# Tritrichomonas foetus

The protozoal parasite *Tritrichomonas foetus* (TF) is now well recognised as a cause of chronic large-intestinal pattern diarrhoea in cats. It is a particular problem in multi-cat households, notably pedigree breeding catteries and rescue shelters, where one or more cats within the group are usually affected.

TF-associated diarrhoea is most often seen in cats under 1 year of age, but it has also been reported in older cats. The parasite targets the large intestine causing colitis, with frequent passage of small quantities of liquid to semi-formed faeces often with blood, mucus, and tenesmus (*straining*). Some affected cats develop faecal incontinence.



## How is Tritrichomonas foetus diagnosed?

The motile TF trophozoites can be identified in fresh faeces by direct microscopic examination (ideally examined within two hours of passage), but the sensitivity of this method is very low.

Infection can also be diagnosed by culturing the organism using the commercially available InPouch<sup>™</sup> TF-Feline kit. However, the InPouch<sup>™</sup> method is laborious and time consuming (pouch contents need to be examined daily by microscopy and results can only be considered negative after 12 days). Additionally, the specificity of the InPouch<sup>™</sup> system is unknown as a positive result does not preclude the possibility of infection with trichomonads other than TF.

Faecal PCR is recommended as the diagnostic test of choice for TF infection, being more sensitive than both direct examination and culture by the InPouch<sup>™</sup> method. A real-time quantitative (q)PCR has been developed by the Molecular Diagnostic Unit, Langford Vets for the detection and quantification of TF in faecal samples. This new multiplex assay uses an internal amplification control qPCR alongside the TF qPCR, enabling detection of any inhibitory substances present in the extracted DNA, which could cause false negative results. As this assay is quantitative it is particularly useful in monitoring the response to treatment.

As the colonic mucus is the site of infection qPCR of colonic wash fluid increases the sensitivity of detection in infected cats (description and images available in <u>Colon Flush Technique -</u><u>YouTube</u>). If faecal qPCR is negative then colonic wash qPCR would be indicated in cats where there is a suspicion of TF.

**Reception Hours** Mon-Fri 9am - 5pm Contact Us

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#### Sample submission information

The sample required for the *Tritrichomonas foetus* qPCR is a small volume (2-5ml) of fresh faeces (or colonic wash fluid). Please ensure that no cat litter is present. Samples should be kept refrigerated and sent directly to our laboratory.

Faecal samples for *Tritrichomonas foetus* qPCR are less stable than many other sample types: to ensure the best results possible, samples should ideally be received in the laboratory within 3 days of sampling, although positive results have been obtained after lengthier delays.

## Can it be treated?

Consultation with a feline specialist is advised before embarking on treatment, particularly where multicat households are involved.

Although clinical signs may improve on antibiotics, diarrhoea typically recurs when these are stopped. Feeding of bland or high-fibre diets have also been suggested to be beneficial. The diarrhoea will usually resolve spontaneously in untreated cats although this may take some time; months or more. Cats in which clinical signs (diarrhoea) have resolved seem to continue to excrete the organism for periods of up to two years.

The only agent with proven efficacy against TF is ronidazole, which is effective in around two thirds of cases. Current recommended doses are 20-30mg/kg orally once daily for 14 days and should be based on accurate weight measurement. In young kittens (<12 weeks age) or cats with hepatic dysfunction doses should be reduced to 10mg/kg to minimise risk of adverse effects. Administration of a probiotic (e.g. Pro-Kolin Enterogenic, Protexin) for four weeks is also recommended.

Adverse effects of ronidazole are primarily related to neurotoxicity (lethargy, inappetence, ataxia, tremors, and seizures) with vomiting less frequent. If *any* adverse effects were to manifest, the ronidazole should be immediately discontinued and not re-instituted. Metronidazole increases the risk of toxicity, so should not be given concurrently. As it is teratogenic, ronidazole should not be administered to pregnant or nursing queens. Obtaining informed, written, owner consent prior to treatment is strongly recommended and owners should wear gloves when administering.

At time of writing ronidazole is not available as a licensed product for use in cats.

More information can be found on the ABCD website: <u>Tritrichomoniasis | (abcdcatsvets.org)</u> Updated July 2021 by Dr Emi Barker

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