

Equine Infectious Anaemia



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Equine Infectious Anaemia (EIA) is an incurable viral disease that is spread by biting insects. It is a rare disease in Australia, found most commonly in isolated pockets, particularly in Queensland.

EIA is a retrovirus, which is the same family of viruses as the human immunodeficiency virus (HIV) and feline immunodeficiency virus (FIV). Horses, once infected, are infected for life - there is no treatment or cure. The virus infects cells involved in the immune system, which can then result in widespread inflammation throughout the body, platelet destruction and anaemia. EIA is not contagious to humans.

How do horses become infected?

EIA is transmitted predominantly by large, biting flies, particularly the March Fly (Horse Fly). The virus is spread when the insect bites an infected horse, then carries the blood from that horse in its mouth parts and bites another horse. Mosquitoes and other biting insects can also potentially spread the disease, however, they have smaller mouth parts, so less blood is transferred. Transfer by humans can occur when equipment that may be contaminated by blood (i.e. riding bits, dental equipment, etc.) are shared between horses.



Above: The mucous membranes of a horse with Equine Infectious Anaemia, courtesy of Dr Thomas Lane and the Merck Veterinary Manual.

Which horses are at risk of infection?

In Australia, horses in Queensland are most at-risk of infection with EIA. The vast majority of cases are identified on properties along the major river systems of Central and Western Queensland, especially after a big wet season or flooding, when there are more biting insects around.

In 2013, after the floods, 14 horses in this region tested positive to EIA¹.

EIA has been detected rarely and sporadically in New South Wales, Victoria, Northern Territory and Western Australia, but it has never been identified in Tasmania or South Australia. Since 2012, Queensland is the only state in Australia to have horses test positive to EIA¹.

EIA is a notifiable disease in Australia - Biosecurity Queensland must be informed if a horse tests positive.

What are the symptoms?

There are three possible courses this disease can take in infected horses:

- Horses may become rapidly sick;
- Horses may have a slower, more chronic, more subtle disease progress;
- Or the horse does not show symptoms at all, but it will still be a carrier of the virus and will be able to infect other horses.

The horses that get rapidly sick quickly lose weight, have a dull coat, are weak and depressed, and have a fever (up to 41°C) that waxes and wanes.

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The more chronic disease course can result in anaemia, pale gums, small bleeds (little ‘bruises’ called petechia) on the gums and other mucous membranes, jaundice, fluid swelling of the legs and of the underside of the belly, dragging of the hind legs, and occasionally diarrhoea, dysentery and abortion. These symptoms can come and go.

When a horse is sick they can excrete the virus in any of their bodily fluids (urine, saliva, blood, semen, milk), so if another horse comes in contact with these secretions they may also be infected. A mare can pass the virus to the foal in her uterus or via the milk.

Testing

EIA is detected by a blood test called the ‘Coggins Test’, which detects antibodies against the EIA virus in the blood. It can take 45 days from the time of infection before these antibodies are detectable. All horses that are positive to this test are considered infected with EIA.

Treatment

There is no treatment and the horse will be a carrier of the virus for life. Unfortunately, this means that infected horses should be euthanised to prevent further spread of the disease.

Prevention

There is no vaccination available. Consider testing new horses for the disease before introducing them to your horses, especially if they have come from an ‘at-risk’ area. In some countries, Coggins tests are compulsory before transporting or competing and are done routinely.

In high-risk areas, fly control is necessary, including rugging, minimising manure build-up in paddocks and the use of insect repellents.

References:

1. <http://nahis.animalhealthaustralia.com.au/pmwiki/pmwiki.php?n=Factsheet.123-1?skin=factsheet>



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