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Submission to Parliamentary Review of The Hendra Vaccine

I request that you consider the following:

THAT THE CURRENT HENDRA VACCINATION PROTOCOL IS UNSOUND, BASED ON NO SCIENTIFIC PRINCIPLE, AND IS POTENTIALLY ENDANGERING THE LIVES OF HORSES

The current vaccination protocol for the Hendra vaccine is

- first dose
- followed by a second 21-42 days later
- followed by a booster shot every six months
- if a booster shot is 'missed', the horse is considered to be 'unprotected' and is required to have two shots 21-42 days apart, followed by 6 monthly boosts

Background

- the role of a vaccine is to prime the immune system, exposing a subject to an infective agent without causing infection, such that if the subject ever encounters the infective agent, its immune system recognises it and takes immediate action to neutralise it
- a major immune response to a vaccine, or natural infection, is the production of specific antibodies to the infective agent which bind and neutralise, preventing infection
- a naïve subject (unvaccinated or not having met the infective agent before) will take up to 21 days to produce a significant amount of specific antibodies (primary response)
- a previously exposed (due to vaccination or natural infection) subject, whose immune system is primed to respond, will produce a significant amount of specific antibodies to the infective agent within a few hours (secondary response).
- the immune system remembers foreign agents that it has encountered: it does not need to be constantly reminded by repeated, regular exposure
- antibody concentration is expressed as a 'titre': this is the reciprocal of the dilution of serum at which antibodies can no longer be detected. Thus the higher the titre, the more antibodies there are circulating in the subject's blood stream
- it is not known what antibody titre is required to provide guaranteed protection against immunity. This is likely to vary from subject to subject. However, in theory, the presence of even one antibody (which would not be detectable using current test methods) would indicate prior exposure and the ability to mount a secondary response
- published results of trials conducted by CSIRO/Zoetis indicate that two horses with Hendra antibody titres of 16 were protected from infection when exposed to the virus under controlled conditions

- horse owners who have subjected serum from their vaccinated horses for Hendra antibody titre testing are reporting titres significantly in excess of 16 up to two years after their last dose of vaccine
- in the latter half of the 20th century Veterinary Practitioners began to recommend that companion animals and horses receive annual boosts of vaccines that were previously given to youngstock in the belief that the animals were then protected for life (due to the memory of their immune systems). The change in practice was based on no scientific data or principles. As increasing numbers of animals, particularly cats, began to develop tumours at vaccination sites, and correlations between vaccines and autoimmune, neurological and behaviour disorders began to be observed, the American Veterinary Association recommended that annual vaccinations were not necessary. The Australian Veterinary Association initially agreed, but then repealed their recommendation, and now state that their Members should make their own decision on a case by case basis.
- Veterinary Practitioners, including Dr Jean Dodds DVM, have expressed concern over the practice of over-vaccinating animals, stating that
 - annual boosters are likely to be of little benefit to the existing level of immune protection
 - the risk of adverse reactions due to repeated exposure to foreign substances is increased
 - frequent re-vaccination has been observed to weaken the immune system of some horses

Conclusions

- The current Hendra vaccination protocol
 - Is contrary to immunological principles. A previously vaccinated horse would be expected to mount a secondary response to a booster shot of vaccine, not matter how long it had been since its previous exposure.
 - Has the potential to endanger the health/life of a horse by increasing the risk of adverse reactions and weakening the immune system.
- Adequate testing of titres at defined time points post vaccination was not conducted by the vaccine manufacturer (or was conducted and test results have not been made available to the Public), and the insistence of 6 monthly boosts was based on the results of challenge testing a very small number of horses in a biosecure facility.
- The vaccine manufacturer has been permitted to release a vaccine for general use without providing data to indicate how long immune protection is provided post vaccination.
- A vaccination protocol has been mandated, that is
 - based on inadequate data
 - conflicts with immunological principles
 - possibly detrimental to health

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