



Equine Coronavirus

NOTE: Equine Corona Virus -ECoV- is NOT the same virus as Covid-19

Disease Name: Equine Coronavirus, Beta Coronavirus, ECoV

Disease Type: Viral disease caused by an RNA virus. The disease causes gastrointestinal disease in horses.

Transmission: ECoV is spread when feces from an infected horse is ingested by another horse (fecal-oral transmission). The virus can also be transmitted when horses make oral contact with surfaces or objects that are contaminated with infected feces. Stalls, muck forks, manure spreaders, thermometers and clothing are common fomites (objects or materials that can harbor ECoV). ECoV is most commonly diagnosed in the winter months. ECoV appears to be specific for horses with **no** evidence of infection or that it is transmitted to humans or other animals, however appropriate biosecurity measures should be practiced with all horses with diarrhea or when horses are showing clinical signs consistent with ECoV.

Frequency: Low

Incubation period: 2-4 days

Carrier status: Carrier status is currently unknown but horses with no clinical signs have been found to shed the virus.

Shedding period: Shedding period is unknown but the virus can be present in samples 3-15 days post infection; horses that show no evidence of the virus can shed the virus.

Latency: It is unknown how soon infected horses become infectious, but the feces of infected horses does pose a risk to other horses.

Severity: Low but mortality can occur in complicated cases. Miniature horses seem to be more affected more often than other breeds/types, but all breeds can be affected. ECoV infections are generally self-limiting.

Clinical signs and symptoms:

- Fever up to 105° F (40.5° C)
- Lack of appetite
- Depression
- Colic
- Laying down frequently
- Diarrhea (may or may not present)
- Low white blood cell count

Complications can occur in rare cases:

- Protein loss
- Dehydration
- Neurologic signs (such as lethargy, depression, loss of body control) secondary to an excess of ammonia in the system
- Recumbency (inability to stand)
- Death

Diagnoses: Diagnosis is made by a veterinarian based on presence of clinical signs compatible with ECoV infection, the exclusion of other infectious agents, and the detection of ECoV in feces using PCR (polymerase chain reaction).

Treatment: The primary treatment is supportive care of clinical signs. Severe cases may require hospitalization for IV fluid treatment or treatment for secondary infections.

Prognosis: Good. Exposure to the virus can result in up to 85% infection rate but most animals do not show clinical signs. Mortality is low but can occur in complicated cases.

Prevention: There is no vaccine for ECoV. The best method of prevention is to maintain high standards of sanitation in all equine facilities and careful disposal of manure. When cleaning surfaces that may be contaminated with feces, clean first to remove all traces of organic matter, then disinfect.

Biosecurity: Any horse with a fever and no evidence of respiratory illness may have ECoV and feces may be infective. Horses positive for ECoV should be isolated and strict biosecurity measures and manure management instituted to prevent the spread of infection to other horses in the vicinity. These animals should be handled last when feeding, grooming and cleaning stalls to prevent possible infection of other animals. Horses that are moved to a new facility from a facility with horses positive for the virus should be isolated for 3 weeks.