

## **SHELTER HEALTH PRO**

| Disease<br>Name:                    | Giardiasis                                                                                                                                                                                                                                                                                                                   |                                                               |                                                 |                                                                |  |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------|----------------------------------------------------------------|--|
| Agent:                              | Giardia duodenalis (syn. G. intestinalis, G. lamblia)                                                                                                                                                                                                                                                                        |                                                               |                                                 |                                                                |  |
| Infective<br>forms:                 | Exists as intestinal trophozoite form and as an infective cyst                                                                                                                                                                                                                                                               |                                                               |                                                 |                                                                |  |
| Susceptible<br>domestic<br>species: | Cats, dogs, and most domestic species                                                                                                                                                                                                                                                                                        |                                                               |                                                 |                                                                |  |
| Zoonotic?:                          | Humans are much more likely to be infected with Giardia from a contaminated water source than<br>from an infected pet (a.k.a. Beaver fever). However, it is known that the same species of Giardia<br>can infect domestic animals and humans, so precautions should be taken when handling infected<br>animals.              |                                                               |                                                 |                                                                |  |
| Clinical Signs<br>& Symptoms        | <ul> <li>Animals - Diarrhea, chronic weight loss, and pale, malodorous feces. Even animals with no obvious symptoms can carry Giardia.</li> <li>Human - Some people experience no symptoms, typical symptoms include mild or severe diarrhea, abdominal pain and occasional weight loss. Fever is rarely present.</li> </ul> |                                                               |                                                 |                                                                |  |
| Diagnostic<br>tests:                | Direct smear                                                                                                                                                                                                                                                                                                                 | Zinc flotation with centrifugation                            | Flotation without centrifugation                | Idexx<br>ELISA<br>SNAP test                                    |  |
| Test<br>sensitivity                 | ~ 50% on diarrheic feces                                                                                                                                                                                                                                                                                                     | ~75% on 3 samples over 5<br>days                              | Poor (probably <10%)                            | 85-90%                                                         |  |
| Test<br>specificity                 | Must distinguish from <i>T. foetus</i> in cats                                                                                                                                                                                                                                                                               | Good, if able to<br>distinguish from coccidia,<br>yeast, etc. |                                                 | 95-99%                                                         |  |
| Test<br>comments:                   | Must be fresh sample                                                                                                                                                                                                                                                                                                         | Cyst shedding is<br>intermittent – must sample<br>repeatedly  | Test is essentially not recommended for giardia | Can test +<br>for up to 2<br>weeks<br>following +<br>treatment |  |





| Other tests:                              | There are several other tests available from laboratories. The ProspectT microplate ELISA and FA tests are good; please call your lab for details on the tests and on their specificities/sensitivities. (The ProspectT RAPID assay is less sensitive.) |  |  |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| Prevalence in shelters:                   | Cats: 10-30% (up to 100% in some catteries)<br>Dogs: 20-40% (up to 100% in some kennels)                                                                                                                                                                |  |  |
| Vaccine<br>available?                     | Yes, however it is not recommended as it has not been proven to be effective.                                                                                                                                                                           |  |  |
| Excreted in:                              | Feces                                                                                                                                                                                                                                                   |  |  |
| Mode of transmission:                     | Fecal-oral either directly or indirectly, e.g. fecal contaminated water or food.                                                                                                                                                                        |  |  |
| Disinfection:                             | Cysts can exist for months in a moist/cool environment. Drying of kennels also helps in between disinfection. Does not survive freezing. Mechanical removal through routine cleaning and disinfection is most effective.                                |  |  |
| Incubation:                               | Average prepatent period is 8 days in dogs, 10 days in cats. Onset of disease (if it occurs) may precede cyst shedding by 1-2 days.                                                                                                                     |  |  |
| Post-recovery shedding:                   | Shedding may still occur even after disease is treated. It is advisable to retest animal at the end of treatment and then again several weeks later.                                                                                                    |  |  |
| Carrier state?:                           | YES. Most infections in otherwise healthy adult animals are asymptomatic. Self cure is possible a is chronic shedding.                                                                                                                                  |  |  |
| Treatment<br>&prevention<br>of outbreaks: | Fenbendazole (panacur); Febental/pyrantel/praziquantel (Drontal Plus); Metronidazole (less effective and resistance is possible). Reinfection is common so decontamination of the environment in shelters is paramount.                                 |  |  |
| PPE<br>Required                           | Gloves, gown, impermeable shoe covers                                                                                                                                                                                                                   |  |  |



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| Control | Bathing can also help decrease cyst load found on fur. |
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| Control |                                                        |