Warning to Veterinarians: Another strain of Rabbit Haemorrhagic Disease Virus detected

A new strain of Rabbit Haemorrhagic Disease Virus (RHDV) called RHDV2 has been confirmed in a wild rabbit in the Australian Capital Territory (ACT). Currently, this is an isolated incident and further cases of infection have not been reported.

RHDV2 differs to the variant strain of RHDV first detected in NSW last year and to the endemic Czech strain of RHDV that has been present in Australia for the last 20 years.

RHDV2 is most closely related to the European RHDV strain which has been reported to spread successfully through Europe in recent years. In contrast to the endemic strain, RHDV2 affects very young rabbits including nestlings. It also has lower observed mortality rates and the disease process tends to take a more chronic or subacute course. This comparison is based on how RHDV2 appears in overseas countries as it is too early to fully understand what signs it will show under Australian conditions.

All RHDV strains can spread easily by contact between infected rabbits (via faeces, urine, saliva, nasal and eye secretions and mating) and fomites including hay, food, clothing, shoes, people, cages, equipment, dust, insects, wild birds and rodents.

RHDV is caused by a Calicivirus which is extremely hardy and can survive in the environment and remain infectious for three and a half months at +25°C and for as long as seven and half months at +4°C. Disinfectants that can be used to decontaminate any equipment include 10% bleach, 10% sodium hydroxide, 1-2% formalin or parvocide disinfectants. Autoclaving will also kill the virus.

Veterinary Management of suspect RHDV2 cases

- A vaccine specifically against the RHDV2 strain is being developed in Europe but is currently not available. It is thought that the current vaccine (Cylap) may only have partial protection against this strain.
- A rigorous vaccination program may assist in protecting against RHDV2. Vaccinate all rabbits in the household. Vaccinate breeding animals before the start of the breeding season to ensure the young animals are protected by maternal antibodies.
- Start vaccination earlier if possible (from 4 weeks old) and ensure they receive a booster 1 month later.
- Vaccination gaps should be avoided and ensure all rabbits receive annual boosters and 6 monthly boosters for breeding does used in intensive breeding.
  - Implement good biosecurity including: preventing contact between domestic and wild rabbits,
  - avoid cutting grass and feeding it to rabbits if there is the risk of contamination from wild rabbits,
  - washing hands between handling rabbits,
  - good insect control is also important and will help reduce the risks of introduction of both RHDV and myxomatosis,
  - infected rabbits should be isolated and disposed of in a manner that will minimise environmental contamination,
  - all cages and equipment should be thoroughly cleaned and disinfected.
Laboratory samples for diagnosis and surveillance

- Any veterinarian who suspects a domestic rabbit may have RHDV2, should submit a fresh frozen (not formalin-fixed) 1 g liver sample to the State Diagnostic Veterinary Laboratory (SVDL) at the Elizabeth Macarthur Institute (EMAI). See http://www.dpi.nsw.gov.au/agriculture/vetmanual for details of how to pack and send the samples. Please put on the submission form- for “RHDV2 surveillance”

Further information


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Disclaimer: The information contained in this publication is based on knowledge and understanding at the time of writing (10 July 2015). However, because of advances in knowledge, users are reminded of the need to ensure that information upon which they rely is up to date and to check currency of the information with the appropriate officer of NSW Department Primary Industries or the user’s independent adviser.