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REDLANDS VETERINARY CLINIC

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The Agriculture and Environment Committee Hendra Vaccine Inquiry,
C/- Mr Rob Hansen,
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22/4/2016

TERMS of REFERENCE

- The development, trials and approval processes;
- The incidence and impact of adverse reactions by horses following vaccination and the reporting of adverse reactions and economic impacts of the Hendra vaccine;
- Who bears the risks of HeV infection and who incurs the costs and receives the benefits from each risk mitigation option;
- Whether the guidelines/procedures required for veterinarians attending horses that are not vaccinated against HeV are proportionate to the consequences;
- Impacts on the equine industry and the economy arising from veterinarians applying a policy not to treat unvaccinated horses; and
- The impact of Workplace Health and Safety actions on the decision by veterinarians not to attend unvaccinated horses and results of previous Workplace Health and Safety HeV investigations where there have been human infections.

Submission to Queensland government parliamentary enquiry into Hendra Disease:

BACKGROUND:

I have been a private veterinary equine practitioner for the past 46 years, so believe I have some claim to being very experienced in equine veterinary practice issues. As well, I have very significant and direct exposure to multiple actual outbreaks of Hendra disease, including the original major outbreak in 1994, smaller outbreaks in the sunshine coast hinterland, and in particular, a major outbreak in my own veterinary equine hospital in 2008. Two of these outbreaks resulted in human fatalities, human infections that recovered, deaths and euthanasia of numbers of horses, and in my own case, devastating emotional and financial catastrophe. I have been directly involved in the consultations between industry and government over a very long period of time through my positions as President of Equine Veterinarians Australia and executive for 12 years, and a director of the Australian Veterinary Association for 6 years, and played a major role in the pressures from industry on the government to improve communications that resulted in the formation of the consultative and liaison arm known as the Horse Industry Biosecurity and Market Access Liaison Group. I was a founding member, and am still a member. I believe firsthand experience makes me very highly qualified to speak on all aspects of Hendra disease in humans and horses. I was also very closely involved in the industry response to the outbreak of equine influenza in 2007

THE DISEASE:

The virus is very old and has undoubtedly been around for a very long time, and been endemic in the flying population in Australia, probably for hundreds of years, and is never going to “go away”. Also, it can be presumed that there had been considerable numbers of isolated sporadic, unexplained deaths of horses prior to 1994. In fact the first human death recorded, (Preston in North Queensland), was not diagnosed until after the virus had been identified in 1994. The discovery, identification, and documentation of the epidemiology of the Hendra virus in the bat population and its spill-over into horses and then humans by Queensland scientists in 1994 was a major triumph for the Queensland stakeholders. Knowledge of the disease has been a continual evolution over the years since then, and we now have a very good understanding of its pathogenesis and epidemiology; however there is still a vast amount of unknown. Cases of the disease occurred regularly but sporadically over the years, with a seemingly gradual increase in the frequency and numbers, up until the outbreak in my own hospital at Redlands in 2008, which was an entirely new presentation in the form of the disease and precipitated enormous media exposure and awareness of the disease, and also resulted in a massive increase in research and understanding of the disease. The disease was sensationalised by the media and each subsequent case was granted enormous publicity. The climax in the progression of the disease occurred in 2011 with a massive and unprecedented number of cases over a very widespread area of the east coast including New South Wales. The industry was in turmoil, and a general panic ensued. The HBMALG group was inundated with participants from the industry, and meetings were held, often on a weekly basis. The primary concern was from event organisers because of the perception of legal issues that could result from an outbreak during an event, and there was obviously a very high level of concern about the risk of human infections and the welfare of the horses. There was a universal cry for the development and availability of a vaccine as a means to prevent and protect. The governments of Queensland and New South Wales committed funds and a private pharmaceutical company took up the challenge, working with the Animal Health Laboratory in Geelong, the process of development of the vaccine. The perceived demands and requirements of horse owners because of the catastrophic number of cases, resulted in urgency and a fast tracking of the process, sanctioned by the regulators. Incredibly, a vaccine was developed in an unbelievably short time and the regulators of medicines, the AVPMA, were convinced enough of the efficacy of the vaccine that they allowed a restricted premature release of the vaccine, before all the trials were completed, PURELY AS A SERVICE TO THE HORSE OWNERS OF AUSTRALIA, purely as an endeavour to save human and horse lives, and to provide event organisers with the means to protect themselves from public liability obligations. Unfortunately, one vital, and critical issue, had not been canvassed. THE VACCINE WAS NOT FREE! Horse owners had been exposed to the equine influenza process where a vaccine was developed and administered to very large numbers of horses at no cost to the owners. Obviously this was done by government because of the potentially devastating effects to the economy that the establishment of EI as an endemic disease would have on the whole country. The eradication of the disease again was a major triumph for Australian scientists. Unfortunately this event had primed the horse owners of Australia to the expectation that the government would again provide the vaccine. Obviously any thinking person would realise that this would not happen, because although the disease is catastrophic to the animals and individuals if it occurs, the effect on the Australian economy is miniscule.

CATEGORICALLY, THIS REALISATION THAT OWNERS WOULD HAVE TO PAY FOR THE VACCINE HAS BEEN THE CATALYST FOR ALL THE FURORE THAT HAS EVOLVED, AND RESULTED IN THE NEED FOR THIS ENQUIRY.

I would also like to point out that the reason the disease has seemingly dramatically increased in incidence, is almost certainly directly related to the effects urbanisation and destruction of habitat has had on the bat populations, and the increasing numbers of pleasure horse owners and activities

TERMS OF REFERENCE:

• The development, trials and approval processes;

As discussed above, the vaccine development and release was fast tracked by government as a service to the horse owners because of industry demands. Unfortunately, the premature release before all the trials and data that normally are required before registration is granted resulted in a very restricted approval that demanded that the vaccine be used under certain circumstances. Instead of being grateful for the early release, no matter what the restrictions, the antagonists in the industry have used many of the restrictions as a basis for complaints and ridiculous uninformed statements. (For example, breeding animals, young and very old horses, and the requirement for 6 monthly vaccinations because the longevity of protection can only possibly have been established by the passage of time and the perception was that the public needed the vaccine).

• The incidence and impact of adverse reactions by horses following vaccination and the reporting of adverse reactions and economic impacts of the Hendra vaccine;

This is probably the most ridiculous aspect of the whole furore. AVPMA made it a mandatory requirement of the release that ANY apparent adverse reaction, no matter how minor, had to be documented and reported by the registered veterinarian who administered the vaccine. (I would point out that failure to do so by the veterinarian would be viewed as professional misconduct by the veterinarian). The recorded incidents as presented by Zoetis, all appear to be relatively minor and comprise an extremely small percentage of the hundreds of thousands of administered doses. Surely this in itself is enough to discount the whole perception that the “vaccine is dangerous”. Where are the reports? In particular, where are the veterinary records associated with all these bizarre reports of deaths and major illness precipitated by the vaccine. No one can possibly presume that any reasonable owner of a horse that had a reaction to a vaccine administered by a veterinarian is not going to immediately contact the veterinarian and require assistance for the animal. Where are the records? Absolutely no credibility can be applied to any spurious claims that are not directly supported by intervention of a veterinarian. (Failure of any owner to get help for the horse should be a penalty under the Animal Care and Protection Act). Also, any claim about a reaction to the vaccine must have occurred in the very immediate post vaccine administration period, (I would accept 48 – 72 hours as reasonable), not weeks and months later as people are claiming. That is ridiculous. The vaccine is an inert “substance” given by injection. There is no incubation period possible, reaction would be immediate. My practice has administered approximately 1500 doses and we have knowledge of only a very few minor reactions. Our policy is to advise owners that the horse should have a period of 48 hours rest after an injection. Any muscular injection has the capacity to create some local inflammation, due either to the physical make up of the “chemical”, or the immune reaction stimulated, and it is reasonable to presume that there will be some local soreness and stiffness. By resting the horse, this usually is either non apparent, and certainly minimises the stress on the horse. We ensure that the injection is administered as deeply into the muscle as possible, and we believe that this minimises the numbers of so called injection site lumps that may occur. As far as economic effects, in most cases, these are inconsequential. The cost of owning and properly caring for a horse are very high. Farrier costs alone would be \$100 - \$150 each 6 weeks, and feed in the majority of cases would be \$50 - \$100 per week depending on the circumstances of the horse. This does not even consider stabling or agistment, transport, saddles and gear, entry fees etc, etc; Horses are very expensive animals to own. It is ridiculous to claim that the relatively minor cost of vaccination for Hendra, is a major imposition in the overall scheme of things. I will agree that to people who own large numbers of horses, it is a relatively large amount, however all the aforementioned costs also apply to these large numbers and so again it can only be perceived as relative.

• Who bears the risks of HeV infection and who incurs the costs and receives the benefits from each risk mitigation option;

- (1) Obviously the horse bears the ultimate risk as the animal is going to die.
- (2) The owner has the risk of losing their animal, costs involved in treating and dealing with the case, and the horrendous risk of either themselves, any other stakeholder, and in particular innocent children contracting the disease and dying. These issues in themselves should deem it irresponsible for any person who owns or is responsible for any horse to even possibly conceive not to vaccinate

- (3) Veterinarians and their staff would have to be at the most risk as the very nature of their job demands that they have the greatest risk of exposure to an animal with Hendra and possibly contracting the disease. In particular, any practice owner or employer, who sanctions any member of their staff to be exposed to the risk of Hendra, has to have a significant legal obligation. Personal Protection measures and instruction in basic hygiene and cleanliness are all okay, but there is now a gold standard in protection and any employer that does not insist on that being applied has to be liable.
- (4) The same applies to any horse related enterprise, (studs, training establishments, sales complexes, riding schools etc.) where staff are involved. In particular where there is a turnover of horses. One of the biggest issues with Hendra disease is the relatively long incubation period, 5 – 16 days. This means that a horse can arrive at an establishment seemingly healthy, but may have been exposed to the virus but not show any symptoms for 1 -2 weeks. The owner has an un-defendable obligation that horses be vaccinated before arrival because of the potential risk to their staff
- (5) Event organisers have a tremendous risk. If a horse became sick while at an event, the ensuing quarantine and costs of dealing with the situation are enormous. Obviously this risk is quite low in one day events, but where horses are going to stay for any extended period, again because of the incubation issues, the organisers must insist that horses be vaccinated.
- (6) Proprietors of any establishment that depend on horses for an income are at extreme risk of financial ruin. If their enterprise is quarantined and shut down, they lose all forms of income, have all their ongoing costs to bear, and are branded a stigma that will have a devastatingly negative effect on future customers.

Obviously the owner of the horse is responsible for all the costs that may be associated with mitigation. Why shouldn't they, it is their animal. The costs for veterinarians attending any horse have to be passed on to the owner. Obviously the PPE costs are tangible but it the more intangible costs of time required to suit up, decontaminate, and in particular the physical difficulties the requirement to suit up apply. Firstly it is extremely hot and temperature stress is an issue. Secondly, horses are explosive and very dangerous animals, the physical restrictions on agility and mobility imposed by use of such equipment make it increasingly difficult to handle and manage the animal. These intangible issues are all time consuming and time is money. Unfortunately many horse owners, just like almost every person on this earth, are reluctant to commit or spend any money on anything they do not perceive as essential. Many view the costs of veterinarians protecting themselves and their staff as not their problem. Veterinarians are always out of pocket. The simple answer is to insist on vaccination as a pre requisite risk mitigation measure.

Yes, there is government retribution scheme for the costs of PPE, but realistically this is more red tape and administration and the real cost of PPE are the intangible issues.

• Whether the guidelines/procedures required for veterinarians attending horses that are not vaccinated against HeV are proportionate to the consequences;

This is easy to answer. The single most affected stakeholder affected here is the animal.

The primary requirement by law is that any time a veterinarian considers Hendra disease to be a possible differential diagnosis, exclusion testing for Hendra is mandatory. The results of this test in the far majority of cases are not going to be available for 24 hours at best, more likely several days. Once a test has been taken, that horse MUST be considered a potential Hendra case and as such. Every interaction with that horse can only be done with maximum PPE, and certainly any possible invasive procedure cannot even be contemplated. This is untenable. It means that the horse CANNOT BE PROPERLY TREATED until the results of the exclusion test are known. Where is the animal welfare in that? It is preposterous and cruel.

The newly formulated General Bio-security Obligation makes the situation even more untenable, as a veterinarian is always going to be deemed as a person who should know all and everything about the disease and is therefore legally liable.

The panel must remember that veterinarians are engaged in private enterprise. Their income depends on fee for service. Does anyone possibly think that owners are going to pay for a veterinarian to come out and see

their horse, suspect Hendra, take tests, and tell the owner that they cannot treat or do anything for the horse, pay me anyway. IT IS NOT GOING TO HAPPEN. This is the real world.

The major issue is the extremely varied and different possible presentations of a horse with Hendra. Virtually ANY horse that is not well is going to have to have Hendra as a possible potential diagnosis, particularly those horses in the very early stages. (Blind Freddy can diagnose a fulminating case; it is the more subtle cases that pose the problem). What this means that any sick unvaccinated horse has to be considered a potential Hendra case, and therefore has to have exclusion tests, and be quarantined until the results are known. Ridiculous.

• **Impacts on the equine industry and the economy arising from veterinarians applying a policy not to treat unvaccinated horses; and**

Certainly it potentially reduces the potential income for the veterinarian as they are going to reject income earning opportunities, but this is irrelevant. I cannot quite see the point of this question. Certainly the horse industry makes an enormous contribution to the economy, particularly in the racing and breeding industries, and any disruption to function can have an effect. I do not quite see how any such disruption can be singularly related to the refusal of the veterinarian to attend. Surely the enterprise owner has equal responsibility. Yes, if the veterinary industry for horses shut down, there would be some effect, but remember, Hendra is extremely rare so direct impacts from the disease would be minimal. Failure of veterinarians to attend pleasure horses or small would necessarily have an effect if the animal became sick and treatment could not be obtained. This far more a welfare issue, rather than an economy one Remember, a very large number of responsible horse owners have vaccinated their horses so the question is rhetorical, as the majority of horses and enterprises are going to be looked after. The horses that are not vaccinated are often the lower profile, or older retired animals, and so the direct economic effect is not necessarily great. Unfortunately, these are the animals that potentially are more at risk because of their management more often being simply living out in a paddock where exposure to bats is far more likely. It is the welfare of the horse that is at stake. THIS IS A MAJOR ISSUE. Veterinarians are being vilified for failure to attend sick horses. I have explained at length above the many reasons that such a decision has been made by the veterinarian

• **The impact of Workplace Health and Safety actions on the decision by veterinarians not to attend unvaccinated horses and results of previous Workplace Health and Safety HeV investigations where there have been human infections.**

These regulations and the legal liability to comply with extremely onerous, and seemingly never ending potential reasons for possible litigation as the web of responsibility seems to be ever widening, are the major reasons for veterinarians refusing to attend. I personally can attest that the disease is not easy to "catch". I was exposed to five incubating and eventual clinical cases in my own hospital, and I personally dealt with each horse, every day. We had no idea that it was or could be Hendra. None of my interactions involved invasive investigations such as dentals, endoscopy, surgery, or exposure to body fluids. The disease is not highly contagious, exposure has to be high. In my own case, I have always been meticulous in washing my hands after each horse, and wearing gloves when examining eyes, wounds oral cavity, almost circumstances, collecting blood, etc, I did not contract the disease. I believe that under the majority of circumstances, basic hygiene and care provide an extremely high level of risk mitigation. The disease is extremely rare, and the onerous obligations imposed by workplace health and safety, as opposed to the doctrine of common sense. Make it mandatory for veterinarians to make the extremely difficult decision not to attend a horse that needs attention. The decision not to vaccinate has been made by the owner, purely on the basis of cost. Why should the veterinarian be criticised because of a decision made by the owner of the animal?

My direct knowledge of the exact circumstances surrounding the three veterinarians under investigations limited but would suggest that each of them had acted reasonably in their approach to each case, The fact that they have now been subjected to the extremely emotional and stressful investigative procedures, simply because they went about their daily work. They are all competent caring veterinarians. Their decision to attend horses that the owners had decided not to bother vaccinating has created an untenable and unnecessary stress on their lives.

SUMMARY:

Hendra disease is a deadly, not highly contagious and extremely rare disease that is endemic in the flying fox population. As the human impact on the flying fox population has increased, horses have become increasingly exposed to the disease, and as direct result, humans have been infected. These outcomes are devastating. Veterinarians, by the very nature of their job in attending sick animals, are a demographic at higher risk of exposure. The disease is rare but the consequence of infection high. People working in the horse industry have the risk of exposure to the disease, and there are essential workplace regulations that have to be applied. For many years we struggled with the difficulties of having to use personal protective apparatus to try to avoid exposure. The disease presents in very many forms, and the majority of symptoms are non specific, therefore the workplace obligations become more and more onerous. Also, legal and financial risks to event owners and enterprises that depended on horses to make an income were being placed under risk of legal and financial ruin. Industry demanded action, particularly in the form of a vaccine. Fast track development and release of this vaccine was facilitated by regulators, in response to industry demands, and we have been blessed with the availability of an extremely effective and very safe vaccine, which has now become THE GOLD STANDARD in risk management and mitigation.

We live in a free country and every individual has the right to make their own decisions and choices. People can choose to own a horse. They can choose how they will manage and look after their horse. They can choose whether or not they vaccinate their horse against disease. The incidence and effects of Hendra disease has received unprecedented publicity over the years and each and every horse owner would know of it presence and effects. They also know of the availability of a vaccine that will prevent the disease. It is their choice whether to take up that option

Veterinarians as a service provider are placed at higher risk of possible exposure to the disease. Veterinarians have responsibilities and obligations to themselves, their staff, the horse owners, and the general community Failure to adhere to these requirements can have devastating effects to human health, and possible legal and litigation issues. The veterinarian, in a free country, as a service provider in free enterprise, also has the right to choose who they engage as clients. Veterinarians are acutely conscious of animal welfare and their role in life is to look after animals. However, they cannot be forced to place themselves o their staff at risk. There is now a gold standard means available to remove the risk of Hendra disease and veterinarians have the right to refuse to expose themselves to unnecessary risk

If the owner of an animal, knowing full well of the availability of a vaccine, and the risk that they may not be available to receive veterinary attention, refuses to vaccinate their animal, then all the obligations of animal welfare have to fall on themselves.



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