

Intestinal Nematodes

Ascarids, hookworms and whipworms Considerations for routine diagnostic screening

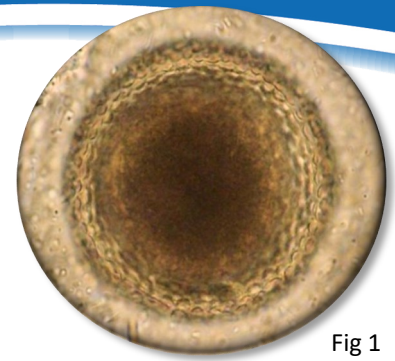


Fig 1

Regular deworming of cats and dogs is a fundamental component of preventative health programs for UK pets. Treating intestinal roundworms four times a year is likely to keep worm burdens low, reducing disease from hookworm and whipworm burdens and zoonotic *Toxocara* spp ova output. As a result, it is the minimum treatment frequency for pets with outdoor access recommended by ESCCAP. Monthly treatment, however, is sometimes required to minimise human and animal health risks. This is the case to prevent *Toxocara* shedding in cats and dogs likely to have high worm burdens or that live with people at high risk of infection. It is also important, however, to test adult cats and dogs alongside these treatments to demonstrate that treatment regimes are effective and appropriate, positively reinforce treatment compliance among pet owners and for the early detection of anthelmintic resistance.

IT IS TIME TO START TESTING PETS

Routine diagnostic testing of adult cats and dogs for intestinal nematodes is essential for the early detection of anthelmintic resistance, to confirm appropriate treatment is being applied correctly and at an effective frequency. It also helps to inform where hookworm and whipworm are present in the UK. Without testing in practice, there is no surveillance and no data to generate prevalence maps on which to base geographic risk assessment.

Routine diagnostic testing demonstrates value in routine treatment for the client and improves compliance. Regular negative tests in pets on routine preventative treatments shows good efficacy of the treatments being used and compliance on the part of the owner. This results in positive reinforcement and builds confidence in both the current recommendations and the owner's administration of the product. There is also the perceived added value of clients getting their preventative care advice and treatments from veterinary practices rather than elsewhere. Positive results in pets on preventative regimes demonstrates a need to investigate compliance on the part of the owner and potential causes of treatment failure (vomiting after tablet application, tablets not being eaten in food, spot on applications being washed off, inadequate treatment frequency, inappropriate compound selection, drug resistance etc). Parasites diagnosed in untreated pets demonstrates a need for treatment if the life stages found are zoonotic (*Toxocara*) or pathogenic (hookworm and whipworm).

Routine testing for intestinal nematodes is of benefit to practices both in terms of reinforcing good practice among pet owners, identifying which parasites are present in a local area, and surveillance for resistance. It can be performed at annual wellness checks or on a 6 monthly basis. Developments in AI slide reading, simple flotation methods and the availability of faecal antigen testing have made routine testing easier and more affordable. Testing can also be incorporated into practice plans in a similar way to urine testing, spreading the cost and making it part of an overall health package.

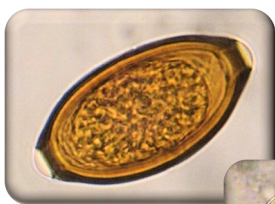


Fig 2

Fig 3



Hookworm anthelmintic resistance in North America

Although anthelmintic resistance has not been identified in European cat and dog worm burdens, it has become an issue in North America where intensive treatment of kennelled greyhounds that were subsequently rehomed has led to the generation and spread of drug resistant hookworms. Regular testing of dogs has been vital in monitoring the spread of these resistant worms and establishing which drugs are still effective in their treatment. Without routine faecal testing we are blind as to whether drug resistance is developing.

Routine testing as an alternative to routine treatment

Routine testing is a valid alternative to routine treatment if carried out at the same frequency as routine treatment would have been applied. This leads to reducing anthelmintic use but has the following limitations

- Cost of routine testing versus routine treatment carried out at the same frequency
- Infections may be missed by single tests
- Zoonotic ova shedding can occur between tests (which can also be a limitation of routine treatments)

Whether routinely treating or testing as an alternative, a risk assessment must be made to decide whether 4 times a year or monthly intervention is appropriate. Owners must understand the potential zoonotic risks in decreased frequencies of treatment and testing and that ova shedding can occur between tests.

Routine testing for intestinal nematodes once or twice a year for pets on preventative treatment

