Welcome!

The webinar will begin shortly.

GlobalVetLink

Inside the EHV-1 Outbreak

What Equine Veterinarians Need to Know About Event Biosecurity & Movement

Tuesday, January 27 at 12:00 pm (CT)

GlobalVetLink

Welcome

Kat Gillis

Chief Operating Officer

GlobalVetLink

Agenda

- Questions
- Webinar Recording Availability
- Meet Our Presenter
- Presentation
- Q&A
- Reminders

Questions

We encourage you to **share your questions**—please feel free to type them in, and we will try to respond to them at the end of the session.

Webinar Recording Availability

A link to a recorded video of today's presentation will be sent to the email address that you registered with.

The recorded webinar will also be made available on the GlobalVetLink website.

Meet Our Presenter

Dr. Martin Zaluski

Head of Regulatory Affairs

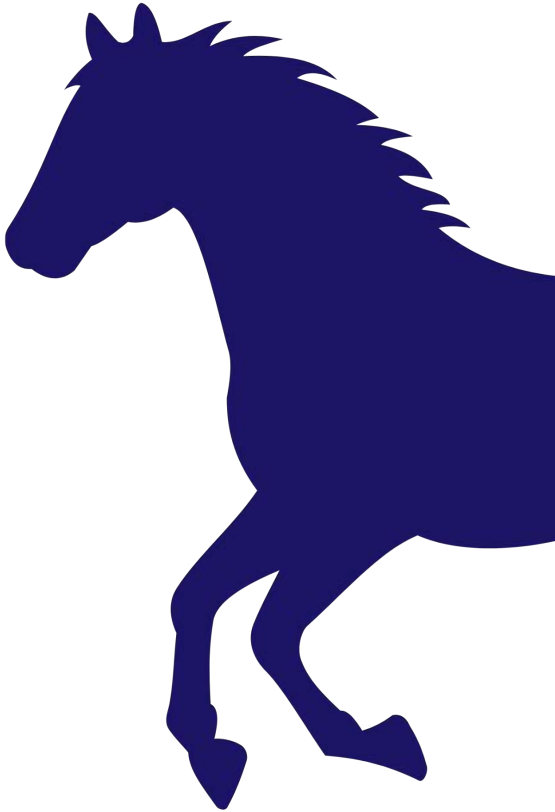
GlobalVetLink

Why EHV Matters?

- Highly infectious
- Non-clinical shedders
- Not prevented by vaccination
- Highly impactful with neurological cases and mortalities
- Equine events will continue to be at risk

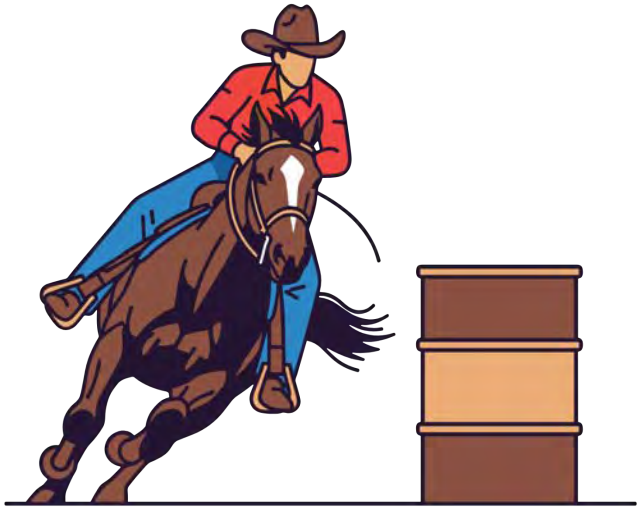
Topics

- **EHV Basics and Epi**
  - Clinical presentation, testing, treatment, prognosis, vaccination
- **Biosecurity**
  - Before, during, and after
- **Response**
  - Communication, isolation, and monitoring
- **Toolbox**
  - Written biosecurity plan
  - Checklists
  - Documentation of movement



November Quarter Horse Events

- **2025 Texas and Oklahoma**
  - **Waco, Texas, Nov 5-9**: Women's Professional Rodeo Association (WPRA) World Finals and Elite Barrel Race event in
  - **Guthrie, OK, November 15-22**: Barrel Futurities of America (BFA) championship
- **2011 Ogden, Utah**
  - It generated 90 confirmed cases of the disease across 10 American states.
  - Resulted in the deaths of 13 horses.



Why Events are High-Risk

- Frequency and number of horses/humans moving around
- Commingling of horses with unknown health status
- Close stabling arrangements
- Some horses attend multiple events per day
- Multi-day events extend beyond incubation periods

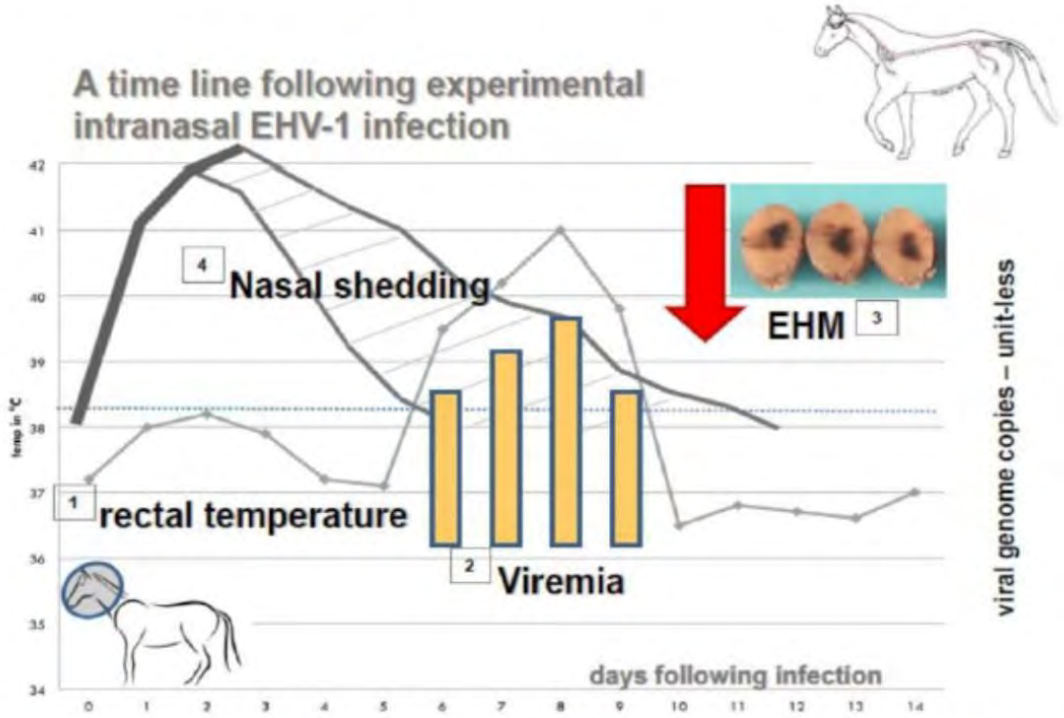
EHV-1/4 Refresher

- EHV-1 and EHV-4: EHV-1 is primary concern for neurologic disease
- Latency: up to 80 % of horses harbor latent EHV-1 from early-life infection - Broad population exposure
- Lifelong infection with cyclical shedding
- Reactivation triggers: Stress, travel, competition, commingling

- **EHM not currently preventable**

- Likely reportable!

Figure courtesy of Dr. Lutz Goerhrig, extracted from 2nd Edition of Equine Neurology.



This figure illustrates findings of nasal shedding; rectal temperature; viremia, and the (potential) occurrence of EHM following an **experimental** intranasal infection with EHV-1. X-axis: time in days; infection on day=0; Y-axis: rectal temp.in °C; alternative Y-axis: unit-less scale for viral genome quantities; dotted line: fever cut-off (38.3°C-101.3°F). 1- rectal temperature curve is often bi-phasic. Secondary fever is associated with 'cell-associated viremia'; 2- cell-associated viremia, duration 3 – 5 days as determined by PCR; 3- clinical EHM usually follows viremia; 4- nasal shedding is high during the first 3 days and may be associated with a primary fever. Duration of nasal shedding varies significantly between horses, which is represented by the area between the 2 lines of nasal shedding.

EHV-1 Transmission

- **Direct contact:** Nose-to-nose, respiratory secretions
- **Aerosol:** Respiratory droplets (effective distance <30 feet)
- **Fomites:** Contaminated equipment, water buckets, tack, humans (hands, clothing, boots)
- **Incubation period:** 2-10 days; horses can shed virus before showing signs

Clinical Presentation of EHV

- **Subclinical:** No apparent signs but shedding virus
- **Respiratory(Rhinopneumonitis)**
  - Fever (>101.5°F)
  - Nasal discharge, cough
  - Lethargy, malaise
  - Limb swelling/stocking up
- **Abortion/neonatal death:** Late-term; primarily EHV-1
- **Neurologic (EHM):** The feared manifestation
  - Caused by vasculitis and blood clots in spinal cord/brain

Recognizing EHM

- Incubation: 2-10 days (neurologic signs may appear later)
- Fever is often first sign - biphasic (up, down, up)
- Neurological signs
  - Ataxia, hindlimb weakness, dog sitting, recumbency
  - Bladder atony; difficulty voiding, or incontinence
  - Poor tail, anal tone, penis extension
  - Lethargy
- Viral load does NOT predict neurologic risk
- Differential: EPM, rabies, EEE, WEE, WNV, Wobblers, toxicity

Morbidity & Mortality

- Morbidity
  - ~85% of exposed horses develop clinical signs
  - ~35% of clinically ill horses develop neurologic signs

- Mortality
  - 15-30% (improved with early treatment)

Response!

- Identify isolation area
- Identify suspects
- Testing of suspects
  - Nasal swabs
  - Whole blood (EDTA)
- Identify exposed
  - Test (no)
  - Documentation!
  - WHO went WHERE, WHEN?
- Monitor exposed
  - Temperature log

Treatments

- NSAIDs, corticosteroids (for neurologic cases)
- Supportive care, sling support for recumbent horses
- Antivirals (valacyclovir, ganciclovir) - most effective early
- Anticoagulants (aspirin, heparin)
- Equine-origin amnion biologic product
- Adjunct therapies, Lysine, Zinc (anecdotal)

Prevention

Biosecurity

The only reliable defense

- ✓ Controllable
- ✓ Consistent
- ✓ Proven

Vaccination

Helpful, but incomplete

- ⚠ Slows shedding
- ⚠ Risk of infection
- ⚠ Does NOT prevent EHM

Luck

Wishful thinking

- ✗ Unpredictable
- ✗ Uncontrollable
- ✗ Fails eventually

Core Biosecurity Principles

Restricting horse contact
with other animals, humans, and equipment

Isolating and removing
sick horses promptly

Biosecurity

Monitoring horse health
temperature taking is paramount

Cleaning and disinfecting
equipment and common areas

Documentation
pre, during, and post-event

Biosecurity - Horse Contact

Photo credit: Katie Flynn, DVM

Biosecurity - Monitoring Horse Health

US EQUESTRIAN

INDIVIDUAL TEMPERATURE MONITORING LOG

HORSE'S NAME _____ ENTRY # _____

OWNER NAME _____

CONTACT PERSON NAME _____ CELL # _____

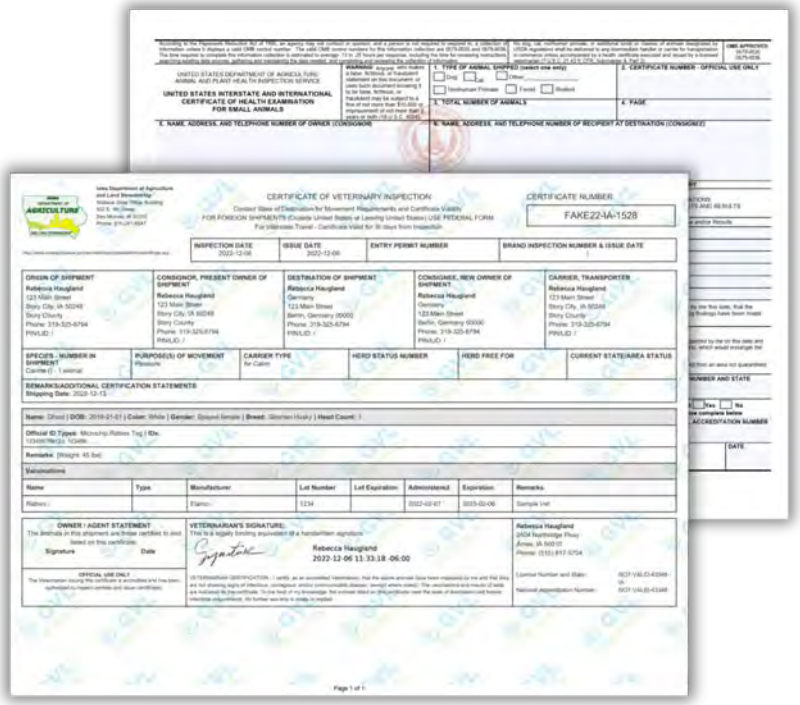
ATTENDING VETERINARIAN _____ CELL # _____

INSTRUCTIONS: Record the rectal body temperature of the horse two times/day, every morning and evening before any medications have been administered.

NOTE: A body temperature recording above 101.5 °F must be reported to a veterinarian and/or competition management.

DATE	TEMPERATURE AM	TEMPERATURE PM	CLINICAL OBSERVATIONS
	°F	°F	
	°F	°F	
	°F	°F	

Biosecurity - Travel / Health Documentation



UNITED STATES INTERSTATE AND INTERNATIONAL CERTIFICATE OF HEALTH EXAMINATION FOR SMALL ANIMALS

CERTIFICATE OF VETERINARY INSPECTION

CERTIFICATE NUMBER

FAKE22-IA-1528

Biosecurity - Clean and Disinfect

- Surface awareness
- Wash (remove organic material)
- Dry
- Disinfect (with correct disinfectant)

Biosecurity - Isolation

Event Venues Biosecurity Checklist

- ✅ Cleaning and Disinfection
- ✅ Temperature Monitoring
- ✅ Limiting Horse-to-Horse Contact
- ✅ Equipment & Fomite Management
- ✅ Identify an Isolation Area
- ✅ Documentation

PRE-Event Checklist for Owners and Veterinarians

- ✅ Horse healthy with no known exposure to affected horses
- ✅ Temperature monitoring 3-5 days prior to departure
- ✅ Current on EHV vaccination (within 6 months for frequent travelers)
- ✅ Check EDCC for active outbreaks in destination area
- ✅ Valid health certificate/CVI
- ✅ Personal biosecurity supplies packed (hand sanitizer, disinfectant wipes)
- ✅ Itinerary of equine including *after* event

POST-Event Checklist for Owners

- ✅ Isolate returning horses for 14 days (minimum 7 days for low-risk)
- ✅ Continue twice-daily temperature monitoring throughout quarantine period
- ✅ Watch for: fever, nasal discharge, neurologic signs, lethargy
- ✅ Clean and disinfect trailer, tack, equipment upon return
- ✅ If ANY signs develop: isolate immediately and do NOT move horse
- ✅ Call veterinarian

Why Document?

- November 2025 showed: Traceability saves horses
- State officials couldn't contact all exposed horses quickly
- Some horses attended multiple events before case notification
- "WHO went WHERE, WHEN?" - critical for outbreak response

Information Collected

- Horse name, owner, contact information (cell/email)
- Home location
- Owner / Agent
- Recent travel history/previous events
- Next destination!
- Arrival and departure dates
- Emergency contact
- Stall assignments and events
    - Where were they?

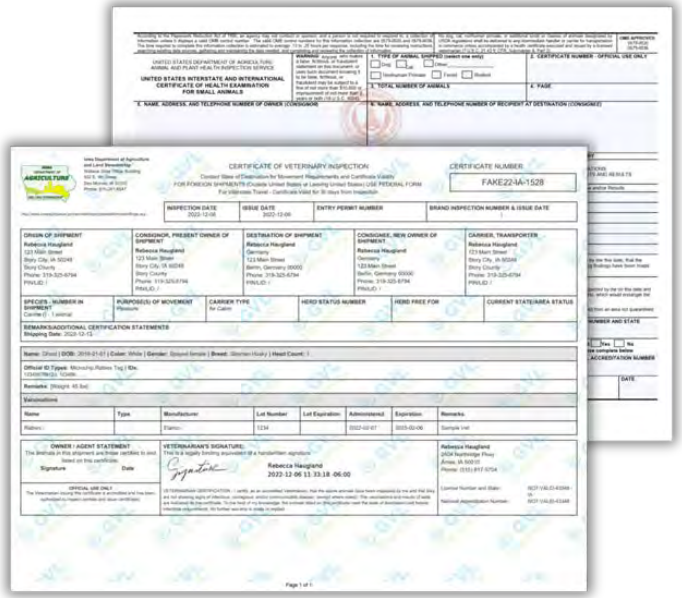
Documentation Sources

Event Logs

- Registration rosters
  - Who was there?

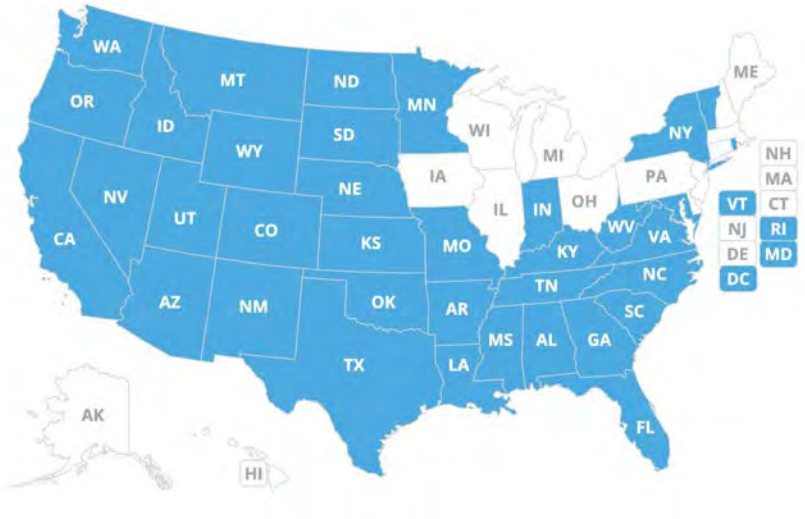
Movement Docs

- Import permits - state movement records
- Traditional 30-day health certificates (CVIs)
- Electronic CVIs (eCVIs) - more searchable, faster tracing
- Extended Equine CVIs (EECVIs) - 6-month certificates with trip permits



The EECVI Advantage for Traceability

- Single certificate valid 6 months
- Health Declaration & Movement Permits (HDMPs) logged for each trip
- Records: origin, destination, travel dates
- Ability to log next trip destination
- Low barrier to compliance for frequent travelers
- Currently accepted in 35+ states
- Electronic record = searchable during outbreak



Takeaways

- EHV-1/EHM cannot be prevented - make the first case the one and only
- Temperature monitoring is your first line of defense - (mild) fever often precedes shedding
- Immediate isolation of febrile horses may stop an outbreak
- Documentation and traceability are critical for outbreak response
- Biosecurity will trump good vaccination

Call To Action

- Implement EECVIs for clients who travel frequently - better traceability
- Encourage trip permit logging - helps identify where horses have been and where they're going
- Establish protocols now - before the next outbreak
- Partner with events in your area on biosecurity planning
- Have the conversations:
    - Biosecurity, Isolation, Record keeping, Temperature monitoring

Resources

- **EDCC:** Equinediseasecc.org (outbreak alerts, fact sheets)
- **AAEP:** Biosecurity Guidelines, Infectious Disease Guidelines
- **USEF:** Competition biosecurity resources, isolation planning
- **State:** Animal Health Officials: Contact list on USAHA/GVL website
- **EHM guidance**: USDA guidance on EHV (updated Nov 2025)

- **GVL:** Digital documentation tools (CVIs, EECVIs, trip permits)
  - EECVI program information
  - Webinar recording (will be available on GVL website)
  - State regulation lookup tools
  - MyVetLink for client access to document

Acknowledgement

- AAEP
- USEF
- CDFA
- Katie Flynn, DVM (USEF)
- Angela Pelzel-McCluskey, DVM (USDA)

Thank you, Dr. Zaluski

Questions?

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Thank you!

Additional questions?

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