

Ross River virus

What is Ross River Virus?

Ross River Virus is a non-lethal insect born virus which is transmitted by several species of mosquitoes, including the common inland mosquito that breeds in fresh water habitats, particularly irrigated areas. RRV is most commonly seen during the warmer spring and summer months, and outbreaks can occur in areas that experience heavy rains and flooding, followed by warm temperatures, providing ideal conditions for mosquito populations to explode. Once the virus has been transmitted to the horse via a mosquito bite, the incubation period for the disease is generally from 5-15 days, although it can be as short as three days or as long as three weeks.

Clinical Signs of RRV

RRV infection is chronic, and signs are usually vague and non specific. Signs are related to the generalised chronic fatigue type symptoms and muscle and joint pain experienced by infected horses, and include;

Initial high temperatures (over 39°C)

Fluid swelling of the distal limbs, progressing to intermittent joint swelling

Stiffness and reluctance to move

Chronic lethargy and poor performance

Weight loss and anaemia

Diagnosis Using Antibody Testing

Accurate diagnosis of RRV infection is achieved by measuring the antibody levels in the horses blood. The two antibodies of interest are IgM (which indicates recent infection) and IgG (which may remain elevated for years after exposure). It is important to be aware that many horses are exposed to the disease, and will test positive despite showing no outward clinical signs of infection- so exposure to the virus does not necessarily mean the horse becomes sick.

Treatment of RRV

Unfortunately there is currently no medical drug available that suppresses or eradicates the virus from the horses body. Rather, treatment is aimed at relieving symptoms of pain and swelling using anti-inflammatories, and supporting the horses immune system which is under a great deal of stress. Most affected horses make a full recovery within 18 months, and by this time, it develops a lifelong immunity against the virus.

Prevention Is Vital

The mainstay in RRV prevention is through mosquito control, particularly after periods of high rainfall in the warmer months. Mosquitoes are most active in the morning and evening, so stabling horses inside during this time, or providing full protection with cotton rugs and flyveils will minimise biting. Long acting insect repellents are also beneficial, particularly those with natural pyrethrums and citronella oils.