

**American Association of Bioanalysts
Proficiency Testing**

11931 Wickchester Ln., Ste. 200
Houston, TX 77043
800-234-5315 ♦ 281-436-5357



Q2 2022 Parasitology

Sample 6 Code - Organism	Referees			Extent 1		Extent 2		Total	
	Frequency	%	No.	%	No.	%	No.	%	No.
534 - Giardia lamblia	Many	100.0%	10	50.0%	8	62.5%	15	57.5%	23
541 - Blastocystis hominis	Few to Many	50.0%	5	43.8%	7	25.0%	6	32.5%	13
545 - Entamoeba coli	Few	10.0%	1	0.0%	0	12.5%	3	7.5%	3
524 - parasite(s) found referred for ID				6.3%	1	0.0%	0	2.5%	1

Extent 1 flagging appears for failure to report 534 or 524.

Extent 2 flagging appears for failure to report 534.

Flagging also appears in both extents for reporting other than 534, 541 or 524.

Sample 7 Code - Organism	Referees			Extent 1		Extent 2		Total	
	Frequency	%	No.	%	No.	%	No.	%	No.
563 - Diphylobothrium latum	Many	100.0%	10	77.8%	7	94.1%	16	88.5%	23
524 - parasite(s) found referred for ID				11.1%	1	0.0%	0	3.8%	1
586 - Fasciola hepatica/Fasciolopsis buski				11.1%	1	0.0%	0	3.8%	1
544 - Endolimax nana				0.0%	0	5.9%	1	3.8%	1

Extent 1 flagging appears for failure to report 563 or 524.

Extent 2 flagging appears for failure to report 563.

Flagging also appears in both extents for reporting other than 563 or 524.

Sample 8 Code - Organism	Referees			Extent 1		Extent 2		Total	
	Frequency	%	No.	%	No.	%	No.	%	No.
525 - No parasites found	None	90.0%	9	55.6%	5	75.0%	12	68.0%	17
585 - Clonorchis sinensis/Heterophyes heterophyes/Metagonimus sp.	Few	10.0%	1	44.4%	4	25.0%	4	32.0%	8

Extent 1 flagging appears for failure to report 525.

Extent 2 flagging appears for failure to report 525.

No other codes allowed.

AAB PARASITOLOGY – SECOND QUADRIMESTER, 2022

Sample 9 Code - Organism	Referees			Extent 1		Extent 2		Total	
	Frequency	%	No.	%	No.	%	No.	%	No.
546 - Entamoeba hartmanni		90.0%	9	16.7%	1	68.8%	11	54.5%	12
524 - parasite(s) found referred for ID				50.0%	3	0.0%	0	13.6%	3
548 - Entamoeba histolytica / Entamoeba dispar		10.0%	1	0.0%	0	18.8%	3	13.6%	3
547 - Entamoeba histolytica				16.7%	1	6.3%	1	9.1%	2
567 - Taenia sp.				16.7%	1	0.0%	0	4.5%	1
545 - Entamoeba coli				0.0%	0	6.3%	1	4.5%	1
Extent 1 flagging appears for failure to report 546 or 524. Extent 2 flagging appears for failure to report 546. Flagging also appears in both extents for reporting other than 546 or 524.									

Sample 10 Code - Organism	Referees			Extent 1		Extent 2		Total	
	Frequency	%	No.	%	No.	%	No.	%	No.
567 - Taenia sp.		90.0%	9	66.7%	6	93.8%	15	84.0%	21
568 - Taenia saginata proglottid		10.0%	1	11.1%	1	6.3%	1	8.0%	2
546 - Entamoeba hartmanni				11.1%	1	0.0%	0	4.0%	1
524 - parasite(s) found referred for ID				11.1%	1	0.0%	0	4.0%	1
Extent 1 flagging appears for failure to report 567 or 524. Extent 2 flagging appears for failure to report 567. Flagging also appears in both extents for reporting other than 567 or 524.									

GENERAL COMMENTS:

If you are currently using one of the stool fixatives that contains a mercuric chloride substitute (zinc sulfate, etc.), remember that the proficiency testing specimens you receive for permanent staining have been preserved in PVA using the mercuric chloride fixative base. If you use the Trichrome or iron hematoxylin staining method for your mercuric chloride substitute fixatives, you may have eliminated the 70% alcohol/iodine step and the following 70% alcohol rinse step from your method. However, when you stain the proficiency testing fecal smears, you will need to incorporate the iodine step plus the next 70% alcohol rinse back into your staining protocol prior to placing your slides into the trichrome stain or iron hematoxylin stain. These two steps are designed to remove the mercury from the smear and then to remove the iodine; therefore, when your slide is placed into the Trichrome or iron hematoxylin stain, both the mercury and iodine are no longer present in the fecal smear. If you fail to incorporate these two steps into your staining protocol, the quality of your proficiency testing stained smears will be poor.

With very rare exceptions, the organisms in any of the proficiency testing (PT) specimens that you are asked to identify will be few to many in number. The presence of a very rare organism probably reflects something that was not seen in the screening process. The purpose of the PT specimen is to provide sufficient parasite numbers (few to many) so that ALL of the participants see the same organisms. It is neither realistic nor practical to expect participants to find and identify organisms that are rare or very rare in number; this is not the purpose of the program. We appreciate the fact that in a patient specimen you would indicate all organisms seen, regardless of the numbers. However, in the PT specimens, you are being tested on those organisms that are present in "few" numbers or greater.

You may be asked to quantitate the organisms as a "quality control check" on the "aliquotting" process used to prepare participant vials prior to shipment. The information provides data for review related to the consistency of organism numbers throughout the aliquotting process. **In a clinical setting, quantitation of most of these organisms is not relevant and this information would not be added to the patient report.**

We encourage participants to report *Blastocystis* spp; however, these organisms are much easier to identify correctly from a permanent stained smear. *Blastocystis* is an extremely common parasite with a worldwide distribution. It is not uncommon for it to be the most frequently isolated parasite in epidemiological surveys. Prevalence varies widely from country to country and within various communities of the same country. In general, developing countries have higher percentages of the parasite than developed countries, and this has been linked to poor hygiene, exposure to animals, and consumption of contaminated food or water. Based on PCR-based genotype classification data, there may be approximately 10 or more different subtypes within the genus. Some subtypes are pathogenic and some are non-pathogenic. If no other pathogens are found, *B. hominis* may be the cause of patient symptoms. Confirmation of these subtypes and their pathogenic status may also explain why some patients are asymptomatic and some have clinical symptoms. **In the future, it will be recommended that these organisms be reported as *Blastocystis* spp.**

Two report comments that should be used when this organism is reported are as follows:

1. The name *Blastocystis hominis* contains approximately 10 different organism subtypes, none of which can be differentiated on the basis of organism morphology; **some subtypes are pathogenic and some are non-pathogenic**. If no other pathogens are found, *B. hominis* may be the cause of patient symptoms. The proper designation is *Blastocystis* spp.
2. Other organisms capable of causing diarrhea should also be ruled out.