EHV1 OUTBREAK MANAGEMENT FROM THE REGULATORY PERSPECTIVE

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EHV-1
National Problem

- Significant economic impact on the equine industry
  - Respiratory disease-Weanlings and yearlings
  - Abortions
  - Seeing increased prevalence of neurological disease

- Outbreaks costly to regulatory agencies and industry

- Multiple outbreaks at events since 2005
  - Includes Wellington Outbreak in 2006-2007
  - Ogden Utah (2011) QH event
    - > 2000 horse exposed, 90 confirmed with EHV and 13 died or euthanized
  - 2012 Outbreaks in at least 5 states
  - 2016 Outbreaks in 8 states to date

- Clinical neurologic cases are a reportable disease-F.A.C. 5C-20
EHV-1
Outbreak Control

- Movement restrictions
  - Quarantines
- Biosecurity
  - On farm methods
  - No shared equipment
  - Isolation barn/area
  - Take temperatures 2x/day
    - Keep logs-Test fevers
- Tracing of exposed horses
- Communication-Very Important!
Multiple Recommended Protocols

- **AAEP**
  - 21 to 28 day quarantine

- **AVMA**
  - 21 day quarantine

- **USAHA EHV-1 Guidance Document**
  - 14 to 21 day quarantine
Arizona EHM Protocols

- 21 day quarantine
- Febrile horses tested
- Exposed horses require normal temps without testing
- Index and any other positive cases require
  - Normal temperatures 2x/day with logs
  - Negative PCR tests results
California EHM Protocols

California

- Length of quarantine based on confidence of bio-security measures and evidence of disease spread (14 vs. 21 days)
- Quarantine of index case versus barn versus premises based on epidemiological investigation
- Clinical horses (febrile, nasal discharge or neuro) tested
- All non-clinical horses are typically not tested but require normal temps for 14 days without fever for release
Georgia EHM Protocols

Georgia

- 14 (test) or 28 day (no test) quarantine of entire premises
- Febrile horses tested
- All 14 day horses require
  - Normal temperatures 2x/day with logs
  - No clinical signs
  - Negative nasal PCR tests results on day 15, 16 and 17
  - 10 day self quarantine after premise release with new OCVI
Illinois EHM Protocols

- 21 or 28 day quarantine options
- Febrile horses tested
- All horses require testing at 21 days or 28 days w/o testing
- All cases require
  - Normal temperatures 2x/day with logs
  - No clinical signs of EHV
New Mexico EHM Protocols

New Mexico

- 14 day quarantine
- Febrile horses tested
- Exposed horses require normal temps without testing
- Index and any other positive cases require
  - Normal temperatures 2x/day with logs
  - Negative PCR tests results
Texas EHM Protocols

- 21 or 28 day quarantine options
- Febrile horses tested
- Exposed horses require normal temps and negative PCR testing at 21 days or 28 days without testing
- Index and any other positive cases require
  - Normal temperatures 2x/day with logs
  - Negative PCR tests results on day 21
New York EHM Protocols

- 28 day quarantine only
- Horses given option (large facility) to move to state approved location on case by case basis
- Febrile horses tested
- All horses require
  - No clinical signs
  - Normal temperatures 2x/day with logs
  - No test for release
Quarantines

- Positive neurological cases
- Must use strict biosecurity measures
  - Temperatures 2x/day with logs
  - Monitor daily

Quarantine Release Protocols (if only index case positive)

- 14 days with no clinical signs, no evidence of spread, biosecurity measures followed,
- All febrile horses test negative on blood and nasal PCR
- All high risk horses test negative via PCR on day 14
Quarantine Release Protocols (spread evident)

- 21 days with no clinical signs and all exposed horses test negative via blood and nasal PCR

**OR**

- 28 days with no clinical signs without testing
  - Good biosecurity practices with febrile horses testing negative
  - Protocol used in some backyard type horses
6-7 department employees working in the ICS
- Manned the gates 24/7 for 8 days, then facility night guard
  - Agricultural Law Enforcement
- Monitored quarantines daily
- Traced potentially exposed horses
- Communication
  - Public Information Officer (PIO)
    - Dept. of Agriculture
  - Veterinarians
  - State Officials
  - Florida Racetracks
  - Management of quarantine facilities
Payson Park
Aerial View
Horse with neurological signs on February 29th
- Arrived in Payson Park on February 23rd from Virginia
- Fever started on 27th
- Isolated on premises within 1 hour of reporting
- BADDL confirmed positive same afternoon
- Premises Quarantined, exit monitored overnight
- Informed South Carolina and Virginia of positive test
March 1

- Short IMT deployed and functional by 8pm
- Division of Animal Industry secured exit
- Began communication with Florida racetracks
- New febrile horse- tests returned negative same day
- Distributed bio-security information sheets (English and Spanish)
- Distributed temperature logs for return daily
- Twice daily conference calls to Tallahassee
Payson Park
EHV-1 Outbreak Summary 2016

- **March 2**
  - Epidemiological investigation complete and results distributed
  - Separate meetings with trainers and veterinarians

- **March 3**
  - Second meeting with trainers for riding schedule
  - Contacted SAHO on 5 trace-outs from Payson Park
  - Contacted Florida tracks about 33 day trip horses from PP
  - Distributed release protocol

- **March 14**
  - Blood and nasal samples collected from all high risk barns in addition to two horses in isolation were couriered to BADDL (77 total horses)

- **March 15**
  - All samples returned negative
  - Premise released from Quarantine except two horses in isolation
<table>
<thead>
<tr>
<th>Category</th>
<th>Quantity</th>
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<td>Premises quarantined</td>
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<tr>
<td>Total horses</td>
<td>670</td>
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<tr>
<td>Infected horses</td>
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<td>Horses with neurological signs (EHM)</td>
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<tr>
<td>Died or euthanized</td>
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<td>States with movement restrictions</td>
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<tr>
<td>Horses tested for quarantine release</td>
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Challenges/Lessons Learned

- Facility Management
  - Physical Facilities
  - Preparedness
  - Biosecurity Commitment

- Communication
  - Owners/trainers
  - Industry
  - Animal Health Officials
  - Website
  - Media and Public