AGRICULTURE VICTORIA

Hendra virus (HeV)

Hendra virus (HeV) is a disease transmitted to horses by flying foxes (bats). On rare occasions, infected horses have caused disease in humans. Victoria has not recorded a case of Hendra virus, but continued vigilance is imperative to protect human and animal health.

WHAT IS HENDRA?

Hendra is a sporadic viral disease of horses (and rarely humans) caused by a Henipavirus.

Pteropid bats (flying foxes) are the natural reservoir of the virus and do not develop clinical disease.

Research suggests that one of the highest transmission risks is contamination of horses feed or water with the urine from infected bats. Black flying foxes and Spectacled flying foxes have been linked to previous Hendra outbreaks. However, there is still evidence of the virus in local Pteropid bat species (i.e. Grey-headed flying foxes).

Although Hendra cases have only occurred in Queensland and NSW to date, it is a risk in all areas of Australia that flying foxes and horses co-exist.

HOW IS THE VIRUS SPREAD?

Transmission of the virus requires close contact.

The exact route of transmission of Hendra virus is not fully understood, but it is thought that horses become infected through close contact with body fluids/excretions such as urine and/or birthing fluids from Pteropid bats species (flying foxes).

Contamination of feed and water sources beneath bat roosts have been identified as potential sources of infection.

Infected horses occasionally transmit Hendra to other horses or humans (and potentially other animals) by close contact with respiratory secretions or other bodily fluid that contains the virus.

Other risks include indirect contact with contaminated equipment.

CAN THE VIRUS SPREAD TO HUMANS?

Hendra virus is a zoonotic disease meaning it can spread to humans. The transmission of Hendra virus from horses to humans is a rare event, but the consequences are serious. Of the seven human cases diagnosed, four have died.

The common risk factor in these cases has been close occupational contact with horses- in particular, high-level exposure to respiratory sections, blood or other bodily fluids from horses infected with Hendra.

Direct transmission from bats-to-humans, human-to-human, or other species-to-human has not been recorded.

WHAT ARE THE SYMPTOMS OF HENDRA IN PEOPLE?

Human infections with Hendra virus range from mild influenza-like illness to severe respiratory disease (pneumonia) or neurological disease (meningitis and encephalitis). Onset of illness usually occurs between 5-21 days after exposure to an infected horse.

Symptoms of infection in a person can include fever, headache, dry cough, sore throat, breathing difficulties, dizziness, unusual sleepiness and confusion.

I THINK I HAVE HENDRA – WHAT SHOULD I DO?

Medical advice should be sought immediately if you or anyone you have been in close contact with, experience the symptoms noted above. This also applies if you think you have been exposed to infected materials.

WHAT ARE THE CLINICAL SIGNS OF HENDRA IN HORSES?

Typically, Hendra infection causes an acute illness that is rapidly fatal; however, some cases have shown variable and sometimes vague clinical signs.

Signs have included fever, increased heart rate, difficulty and/or rapid breathing, depression, weakness and neurological signs such as an uncoordinated gait, head tilt, muscle twitching, apparent vision loss and/or aimless walking.

There are no specific or unique clinical signs for Hendra infection in a sick animal.

WHAT DO I DO IF I SUSPECT HENDRA IN MY ANIMALS?

Immediately report any unusual signs of disease to your local veterinarian or Agriculture Victoria Animal Health and Welfare staff.

Disease notifications can also be reported to the Emergency Animal Disease Hotline on 1800 675 888, which is a 24/7 service.

Hendra disease is a Notifiable Disease, and any suspected cases must be immediately reported to Agriculture Victoria on the Emergency Animal Disease Hotline.

Sick horses should be isolated from other animals and humans. Avoid close contact with the sick horse and any other animals that have been close by until testing can determine if Hendra virus is present. If you do need to go into contact with the sick horse, it is important that you wear appropriate Personal Protective Equipment (PPE).

HOW CAN I REDUCE THE RISK OF HORSES BECOMING INFECTED?

The single most effective way to reduce the risk of Hendra virus infection in horses is to vaccinate. Annual boosters, (following the initial priming course of injections) have been proven to protect horses from infections and reduce shedding in clinical cases. Importantly, vaccination of horses secondarily protects humans from Hendra infection.

Isolate new horses to your property, especially if they have travelled or co-mingled at equine events with horses from areas where Hendra cases have been previously detected (i.e. NSW or Queensland). Carefully monitor their health and report any signs of illness early.

Remove horse feed and water containers from under trees where flying foxes may be roosting or feeding.

Note: The destruction or relocation of flying foxes is not an effective risk management practice and is illegal. Flying foxes are a protected species and play an important ecological role. There are more effective ways of reducing the risk of Hendra disease.

HOW CAN I REDUCE THE RISK OF EXPOSURE?

Appropriate use of Personal Protective Equipment (PPE) has proven to be highly effective against contracting illness. There have been no reported cases of Hendra in people who have been wearing PPE.

Practice good hygiene principles when wearing PPE;

- Avoid touching your mouth, eyes and nose,
- Cover any cuts or grazes with a water-resistant dressing under PPE (i.e. Band-Aid),
- Do not eat or drink whilst wearing PPE,
- Thoroughly wash hands and face after removing PPE & shower at the end of the shift before handling other animals.

- **When working on properties and in-contact with potentially infected animals or materials;**
  - Waterproof footwear, i.e. gumboots
  - Disposable overalls
  - Gloves
  - P2 facemask (minimum)
  - Protective eyewear

When working on properties without contact with potentially infected animals or materials:

- Waterproof footwear, i.e. gumboots
- Disposable overalls
- Gloves

Any additional recommendations or requirements will be provided by Agriculture Victoria based on a case-by-case assessment of the risk.

HOW CAN I REDUCE THE RISK OF SPREAD?

Good hygiene and biosecurity, plus appropriate use of PPE will reduce the risk of spreading Hendra virus. Thoroughly washing/disinfecting yourself and any materials/vehicles before leaving an infected property will protect you from spreading the virus to other **people or animals.**

Infection has primarily been seen in horses, however dogs have also demonstrated exposure to infection on properties where horses have tested positive. Sick horses should be isolated from other animals and humans, and further advice sought from Agriculture Victoria regarding their management.

It is recommended to shower and launder all clothing worn during your contact with the sick horse before engaging with other people or handling other animals. Any additional recommendations will be provided by Agriculture Victoria on a case-by-case basis.

WHAT IS THE GOVERNMENT'S RESPONSE TO HENDRA?

Hendra virus is a serious risk to human and animal health. Agriculture Victoria in consultation with you and your veterinarian will manage any suspect or confirmed case/s.

The affected property will be placed under quarantine until there is sufficient evidence that Hendra virus has been controlled.

Horses and other susceptible species will be tested and their health monitored for any signs of Hendra virus infection. Tracing of any horse movements associated with the affected property will also be undertaken.

Any decision to euthanase infected horses, (or other animals) will be made on a case-by-case basis. This decision will be made by Agriculture Victoria based on the welfare of the infected animal, human health risks, biosecurity risks and in consultation with the owner.

Vaccination of horses against Hendra virus is the most effective means of preventing infection in horses.

FURTHER INFORMATION

- AUSVETPLAN – Hendra Virus Response Strategy https://animalhealthaustralia.com.au/ausvetplan/
- Department of Health, Victoria https://www.health.vic.gov.au/infectious-diseases/hendra-virus-disease
- Agriculture Victoria – Hendra virus https://agriculture.vic.gov.au/biosecurity/animal-diseases/horse-diseases/hendra-virus

ACCESSIBILITY

If you would like to receive this information/publication in an accessible format (such as large print or audio) please call the Customer Service Centre on 136 186, TTY 1800 122 969, or email customer.service@ecodev.vic.gov.au.

Department of Health has an information service for queries on human health issues relating to Hendra virus 1300 651 160.

This document is also available in (PDF and/or Word) format at http://agriculture.vic.gov.au/