.ca.gov/ahfss/Animal_Health/pdfs/Biosecurity_Toolkit_Full_Version.pdf,
<http://www.equinediseasecc.org/>.
https://ahdc.vet.cornell.edu/docs/EquineCoronavirusFactSheet_Sept10_Accessible.pdf.

Take home messages:

- ECoV is a newly recognized infectious disease that can affect individuals and groups of horses. Morbidity and mortality rates vary with the horse's own health status and response to illness as well as circumstances surrounding the exposure and conditions at the stabling facility. Infectious disease is part of the inherent risk of horse shows. This risk cannot be reduced to zero but can be minimized by responsible and professional conduct by showground facilities, show organizers and the equestrian community
- We hope that this document helps Northeastern equestrians becoming better educated, more enthusiastic and better prepared for show season this spring!

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