

TABLE 1.3
Selected Diagnostic Strategies

Clinical Signs and Differentials	Test	Pros	Cons	Recommended For
Gastrointestinal signs (diarrhea, vomiting, acute abdomen, blood in feces, iron-loss anemia in young animals) DD: Intestinal parasites	Centrifugal fecal flotation with sugar solution (qualitative)	Inexpensive consumables. Relatively quick if performed in clinic. AI integration is available.	Training needed with good SOPs. Some parasites are distorted or do not float well. Centrifuge required. Qualitative only (presence or absence).	Qualitative identification of most intestinal parasites. Routine annual testing for intestinal parasites.
	" <i>Giardia</i> " float (centrifugal fecal flotation with zinc sulfate solution)	Inexpensive. Can be performed in clinic. Avoids the collapse of <i>Giardia</i> cysts.	Training needed with good SOPs.	Qualitative identification of <i>Giardia</i> spp.
	" <i>Giardia</i> " antigen tests	Quick diagnosis of <i>Giardia</i> infection. Extremely sensitive. Can be performed in clinic.	High sensitivity may lead to overtreatment if clinical signs are not considered.	Only for dogs with clinical signs (diarrhea). Not recommended for clinically normal animals.

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Clinical Signs and Differentials	Test	Pros	Cons	Recommended For
Gastrointestinal signs, continued (diarrhea, vomiting, acute abdomen, blood in feces, iron-loss anemia in young animals), DD: Intestinal parasites	FECRT (fecal egg count [e.g., McMaster] performed before and 10–14 days after treatment; Wisconsin method may be preferred post-treatment if pre-treatment EPG is below 50)	Quantitative (determines EPG of feces). Inexpensive; quick if performed in clinic.	If not timed properly (10–14 days apart), results may be invalid.	Clinical diagnosis of <i>Ancylostoma caninum</i> (hookworm) resistance.
	Sedimentation	Detection of heavy eggs that will not float well in a flotation solution.	At least 5 grams of feces needed. Sensitivity is dependent on amount of feces examined. Must use saline when suspicious of <i>H. americana</i> .	GI flukes (<i>Heterobilharzia americana</i> , <i>Alaria</i> spp., <i>Nanophyetus salmincola</i> , and <i>Platynosomum fastosum</i>), <i>Physaloptera</i> spp. (stomach worm), and some tapeworms (<i>Spirometra</i> sp.).
	Fecal antigen test (e.g., hookworms, roundworms, whipworms, <i>Dipylidium</i> , and <i>Cystoisospora</i>)	Extremely sensitive detection of parasite antigen, often before the eggs are seen in feces.	Qualitative only. Available for a limited number of parasites. Prepatent detection of parasites may lead to confusion about treatment needs. Does not differentiate species.	Qualitative detection of select parasites.
	Fecal PCRs and PCR panel	Sensitive detection of parasite DNA present in feces.	Qualitative only. Available for a limited number of parasites.	Qualitative detection of a selection of GI parasites in the commercially available PCR panel, including markers for benzimidazole resistance in hookworms. Can categorize <i>Giardia</i> based on zoonotic potential [i.e., from a zoonotic assemblage], and differentiate <i>Taenia</i> from <i>Echinococcus</i> .
	Morphological identification of worms	Definitive diagnosis of some parasites.	Small parasites are easy to miss. Technique is limited to only a few parasites antemortem. Advanced training may be required.	Worms present in feces or vomitus; worms recovered during endoscopy or surgery.

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TABLE 1.3, CONTINUED
Selected Diagnostic Strategies

Clinical Signs and Differentials	Test	Pros	Cons	Recommended For
Respiratory signs (coughing, dyspnea) DD: Heartworm, lungworms	<i>D. immitis</i> antigen test	Multiple formats. Quick; performed in clinic.	Cannot detect infections until ~6 mo after infection in dogs. Infected cats can be antigen negative.	Heartworm diagnosis in dogs. Routine annual testing for dogs and cats.
	<i>D. immitis</i> antibody test	Detection of antibodies to <i>D. immitis</i> .	Indicates prior or current infection but cannot differentiate. Reference laboratory offered test.	Routine annual testing of <i>D. immitis</i> in cats.
	Microfilarial test (modified Knotts)	Sensitive. Concentrates mf in a volume of blood. Can help differentiate <i>Dirofilaria</i> spp. from <i>Acanthocheilonema</i> spp.	Training needed with good SOPs. Micrometer needed.	Confirmation of <i>D. immitis</i> infection in dogs.
	MFST (quantitative modified Knott's test performed before and 10–14 days after ML treatment)	Quantitative (mf per mL of blood).	Training needed with good SOPs. Micrometer needed.	Confirmation of ML resistant <i>D. immitis</i> .
	Centrifugal fecal flotation (qualitative) in a high specific gravity solution	Inexpensive. Relatively quick if performed in clinic.	Training needed with good SOPs. Larval lungworms are distorted.	Respiratory dwelling helminths that produce eggs (<i>Eucoleus</i> [<i>Capillaria</i>] <i>aerophilus</i> , <i>Eucoleus boehmi</i>), <i>Paragonimus</i> spp.
	Baermann test	Recovers and does not distort larval stages shed in feces.	Time consuming. Training is needed to distinguish lungworms from free-living larvae.	Lungworms that produce larval stages (<i>Filaroides</i> in dogs, <i>Aelurostrongylus</i> in cats).
Systemic signs (fever, severe lethargy, anemia, weight loss), DD: Blood parasites	PCR tests (in panels or single)	Sensitive detection of parasite DNA in blood or tissue.	Qualitative only.	Confirmation of active tick-borne bacterial and protozoal diseases (<i>Anaplasma</i> spp., <i>Ehrlichia</i> spp., <i>Cytauxzoon</i> spp., <i>Babesia</i> spp., <i>Bartonella</i> spp., hemotropic <i>Mycoplasma</i> spp., <i>Rickettsia</i> spp.).
	Antibody tests (e.g., ELISA and IFA)	Detection of antibodies. Some performed in clinic.	Cannot differentiate between past or current infection.	Detects exposure to <i>Anaplasma</i> spp., <i>Ehrlichia</i> spp., <i>Borrelia burgdorferi</i> , <i>Babesia canis</i> , <i>Bartonella</i> spp., and <i>Rickettsia</i> spp.

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TABLE 1.3, CONTINUED
Selected Diagnostic Strategies

Clinical Signs and Differentials	Test	Pros	Cons	Recommended For
Systemic signs, continued (fever, severe lethargy, anemia, weight loss), DD: Blood parasites	Stained thin blood smear	Quick, inexpensive, and in-clinic test.	Sensitivity depends on the operator. Some parasites are only detectable during early infection.	Detection of intracellular protozoa and bacteria.
Skin lesions (pruritus, alopecia, nodules) DD: Ectoparasites	Ectoparasite identification	Definitive diagnosis of infestation.	Training needed. Dichotomous keys are not available for every parasite group.	Identifies infestation with ticks, fleas, and lice.
	Skin scraping	Quick, inexpensive, and in-clinic test.	Sensitivity depends on the number of parasites present. Training needed for species level identification of mites.	Identifies skin-dwelling mites.
	Biopsy	Useful to understand pathological changes in skin and detect skin parasites.	Parasite groups can be identified but not to species level.	Identification of <i>Cercophithifilaria</i> spp. in skin.
	PCR	Can be performed on skin scraping or biopsies.	Sensitive and specific.	Confirmation of ectoparasite identity.

AI, artificial intelligence; DD, differential diagnosis; EPG, eggs per gram; FECRT, fecal egg count reduction test; GI, gastrointestinal; mf, microfilaria; MFST, microfilarial suppression test; ML, macrocyclic lactone; PCR, polymerase chain reaction; SOP, standard operating procedure.

2026 AAHA One Health Guidelines: Emerging Concerns in Canine and Feline Parasitology are available at aaha.org/one-health-parasitology

These guidelines were prepared by a Task Force of experts convened by the American Animal Hospital Association (AAHA) and were subjected to a formal peer-review process. This document is intended as a guideline only, not an AAHA standard of care. These guidelines and recommendations should not be construed as dictating an exclusive protocol, course of treatment, or procedure. Variations in practice may be warranted based on the needs of the individual patient, resources, and limitations unique to each individual practice setting. ©2026 AAHA.

