Stools for Ova and Parasite Examination
Change in Laboratory Testing Policy

Effective June 19, 2017, the Microbiology department of Laboratory Alliance of Central New York will discontinue the routine performance of comprehensive ova and parasite (O&P) examinations on stool specimens. Instead, all stool specimens submitted to the Microbiology laboratory for O&P examination will be screened for the presence of *Giardia lamblia*, also known as *Giardia intestinalis*, and *Cryptosporidium parvum* using a direct fluorescent antibody (DFA) method. This policy change is based upon the results of two independent, retrospective O&P audits conducted by Laboratory Alliance as well as recommendations published by the Centers for Disease Control and Prevention (CDC).

In a 19 month retrospective audit conducted from January 2015 to September 2016, 2,053 O&P stool examinations were performed, of which 29 specimens were positive for *G. lamblia* and 7 were positive for *C. parvum*. Only one patient stool specimen of the 2,053 tested (0.0005%) was found to have helminth eggs. This patient was a Vietnamese refugee who was co-infected with *Ascaris lumbricoides* and *Trichuris trichiura*. Another 18 month, retrospective study conducted in 2003 to 2004 showed similar results in that the prevalence of parasitic infestations in patients served by Laboratory Alliance was exceedingly low. In this study, of the 3,621 stool specimens examined, only 27 (0.7%) harbored parasites that were associated with human disease. Of these 27 specimens, 26 contained *G. lamblia* and only one had hookworm. According to the CDC, *G. lamblia* and *C. parvum* are the two most common causes of parasitic disease in the United States. As such, Laboratory Alliance will be screening for both of these intestinal protozoa by using a highly sensitive DFA method. One study has shown that the DFA test is considerably more sensitive than conventional microscopic methods with increased sensitivities of 49% and 70% reported for *Giardia* and *Cryptosporidium* respectively. Furthermore, the *Giardia* and *Cryptosporidium* EIA assay that was previously available will be replaced by the DFA test because the DFA method is more sensitive than EIA for detecting the presence of these parasites in stool specimens.

Parasites other than *Giardia* and *Cryptosporidium* can cause diarrheal disease, particularly in patients who have lived or traveled to an endemic area or who might be immunosuppressed. For this reason, stool specimens will be saved in the laboratory for

7 days after the *Giardia/Cryptosporidium* DFA test results have been reported. Physicians who suspect that another parasite may be responsible for the patient's disease may arrange to have a comprehensive O&P exam performed on the saved stool sample by telephoning the laboratory within this 7 day time period (315-410-7067).

Test Code:	OAPDFA
Method:	Direct Fluorescent Antibody
Specimen Req:	Inpatient: Stool collected in a dry, clean container and delivered immediately at room temperature. Outpatient: Several spoonfuls transferred to a vial with SAF fixative and delivered within 72 hours at room temperature.
Unacceptable Conditions:	Specimen collected on a swab, stick, or diaper. Specimens contaminated with oil, barium, or urine. Dry specimens.
Stability:	Stool preserved in SAF: 1 month at room temperature. If specimen is unpreserved, the stool is stable for 24 hours at 4°C.
Schedule:	Monday through Friday
CPT Code:	87269 (*Giardia*) 87272 (*Cryptosporidium*)
Billing Code:	3010220

Reference:

1. Garcia, L.S., A.C. Shurm and D.A. Bruckner. 1992. Evaluation of a new monoclonal antibody combination reagent for direct fluorescence detection of *Giardia* cysts and *Cryptosporidium* oocysts in human fecal specimens. J. Clin. Microbiol. 30:3255-3257.

For more information: If you have questions or concerns regarding this new test service, please contact Mr. Russell Rawling, Microbiology Manager, 315-410-7060.