

Patient: **SAMPLE**
PATIENT

Order Number:

Completed: January 16, 2004

Received: January 16, 2004

Collected: January 16, 2004

Age: 39

Sex: M

MRN:

Microbiology

Bacteriology

Beneficial Bacteria

Lactobacillus species	<input type="text" value="*NG"/>
Escherichia coli	<input type="text" value="*NG"/>
Bifidobacterium	<input type="text" value="*NG"/>

Additional Bacteria

Klebsiella pneumoniae	<input type="text" value="NP"/>	<input type="text" value="3+"/>
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Mycology

Geotrichum species	<input type="text" value="PP"/>	<input type="text" value="3+"/>
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Additional Tests (if ordered)

Inside	Outside	Reference Range
<input type="text" value="Not Ordered"/>	<input type="text" value=""/>	Negative
Campylobacter specific antigen		
<input type="text" value="Not Ordered"/>	<input type="text" value=""/>	Negative
Enterohemorrhagic Escherichia coli Shiga-like Toxin		

Human microflora is influenced by environmental factors and the competitive ecosystem of the organisms in the GI tract. Pathological significance should be based upon clinical symptoms and reproducibility of bacterial recovery.

Microbiology Legend

*NG	NP	PP	P
<input type="text" value="*NG"/>	<input type="text" value=""/>	<input type="text" value="PP"/>	<input type="text" value="P"/>
No Growth	Non-Pathogen	Potential Pathogen	Pathogen

Commentary

Commentary is provided to the practitioner for educational purposes, and should not be interpreted as diagnostic or treatment recommendations. Diagnosis and treatment decisions are the responsibility of the practitioner.

Low levels of E. coli, Lactobacilli and Bifidobacteria were noted in the stool. The "friendly bacteria", Lactobacilli and Bifidobacteria, are important for gastrointestinal function, as they are involved in vitamin synthesis, natural antibiotic production, immune defense, digestion, detoxification of pro-carcinogens and a host of other activities. Reestablishing healthy levels may be desirable. E. coli have been noted at less than ample amounts in dysbiosis, and often rebound when intestinal imbalances are corrected. Ideally, levels of Lactobacillus and E. coli should be

Commentary

2+ or greater. Bifidobacteria being a predominate anaerobe should be recovered at levels of 4+.

Geotrichum is a yeast that is considered an opportunistic pathogen. Symptoms of infection have been associated with diarrhea and enteritis. Geotrichum may also play a role in IBS. The species *G. candidum* is the etiological agent of Geotrichosis, and symptoms resemble those of candidiasis.

Bacterial Sensitivity

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Prescriptive Agents

KLEBSIELLA PNEUMONIAE

	S	I	R
Trimethoprim/Sulfa			R
Clindamycin	S		
Gentamicin		I	

S Indicates susceptibility to prescriptive agents

I Indicates intermediate susceptibility to prescriptive agents

R Indicates resistance to prescriptive agents

Prescriptive Agents:

Microbial testing has been performed in vitro to determine antibiotic sensitivity and resistance at standard dosages. Prudent use of antimicrobials requires knowledge of appropriate blood or tissue levels of those agents. Antibiotics that appear in the "S" (susceptible) column are more effective at inhibiting the growth of this organism. Antibiotics that appear in the "I" (intermediate) column are partially effective at inhibiting the growth of this organism. Antibiotics that appear in the "R" (resistant) column allow continued growth of the organism in vitro and are usually less effective clinically. Inappropriate use of antibacterials often results in the emergence of resistance.

Natural Agents

KLEBSIELLA PNEUMONIAE

	Low Inhibition	High Inhibition
Berberine	████████████████████	████████████████████
Oregano	████████████████████	████████████████████
Plant Tannins	██	████████████████████
Uva-Ursi	████████████████████	██

Natural Agents:

In this assay, "inhibition" is defined as the reduction level on organism growth as a direct result of inhibition by a natural substance. The level of inhibition is an indicator of how effective the natural substance was at limiting the growth of an organism in an in vitro environment. High inhibition indicates a greater ability by the natural substance to limit growth, while Low Inhibition a lesser ability to limit growth. These natural products should be considered investigational in nature and not be viewed as standard clinical treatment substances.

This test has been developed and its performance characteristics determined by GSDL, Inc. It has not been cleared or approved by the U.S. Food and Drug Administration.



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Yeast Sensitivity

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Azole Antifungals			
GEOTRICHUM SPECIES			
	S	I	R
Fluconazole	<=2		
Itraconazole	<=0.125		
Ketoconazole	=0.5		

S Indicates susceptibility to prescriptive agents
I Indicates intermediate susceptibility to prescriptive agents
R Indicates resistance to prescriptive agents

Non-absorbed Antifungals	
GEOTRICHUM SPECIES	
	Low Inhibition High Inhibition
Nystatin	

Natural Antifungals	
GEOTRICHUM SPECIES	
	Low Inhibition High Inhibition
Berberine	
Caprylic Acid	
Garlic	
Undecylenic Acid	
Plant tannins	
Uva-Ursi	

Azole Antifungals:

Microbial testing has been performed in vitro to determine antifungal sensitivity and resistance at standard dosages. Prudent use of antimicrobials requires knowledge of appropriate blood or tissue levels of those agents. Antifungals that appear in the "S" (susceptible) column are more effective at inhibiting the growth of this organism. Antifungals that appear in the "I" (intermediate) column are partially effective at inhibiting the growth of this organism. Antifungals that appear in the "R" (resistant) column allow continued growth of the organism in vitro and are usually less effective clinically. Inappropriate use of antifungals often results in the emergence of resistance.

Nystatin and Natural Antifungals:

In this assay, "inhibition" is defined as the reduction level on organism growth as a direct result of inhibition by a natural substance. The level of inhibition is an indicator of how effective the natural substance was at limiting the growth of an organism in an in vitro environment. High Inhibition indicates a greater ability by the natural substance to limit growth, while Low Inhibition a lesser ability to limit growth. In accordance with laboratory guidelines for reporting sensitivities, results for Nystatin are now being reported with natural antifungals in this category.

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