



## Webinar on Equine Rhinopneumonitis (EHV-1 and 4)

Case study reports: Outbreaks of EHV in Spain, 2021 and 2023

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# EHV-1 outbreak Valencia - Feb 2021

- Resulted in the FEI cancelling competition for six weeks in 12 countries across Europe.
- 20 affected horses were euthanised and the FEI imposed mandatory testing on 3836 horses, before these were allowed to compete again, to prevent transmission of the virus.
- 10 different National Federations reported cases that were epidemiologically linked to the outbreaks
- Overall number of clinically and subclinically affected horses is unknown.

# Situation on-site

Event started on 28 January 2021

... on 20 February 2021

- 20 pyrexemic horses at the CES Valencia Spring Tour in Spain
- Confirmed case of EHV-1 neurological disease in a horse that had recently returned home to France following participation in the event.

The event, taking place over four consecutive weeks with a total of 752 competing horses, was cancelled the day after.

160 horses remained at the venue, 118 were clinically or subclinically infected with EHV-1 and eight of these horses had to be euthanased.

# Initial stages of the outbreak

Focus:

- Ensuring sufficient resources were available to treat affected horses at the venue.
- Preventing further transmission of EHV-1 to the wider equine community.

# Ensuring sufficient resources

Communication between different parties was challenging during the first week.

- Local Veterinary authorities didn't have experience in this type of scenario. This slowed down the initial response.
- 2 Veterinarians on-site. This proved insufficient and the FEI received requests from the athletes for more resources on February 25.
- FEI Vet Manager was deployed on-site to establish direct contact lines.
- A team of Veterinarians was hired by the FEI and the Valencia University Equine Hospital was engaged.

# Preventing further transmission

A tracing exercise was carried out on the horses that had left the CES Valencia Spring Tour before 20 February which identified horses that had travelled to:

- An event in Doha, Qatar. Two subsequently tested positive for EHV-1, despite testing negative initially.
- An event in Oliva, Spain
- An event in Vejer de la Frontera, Spain

These horses were isolated at the event venue and prevented from competing.

# Advisory and support

The FEI's Veterinary Department formed the FEI Epidemiology Group, which provided invaluable guidance on:

- required biosecurity measures, their implementation and lifting
- carrying out risk analyses
- disease surveillance

NFs were actively involved in the transport and management of horses returning to their home stables.

# Follow-up measures

The FEI received additional reports of confirmed EHV-1 cases in horses that had competed at the event.

- Competitions were cancelled on mainland Europe between 1 March and 11 April to prevent further disease transmission. (78 FEI Events)
- All horses that participated in the CES Valencia Spring Tour, the Sunshine Tour, the Doha event and Oliva Nova Tour were blocked in the FEI database and prevented from competing in future FEI events until they had satisfied an **FEI's protocol** and **EHV-1 testing requirements**. In total, 3836 horses were affected by the measures.

# Tracing tools

The FEI database was central in identifying horses that had attended each event.

Data were lacking regarding the horses' arrival and departure dates at events, which would have been advantageous to the tracing exercise. This was addressed by the launch of the **FEI HorseApp** when competition resumed.

# FEI's Protocol for unblocking

Temperature monitoring 2x/day.

**Day 0:** day horse left the venue or last day of potential contact with a horse that developed symptoms/tested positive for EHV-1.

2 negative EHV-1 tests:

- Negative EHV-1 PCR test from a nasopharyngeal swab sample taken Day 7
- Negative EHV-1 PCR test from a nasopharyngeal swab sample taken Day 14

or

1 negative EHV-1 test:

- Negative EHV-1 PCR test from a nasopharyngeal swab sample taken after Day 21

# Laboratories

The international collaboration of laboratories, led by the Irish Equine Centre (WOAH Reference Laboratory) was instrumental in identifying positive cases and characterising the virus as the A2254/N725 genotype.

Allowed to determine epidemiological links between cases and event venues, enabled a greater understanding of the outbreak's extent and supported decisions concerning the implementation and lifting of additional biosecurity measures and, in some cases, the retention of those measures.

# Return to competition

FEI events resumed in mainland Europe on 12 April and were subject to enhanced biosecurity measures, as advised by the FEI Epidemiology Group, until 30 May – including Pre-arrival EHV-1 testing (FEI by-laws).

- mandatory EHV-1 testing by PCR analysis of nasopharyngeal swabs was imposed at events where more than 400 horses were staying overnight;
- samples had to be taken within 5 days of the horse's arrival at the event.

# Communication

Well-timed, clear communications to FEI stakeholders and the equestrian media were crucial to the management of the outbreak.

- Dedicated online EHV-1 hub provided daily updates on the evolution of the outbreak;
- The FEI also kept the European Commission's Directorate of Health – DG-Santé – the horseracing industry and WOAH updated as the outbreak evolved;
- NFs, the IJRC and the EEF played important roles in assisting the FEI to reach out and support athletes.

# EHV-1 outbreak Oliva Nova – Feb 2023

1000 horses at the venue

3 horses in one stable block were reported with fever  
10 were placed in isolation and swabs were taken.  
4 horses tested positive for EHV-1.

Spanish Veterinary Authorities closed the venue after being notified of 4 positive EHV-1 cases.

All positive and symptomatic cases were stabled in the same stable block and were isolated when first picked-up.

# Follow-up measures

The Local Veterinary Authorities assessed the situation and decided to keep in isolation all healthy horses in the affected tent (71 by that time).

Horses stabled in other separate stable blocks were able to leave the venue:

- after examination and issuing of health certificate by competent authorities.
- under the condition that all horses on venue were blocked in the FEI system and not allowed to return to competition before complying with the FEI's protocol for EHV-1 testing and unblocking.

# Tracing exercise

Horses that had been in Oliva and had left to other events

7 horses departed from Oliva prior to the first confirmed EHV-1 case:

- 1 travelled to Valencia (ESP)
- 4 to Vejer de la Frontera (ESP)
- 2 to Doha (QAT)

They were immediately isolated on request of the FEI and asked to comply with the FEI Return to Competition protocols while in isolation.

None of those horses had fever or other clinical signs.

# Outcome

- 81 horses in same stable block
- 29 tested positive/doubtful
- 15 had fever
- 9 hospitalized (8 with light neurological symptoms)
- No fatalities

# Lessons learned

- Local veterinary authorities - Better prepared. Clear communication from the onset of the outbreak on which measures were to be put in place (groups of horses within the venue and protocols to release them)
- Treatment protocols - (know-how acquired from previous outbreak)
- Referral Centre - (decision making on when to refer)
- Communication - (clear lines of communication established from the beginning with all stakeholders involved)
- Biosecurity measures - (new regulations were in place and helped spotting the cases sooner and acting on them more efficiently)

# Questions



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