

Equine Herpesvirus Myeloencephalopathy

EXHIBIT D



**Heidi Banse, DVM, PhD, DACVIM (LA)
Dean, College of Veterinary Medicine
Arkansas State University**

Equine herpes virus (EHV)

Disease

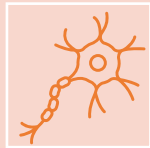


EHV-1 most commonly causes respiratory disease (adult horses) and abortion



Can also cause neurologic disease

Inflammation of blood vessels
Activation of clotting in brain and spinal cord

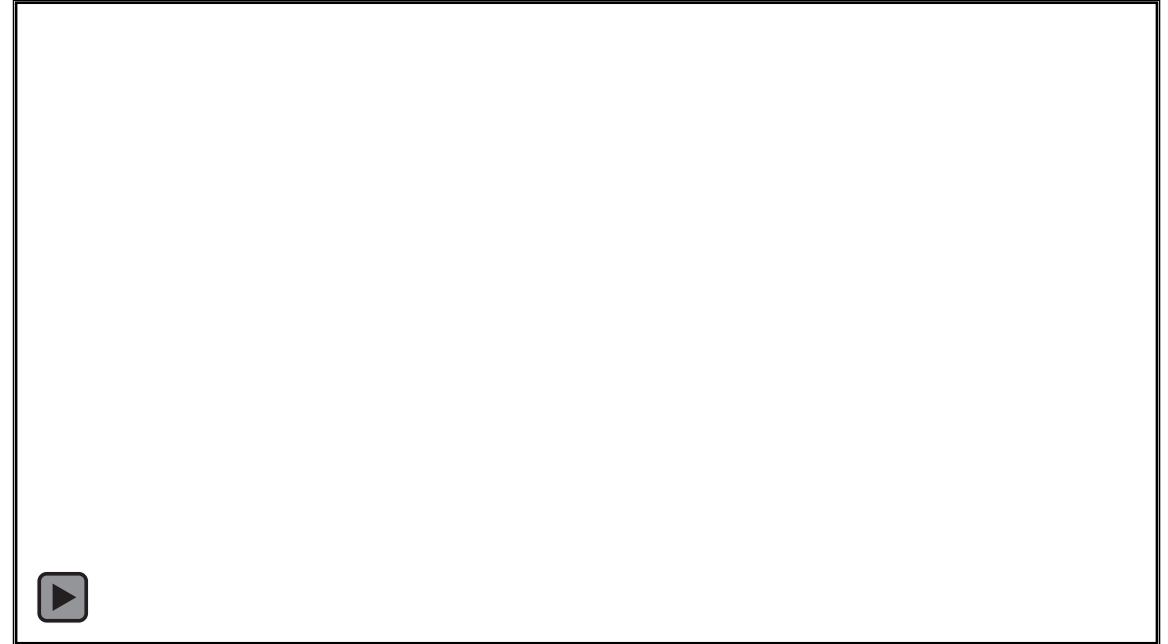


Latent infections reasonably common (15-27% of horses)

Trigeminal neuron

Clinical Signs

- Fever
- Swollen limbs
- Weakness (ataxia)
- Dribbling urine
- +/-Cranial nerve signs



Video courtesy R. Baker

Diagnosis and Prognosis

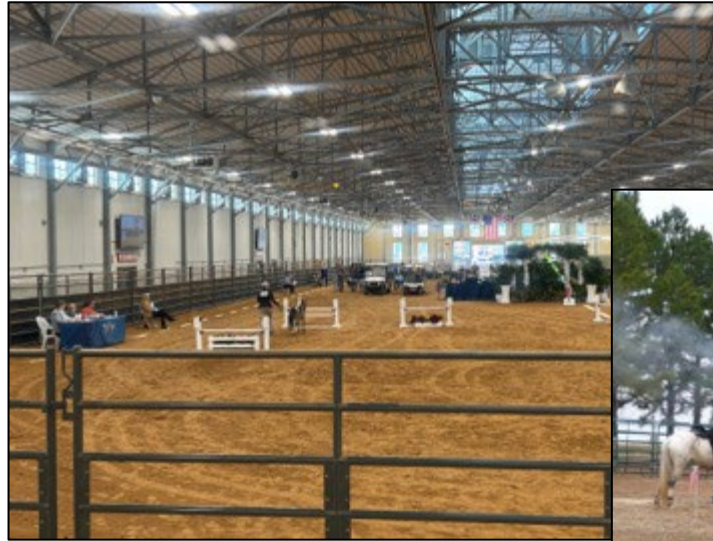
Diagnosis

- Polymerase chain reaction on nasal swab and blood

Prognosis

- ~60-70% recover (may take weeks to months)
- Dependent upon severity of infection

Transmission



Spread by aerosol or direct contact

Can start to shed during stressful time (transport, showing)

Control



Quarantine and monitor for fever (21 days)

Vaccination has not been demonstrated to reduce risk of neurologic disease

- Can reduce shedding



Treatment

Supportive care (anti-inflammatories, fluids, nursing care)

Antivirals (valacyclovir)

- Potential as early treatment



/ArkansasState

Current outbreak

First case confirmed November 18

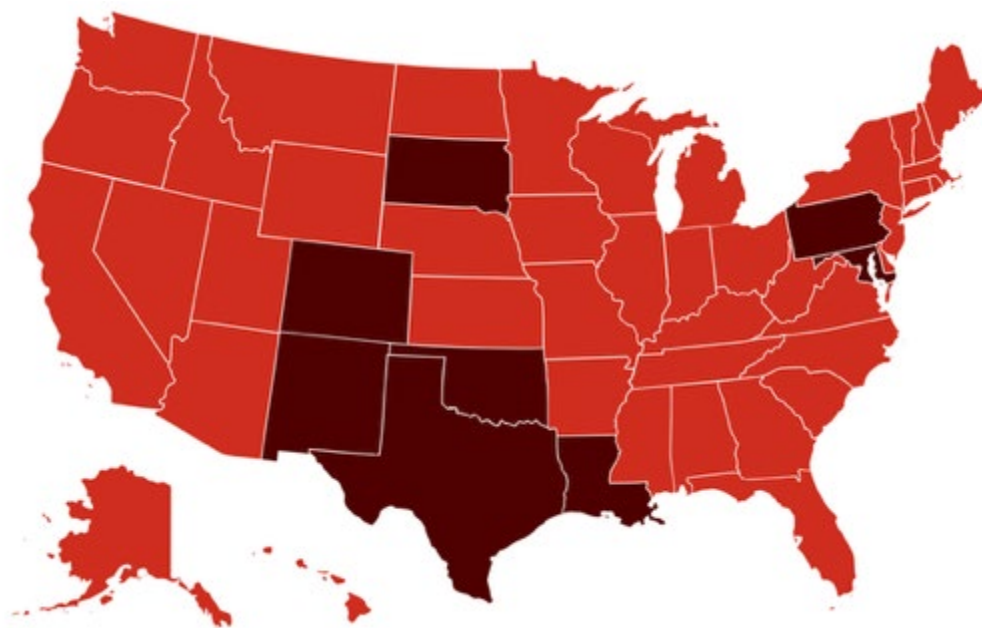
Case traced to Waco, Texas at a barrel race (Women's Professional Rodeo Association World Finals and Elite Barrel Race) November 5-9

Cases identified in multiple states as horses returned home before confirmation of first case



https://commons.wikimedia.org/wiki/File:Barrel_Racing%2814583529059%29.jpg

Current outbreak



[https://equinediseasecc.org/news/article/Equine-Herpesvirus-Myeloencephalopathy-\(EHM\)-Outbreak](https://equinediseasecc.org/news/article/Equine-Herpesvirus-Myeloencephalopathy-(EHM)-Outbreak)

State	EHV-1 cases - PCR positive, no neurologic signs	EHM cases - PCR positive, with neurologic signs	EHV-1 PCR positive, no clinical signs
Texas	4	18	1
Oklahoma	3	7	
Louisiana		3	
South Dakota		1	
Colorado		1	
New Mexico		3	
Arizona			3
Washington	2		

Questions?

hbanse@astate.edu

