Medical Policy
Fecal Analysis in the Diagnosis of Intestinal Dysbiosis

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Policy Number: 556
BCBSA Reference Number: 2.04.26
NCD/LCD: NA

Related Policies
- Diagnosis and Management of Idiopathic Environmental Intolerance (i.e., Clinical Ecology), #264
- Fecal Calprotectin, #329
- Fecal Microbiota Transplantation, #682

Policy
Commercial Members: Managed Care (HMO and POS), PPO, and Indemnity
Medicare HMO BlueSM and Medicare PPO BlueSM Members

Fecal analysis of the following components used as a diagnostic test for the evaluation of intestinal dysbiosis, irritable bowel syndrome, malabsorption or small intestinal overgrowth of bacteria is INVESTIGATIONAL:

- Triglycerides
- Chymotrypsin
- Iso-butyrates, iso-valerate, and n-valerate
- Meat and vegetable fibers
- Long-chain fatty acids
- Cholesterol
- Total short-chain fatty acids
- Levels of Lactobacilli, bifidobacteria, and E coli and other “potential pathogens,” including Aeromonas, Bacillus cereus, Campylobacter, Citrobacter, Klebsiella, Proteus, Pseudomonas, Salmonella Shigella, S. aureus, Vibrio
- Identification and quantitation of fecal yeast (including C. albicans, C. tropicalis, Rhodotorula, and Geotrichum)
- N-butyrates
- Beta-glucoronidase
- pH
- Short-chain fatty acid distribution (adequate amount and proportions of the different short-chain fatty acids reflect the basic status of intestinal metabolism)
• Fecal secretory IgA.

Prior Authorization Information

Inpatient
• For services described in this policy, precertification/preauthorization IS REQUIRED for all products if the procedure is performed inpatient.

Outpatient
• For services described in this policy, see below for products where prior authorization might be required if the procedure is performed outpatient.

<table>
<thead>
<tr>
<th>Commercial Managed Care (HMO and POS)</th>
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<tr>
<td>Commercial PPO and Indemnity</td>
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<td>Medicare PPO Blue℠</td>
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CPT Codes / HCPCS Codes / ICD Codes

Inclusion or exclusion of a code does not constitute or imply member coverage or provider reimbursement. Please refer to the member’s contract benefits in effect at the time of service to determine coverage or non-coverage as it applies to an individual member.

Providers should report all services using the most up-to-date industry-standard procedure, revenue, and diagnosis codes, including modifiers where applicable.

CPT Codes
There is no specific CPT code for this service.

Description

Fecal Markers of Dysbiosis

Laboratory analysis of both stool and urine has been investigated as markers of dysbiosis. Commercial laboratories may offer testing for comprehensive panels or individual components of various aspects of digestion, absorption, microbiology, and metabolic markers. Representative components of fecal dysbiosis testing are summarized in Table 1.

Table 1. Components of the Fecal Dysbiosis Marker Analysis

<table>
<thead>
<tr>
<th>Digestion</th>
<th>Analyses</th>
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<td>Triglycerides</td>
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<td></td>
<td>• Chymotrypsin</td>
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<td></td>
<td>• Cholesterol</td>
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<td>Markers</td>
<td>• Total fecal fat</td>
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<td></td>
<td>• Total short-chain fatty acids</td>
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</table>
### Microbiology
- Levels of Lactobacilli, bifidobacteria, and *Escherichia coli* and other "potential pathogens," including *Aeromonas, Bacillus cereus, Campylobacter, Citrobacter, Klebsiella, Proteus, Pseudomonas, Salmonella, Shigella, Staphylococcus aureus*, and *Vibrio*
- Identification and quantitation of fecal yeast (including *Candida albicans, Candida tropicalis, Rhodotorula*, and *Geotrichum*) (optional viral and/or parasitology components)

### Metabolic
- N-butyrate (considered key energy source for colonic epithelial cells)
- β-glucuronidase
- pH
- Short-chain fatty acid distribution (adequate amount and proportions of the different short-chain fatty acids reflect the basic status of intestinal metabolism)

### Immunology
- Fecal secretory immunoglobulin A (as a measure of luminal immunologic function)
- Calprotectin

Fecal calprotectin as a stand-alone test is addressed in policy #329.

A related topic, fecal microbiota transplantation, the infusion of intestinal microorganisms to restore normal intestinal flora, is addressed in policy #682. Fecal microbiota transplantation has been rigorously studied for the treatment of patients with recurrent *Clostridium difficile* infection.

### Summary
Intestinal dysbiosis may be defined as a state of disordered microbial ecology that is believed to cause disease. Laboratory analysis of fecal samples is proposed as a method of identifying individuals with intestinal dysbiosis and other gastrointestinal disorders.

For individuals who have gastrointestinal conditions such as suspected intestinal dysbiosis, irritable bowel syndrome, malabsorption, or small intestinal bacterial overgrowth who receive fecal analysis testing, the evidence includes several cohort and case-control studies comparing fecal microbiota in patients who had a known disease with healthy controls. The relevant outcomes are test validity, symptoms, and functional outcomes. The available retrospective cohort studies on fecal analysis have suggested that some components of the fecal microbiome and inflammatory markers may differ across patients with irritable bowel syndrome subtypes. No studies were identified on the diagnostic accuracy of fecal analysis vs another diagnostic approach or that compared health outcomes in patients managed with and without fecal analysis tests. No studies were identified that directly informed the use of fecal analysis in the evaluation of intestinal dysbiosis, malabsorption, or small intestinal bacterial overgrowth. The evidence is insufficient to determine the effects of the technology on health outcomes.

### Policy History

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<td>1/2017</td>
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<td>3/2015</td>
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Information Pertaining to All Blue Cross Blue Shield Medical Policies

Click on any of the following terms to access the relevant information:

- Medical Policy Terms of Use
- Managed Care Guidelines
- Indemnity/PPO Guidelines
- Clinical Exception Process
- Medical Technology Assessment Guidelines

References