# SUBMISSION: Hendra Virus Vaccine and Its Use by Veterinary Surgeons in Queensland 

Hendra Virus Vaccine and Its Use by Veterinary Surgeons in Queensland Agriculture \& Environment Committee
Parliament House
George Street
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I would like to register my support for the safety and effectiveness of the Hendra virus vaccine and advocate for mandatory Hendra virus vaccination of horses. As a veterinarian who works in a small animal/equine hospital, I am very aware of the benefits of such a policy to our patients (horses), their owners and families, as well as veterinary staff. Hendra virus is a potentially fatal zoonosis (disease transmitted from animal to humans). Hendra virus vaccine has been developed by a highly credible government, scientific organisation, the CSIRO, and approved through the Australian Pesticides and Veterinary Medicines Authority (APVMA), an Australian Government authority. The APVMA ensures "Australians (have) access to safe and effective agricultural and veterinary (agvet) chemicals to control pests and diseases on animals and plants. Because of the potential risks from the incorrect use of agvet chemicals, the Australian Government has, for many years, played a key role in the regulation of pesticides and veterinary medicines. Regulatory measures are in place to ensure these chemicals work, but are also safe for humans, non-target animals and plants, and the environment" (APVMA, 2016). Furthermore, the Hendra virus vaccination is cost effective with some practices charging just above cost price (cost is $\$ 65.89$ per vaccine; client cost $\$ 88.00$ per vaccination in total, including travel up to 30 km , Manly Road Veterinary Hospital ) to ensure the health and safety of horses, their owners and families, as well as veterinary staff. Vaccination is also safe with minimal side effects.

Additionally, on a risk assessment, Hendra virus has extreme consequences for humans (death or serious morbidity). Therefore when applying the work, health and safety hierarchy of risk control, it is obvious that this disease needs to be managed at the highest level - "Eliminate" (see diagram below). Elimination can be achieved by vaccination, which is recommended by Work, Health \& Safety Queensland, the Australian Veterinary Association and Queensland Health, as the single most effective strategy in managing the risk of Hendra virus disease in horses and humans.


Vaccination is cost effective with some practices charging just above cost price (cost is $\$ 65.89$ per vaccine; client cost $\$ 88.00$ per vaccination in total, including travel up to 30 km ) to ensure the health and safety of horses, their owners and families, as well as veterinary staff. Vaccination is also safe with minimal side effects, similar to that experienced after the annual influenza vaccination for humans.

Furthermore, in advocating for Hendra virus vaccination, the following scientifically-based safety information needs to be considered:

- According to McDonald (2007), in terms of a person sustaining personal damage at work, the greatest impact on the community, financially, and in terms of pain and suffering, arise from the small number of cases categorised as Class I damage. Class I damage involves permanently altering a person's life through a fatality or full or partial incapacity - all possible consequences of Hendra virus.
- According to McDonald (2007), to minimise the potential for Class I damage to a person solutions should, if possible, come from the upper three levels of the Hierarchy of Control (Elimination, Substitution, Engineering). Levels 4 and 5 of the Hierarchy of Control (Administrative Controls and PPE) should only be involved if solutions cannot be found in Levels 1, 2 and 3 (McDonald, 2007). For Hendra Virus in horses and its zoonotic potential for humans, there is a solution available at Level 1 Elimination - vaccination of all horses.
- McDonald (2007, Section IX, p. 3) adds that the lower Levels 4 and 5 of the Hierarchy of Control "require constant input and monitoring to remain effective".
- Therefore it can be concluded that relying on PPE (Level 5 in the Hierarchy of Control) to keep lay people safe from a potentially fatal zoonosis is not a highly effective measure. Current experiences with Ebola virus have proven how easily breaches in the use of PPE can occur even in highly trained staff.
- Key stakeholders (Australian Veterinary Association, Biosecurity Queensland, Work, Health and Safety Queensland and others) need to work together cooperatively to bring about a Level

1 solution to the Hendra virus problem through mandatory vaccination of all horses in "at risk" areas.

- According to McDonald's (2007) model, the Hendra virus problem should be an opportunity for creating a positive "change for the future, not blame for the past". The situation with Hendra virus is evolving and all stakeholder groups are still learning. The situation warrants open communication amongst stakeholders that will facilitate growth in the knowledge, understanding and skills required to develop and implement effective solutions (McDonald, 2007, Section IX, p. 3).
- According to McDonald (2007), it also needs to be acknowledged that worker error is not always a result of carelessness or negligence, but rather a reflection of normal human behavioural characteristics (McDonald, 2007). Human error in the workplace can be attributable to factors such as fatigue or excessive heat, for example; both potential consequences of wearing full PPE for Hendra virus in Queensland. Therefore, in addressing the current Hendra virus problem, it is recommended that all stakeholders focus on "change for the future, not blame for the past" (McDonald, 2007).
- I agree therefore with key stakeholders (Australian Veterinary Association, Biosecurity Queensland, Work, Health and Safety Queensland, Biosecurity Queensland, Queensland Health) that we need to work together cooperatively to bring about a Level 1 solution to the Hendra virus problem through mandatory vaccination of all horses in "at risk" areas.

Thank you for this opportunity to put forward my views on this important matter which is critical to the safety of all involved with horses, at all levels.

## Reference

Australian Pesticides and Veterinary Medicines Authority 2016, 'Access to safe and effective agricultural and veterinary chemicals'. Accessed 8 April 2016.
http://apvma.gov.au/node/1104
McDonald, G.L. (2007). 'Safe from' information organisers. Geoff McDonald \& Associates, Queensland, Australia.

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