

AUSTRALIAN VETERINARY EMERGENCY PLAN

AUSVETPLAN

Response Policy Briefs

Brief policy statements for emergency animal diseases that are subject to cost sharing between governments and livestock industries but not covered by full AUSVETPLAN disease strategies

Version 3.0, 2006

AUSVETPLAN is a series of technical response plans that describe the proposed Australian approach to an emergency animal disease incident. The documents provide guidance based on sound analysis, linking policy, strategies, implementation, coordination and emergency-management plans.

Primary Industries Ministerial Council

2.15 Hendra virus infection (formerly equine morbillivirus)

Hendra virus causes an acute and rapidly fatal viral pneumonia in horses. It has also caused pneumonia and encephalitic disease in humans.

Causative agent

The International Committee for the Taxonomy of Viruses has agreed to name the genus that contains the Hendra and Nipah viruses, *Henipavirus*. The genus is in the Paramyxoviridae family.

Hosts

Pteropid bats (flying foxes) are probably the only natural host of the virus. Antibodies to the virus are prevalent in flying foxes in Australia and Papua New Guinea.

Of other species, only horses and humans have been known to be naturally infected. Cats and guinea pigs have been infected experimentally.

Distribution

There have been four known outbreaks in Australia. One outbreak involved twenty horses and two humans; the others involved three horses and one human.

Method of spread

The exact method of spread of the virus is unknown, but it is clear that unusual events are required for transmission. Animals infected with Hendra virus may excrete the virus in their urine. It is likely that large quantities of the virus are present in terminal pulmonary secretions. There is anecdotal evidence of possible relapses of clinical disease in recovered human and animal cases. Humans have apparently become infected from intimate exposure to infected tissues or excretions of infected horses.

Disease management

During outbreaks, the most effective way to prevent further spread of disease is to quarantine infected equines. Due to the zoonotic potential of Hendra virus, personal protective equipment and adequate protocols are needed to protect people working near infected horses.

Laboratory diagnostic capacity

Samples should be submitted to AAHL or the relevant SCAHLS-endorsed state/territory reference laboratory for definitive laboratory diagnosis.

Australia's policy for Hendra virus infection

Hendra virus infection is not an OIE-listed disease. The disease has proven to be only mildly contagious outside its natural hosts. Relapse and serious infection in clinically recovered or partially recovered horses can occur.

The policy is to eradicate Hendra virus infection in terrestrial animals using:

- destruction and sanitary disposal of all horses or other terrestrial animals shown, through demonstration of antibodies, to be infected;
- disinfection of the immediate contaminated environment; and
- quarantine of all in-contact animals until repeated serological tests have proven freedom.

These strategies will be supported by:

- tracing and limited surveillance to determine the source and extent of infection and to provide proof of freedom from the disease; and
- a public awareness campaign to encourage cooperation from industry and the public.

Hendra virus is currently included as a Category 2 disease in the EAD Response Agreement. The costs of disease control would be shared 80% by governments and 20% by the relevant industries.