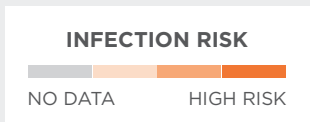
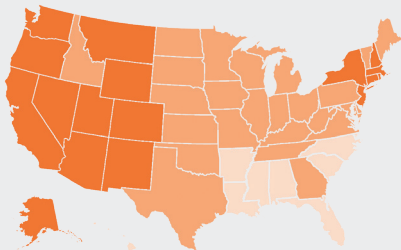


# ACCURATELY DIAGNOSING *GIARDIA* USING **vetscan** **IMAGYST**<sup>™</sup>

One of the most commonly underdiagnosed and overdiagnosed gastrointestinal parasites is *Giardia duodenalis* (syn *G lamblia*, *G intestinalis*)<sup>1</sup>

Fecal exams are a routine part of wellness testing for dogs and cats and a standard test when they are symptomatic, but in practice, *G duodenalis* is difficult to properly diagnose. In order to overcome this challenge, the VETSCAN IMAGYST provides a simple and easy method to accurately diagnose *Giardia*.<sup>1,2</sup>

## GIARDIA PREVALENCE



The prevalence of *G duodenalis* infection varies depending on the age, clinical status, housing and geographic region of the animal and is influenced by the detection method employed.<sup>3-5</sup>

## WHAT TYPE OF FECAL TESTING IS NEEDED FOR MY PATIENT?<sup>1,6</sup>



## TESTING FOR *GIARDIA* USING VETSCAN IMAGYST

The VETSCAN IMAGYST was developed to provide a simple, easy and structured fecal examination, which is less influenced by different fecal preparation methods or level of experience of an examiner<sup>2</sup>

## The VETSCAN IMAGYST system consists of 3 components:



### Sample preparation<sup>2</sup>

The sample preparation device is used for a centrifugal flotation technique with a transfer loop for easy transfer of the sample to a microscope slide



### Scanning of the sample by whole slide imaging (WSI)<sup>2\*</sup>

Utilizes VETSCAN FUSE, a bi-directional communication system between Practice Information Management Software (PIMS) and IMAGYST, allowing easy access to patient results, updates to medical records and charge capturing



### Analysis by a cloud-based, deep-learning algorithm<sup>7</sup>

Locates, classifies and identifies parasite eggs found on fecal microscope slides

\*IMAGYST is compatible with select PIMS systems. Contact your Zoetis representative for the full list.

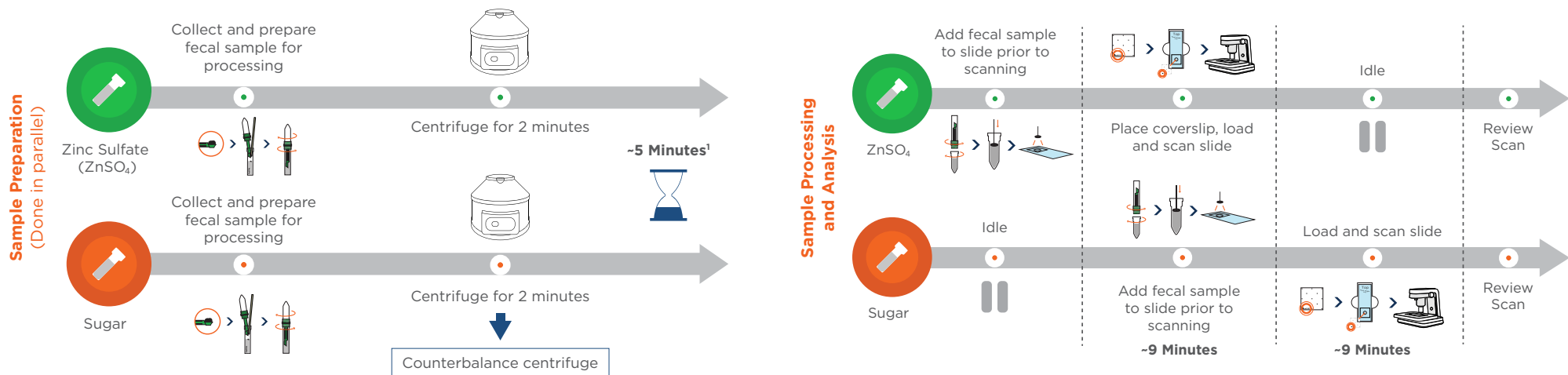
## TESTING FOR *GIARDIA* WITH THE VETSCAN IMAGYST WITH DIFFERENT SOLUTIONS<sup>8</sup>

FLOTATION SOLUTION	SPECIFIC GRAVITY	ADVANTAGES	DISADVANTAGES
33% Zinc Sulfate (ZnSO <sub>4</sub> )	1.18	Floats common helminth and protozoa eggs and cysts; <b>preferred for <i>Giardia</i></b>	Less effective for flotation of common tapeworm eggs than others; does not float some fluke and some unusual tapeworm and nematode eggs
Sheather's sugar solution	1.25	Floats common helminth and protozoa eggs and cysts; <b>causes less damage to parasite eggs and cysts than salt solutions</b>	Less sensitive than 33% ZnSO <sub>4</sub> for <i>Giardia</i> ; creates sticky surfaces



Using the VETSCAN IMAGYST, the availability of both sugar and 33% ZnSO<sub>4</sub> solutions can provide a more complete fecal diagnostic evaluation.

### CENTRIFUGATION WITH THE VETSCAN IMAGYST<sup>8,9</sup>



### PROVEN PERFORMANCE

In a performance study:

- The VETSCAN IMAGYST sample preparation system device was shown to be comparable to the performance of conventional centrifugal flotation for *Giardia* as read by an expert (clinical parasitologist) with manual microscopy<sup>2,7</sup>
- Good sensitivity and specificity with *Giardia* when the samples were evaluated by the algorithm vs clinical parasitologist<sup>2,7</sup>



**Help increase compliance and ROI by testing, diagnosing and treating if necessary, all in the same visit.** The VETSCAN IMAGYST's innovative approach to detecting *Giardia* cysts is a simple, easy, fast and accurate solution, aiding in the diagnosis of giardiasis.

**References:** 1. Companion Animal Parasite Council (CAPC) Guidelines: *Giardia*. Dog: Updated May 2019. Cat: Updated March 2018. Accessed October 22, 2019. <https://capcvet.org/guidelines/giardia>. 2. Nagamori Y, Sedlak RH, DeRosa A, et al. Further evaluation and validation of the VETSCAN IMAGYST: in-clinic feline and canine fecal parasite detection system integrated with a deep learning algorithm. *Parasit Vectors*. 2021;14(1):89. doi:10.1186/s13071-021-04591-y. 3. Companion Animal Parasite Council (CAPC). CAPC website. <https://capcvet.org/maps/#2020/all/giardia/dog/united-states/>. Accessed February 16, 2021. 4. Patton S. Overview of giardiasis. *Merck Veterinary Manual*. Updated September 2013. Accessed December 7, 2020. <https://www.merckvetmanual.com/digestive-system/giardiasis-giardia/overview-of-giardiasis>. 5. Saleh MN, Heptinstall JR, Johnson EM, et al. Comparison of diagnostic techniques for detection of *Giardia duodenalis* in dogs and cats. *J Vet Intern Med*. 2019;33(3):1272-1277. doi:10.1111/jvim.15491. 6. Greene CE. Enteric protozoal infections. *Infectious Diseases of the Dog and Cat*. 4th ed. Elsevier; 2012:787. 7. Nagamori Y, Sedlak RH, DeRosa A, et al. Evaluation of the VETSCAN IMAGYST: an in-clinic canine and feline fecal parasite detection system integrated with a deep learning algorithm. *Parasit Vectors*. 2020;13(1):346. doi:10.1186/s13071-020-04215-x. 8. Zajac AM, Conboy GA, Greiner EC, et al. Fecal examination for the diagnosis of parasitism. In: Zajac AM, Conboy GA, eds. *Veterinary Clinical Parasitology*. 8th ed. Wiley-Blackwell; 2012:4-7. 9. Data on file, Study Report No. D860R-US-19-078, 2019, Zoetis, Inc.