

HENDRA VIRUS IN HORSES AND WH&S

To introduce myself, I have been working as an employed Equine Veterinarian for over 30 years, and have worked in 5 states of Australia and the UK at different times. I am a member of the Australian and New Zealand College of Veterinary Scientists (a qualification granted through an examination process), in the discipline of Equine Medicine. I have resided and worked in Queensland for the last 11 years, and have witnessed the emergence of Hendra virus as a significant, if not the most significant, pathogen to affect ownership and management of horses ever seen in Australia. I am a member of Equine Veterinarians Australia.

Arguably, this biological agent challenges patients, veterinarians, owners, handlers, neighbours, event organisers, researchers, laboratory staff, vaccine producers, and regulatory authorities with more complexity than any biological agent that has emerged in Australia.

Here are the salient facts which support this premise:

1. It is a sporadic disease, which crops up unpredictably, emerging in 1994, and has killed over 120 horses and 4 humans with a mortality rate of nearly 60%. The recovered human cases have had a major health legacy, and any recovered horses have been euthanased.
2. There is a strong epidemiological link to flying foxes, but the disease does not always express itself even when colonies of flying foxes are carrying the virus in large numbers near horses.
3. Infected horses can shed infective virus for up to 3 days prior to showing clinical signs, and continue to shed in increasing amounts till death.
4. The clinical signs vary widely, and so diagnosis relies totally on laboratory testing, which usually has a turnaround time of 1-4 days, depending on what time of the week samples are submitted- if you attend a case on Friday afternoon, and you live >100km from Brisbane, you will not get an answer till Tuesday, and by then the horse will probably be dead, and your clients possibly exposed.
5. Laboratory samples for diagnosis have to be carefully packaged and labelled, but the Biosecurity laboratories will not do any weekend testing of exclusions.
6. Laboratory testing of the disease for research and vaccine development can only be carried out in a Level 4 Biosecurity laboratory, with researchers wearing "space suits", and no animal can leave this level alive. All research animals are euthanased and incinerated onsite.
7. Because of the size of the Level 4 biosecurity lab at CSIRO's Australian Animal Health Laboratories (AAHL), only 3 horses can be handled at any one time for challenge studies. Because of this, there have been few horses tested via challenge studies for the efficacy of the vaccine, which has resulted in the APVMA being very cautious in endorsing the vaccine without caveats. However, the CSIRO scientists who developed the vaccine believe it to be very effective, and to date adverse reactions investigated by the APVMA have found the vaccine to have a low level of adverse reactions.
8. Both Biosecurity Queensland and WH&S Queensland state that Vaccination of horses is the most effective way to prevent human infections.
9. Several large equine bodies have resisted the recommendations to vaccinate horses, especially the Racing Authorities, who run large numbers of race meetings where humans and horses come into contact, but have yet to mandate vaccination. Similarly, the Endurance sector has been reluctant to embrace vaccination, primarily due to the importation regulations in the UAE which have recently been amended.
10. There is a highly vocal anti Hendra vaccination lobby amongst influential Equestrian personalities, including Olympic level riders, who have used social media to draw attention to reports of reactions to the vaccine, many of which have been unsubstantiated by rigorous

investigation. There is resistance to the uptake of this very important vaccine which appears to be partially fuelled by social media reports of severe reactions which don't match the data provided to us by Zoetis, the vaccine's manufacturer, the CSIRO, who developed the vaccine, nor the APVMA, the regulatory body that investigates any reports of adverse reactions, and also the experience of most, if not all, EVA members. I am therefore concerned that these reports may be unsubstantiated, or lack the detailed forensic style investigation required to rule out other causes of these horses' ailments, but that they are nevertheless gaining attention in the horse owning community and fuelling suspicion and reduced confidence in the vaccine, the manufacturer Zoetis, the APVMA, the Queensland Government, and equine veterinarians.

I have personally administered in excess of 800 doses of Hendra vaccine Equivac HeV. I have had only 3 horses develop a reaction to the vaccine, and this has manifested as muscle pain and mild swelling.

11. The APVMA have published a list of probable and possible adverse reactions to the vaccine, with 7 possible deaths, but no probable deaths associated with the vaccine*

*A recent case of supposed vaccine reaction related illness in a horse, Bella, at Tin Can Bay caused a major social media backlash against the vaccine, the manufacturer Zoetis, and the private Veterinarians involved. There were several reports on media outlets which seemed to take the side of the aggrieved owners and anti-vaccination lobby. The horse was subsequently euthanased and a post mortem at the UQ Veterinary School showed that it had a cancerous growth in its spinal cord. The report of these findings did not reach the same audience level as the initial reporting of the case, so many still believe that this was a vaccine reaction. If the owners had not consented to a post mortem on this horse, the APVMA would have had no choice but to list it as a "possible death". How many of those listed as "possible deaths" are the same as this case?

12. Veterinary Practices have had to decide, for the sake of their staff and WH&S issues, whether to attend any sick horses which are not vaccinated for Hendra virus. This has caused a lot of significant issues both within the practices, and especially among their clients. (I have recently been getting calls from distant clients, whose regular Veterinary practice has decided to implement a policy that they will not attend any sick horses which are unvaccinated for Hendra).

13. Attending, examining, and treating a sick horse may involve all or any of the following procedures, and at any time of day or night, in many varied geographical locations, including in the bottom of deep bogholes, in flooded stormwater drains, in collapsed mines (I have done all these), on racetracks, in the middle of Agricultural shows, during Race meetings, etc:

- opening the mouth and compressing the gums with a finger to assess hydration/circulation status
- placing a thermometer into the rectum to record temperature-many horses greatly resent this procedure
- collecting a blood sample
- collecting a sample of abdominal fluid using a blunt stylet through a small incision in the ventral abdomen
- collecting oral, nasal or rectal swabs
- passing a stomach tube, to diagnose, or to clear a blockage, or to give oral fluid therapy.
- conducting a deep rectal examination with a gloved hand to manually palpate the abdominal organs
- conducting an endoscopic exam of the upper respiratory tract
- the placing of an intravenous catheter for intravenous fluid therapy
- administration of intravenous, intramuscular, or subcutaneous medications

- advising owners/handlers in detail regarding handling/ ongoing treatment of the patient
- correct choice and wearing of Personal Protective Equipment (PPE)

14. Event organisers have been unwilling to mandate vaccination because of the fear of reduced participation of horses in their event. Private Veterinarians are asked to provide advice for event organisers to develop a biosecurity plan for their event. In Hendra virus endemic areas, these Veterinarians are obliged to advise that the event be a mandatory Hendra Vaccination event. Event organisers witness that Thoroughbred and Harness race events, and Endurance rides, proceed without vaccination being mandated. As there is crossover of clients in these disciplines with their participants, they have difficulty convincing many participants that vaccination is necessary.
15. With the history of outbreaks and human deaths, several regulatory authorities have developed guidelines and protocols for handling “suspect” Hendra cases, including Biosecurity Queensland, Workplace Health and Safety Queensland, and Queensland Health.
16. Workplace Health and Safety Queensland has initiated prosecution proceedings against 3 veterinarians over circumstances surrounding cases of Hendra virus infection.

From an industry perspective, and what I consider to be the MOST IMPORTANT factor in one case is that the owners were advised on at least 2 occasions that they should have their horses vaccinated against Hendra, and declined to do so.

Surely, this omission is a far greater transgression of obligation under WH&S laws, than anything occurring at the time of attendance of an infected horse. Workplace Health and Safety Queensland’s website states clearly, on the fact sheet “Hendra virus – information for horse properties and other horse businesses” the following:

Prevention *A Hendra virus vaccine for horses is available. The vaccine is the single most effective way of reducing the risk of Hendra virus infection in horses and provides a work health and safety and public health benefit. Vaccination of horses is strongly encouraged and horse owners should discuss this with their veterinarian.*

If we, as Veterinarians, have advised our clients of the above statement, and, for whatever reason, they decline to do so, surely this omission is transgressing Section 19 (if they are conducting a business) of the Workplace Health and Safety Act 2011, which states:

19 Primary duty of care

(1) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, the health and safety of—

(a) workers engaged, or caused to be engaged by the person; and
(b) workers whose activities in carrying out work are influenced or directed by the person; while the workers are at work in the business or undertaking.

(2) A person conducting a business or undertaking must ensure, so far as is reasonably practicable, that the health and safety of other persons is not put at risk from work carried out as part of the conduct of the business or undertaking.

For our clients who are not conducting a business, the same would apply in Section 29:

29 Duties of other persons at the workplace *A person at a workplace, whether or not the person has another duty under this part, must—*
(a) take reasonable care for his or her own health and safety; and
(b) take reasonable care that his or her acts or omissions do not adversely affect the health and safety of other persons; and
*(c) comply, so far as the person is reasonably able, with **any reasonable instruction that is given by the person conducting the business or undertaking to allow the person conducting the business or undertaking to comply with this Act.***

It would seem very clear from the statement I have highlighted in red in part c, that if we, as Veterinarians, instruct our clients that, to comply with the act, they should vaccinate their horses against Hendra, being that this is a reasonable instruction, and they choose to ignore this instruction, they are transgressing the act, and their omission in this instance could “adversely affect the health and safety of other persons”.

Their property becomes our workplace as soon as we attend there to visit their animals, and hence, under workplace health and safety legislation, they have an obligation to comply with the act.

I believe that prosecuting Veterinarians in the line of providing a service to determine if a horse is infected with a virus which has claimed the lives of 2 Veterinarians, when the client has had every opportunity to prevent this occurring by vaccinating their horses, is a major miscarriage of justice.

The Queensland Government derives a significant income from the Racing codes. On Queensland Government websites, as I pointed out before, it is stated clearly that a Hendra vaccine is available, and “*The vaccine is the single most effective way of reducing the risk of Hendra virus infection in horses and provides a work health and safety and public health benefit. Vaccination of horses is strongly encouraged and horse owners should discuss this with their veterinarian.....*”

Why, therefore, is it, that large race meetings, with close contact between horses and the racing public, not to mention the contact that occurs between strappers, jockeys and trainers with unvaccinated horses, seem to continue without Workplace Health and Safety officers scrutinising this blatant omission in obligation under the act, the transgression of Section 19.

I believe that Workplace Health and Safety Queensland are failing in their obligations by not tackling the big issue head on, but are rather going for “soft targets” by prosecuting employed Veterinarians.

An economist would look at this issue another way – what has Hendra virus cost the Queensland Government. This would encompass Queensland Health, Biosecurity and WH&S costs primarily the incalculable loss of lives.

What then would it cost the Queensland Government to take over the vaccination of horses and subsidise this process. If your Government could negotiate with Zoetis on vaccine cost, employ a team of Veterinarians and staff to process the vaccinations and in doing so prevent any cases of Hendra occurring anywhere, would these costs negate each other?

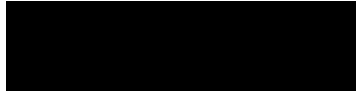
In closing, I would like to re-iterate that I believe as a veterinarian, the WH&S responsibility lies more with the owner/carer of horses if they choose to ignore advice to vaccinate, rather than Veterinarians in the field having to attend these horses, when government departments clearly states that is the single most effective way to prevent a horse becoming infected.

I am attaching along with this submission, acknowledgement forms I intend to start using pending the results of WH&S prosecutions and and this parliamentary inquiry

Thank you,

Regards,

Dr Steve Dennis BVSc(Hons) MANZCVS (Equine Medicine)



Brooloo QLD 4570