Diagnosing intestinal parasite infections

Faecal Dx® antigen testing clinical reference guide

IDEXX

Screen dogs and cats at least twice a year

The Companion Animal Parasite Council (CAPC) guidelines recommend including faecal antigen testing to ensure the widest breadth of detection of intestinal parasites.[1–3] Faecal antigen testing can identify infections that can be missed by using other methods.[4]

Hidden dangers and recommendations pet parents should know.

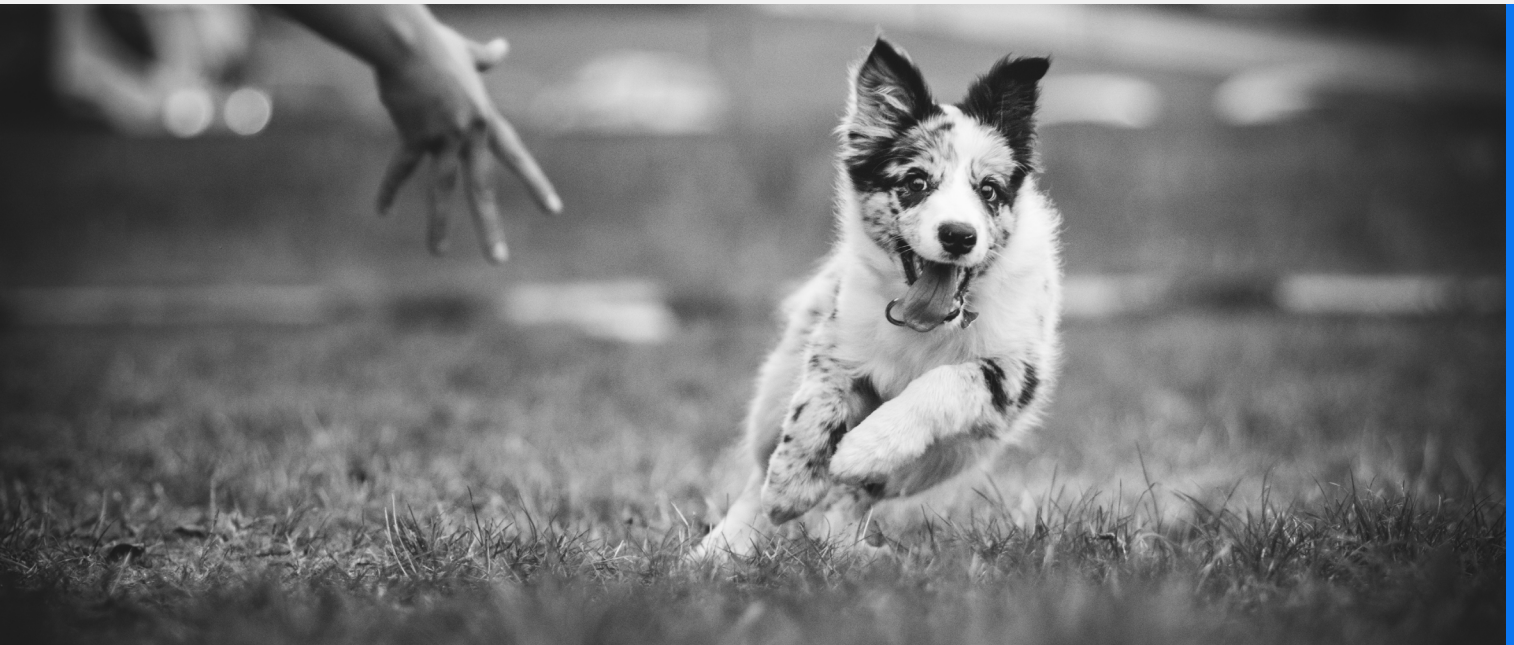
CAPC recommends faecal screening at least twice a year for adult dogs and cats but at least four times during the first year of a pet's life. A pet's health and lifestyle may warrant more frequent testing. Simply being outside can put pets at risk. Some parasites can burrow into a pet's skin or feet. Dogs and cats can also swallow parasites while grooming, nursing, or eating contaminated soil or faeces. Clients should also know that some infections can spread from pets to people.[5]

Recommend year-round, broad-spectrum parasite control.

A parasite-control program that is effective against intestinal parasites, fleas, and if appropriate for region, heartworm and ticks, provides maximum value for your clients and the best protection for your patients. Make sure your clients understand that they need to keep their pets protected all year long.[5]

Diagnose and treat infections earlier with Faecal Dx® antigen testing.

CAPC recommends including faecal antigen testing to diagnose infections, treat patients earlier, and reinforce the proper use of parasite-control products.[1–3] Faecal antigen testing identifies prepatent and single-sex infections, providing critical insights for patient management.[1–3]



Faecal screening for healthy adult pets

Diagnose hookworm, roundworm, whipworm, flea tapeworm, and *Cystoisospora* infections using Faecal Dx® antigen testing. Because the testing detects antigens, positive results confirm the presence of worms or protozoa in the intestinal tract. This allows you to diagnose infection when worms are not shedding eggs or are caused by worms of a single sex.[1–3]

What to do with your Faecal Dx antigen testing results.

The following algorithm can help guide your next steps when considering your patient's Faecal Dx antigen testing results.

	Antigen-positive results	Antigen-negative results
What to do next?	Treat with appropriate dewormer or use monthly parasite control product effective for this parasite	Communicate the success of current preventive measures Review possible risks and reinforce year-round protection
Convey	Review risk factors and proper disposal of faeces	
Retest	Retest 10–14 days later and then 1–2 times per year. If animal continues to test positive, revise choice of dewormer and recommend environmental control	CAPC recommendations: Faecal examinations at least 2 times per year
		Administer year-round, broad-spectrum parasite control with efficacy against heartworm (if recommended in your area), intestinal parasites, fleas, and ticks (if recommended in your area)

Did you know?

Treatment should be considered for patients that test positive by either antigen testing or egg/proglottid and oocyst detection.

Reasons for specimens that are antigen positive and egg/proglottid/oocyst negative may include the following:

+ Absence of eggs, proglottids, and oocysts during the prepatent period
+ Infections caused by single-sex worms
+ Intermittent egg/proglottid/oocyst shedding

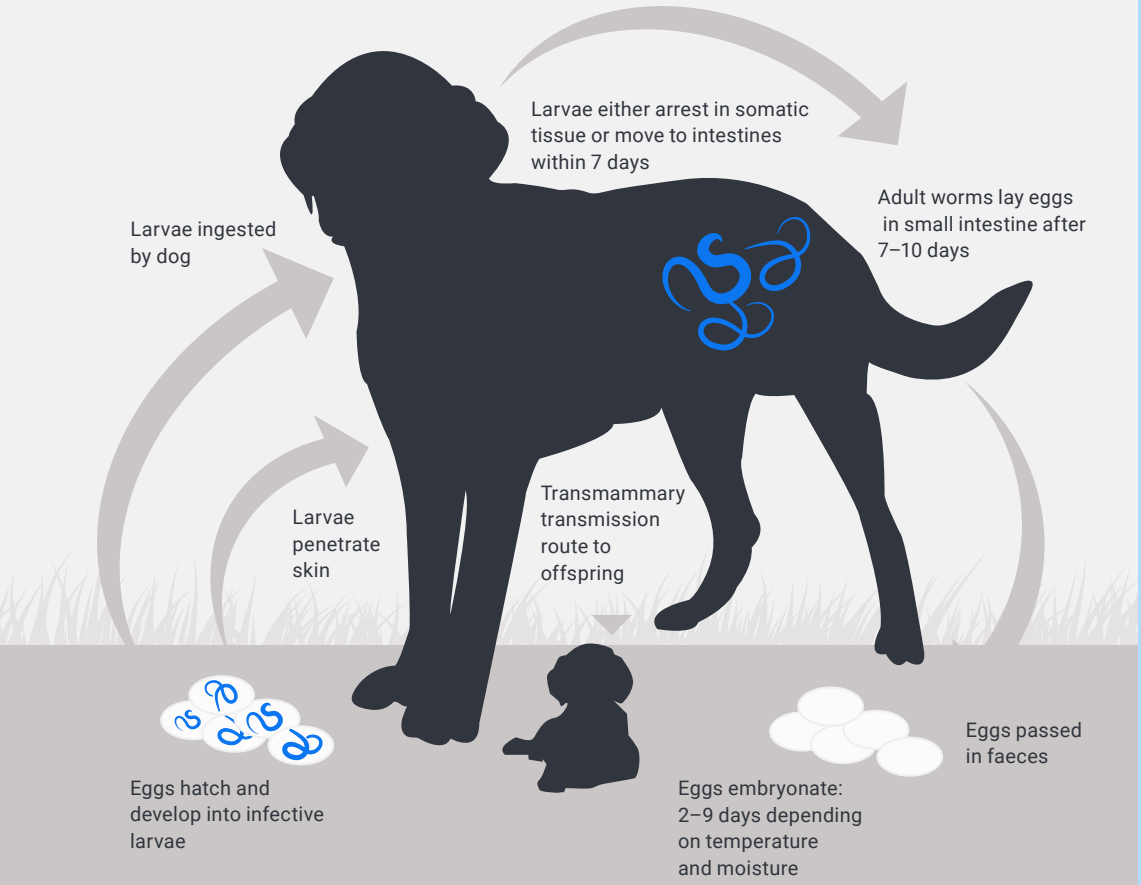
Reasons eggs, proglottids, and oocysts may be identified in specimens that are antigen negative may include the following:

+ Ingestion of infected faeces (coprophagy)
+ Antigen quantity is below the level of detection

Hookworms: from infection to presentation[1]

Ancylostoma caninum life cycle

Prepatent period for adult dogs: 14–21 days



Did you know?

+ Because hookworms have short prepatent periods and the potential for arrested larvae, even pets receiving monthly deworming may have adult worms in their intestinal tract between monthly doses.[1]

+ Puppies as young as 10–12 days of age may start shedding eggs if they've been infected through nursing.[1]

+ Due to the zoonotic risk and reinfection potential in this parasite, it is important to detect infections before they start shedding eggs into the environment.[1]

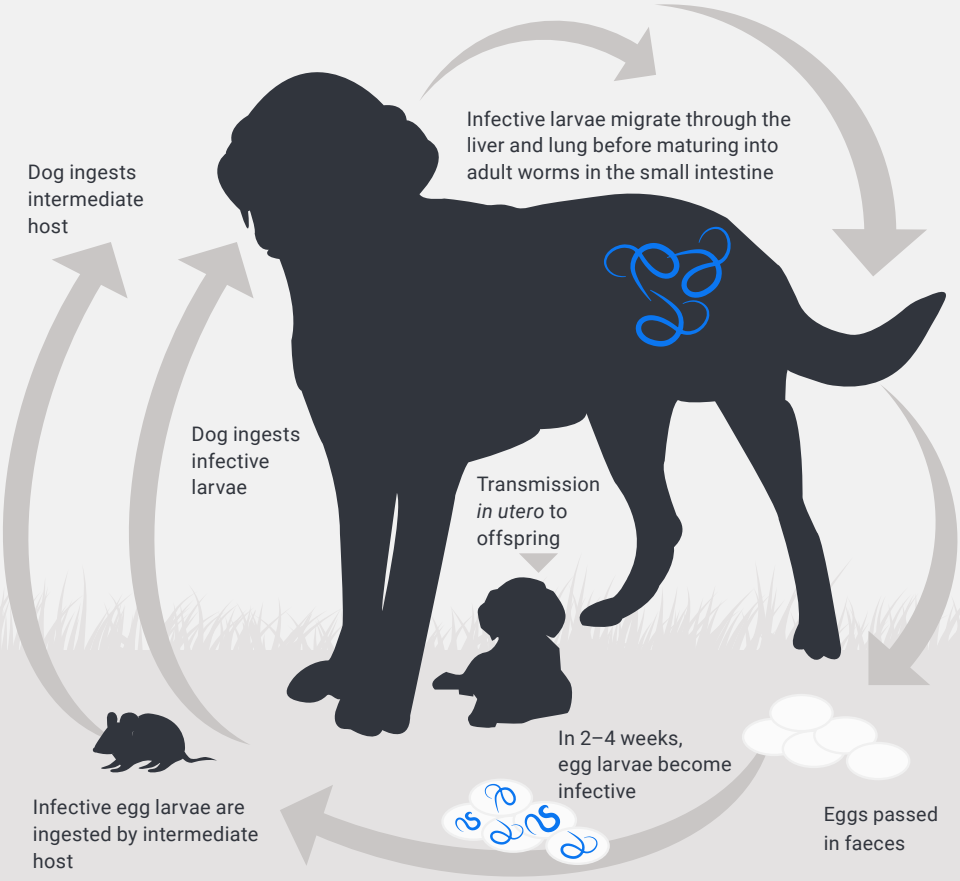
Clinical presentation

Pale mucous membranes and anaemia; ill thrift, failure to gain weight; poor hair coat, dehydration; dark, tarry diarrhoea; respiratory disease; foot lesions (dermatitis with erythema, pruritus, and papules).

Roundworms: from infection to presentation[2]

Toxocara canis life cycle

Prepatent period for adult dogs: 21–35 days



Did you know?

+ One female roundworm can produce 85,000 eggs per day, and these hard-shelled eggs can survive in the environment for years.[2] With Faecal Dx® antigen testing, you can detect infections before roundworms start laying eggs.

+ Due to the zoonotic risk and reinfection potential in this parasite, it is important to detect infections before they start shedding eggs into the environment.[2]

+ In puppies under 6 months of age, studies have shown more than 30% are infected and shedding *T. canis* eggs.[2]

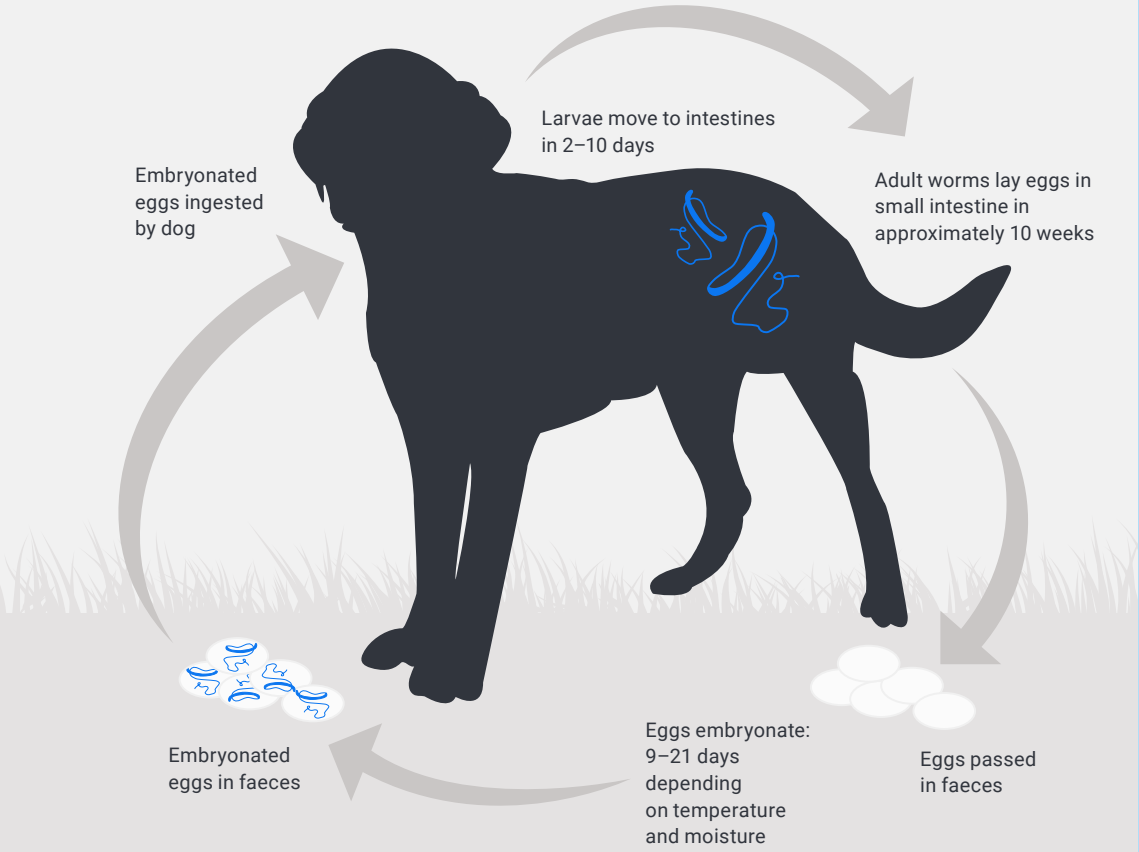
Clinical presentation

Diarrhoea, vomiting, pot-bellied appearance, coughing. Dogs may cough up or vomit worms. Infections caused by *T. canis* are more common and most severe in dogs less than one year of age.

Whipworms: from infection to presentation[3]

Trichuris vulpis life cycle

Prepatent period for adult dogs: 74–90 days



Did you know?

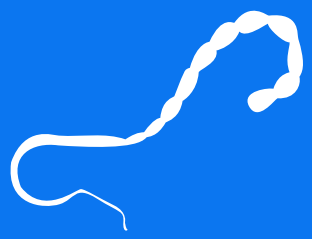
+ A female whipworm can produce as many as 2,000 eggs per day, and these infective whipworm eggs can survive in the environment for several years.[3] With Faecal Dx® antigen testing, you can detect infections before whipworms start laying eggs.

+ Due to their extended prepatent period, it's unlikely to find eggs being shed in very young puppies,[3] but Faecal Dx antigen testing can identify these positive patients during the prepatent period for earlier diagnosis and treatment.

Clinical presentation

Many infections are subclinical. When present, clinical signs include diarrhoea streaked with mucous and fresh blood, weight loss, dehydration, anaemia. Extreme cases can result in death.

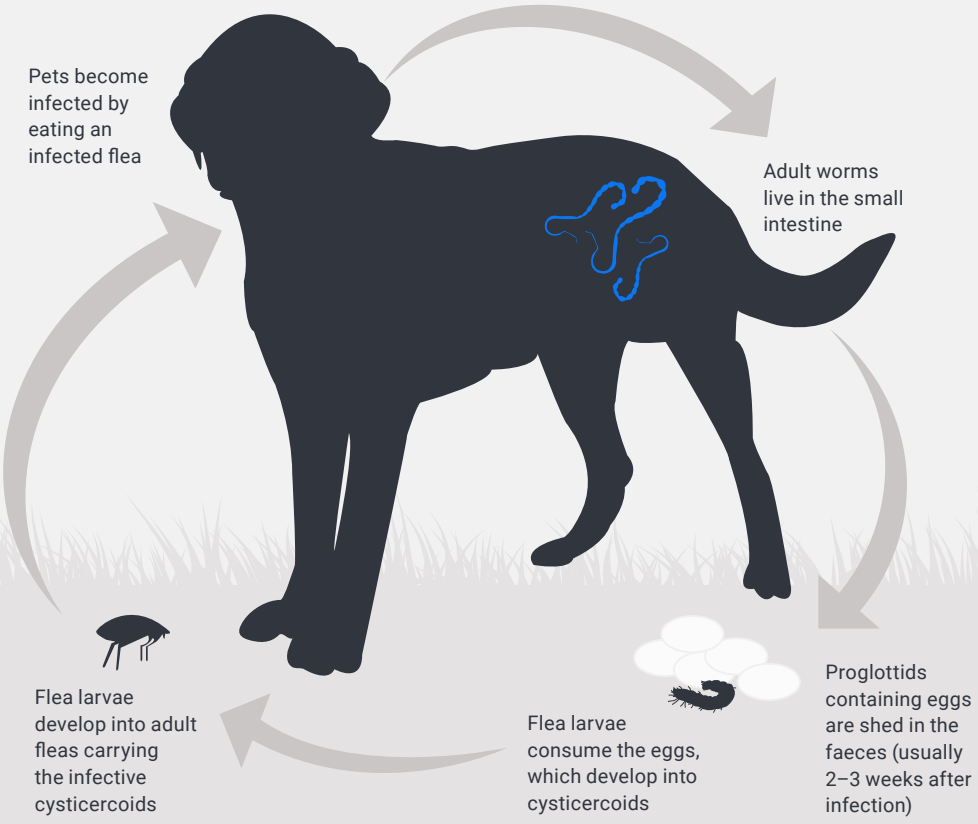
Flea tapeworm: from infection to presentation[8]



Dipylidium caninum life cycle

Prepatent period for adult dogs: 14–35 days[8,10]

This tapeworm can infect dogs and cats and is spread through ingestion of infected fleas.



Did you know?

+ *D. caninum* is called the "flea tapeworm" because the flea is its intermediate host.[8]
+ Dogs and cats become infected by eating/ingesting an infected flea.[8]
+ Each segment (proglottid) of a flea tapeworm may contain up to 25–30 eggs.[8]
+ Reinfection with *D. canium* is likely if flea infestations are not controlled.[8]
+ Dogs and cats may be infected with more than one species of tapeworm. The flea tapeworm is most commonly diagnosed.[9]

Clinical presentation

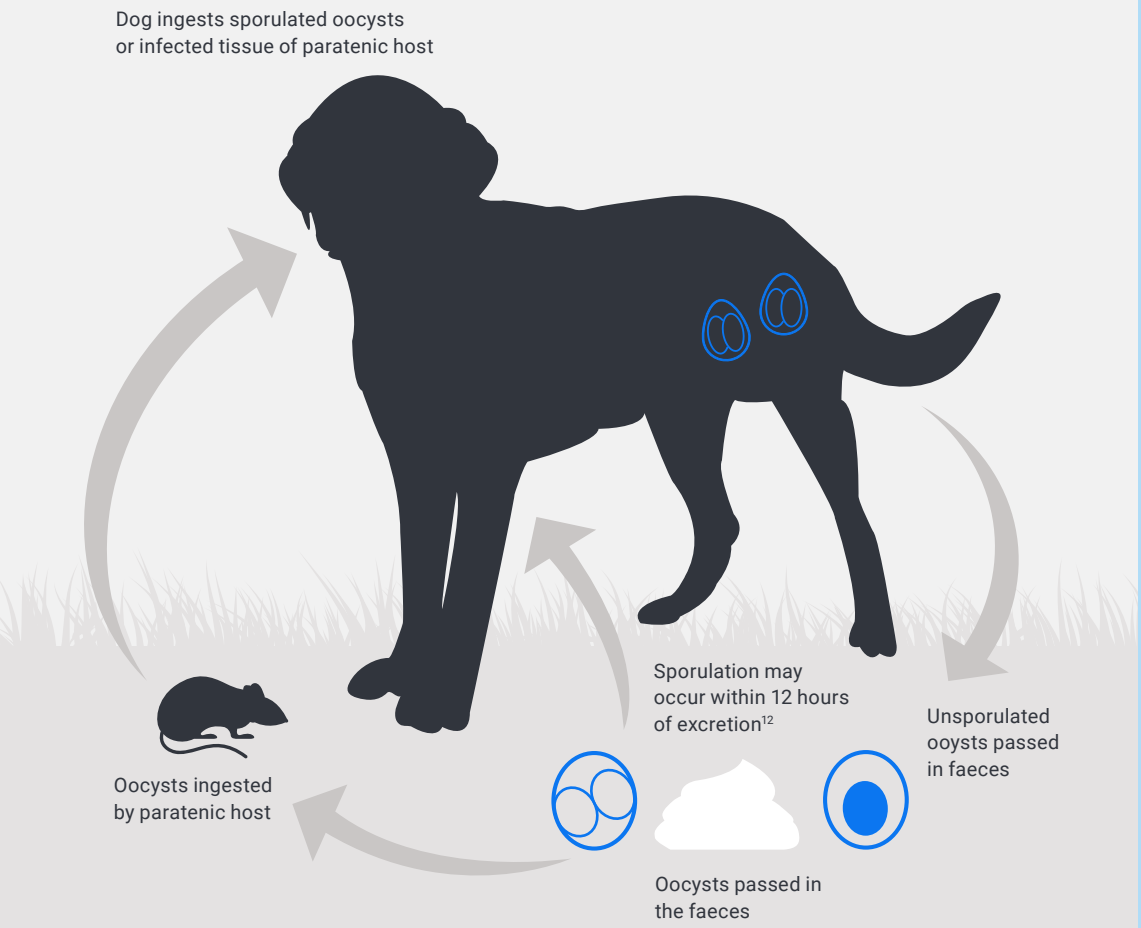
Infection may not always be apparent as many are subclinical. While flea tapeworms rarely cause disease, the passage of the proglottids may cause perianal irritation.

Cystoisospora spp. from infection to presentation[11]

Cystoisospora spp. life cycle

Prepatent period 4-13 days[11]

This protozoa can infect dogs and cats and is spread through ingestion of oocysts in the environment or predation of an infected paratenic host.



Did you know?[1]

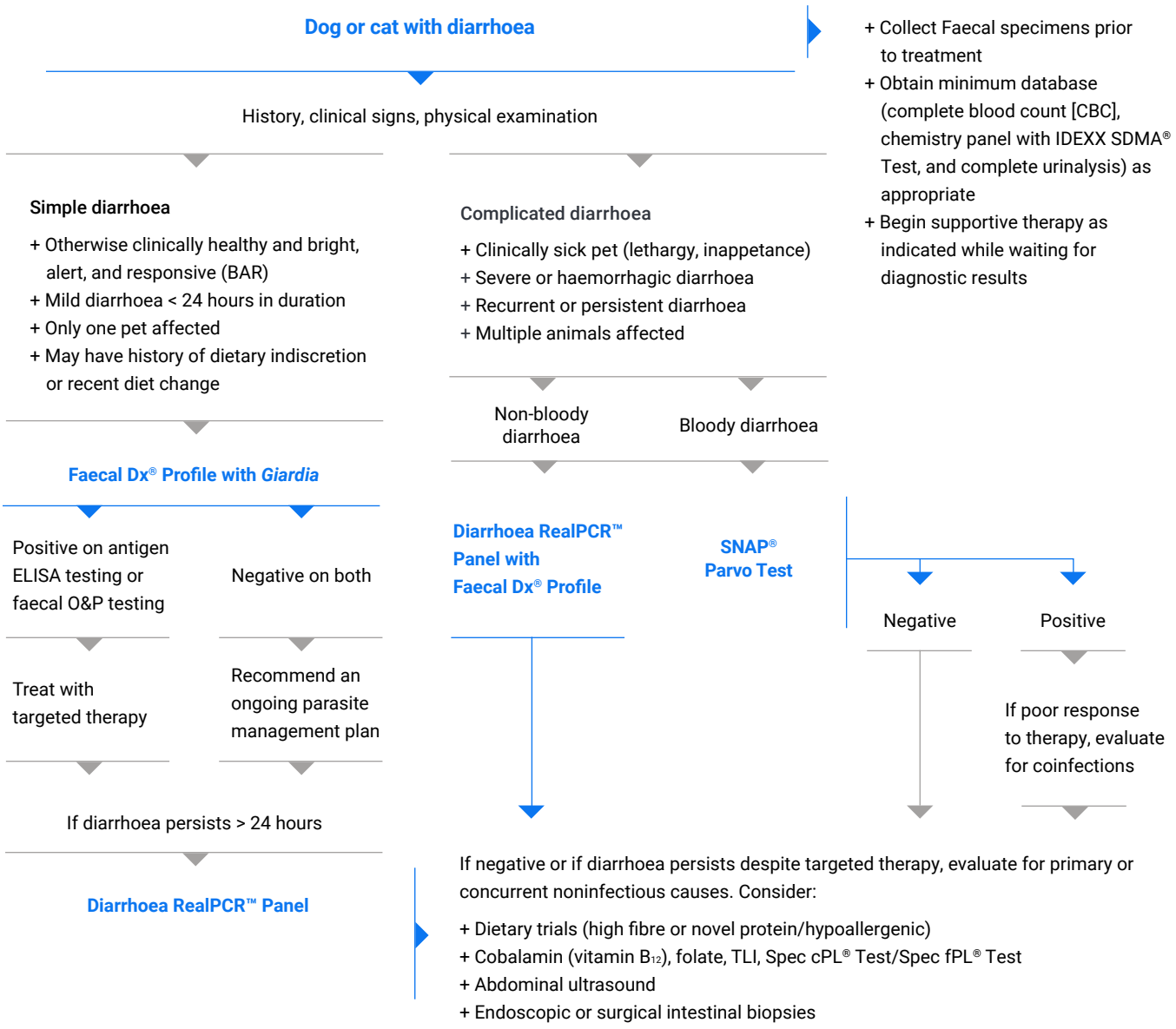
+ Oocysts may survive up to a year in moist, protected conditions if freezing or excessively high temperatures are avoided.[11]
+ Oocysts of a pseudoparasite, *Eimeria* spp. are sometimes found in dog and cat faeces.[11] Their morphology is very similar to *Cystoisospora*.
+ *Eimeria* is a coccidian parasite of rabbits, birds, and rodents but does not cause infection or disease in dogs and cats.[11]

Clinical presentation

Healthy adult dogs and cats may be infected and show no clinical signs. Young, stressed, and/or immunocompromised patients may have diarrhoea, vomiting, dehydration, depression, and anorexia.

Faecal screening for sick dogs and cats

When assessing sick pets with diarrhoea, it is important to differentiate between simple and complicated cases. For simple diarrhoea of short duration, testing for *Giardia* antigen by immunoassay or the SNAP® *Giardia* Test, as well as Faecal Dx® antigen testing and faecal ova and parasites by centrifugation (faecal O&P) is recommended. In cases of complicated diarrhoea, a more comprehensive diarrhoea RealPCR™ panel is recommended to rule out infectious diseases.



Did you know?

For complicated sick patients, our RealPCR™ testing expands the scope of detection to other important gastrointestinal pathogens, including viruses, bacteria, enterotoxins, and difficult-to-detect protozoa (e.g., *Cryptosporidium*).

How to minimise the threat of parasite infection

In addition to regular veterinary examinations and diagnostic screening, encourage your clients to follow CAPC guidelines.[5]

Food and water

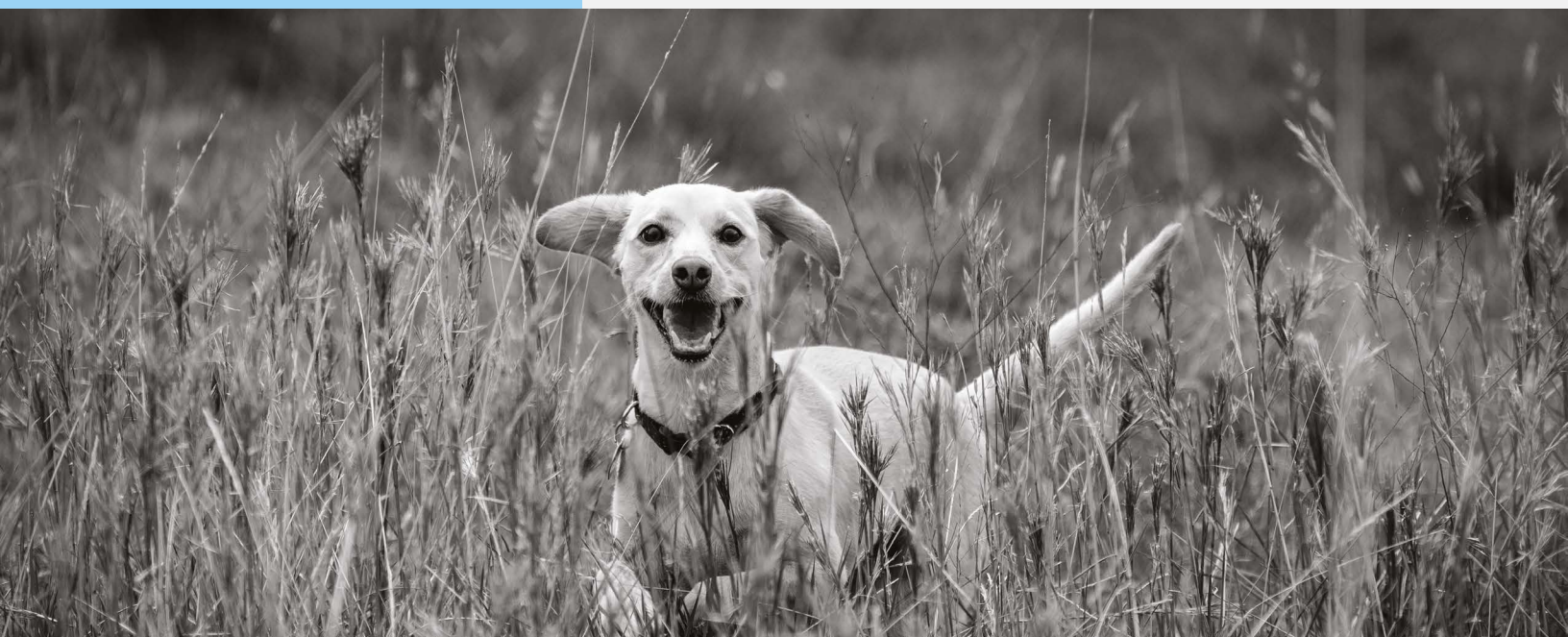
+ Pets should be fed commercial or cooked food.
+ Raw diets are not recommended.
+ Make sure pets have access to fresh water.

Outdoor activity

+ Limit access to wildlife and contaminated faeces.
+ Keep dogs on a leash or behind a fence.
+ Keep cats indoors.
+ Cover sandpits after use.

Hygiene

+ Do not handle animal faeces or urine with bare hands.
+ Wash hands immediately after incidental contact with faeces.
+ Promptly pick up and dispose of faeces from public areas.
+ Promptly remove faeces from the yard.



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