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Policy Decision 21-03

National case definition for infection with *Ehrlichia canis* (Ehrlichiosis) in canines

Animal Health Committee

This document contains the case definition for infection with *Ehrlichia canis* (Ehrlichiosis) **in canines**, which is nationally notifiable within Australia. This definition should be used to determine if a case is notifiable and if any additional biosecurity requirements apply.

Reporting

Both **confirmed cases** and **suspected cases** must be notified to the Chief Veterinary Officer of the relevant state or territory.

Laboratory diagnosis

A positive laboratory diagnosis is:

- Detection of *Ehrlichia canis* (*E. canis*) by specific quantitative Polymerase Chain Reaction (qPCR) testing in a blood sample; OR
- Detection of an active *E. canis*-specific antibody response by immunofluorescence assay (IFA) testing in paired blood samples collected greater than or equal to 10 days apart, demonstrating a rising titre of greater than or equal to 4-fold in magnitude.

Confirmed case

A confirmed case is a canine with a **positive laboratory diagnosis** of *Ehrlichia canis* infection.

Suspected case

A suspected case is a canine with:

- **clinical evidence** consistent with infection with *E. canis* OR
- a single or persistently elevated *E. canis*-specific antibody titre.

Clinical evidence

- A current or previous clinically compatible illness (e.g. fever, lethargy, anorexia, epistaxis, petechiae, ecchymosis, lymphadenomegaly, splenomegaly, oedema, muscle pain, hyphema, uveitis, retinal haemorrhages, corneal oedema, weight loss); OR
- Haematological compatible abnormalities (e.g. thrombocytopenia, leucocytosis, leucopenia, monocytosis, lymphocytosis, anaemia, pancytopenia, hyperglobulinaemia, hypoalbuminaemia, elevated liver enzyme activity, azotaemia).

Possible case

- Absence of effective tick prevention and control at any time; AND
- Environmental or close contact with a canine which is a suspected or confirmed case of *E. canis*; OR
- Exposure to a known *E. canis* infected area. For example this may include part of or an entire state/territory; OR
- Unknown medical or travel history (this may include rescue, shelter and rehoming dogs).

Note: Effective tick prevention and control program means treatment with a product or products indicated for the prevention and control of ehrlichiosis, and environmental tick control.

Assessed negative

A case is considered resolved and a low to negligible disease transmission risk where there:

- There is no current **clinical evidence** of disease; AND
- The dog has completed an appropriate course of treatment; AND
- The dog is maintained on an effective tick prevention and control program.

Note: An example of an appropriate course of treatment is doxycycline administered at a therapeutic level for 28 days.

Additional testing post-treatment (e.g. 2 and 8 weeks) with negative results may provide evidence the dog has cleared the infection, however, as the organism may sequester in peripheral tissues, determining when a case is completely resolved may not be achievable. Accordingly, an “assessed negative” status may be applied while the dog meets the criteria recognising that negative diagnostic test results may not indicate the true infection status of the animal.

From a management perspective, all assessed negative cases should be maintained on an effective tick prevention and control program for at least three years.

References

- 1) AHC39_OOS03_RESOLUTION_Operating Guidelines
- 2) AHC39_OOS19_PAPER_National Case Definition for Infection with *E. canis*

More information

Learn more about the Animal Health Committee.

Email ahc@agriculture.gov.au

Acknowledgement of Country

We acknowledge the Traditional Custodians of Australia and their continuing connection to land and sea, waters, environment and community. We pay our respects to the Traditional Custodians of the lands we live and work on, their culture, and their Elders past and present.

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