Why use the tapeworm ELISA test?

This blood test measures the level of antibody in a horse’s blood to the equine tapeworm Anoplocephala perfoliata. We know that heavily infected horses have higher levels of antibody telling us which horses are likely to have heavy tapeworm infections and therefore be at risk of intestinal disease caused by tapeworms. The test is more expensive than a tube of anti-cestode anthelmintic paste so why not just give the horse a dose of treatment?

Reassurance. Breakdown in worm-control programmes of all types have been encountered, for all sorts of different reasons. The only way to be sure that a control programme is working is to test for infection status of the horses concerned. Many commercial horse operations use the ELISA test annually to screen expensive horses for potential tapeworm infection.

Cost-effectiveness. Using the ELISA test periodically over 2-3 years will allow you to build up a picture of susceptibility to tapeworm infection in a group of horses. This will allow you to target treatments at “high risk” animals only. Such targeted treatment is highly cost-effective as expensive treatments are not wasted on non-infected horses.

Good health is good welfare. Monitoring tapeworm infection status, and effective treatment of targeted horses, ensures the intestinal health of horses. Colic is known to be caused by heavy tapeworm infection, including some of the most serious types of colic that require surgical treatment. Colic can also result from the treatment of very heavily infected horses. Periodic monitoring will allow you to optimise intestinal health, and minimise the risk of colic. The ELISA test is a simple and reliable method of investigating tapeworm infection as a possible cause in horses that have recently had a colic episode.

Sustainability. Targeting anti-tapeworm treatments is not only cost-effective, it is sustainable. It avoids the inappropriate exposure of horses and parasite to unnecessary treatments. You wouldn’t take antibiotics unless you had an infection!

Diagnosteq has over ten years experience of the use and interpretation of the ELISA test in different types of horse and different management systems. At the University of Liverpool Equine Hospital the ELISA test is part of our routine investigation of “unexplained” colic cases. A number of scientific publications have reviewed the use of this test and reported on its practical application. Tapeworms continue to be a significant threat to the health of all horses, and young horses in particular. The ELISA test offers horse owners and veterinary surgeons a diagnostic tool to use in the prevention of tapeworm-associated colic and the maintenance of good intestinal health.

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Over the past couple of years Diagnosteq and other providers of worm control advice have been inundated with queries about pinworm infection. Why has this parasite suddenly come to our attention, and what can be done about it?

The first thing to remind horse owners about is that horses do not die of pinworm infection. In fact they rarely show any clinical signs at all. At worst this parasite causes some peri-anal itching and discomfort for affected horses. Naturally owners are keen to treat this problem when it occurs but they should be made aware of the relatively minor threat to their horse’s welfare.

Ten years ago we rarely saw pinworm infections in well-managed groups of horses. Today we see it with increasing frequency in horses that are subject to rigorous worm-control programmes. Why should this be? Craig Reinemeyer has recently commented on this situation in a review of anthelmintic resistance (reference below) and comments that there is insufficient evidence to blame this phenomenon on the development of resistance.

One possible scenario, and one that is consistent with the recent emergence of this problem, is that the macrocyclic lactones (ivermectin and moxidectin) have limited efficacy against Oxyuris equi under some circumstances. In particular it is recognised that some horses maintain persistent pinworm infection in the face of intensive dosing with moxidectin. An alternative explanation for this phenomenon is that ML anthelmintics, which are readily absorbed in the intestinal tract, are not longer present in therapeutic concentrations in ingesta in the rectum. This assumes that the anthelmintic has been given at a therapeutic dose and has been absorbed systemically during its passage through the upper intestinal tract and colon.

Whatever the underlying reason for the upsurge in pinworm infection there appears to be a simple remedy: treatment with either pyrantel or a benzimidazole anthelmintic, neither of which are systemically absorbed. As with so many parasitic infections, affected horses are susceptible to re-infection so periodic treatment for pinworms should be built into the horse’s annual worm control programme.


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Diagnosteq’s certification to ISO 9001:2008

Diagnosteq has been independently assessed and certified with ISO 9001:2008 accreditation for “The provision of an Equine Intestinal Parasitology Diagnostic Service”.

This is the international standard for quality management systems. It is used by over 750,000 businesses in 161 countries worldwide.

The standard recognises quality management processes that have been implemented. It demonstrates to our clients that our processes and business controls have been robustly tested and validated by an external accreditation authority.

Why did we choose ISO 9001?
- To improve internal workings and consistency in delivery.
- To formalise our processes and procedures to deliver higher standards for our customers.
- To reassure out clients that we are a well run business.
- To make our company a better place to work.
- To differentiate ourselves from our competitors.

How does this benefit our customers?
Diagnosteq’s certification to ISO 9001:2008 is a clear demonstration to our clients of our ongoing commitment to quality throughout all our business processes.
ISO certified organisations are better managed and make fewer errors.
We aim for a ‘right first time’ delivery to give a more consistent service.
In order to meet the requirements of the Standard, Diagnosteq needed to have in place, a documented Quality Management System and to be able to demonstrate its implementation and ongoing maintenance.

Diagnosteq has implemented a series of standard operating procedures (SOPs) for a number of tests and procedures. At present, SOPs cover testing for the following parasites:

- *Anoplocephala perfoliata* (tapeworm)
- Strongyle and larval egg counts from equine & other domestic farm animal faeces
- *Dictyocaulus arnfieldi* (lungworm)
- *Fasciola hepatica* (liver fluke).
- *Oxyuris equi* (pinworm).

The number of tests conforming to these standards will increase over time.

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Behind the scenes

Over the last couple of months, Diagnosteq has moved into a recently refurbished university laboratory. We are now better placed to efficiently process samples and, with integrated office space, should always be at the end of the telephone to answer any queries you may have.

Some good news...

We are often asked, here at Diagnosteq, if we are able to offer discounts on prices of testing of animals owned by veterinary practice staff. Well, the answer is ‘yes’. We’d be happy to discuss details of generous discounts applicable to staff of practices that are regular customers. Please phone/email for details:

tel/fax - 0151 794 6184/6158  
email - Diagnosteq@liv.ac.uk  
twitter - @diagnosteq

...and now the bad news

Customers might have noticed, and appreciated, the fact that the cost of our tapeworm ELISA test has remained the same since 2009. Unfortunately, due to rising reagent costs, we’re sorry to have to inform of a small price increase. Taking effect 1st July, the cost of a tapeworm ELISA will rise 30p to £19.80

PRICE LIST - 1st July 2012

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Price</th>
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<tbody>
<tr>
<td>Faecal Egg Count</td>
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<tr>
<td>Tapeworm Antibody ELISA</td>
<td>£19.80</td>
</tr>
<tr>
<td>Larval Count</td>
<td>£19.50</td>
</tr>
<tr>
<td>Fluke (sedimentation test)</td>
<td>£19.50</td>
</tr>
<tr>
<td>Lungworm (baermannisation test)</td>
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<tr>
<td>Sample Identification</td>
<td>£19.50</td>
</tr>
</tbody>
</table>

>20 samples we offer a 10% discount (Faecal Egg counts & Tapeworm ELISA)
>40 samples we offer a 15% discount (Tapeworm ELISA samples only)

All prices exclude VAT

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