

17 December 2013

An Update on Equivac HeV DOI Challenge

Dear Veterinarian,

Since the release of Equivac HeV, results of serological testing have emerged that allows a comparison of the antibody profiles between two groups of horses:

Group 1: Horses received 2 primary doses followed by a period of approximately 12 months without booster

Group 2: Horses received 2 primary doses, a 6 month booster and then an approximate period of 12 months without further boosters

These data show that antibody titres in some Group 1 horses are at or below the limit of detection (i.e. 8), as seen in Table 1. Columns shaded in green indicate days when a dose of Equivac HeV was administered. Columns shaded in orange show the antibody levels over time.

It is unknown whether horses with undetectable titres can withstand challenge with live Hendra virus.

Animal ID	Day 0	Day 21	Day 42	Day 388
4465	<8	32	1024	8
4783	<8	16	512	8
5991	<8	256	2048	64
6317	<8	16	1024	32
5669	<8	64	1024	8
2500	<8	32	2048	16
9636	<8	16	512	<8

In contrast, Group 2 horses maintained higher average antibody titres following administration of the 6 month booster dose, as seen in Table 2. Columns shaded in green indicate days when a dose of Equivac HeV was administered. Columns shaded in orange show the antibody levels over time.

The data suggests that these horses are much more likely to withstand viral challenge 12 months after receiving a dose of Equivac HeV.

Table 2 Group 2 Data						
Animal ID	Day 0	Day 21	Day 42	Day 220	Day 227	Day 577
7403	<8	128	2048	8	4096	>1024
0006	<8	32	2048	8	4096	512
4527	<8	512	1024	16	4096	512
8844	<8	64	2048	32	4096	>1024
5807	<8	16	512	8	2048	256
3654	<8	32	512	16	512	256
6203	<8	8	2048	8	1024	512

Based on these data and the availability of high security animal facilities, Zoetis and the CSIRO's Australian Animal Health Laboratory (AAHL) have decided that Group 2 horses will be challenged in early 2014, and a further challenge of horses that followed the same protocol as those in Group 1 will be scheduled later in 2014 when facilities are available. Zoetis and AAHL committed to challenging both groups of horses in 2014 to attain the most favourable vaccination protocol possible whilst maintaining protective levels.

This agreed schedule offers the best chance of moving the Equivac HeV vaccination protocol to one involving annual revaccination.

Given the deadly nature of Hendra virus to horses and humans, it is essential that we achieve a vaccination protocol that can be relied upon to protect horses. We believe a protocol that involves a single 6-month booster followed by subsequent annual revaccination offers us the best chance of protecting horses. If established such a vaccine regime will move away from the current protocol that involves boosters every 6 months. Further amendments to the vaccination protocol may also be possible after the second challenge later in 2014.

Until further notice, you should continue to administer 6-monthly boosters to all horses as they fall due, remembering that it is likely that all horses will require a 6-monthly booster in any amended protocol.

If you have any questions please contact your local Zoetis equine representative.

Kind regards

The Equine Team at Zoetis

Equivac HeV is not a registered chemical product and a submission for registration has been made.