

Factsheet: Equine intestinal parasites

Intestinal parasites can cause severe disease in horses and can even lead to the death if the burden is overwhelming. Therefore, it is essential all horse care providers understand about equine intestinal parasites and how to manage them appropriately. This document discusses the most common intestinal parasites found in horses, reveals their significance and discusses some of the pharmaceutical and management control measures that can be used.

Small strongyles → Cyathostomes

Cyathostomes are the most common intestinal parasite found in horses and they live in the large intestine. As part of their life cycle the larvae spend some of their time dormant and encysted in the large intestinal lining and can emerge in large numbers in the springtime causing significant disease.



Clinical signs of infection

Severe diarrhoea, especially in springtime when large numbers of larvae emerge. Larval cyathostomosis has a mortality rate of over 50% even following intensive care treatment.

Cyathostome larvae may be seen in the faeces

- Colic
- Weight loss
- Poor appetite
- Lethargy

Treatment

Intensive care at an equine hospital is required for horses showing severe signs of disease.

Routine anthelmintics to control the parasite burden include:

- Moxidectin (Equest)
- Five-day fenbendazole treatment (Panacur Equine Guard)

Only two anthelmintic drugs can treat encysted cyathostomes and strong resistance to these drugs is emerging which is extremely concerning. Therefore, it is important to worm at the correct time of year (usually in the Spring and Autumn) and preferably after regular monitoring of your horse's worm burden through faecal worm egg counts (FWEC) and under advice from your veterinary surgeon.

Management

Regularly measure the worm burden of your horse through FWEC which can be performed by your vet from a sample of your horse's faeces. This test can detect the eggs laid by the female worms. It is sensible to perform 2-3 FWEC a few weeks apart to establish the true parasite burden, as this test can only detect eggs when the female worms are laying them. Therefore obtaining a result of 0 from one FWEC does not necessarily mean your horse does not have a worm burden, it just means no eggs have been detected at that time, yet the large intestine could be full of cyathostome larvae and so regular testing is extremely important. FWEC can also help you decide whether you actually need to de-worm your horse as unnecessary worming contributes to drug resistance.

Good pasture management practices: removing faeces off the paddock daily if possible, to avoid a large build-up of eggs on the pasture and reduce parasite transmission

Large strongyles → *Strongylus vulgaris, edentates and equinus*

Large strongyles live in the large intestine and caecum. The larvae migrate extensively through the liver, pancreas and kidneys before becoming adults and residing in the large intestine. The larvae can cause severe problems, *S. vulgaris* larvae migrate to the cranial mesenteric artery causing thromboses which can lead to infarctions of part of the intestine causing severe intestinal necrosis requiring surgical resection.



Clinical signs of infection

- Ill thrift
- Anaemia
- Weight loss
- Lethargy
- Colic
- Peritonitis

Treatment

Veterinary attention is required for all of the clinical signs listed however emergency veterinary assistance is required for signs of colic.

Routine anthelmintics to control the parasite burden include:

- Ivermectin (Eqvalan)
- Moxidectin (Equest)
- Fenbendazole (Panacur)
- Mebendazole (Telmin)

All life cycle stages of these parasites are susceptible to the above anthelmintics but FWEC and consultation with your veterinary surgeon is advisable before deciding upon which anthelmintic to use and the most appropriate time of year to use it.

Management

- Regular FWEC to establish the parasite burden of your horse and appropriate time of year to de-worm. This ensures deworming with the correct drug at the correct time interval, blanket worming at set times of the year is not recommended.
- Good pasture management practices: removing faeces off the paddock daily if possible, to avoid a large build-up of eggs on the pasture and reduce parasite transmission.
- Adequate pasture acreage and avoidance of a high stocking density.
- Pasture rotation.

Roundworms → *Parascaris equorum*

Adult ascarid worms live in the small intestine but larvae migrate through the lungs during the worm's life cycle. *Parascaris equorum* infection is relatively common in younger horses (foals and yearlings) and can have serious consequences. Adult horses do not play a part in the transmission of this disease.

Clinical signs of infection

- Ill thrift
- Weight loss
- Lethargy

Huge burdens of the adult worms in the small intestine can build up and cause total obstruction of the small intestine resulting in colic signs and requiring immediate veterinary intervention



Respiratory signs such as coughing and nasal discharge can develop due to the migration of the parasite through the lungs

Treatment

Veterinary attention is required for all of the clinical signs listed however emergency veterinary assistance is required for signs of colic.

Routine anthelmintics to control the parasite burden include:

- Pyrantel (Strongid-P)
- Ivermectin (Eqvalan)
- Moxidectin (Equest)
- Fenbendazole (Panacur)
- Mebendazole (Telmin)

Parascaris equorum is susceptible to all of the above anthelmintics but FWEC and consultation with your veterinary surgeon is advisable before deciding upon which anthelmintic to use and the most appropriate time of year to use it.

Management

A good young stock anthelmintic worming strategy devised in consultation with your veterinary surgeon.

Good hygiene and regular disinfection of stables where young stock are housed. *Parascaris equorum* eggs are extremely resistant and can persist in the environment from year to year. In addition, the female worms can produce millions of eggs which are passed in the faeces each day.

Regular FWEC to establish the parasite burden of your horse and appropriate time of year to de-worm. This ensures deworming with the correct drug at the correct time interval, blanket worming at set times of the year is not recommended.

Good pasture management practices: removing faeces off the paddock daily if possible, to avoid a large build-up of eggs on the pasture and reduce parasite transmission.

Adequate pasture acreage and avoidance of high a high stocking density.

Pasture rotation.

Tapeworms → *Anoplocephala perfoliata*

Tapeworms live at the ileocaecal junction between the small intestine and caecum. The horse is infected through an intermediate host- the oribatid mite which is ingested during grazing.

Clinical signs of infection

Heavy burdens are associated with colic signs due to bowel irritation, ileal impactions and intestinal obstruction when large worm burdens accumulate at the ileocaecal junction

Treatment

Emergency veterinary assistance is required for signs of colic.

Routine anthelmintics to control the parasite burden include:

- Pyrantel (Strongid-P)
- Praziquantel (Equitape)

Both above anthelmintics are effective for treatment of tapeworm infection and it is recommended that all grazing horses are wormed at least once yearly or every six months in high-risk animals. The timing of treatment is not critical as there is little evidence to suggest that tapeworm infection is seasonal.

FWEC to diagnose tapeworm infections are not very reliable as eggs are passed intermittently and this is not associated with the number of worms present.

Management

Good pasture management practices: removing faeces off the paddock daily if possible, to help reduce parasite transmission to the oribatid mites.

Adequate pasture acreage and avoidance of high a high stocking density.

Pasture rotation.



Pinworms → *Oxyuris equi*

Oxyuris equi is extremely common. The adult worms live in the caecum, colon and rectum and the females move to the anus to lay their eggs.

Clinical signs of infection

The worms in the intestine rarely cause any problems but the female worms can cause intense irritation when they lay their eggs and often horses will rub the area resulting hair loss around the tail area and sore inflamed skin

Treatment

Administration of the correct anthelmintic- *Oxyuris equi* is sensitive to all of the drugs listed below however Moxidectin and Fenbendazole are best reserved for treating Cyathostomiasis as there is already emerging resistance to these drugs and so it is important to only use them when completely necessary which is not the case for *Oxyuris equi* infection as other drugs are available.

Routine anthelmintics to control the parasite burden include:

- Pyrantel (Strongid-P)
- Ivermectin (Eqvalan)
- Moxidectin (Equest)
- Fenbendazole (Panacur)

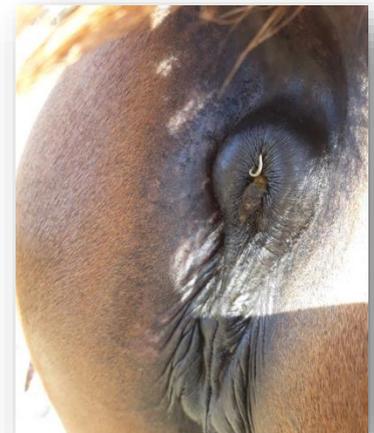
Management

As the eggs are deposited around the anus and on the skin FWEC are less useful in this disease but sellotape tests can be used to confirm infection and the eggs visualised under the microscope, however clinical signs are often enough to diagnose infection.

Daily cleaning around the anus to remove eggs will help prevent infection spread.

Often horses pick up the eggs from inside the stable or from areas where infected horses have rubbed such as gates, fences, water troughs etc therefore good stable hygiene and cleaning of surfaces where horses could have deposited eggs is essential for this infection.

Good pasture management is always important however to a lesser extent in *Oxyuris equi* infections as transmission of eggs often happens away from the pasture.



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