

Gut Review Case Assignments

CASE #2, STEP 2:

Follow-up stool test microbiology profile Jan 2015:

Comprehensive Parasitology, stool, x3		
BACTERIOLOGY CULTURE		
Expected/Beneficial flora	Commensal (Imbalanced) flora	Dysbiotic flora
2+ Bacteroides fragilis group NG Bifidobacterium spp. 4+ Escherichia coli 4+ Lactobacillus spp. 1+ Enterococcus spp. 4+ Clostridium spp. NG = No Growth	3+ Alpha hemolytic strep 2+ Beta strep, group B	
BACTERIA INFORMATION		
<p>Expected /Beneficial bacteria make up a significant portion of the total microflora in a healthy & balanced GI tract. These beneficial bacteria have many health-protecting effects in the GI tract including manufacturing vitamins, fermenting fibers, digesting proteins and carbohydrates, and propagating anti-tumor and anti-inflammatory factors.</p> <p>Clostridia are prevalent flora in a healthy intestine. Clostridium spp. should be considered in the context of balance with other expected/beneficial flora. Absence of clostridia or over abundance relative to other expected/beneficial flora indicates bacterial imbalance. If <i>C. difficile</i> associated disease is suspected, a Comprehensive Clostridium culture or toxigenic <i>C. difficile</i> DNA test is recommended.</p> <p>Commensal (Imbalanced) bacteria are usually neither pathogenic nor beneficial to the host GI tract. Imbalances can occur when there are insufficient levels of beneficial bacteria and increased levels of commensal bacteria. Certain commensal bacteria are reported as dysbiotic at higher levels.</p> <p>Dysbiotic bacteria consist of known pathogenic bacteria and those that have the potential to cause disease in the GI tract. They can be present due to a number of factors including: consumption of contaminated water or food, exposure to chemicals that are toxic to beneficial bacteria; the use of antibiotics, oral contraceptives or other medications; poor fiber intake and high stress levels.</p>		
YEAST CULTURE		
Normal flora	Dysbiotic flora	
No yeast isolated		
MICROSCOPIC YEAST	YEAST INFORMATION	
<p>Result: Expected:</p> <div style="border: 1px solid black; display: inline-block; padding: 2px;">Rare</div> None - Rare		

PARASITOLOGY/MICROSCOPY *	PARASITOLOGY INFORMATION
<p>Sample 1 None Ova or Parasites Rare Yeast</p> <p>Sample 2 None Ova or Parasites Rare Yeast</p> <p>Sample 3 None Ova or Parasites Rare Yeast</p> <p><small>*A trichrome stain and concentrated iodine wet mount slide is read for each sample submitted.</small></p>	<p>Intestinal parasites are abnormal inhabitants of the gastrointestinal tract that have the potential to cause damage to their host. The presence of any parasite within the intestine generally confirms that the patient has acquired the organism through fecal-oral contamination. Damage to the host includes parasitic burden, migration, blockage and pressure. Immunologic inflammation, hypersensitivity reactions and cytotoxicity also play a large role in the morbidity of these diseases. The infective dose often relates to severity of the disease and repeat encounters can be additive.</p> <p>There are two main classes of intestinal parasites, they include protozoa and helminths. The protozoa typically have two stages; the trophozoite stage that is the metabolically active, invasive stage and the cyst stage, which is the vegetative inactive form resistant to unfavorable environmental conditions outside the human host. Helminths are large, multicellular organisms. Like protozoa, helminths can be either free-living or parasitic in nature. In their adult form, helminths cannot multiply in humans.</p> <p>In general, acute manifestations of parasitic infection may involve diarrhea with or without mucus and or blood, fever, nausea, or abdominal pain. However these symptoms do not always occur. Consequently, parasitic infections may not be diagnosed or eradicated. If left untreated, chronic parasitic infections can cause damage to the intestinal lining and can be an unsuspected cause of illness and fatigue. Chronic parasitic infections can also be associated with increased intestinal permeability, irritable bowel syndrome, irregular bowel movements, malabsorption, gastritis or indigestion, skin disorders, joint pain, allergic reactions, and decreased immune function.</p> <p>In some instances, parasites may enter the circulation and travel to various organs causing severe organ diseases such as liver abscesses and cysticercosis. In addition, some larval migration can cause pneumonia and in rare cases hyper infection syndrome with large numbers of larvae being produced and found in every tissue of the body.</p> <p>One negative parasitology x1 specimen does not rule out the possibility of parasitic disease, parasitology x3 is recommended. This exam is not designed to detect <i>Cryptosporidium</i> spp, <i>Cyclospora cayetanensis</i> or <i>Microsporidia</i> spp.</p>

GIARDIA/CRYPTOSPORIDIUM IMMUNOASSAY				
	Within	Outside	Reference Range	
Giardia intestinalis	Neg		Neg	<p>Giardia intestinalis (lamblia) is a protozoan that infects the small intestine and is passed in stool and spread by the fecal-oral route. Waterborne transmission is the major source of giardiasis.</p> <p>Cryptosporidium is a coccidian protozoa that can be spread from direct person-to-person contact or waterborne transmission.</p>
Cryptosporidium	Neg		Neg	