

From: [REDACTED]
To: [Agriculture and Environment Committee](#)
Subject: Hendra Report
Date: Saturday, 23 April 2016 12:44:12 PM

Thank you for extending the closing date for submissions to the enquiry.

I have been trying to find possible solutions that can be implemented to allow vets to safely treat unvaccinated horses. This includes early detection of the virus prior to the horses starting to shed the virus.

Thank you for taking the time to read this report.

I have been studying the reports from the Experimental Infection of Horses, as well as Transmission of the Virus, as well as reports coming from the seven confirmed human cases of the Hendra virus. This has been to attempt to pin point the moment of transmission from horse to human, and at what point in the progress the virus was at the moment of transmission.

Although there is more study to be done, at this point I believe I have found a common denominator in the earliest onset symptoms of the horse. And they are as follows.

At three days Post Infection (PI) the horses developed a low grade temperature, and unlike most other illnesses that cause a rise in temperature, with the Hendra virus (HeV) it levels out and stays as a very low grade temperature. If the horses temperature continues to rise then it's unlikely to be HeV. With HeV the temperature doesn't rise above this low grade temperature until day 7 to 9 PI where it spikes to 39 to 41 C

What has also been observed is that either the same time or immediately after the heart rate also rises just that little bit, and this will continue to rise in most cases.

By day 4 PI you can also detect subtle changes in respiratory rate and the lung sounds start to show signs of possible congestion.

Another common symptom has been the shifting of weight from one hoof to another.

This can all take place up to or prior to day 5 or 6 PI

The initial time of shedding of the virus is generally low down in the respiratory tract around days 5 to 6 PI, however true shedding is established after day 6 PI.

Shedding via urine is also after day 6 PI.

And although there is some differing of opinion regarding shedding through the anus in faecal matter, if it does it's only very low in comparison to respiratory fluids, and urine, and is established much later.

Summery of the above:

- Low grade temperature day three PI, this levels off until day seven to nine PI where it spikes to 39 to 41 C
- Rise in heart beat from day three PI to day five PI
- Change in respiratory rate, and early sounds of lung congestion from day four/five PI.
- Shifting of weight from one hoof to another, days four to five PI.
- True shedding via respiratory fluid from day five to six PI
- Shedding via urine and faeces after days seven to nine PI

As you can see through careful observation HeV can be discovered prior to the horse beginning to shed the virus, thus being able to transfer the HeV to a human.

Proposed Health Check Routine

- At the same time every day the horses temperature is taken, this is done with a digital thermometer.
- At this same time heart rate is taken with the use of a standard stethoscope.
- At the same time respiration, and lung sounds are taken also using a standard stethoscope.

Protocol and PPE

- Gloves
 - Anti fungal/viral wipes
 - Diary of observation
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- The anus is well cleaned with the anti fungal/viral wipes, Especially mares who should also have the vulva properly cleaned to ensure any pathogen that may be there isn't transferred to the person.
 - Thermometer is wiped clean prior to temperature being taken. And cleaned again Directly After taking the temperature.
 - Enter the reading into the Dailey Observation Diary.
 - If Temperature is 1 degree higher than what is normal for this horses (horses can have varying readings as to what is normal for one horse to another) This reading Must Be Shown In Red!
 - Once a reading of 1 degree higher, all Observations should be changed from once a day (always at the same time) to Twice a day (always at the same time).
 - Using the stethoscope take heart rate, and enter into the Daily Observation Diary. If there is a rise, then this reading Must Be Shown In Red! And all Observations should be changed to twice a day.
 - Using the stethoscope that the respiratory rate, and listen for any change in lung sounds. If there is any change, these readings Must Be Shown In Red! Observations should be changed to twice a day.
 - While getting everything set up and ready to take daily observations, watch the horse while it's standing quiet waiting. Look to see if there's any signs of the horse shifting weight from one hoof to another, the best time however to do this is when the horse is standing quietly resting in the paddock or in the

stable while still on it's feet.

- Also be aware if the horse is looking bright, shiny coat, happy. If these should change this is also important to record into the Daily Observation Diary. And any changes to looking flat, unhappy, not quiet right, they Must Be Recorded In Red! And Observations should change to twice a day.

If three boxes are ticked prior to day 5 or 6 PI, then there is a chance the horses May Have HeV.

The horse is to be moved directly into a prepared quarantine area, and a vet called and request that the Stall Side Test to be done!

The Stall Side Test is accurate at 2 days PI is very quick and there is virtually no waiting time for test results to come back unlike the current exclusion tests.

By doing these daily health checks there is an excellent way to prove to the vet that the chances the horse has HeV is detected Prior to starting to shed the virus, and as such is contagious.

However is also proves to the vet that the horse Doesn't have HeV. And as such the horse is safe to treat.

As already stated virtually everything that can make a horse ill will have a temperature, BUT unlike HeV, the temperature continues to rise, if this is the case then standard PPE for general procedures should be worn by the vet, and the horse treated accordingly.

In the event of stitching up a wound, taking x-rays, teeth, OR Sudden Onset Colic, the records of not having a temperature, in addition to the other daily observations, clearly shows that this horse is Extremely Unlikely to have HeV! And as such should be treated.

A tour is currently in the planning for later this year to be able to educate horse owners in how to correctly take the daily observations, how to record the data, how to correctly use PPE, what PPE must always be available and readily on hand, how to set up a quarantine area, including knowing how to establish the correct area for the Red Zone, a change over station at the boundary of the Red Zone for clean/unclean area.

The health checks won't only be targeting HeV, there are many Infectious Diseases that can be detected, not only zoonotic diseases, this is to prevent the spread of any other infection to other stock, or from the vet failing to use adequate PPE and taking the Infectious Disease off the farm and onto another.

I qualify to make the above statements, and recommendations from first hand working experience in Coolmore Australia's Infectious Diseases Unit, that could cater for up to 360 horses at any given time. And although none of the horses in the unit had zoonotic diseases, we still had to follow the correct protocols, and be fully kitted out PPE, except for respirators and face shields, to PREVENT the

spread of any of these Infectious Diseases to any other horse on the stud.

I have also been the Primary Person in Australia's Top International Quarantine Foaling Hospital.

I have had to supervise the set up and ensure all protocols were observed in Derrinstown Stud, in Maynooth, Co. Kildare Ireland (owned by a member of the Dubi Royal Family) My job was to oversee the VIP Wet Mares (mares with foals at foot) owned by members of Royal Families around Europe, high ranking officials, and VIP mares themselves. I had to instruct my own staff, and only answered to the Assistant Stud Groom, and Stud Groom in this farm. I also had to check that procedures were followed at the studs Quarantine Unit, where mares were being quarantined to fly to Australia.

Thank you for taking the time to read this report

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From: [REDACTED]
To: [Agriculture and Environment Committee](#)
Subject: Hendra Report
Date: Sunday, 24 April 2016 10:00:42 AM

Thank you for extending the period to send in submissions, and for this enquiry itself.

The below statistic although appearing to be childish, frivolous, and tongue in cheek, are really extremely important when looking at the true risk of contracting and dying from the Hendra virus.

In Australia there are far more people killed every year, than those who have died as a result of Hendra virus. There is an average of 8 people a year killed in toilet bowel incidents in Australia.

That is approximately 176 deaths in the same amount of time that 3 people have been killed by the Hendra virus.

I do not include Mark Preston as a death from the Hendra Virus, having discovered that the coroner not knowing what had caused his death, the report stated that Mark presented differently to that of Vic Rail. This report went on to state that in order to be able to give a cause of death, and knowing that Mark had suffered from the Hendra virus 14 months earlier, actively went looking for evidence of the Hendra virus in Marks tissue so he could list Marks death as caused by the Hendra virus.

Lets look at those numbers again:

The Hendra virus..... 3
The toilet bowel..... 176

In the same period to time.

Thank you for taking the time to read this.

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