

20 April 2016

The Agriculture and Environment Committee Hendra Vaccine Inquiry

C/- Mr Rob Hansen

Parliament House

Brisbane

Queensland 4000

Phone: 07 3553 6660

By email: robert.hansen@parliament.qld.gov.au

Dear Mr Hansen,

RE: Veterinarian Submission to Hendra virus Vaccine Inquiry

My name is Dr Francis Condon. I am an equine veterinarian located on the Atherton Tableland and Cairns Region in Queensland. I have been in veterinary practice for 17 years. I wish to address the following Terms of Reference in the Qld Parliament's Hendra virus Vaccine Inquiry:

- *The incidence and impact of adverse reactions by horses following vaccination and the reporting of adverse reactions and economic impacts of the Hendra vaccine.*

Our practice has currently given over 7800 Hendra Virus Vaccine doses. We have had 6 'serious' reactions. These reactions would include 24-48 hours of the horse being unwell, perhaps not eating, and followed by recovery and normal behaviour. We have had no reactions more serious than this that we are aware of. We have had a number (between 15-20) of other horses that have had slightly lesser reactions (muscle swellings, cellulitis, or a stiff neck for a few days). There are even more minor reactions

that are described as being similar to those experienced by people having a tetanus booster or perhaps a flu needle. Even if we count the minor reactions, this rate of ‘complications’ is significantly below that expected (less than that described by the Australian Pesticides and Veterinary Medicines Authority), and *significantly* less than the numbers we hear from some sources like Facebook (claims that cannot possibly be verified). A significant majority of our clients are getting on with managing their preventative health program, vaccinating with Hendra Virus vaccines, and not participating in hysterical speculation and non-scientific claims.

- *The development, trials and approval processes of the vaccine*

I have been a member of Equine Veterinarians Australia since 1996 (prior to graduation). I have been involved with the executive of the EVA from 2008 until 2014, including one year as President. I have been involved on the National Hendra Virus Task force, and have been a member of the Horse Biosecurity and Market Access Liaison group advising on implementation of Hendra Virus vaccine. I have been intimately acquainted with the development, trials, approval and release of the Hendra Virus Vaccine. This process has been going on for well over 10 years. Many years of research and effort that have contributed to this vaccine have occurred prior to the “release” period. There is a misconception that the development, trial and approval process has been “rushed”. This is completely incorrect. A vaccine is ready when the science is sufficient to prove that the vaccine is safe and effective. The difference with this vaccine has been predominantly that development of a vaccine has significant public health benefits. For this reason the vaccine was initially released on Minor Use Permit (the safety and efficacy of the vaccine had still been confirmed prior to this). The Australian Pesticides and Veterinary Medicines Authority (APVMA) have applied the same rigorous standards to this vaccine, assessing the science, the efficacy and safety of the vaccine as they would to all drugs or vaccines that have been submitted for registration. I am amazed and dismayed that the same science and

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registration process that allows us to safely use a Tetanus or Strangles vaccine, or allows us to use antibiotics, or anti-inflammatory drugs, has not been accepted by a small vocal, anti-vaccine group. Why has this vaccine been singled out? There is certainly no evidence in my practice (7800 doses), or in the science used by the CSIRO in the development of the vaccine, or the science used by the APVMA to register this vaccine. In fact the science (and scientist) involved in the development of this vaccine has been nominated for a Eureka Award.

- *Who bears the risks of HeV infection and who incurs the costs and receives the benefits from each risk mitigation option.*

When I graduated in 1998, we knew very little about personal protective equipment. We knew about asepsis and disinfection (making sure that we and our equipment were sterile so as not to infect an animal). But the idea that we might get a disease from an animal was not commonly discussed. We were vaccinated for “Q-Fever” and we had discussions about diseases like Brucellosis and Leptospirosis. Obviously we discussed Hendra Virus but there had only been one known outbreak (at Hendra in Brisbane) and at the time the method and mode of transmission was not clear. Work Health and Safety Laws (and our obligations as veterinarians) were not taught to us as graduates, although our employers did have obligations, these were not obvious to us. We were vets, we needed to fix things and there was some pride in “diving” into a rotten calving or post mortem, covering ourselves with rotten tissue, pus and blood. A previous generation of veterinarians (our bosses) were taught NOT to wear gloves for post mortems so that they could feel the ‘consistency’ of infected or diseased organs.

But in 1999 (my first year as a qualified veterinarian) a friend of mine (who has now left veterinary science) went to see a sick horse in Cairns which turned out to have Hendra virus. It was an incredibly stressful experience for him and for the clients involved. That practice has now seen 4 or 5 cases although they are predominantly a small animal clinic!

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Initially, very little changed for us as veterinarians. We were becoming more aware of Hendra virus and sometimes when we had a really sick horse, we would wonder whether it might be a case. We would sometimes perform post mortems with a cursory level of PPE (gloves and boots maybe). But plenty of times a horse died suddenly and we would perform a basic post mortem and bury or burn the body without a second thought.

Then a couple of things started to change. After the 2008 outbreak at Redlands (where a colleague died of Hendra virus), Qld Work Health and Safety started to ask questions of veterinarians. By this time I was a practice owner and I had a visit from WHS Qld asking me about my post mortem kit (still no discussion about full PPE, just gloves, boots and a mask). But within a short period, it became obvious that there were two things that we had to change.

1. We were legally responsible for the safety of our clients and the Qld Government was starting to threaten veterinary practices with very large fines and prosecution in positive Hendra cases. They were now auditing practice policies and enforcing the laws that had existed for some time.
2. There were many more cases and people that I knew well, had died.

About this time (2008-2010) we implemented a practice policy regarding use of PPE and specifically with respect to Hendra Virus. There was no vaccine so we had to rely solely on the efficacy of the PPE.

Hendra virus is not an easy disease to catch, it is a labile virus and doesn't survive well in the environment. The problem was that there was a high suspicion that the people infected in the Redlands case were *infected by a horse that had not been showing clinical signs when they first examined it*. And if you do get exposed and get the disease (as a colleague of mine in Rockhampton had), then there is a high chance that you will die. This is a PC4 virus, like Ebola virus in Africa. PPE is very effective at preventing exposure and we strongly pushed this with our veterinarians. We also know that Hendra virus can present looking like anything from

a mildly unwell horse (off food), maybe colic or a respiratory case or even a mild lameness. In Redlands, the horse wasn't sick at all. So this meant that to comply completely we were going to have to put PPE on multiple times per day. Correctly worn PPE is difficult to put on (requires yearly training to fulfil our legal obligations), greatly increasing time and cost to the client and to veterinarians. Inevitably we would run the gauntlet, choosing PPE sometimes, but not other times when really, we couldn't tell which horse was going to turn up positive for Hendra. In addition many horses HATE personal protective equipment. It rustles and flutters, it changes the silhouette of the veterinarian and owner (WHS laws mean that we would have to show the owner how to put on PPE correctly and provide PPE for them). Invariably getting near a horse to do a proper clinical examination was difficult, sometimes impossible. Having a large blue rustling, flapping object near your rear end, taking a temperature would often trigger the "flight or fight" reflexes of horses. To be honest, sometimes it was (is) very dangerous (it's just that it was less dangerous than being exposed to Hendra). AND, because I practice in Northern Australia, it was (is) VERY hot. In Africa in the recent Ebola outbreak I have read that workers wearing full PPE are only able to work for periods of 45 to 50 minutes at a time, and yet we were regularly doing this multiple time per day and often for longer than this. It was so bad that I complained to WHS Qld who immediately told me that I must carry an ice vest in my car!??

Recently several prosecutions by WHS Qld of employed veterinarians has heightened our awareness of PPE and our obligations under the law. We cannot take a risk with any horse that may be a Hendra case (no matter how small the likelihood) and this means any sick horse (and this is what we do every day, all day). We have to make sure we are spending hours every year training our veterinarians and staff how to triage vaccinated and unvaccinated horses, and how to wear PPE correctly. We have to demonstrate putting on PPE, then make sure that our staff can put PPE on correctly. They need to know how to set up an Entry/Exit zone, how to talk to clients if the veterinarians suspect a Hendra case, how to communicate with the backhoe driver to

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bury the horse, how to provide PPE for clients and potentially exposed clients.

Obviously, vaccination *has to play a part in the development of our practice protocols*. I still wear PPE now, but the advent of the vaccination has changed our lives as veterinarians. The first question our life partners ask us when we go off to a colic in the middle of the night is “is it vaccinated?” They are often worried as much or more than us. Going to a vaccinated horse with colic is like a holiday now. We wear simpler PPE, we can treat the horse however we want to (we can perform invasive treatments without dressing up in full, hot PPE and scaring the horse). Essentially we can be focused veterinarians again, not worrying about WHS in such an intense way, treating the horse correctly. And it is cheaper, cheaper for the horse owner (less time, no extra sets of PPE), and cheaper for us.

I have had 3 particularly horrible experiences using PPE.

The first occurred in 2009 (pre-vaccination). A horse had died in Gordonvale. The owner demanded a post mortem be done. At that time, we knew doing post mortems was a risky procedure in any sudden death, but we also had a narrower list of clinical signs regarding Hendra Virus (now we recognise a far greater range of clinical signs that can be Hendra virus). I performed the post mortem in about 35 degree heat and 80% humidity with a veterinary student from Townsville. The post mortem took about 40 minutes including sample collection. At the end of this period, I actually started to get blurred vision, and not from the sweat running down the inside of my goggles. I was able to make the shade of a tree and able to sit down and unsuited sitting down (completely incorrect from a WHS point of view), I was physically unwell for some time and after a drink and some rest time was able to get up and return to work. I felt that the extreme nature of short PPE use meant that I would be very selective about when to wear PPE after this. Unfortunately about this time, Qld WHS had started to audit practices and PPE wearing became the norm. But we did stop performing post mortems in full PPE.

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The second occurred in 2015. I was called to an unvaccinated horse with colic. There had been a couple of prosecutions initiated in Qld so in response to this I had started examining horses on my own without putting the clients at risk (they weren't suiting up and helping me). This particular horse was initially recumbent and I proceeded over to him to catch and examine him. In response, the horse both tried to kick me (while taking its temperature) and then while trying to treat it with some pain relief, it reared up and struck me. I was unable to take an exclusion test. I then asked the owner to suit up to help me. The owner refused and then said that if I did an exclusion test that he would not pay for the consultation. I left the property. It was a negative and disheartening experience, neither client nor I was happy and animal could not be treated correctly.

Another example happened earlier this month, when I went to examine an unvaccinated horse (the stable mate, also unvaccinated had died suddenly). When I went to catch the horse (again on my own without the owner), the horse took fright and galloped off. The owner then came rushing into the paddock before I could ask her not to and easily caught the horse, helping me greatly but exposing herself to a potential Hendra case (it later returned a negative exclusion test).

There is a lot of discussion about the use of PPE and it is a necessary "evil". It is hot, noisy and scary for horses. Vaccination while not superseding the use of PPE, does greatly reduce the need for full PPE. In our practice, vaccination is by far the cheapest and easiest way to reduce the risk of Hendra virus infection.

Yours sincerely,

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