

Accession #:

Order #: Reference #:

Patient: Date of Sirth:

08/31/1966

Female

46

Age: Sex:

Reprinted: Comment:

Date Collected: Date Received: Date of Report:

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Telephone: Fax:





2100 Gastrointestinal Function Profile - Stool

Methodology: DNA Analysis, GC/MS, Microscopic, Colorimetric, Automated Chemistry, ELISA

Effective for samples received Wednesday, June 19, 2013, all positive molecular probe results for C. difficile, H. pylon, Shiga toxin E. coll (E. coll 0157) and Campylobacter species will be confirmed by EIA analysis. In addition, pathogenic bacteria and opportunistic bacteria will be reported as positive or negative.

www.gdx.net - 800.522.4762



Accession #:

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Female

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Quintile Ranking 95% Reference Results 1st 3rd 4th 5th Range Predominant Bacteria E+007 **Obligate Anaerobes** Bacteroides spp. 1.4 >= 1.3 1,5 Clostridia spp. 3.6 1.6 Prevotella spp. 5.2 >= 1.1 1,6 Fusobacteria spp. 3.9 1.6 5.8 Streptomyces spp. 2.8 >= 1.0 1.7 6.2 Mycoplasma spp. 2.8 >= 1.2 Facultative Anaerobes Lactobacillus spp. 2.3 >= 1.2 2.3 7.6 Bifidobacter spp. 2.7 **Obligate Aerobes** 1.7 7.7 Escherichia coli (E. coli) 4.0 Opportunistic Bacteria **Expected Value**

Consistency = Formed/Normal

Predominant Becterie play major roles in health. They provide colonization resistance against potentially pathogenic organisms, aid in digestion and absorption, produce vitamins and SCFA's, and stimulate the GI immune system. DNA probes allow detection of multiple species (spp.) within a genus. so the genera that are reported cover many species.

Organisms are detected by DNA analysis. One colony forming unit (CFU) is equivalent to one bacterium. Each genome detected represents one cell, or one CFU. Results are expressed in scientific notation, so an organism reported as 2.5 E+007 CFU/gram is read as 25 million colony forming units per gram of feces.

Opportunistic Bacterla may cause symptoms and be associated with disease. They can affect digestion and absorption, nutrient production, pH and immune state. Antibiotic sensitivity tests will be performed on all opportunistic bacteria found, although clinical history is usually considered to determine treatment since the organisms are not generally considered to be pathogens.

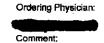
Georgia Lab Lic. Code #067-007 CLIA ID# 11D0255349 New York Clinical Lab PFI #4578 Florida Clinical Lab Lic. #800008124

No clinically significant amounts.

Testing Performed by Genova Diagnostics, Inc. 3425 Corporate Way, Duluth, GA 30096

Laboratory Director: Robert M. David, PhD





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Pathogenic Bacteria

Expected Value

Helicobacter pylori - Molecular Probe

Negative

Negative

Campylobacter spp. - Molecular Probe

Negative

Negative

Shiga toxin E. coli*

Negative

Negative

Clostridium difficile*

Negative

Negative

*Positive results are confirmed by EIA

Yeast/Fungi

Expected Value

Yeast/Fungi; taxonomy unavailable

+1 => 100 pg DNA/g specimen

Negative

YesstFungi

Paraeltee

Yeast overgrowth has been linked to many chronic conditions, in part because of antigenic responses in some patients to even low rates of yeast growth. Potential symptoms include diarrhea, headache, bloating, atopic dermatitis and fatigue. Positives are reported as +1,+2, +3 or +4 indicating >100, >1000, >10000 or >100000 pg DNA/g.

Parasite infections are a major cause of non-viral diarrhea. Symptoms may include constitution, gas, bloating, increased allergy response, collis, nausea and distention.

Parasites

Expected Value

No Ova and Parasites

Adiposity Index

Expected Value

Firmicutes % 57

<= 80 %

>= 20 %

The Adiposity Index is derived by using DNA probes that detect multiple genera of the phyla Firmicutes and Bacteroldetes. Abnormalities of these phyla may be associated with increased caloric extraction from food.

Drug Resistance Genes

aacA, aphD

Neg

mecA

Neg

vanA, B, and C

Neg

gyrB, ParE

Neg

PBP1a, 2B

Neg

Drug Resistance Genes

aacĀ, aphD - Gentamycin, Kanamycin, and Tobramycin

mecA - Methicillin

VanA, vanB, vanC - Vancomydin and Telcoplanin

GyrB, ParE - Clprofoxacin and later quinclones

PBP1a, PBP26 - Penicillin

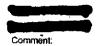
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Paga 3





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Methodology: DNA Analysis, GC/MS, Microscopic, Colorimetric, Automated Chemistry, ELISA

Results 2nd 3rd 4th 5th Range

Beneficial SCFA

			•
Total SCFA	76	53 <u>1065 Switch</u> 1 (1988) 10 (1988	<u> </u>
n-Butyrate	14.8	5.2 CHANGE A CONTROL OF THE CONTROL	>= 3.9 mM/g
Acetate %	68	52 1985 -	
n-Butyrate %	19	10	
Propionate %	11 L	13	
Valerate %	1.3	1.0 (22. 10.10.10.20.20.20.20.20.20.20.20.20.20.20.20.20	3.6 0.4-4.6 %

Beneficial SCFA

Short chain fatty acids (SCFA) are produced by bacterial fermentation of dietary polysaccharides and fiber. The product, N-butyrate, is taken up and used to sustain the normal activity of colonic epithielial cells. Butyrate has been shown to lower the risk of colitis and colorectal cancer. A healthy balance of GI microbes depends on production of SCFA by one specie to allow the normal growth of another one in a complex cross-feeding network.

Inflammation

Lactoferrin	3.2	3.1 1 1 1 1 1 1 1 1 1	<= 6.3 ug/mL
WBCs	Neg		Neg-Rare
Mucus	Neg		Neg

Inflammation

Lactoferrin, an iron-binding glycoprotein, is released in IBD but not in non-inflammatory IBS. High levels are found in Crohn's, UC or infection. WBC's are elevated in general inflammation/infection. Mucus is often visua

Immunology

			20		144	
Fecal sigA	11	L	+	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	5-161 mg/dl

Immunology

High fecal sigA indicates immune system reactions to the presence of antigens from bacteria, yeast or other microbes. Low sigA can result from stress or mainutrition.





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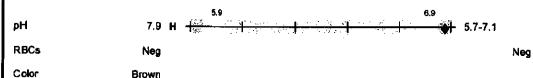


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Methodology: DNA Analysis, GC/MS, Microscopic, Colorimetric, Automated Chemistry, ELISA

Results		Quintile Ranking						
	1st	2nd	3rd	4th	5th	Range		
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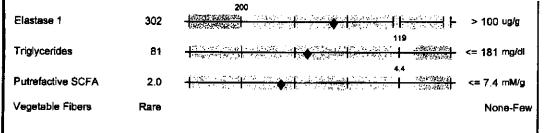
Additional Tests



Additional Tests

pH is influenced by numerous factors, but it is strongly related to the bacterial release of pH-lowering organic acids and pH-raising ammonia. Positive RBCs can signify Gl tract bleeding. Color (other than brown) abnormalities can be due to upper Gl bleeding, or bile duct blockage, steaforrhea or antibiotic use.

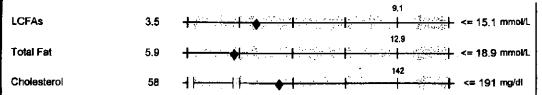
Digestion



Digestion

Pancreatic elastase 1 levels below 100 are strongly correlated with severe pancreatic insufficiency; levels of 100-200 identify moderate pancreatic insufficiency. High triglycerides signify fat maldigestion. Putrefactive SCFA are a result of bacterial fermentation of undigested protein. High numbers of vegetable fibers indicate maldigestion.

Absorption



Absorption

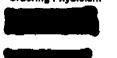
High LCFA Indicates fat malabsorption due to pancreatic or billary insufficiency, or acute bacterial infection that produces intestinal cell destruction. High total fat usually signals malabsorption, as does elevated fecal cholesterol.

UC* = Unable to Calculate

Decisions involving diagnosis and treatment are the responsibility of the clinician.

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Ordering Physician:





Order #: Reference #

Patient: Date of Birth:

08/31/1966

Age:

48 Female

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Telephone:

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2155 GI Effects® Sensitivity Fungi Profile - Stool

Methodology: DNA Analysis, ELISA

Pharmaceuticals	Sensitive Resistan
1. Amphotericin	*** ** **
2. Fluconazole	
3. Itraconazole	
4. Ketoconazole	
5. Nystatin	
, ,	1.6 × 100 (1.6 × 100)

Fungal growth suppression is measured in a liquid growth medium where bacterial growth is suppressed and specific antifungal agents are introduced before incubation. In contrast to the older isolation and culture techniques, such universal culturing more closely approximates the actions of antifungals in the complex milieu of the colon.

Agents marked as "Sensitive" cause effective fungal growth suppression. Those antifungal agents are candidates for suppressing the growth of fungi and yeasts in the patient's colon. The results apply to all organisms reported under "Yeast/Fungi."

Agents indicated as "Resistant" have low effectiveness and can increase the risk of inducing drug resistant organisms. If all tested agents are "Resistant," synergistic mixtures of antifungal agents may be effective.

For Botanical sensitivity testing the active ingredients are tested and an example of the avallable source is shown.

Sensitivities are not performed on "Pathogens" or "Parasites" because they do not grow in culture under normal laboratory conditions. Standard protocols are generally used for treatment of pathogens and parasites.

5. Nystatin	· //S	
	(2) (2) (2) (2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	
Botanicais	Sensitive	Resistant
5-Hydroxy-1,4-naphthoquinone Black Walnut		
7. Alllin Garlic		
8. Arbutin Uva Ural		
9. Artemisinin Wormwood		
10. Berberine Goldenseal	//·S	
11. Caprylic acid Octanoic acid	S	
12. Carvacrol Oregano	S .	
13. Oleuropein Olive Leaf		
14. Quinic Acid Cats Claw	200 A 100 A	
15. Thyrnol Oil of Thyrne		
16. Undecylenic acid Undecylenic acid	S	

Florida Clinical Lab Llc. #800008124