**Mycoplasma felis, canis & cynos**

In dogs and cats, mycoplasma infections typically cause ocular, respiratory or joint disease. These mycoplasma species are distinct to the **haemotropic mycoplasmas (haemoplasmas)** that target red blood cells, causing haemolytic anaemia in dogs and cats.

We currently test for the following mycoplasma species by qPCR in dogs and cats:

- *Mycoplasma canis* (dogs)
- *Mycoplasma cynos* (dogs)
- *Mycoplasma felis* (cats)

**FAQs**

**Are mycoplasmas pathogenic in dogs and cats?**

Mycoplasmas are cell-wall deficient bacteria and many species infect dogs and cats. In both dogs and cats *Mycoplasma* spp. have been associated with lower respiratory tract disease (*M. cynos, M. felis*), joint disease (*M. felis, Mycoplasma gatae, Mycoplasma spumans and Mycoplasma edwardii*) and meningoencephalitis (*M. felis and M. canis*). Keratoconjunctivitis and upper respiratory tract disease has also been reported in cats (*M. felis*). Mycoplasma infections can be found in healthy animals, so interpretation of diagnostic findings must be in conjunction with the clinical signs observed as well as any other disease processes or infections found to be present (e.g. FCV, *Chlamydia felis*). Mycoplasmal urinary tract infections have also occasionally been reported.

**What clinical signs may be seen with mycoplasmal infections?**

Clinical signs will depend on where in the body the mycoplasmal infection is. Lower respiratory tract infections can result in pneumonia with fever, cough, tachypnoea and lethargy. Pyothorax occasionally occurs. Upper respiratory tract infections are associated with conjunctivitis, ocular and nasal discharge and sneezing. Joint pain and swelling, with pyrexia, due to polyarthritis may be seen, and neurological signs with meningoencephalitis may occur.
How do I diagnose mycoplasmal infections?

Culture of mycoplasmas can be used to demonstrate infection but some species are hard to grow and rapid transport of samples to the laboratory is required. Demonstration of organisms via qPCR is increasingly being used to circumvent the difficulties with culture, and can be performed on ocular swabs, oropharyngeal (throat) swabs, BALs, tracheal washes (dogs), synovial fluid, CSF or pleural fluid. The qPCR assays run by the Molecular Diagnostic Unit include an internal amplification control to ensure that a valid diagnostic result is produced for every submitted sample. Interpretation of PCR results must be done in conjunction with the clinical signs the animal is showing as well as other clinicopathological results. We offer specific qPCR tests to detect M. felis (cats) and M. canis and M. cynos (dogs) on submitted samples. If mycoplasmal infection with a different mycoplasma species is highly suspected, please contact us to discuss running a generic Mycoplasma spp. PCR assay on your sample.

How do I treat mycoplasmal infections?

Mycoplasmal infections are typically treated with doxycycline (10 mg/kg SID PO for at least 2 weeks). Care must be taken to follow doxycycline with food or water to prevent oesophagitis as a result of the medication lodging in the oesophagus, as some preparations cause oesophageal ulceration. Longer treatment courses for lower respiratory tract infections may be required. Alternative treatments include fluoroquinolones (e.g. marbofloxacin, pradofloxacin). Clinical response and follow up qPCR analysis can help monitor effective treatment.