BlueCross BlueShield of Alabama

Name of Blue Advantage Policy:

Fecal Analysis in the Diagnosis of Intestinal Dysbiosis

Policy #: 407
Category: Laboratory/Pathology

Latest Review Date: December 2021
Policy Grade: C

BACKGROUND:

Blue Advantage *medical policy does not conflict with Local Coverage Determinations (LCDs), Local Medical Review Policies (LMRPs) or National Coverage Determinations (NCDs) or with coverage provisions in Medicare manuals, instructions or operational policy letters. In order to be covered by Blue Advantage the service shall be reasonable and necessary under Title XVIII of the Social Security Act, Section 1862(a)(1)(A). The service is considered reasonable and necessary if it is determined that the service is:*

1. *Safe and effective;*
2. *Not experimental or investigational*;*
3. *Appropriate, including duration and frequency that is considered appropriate for the service, in terms of whether it is:*

    - *Furnished in accordance with accepted standards of medical practice for the diagnosis or treatment of the patient's condition or to improve the function of a malformed body member;*
    - *Furnished in a setting appropriate to the patient's medical needs and condition;*
    - *Ordered and furnished by qualified personnel;*
    - *One that meets, but does not exceed, the patient's medical need; and*
    - *At least as beneficial as an existing and available medically appropriate alternative.*

Routine costs of qualifying clinical trial services with dates of service on or after September 19, 2000 which meet the requirements of the Clinical Trials NCD are considered reasonable and necessary by Medicare. Providers should bill* ***Original Medicare* *for covered services that are related to* ***clinical trials*** *that meet Medicare requirements (Refer to Medicare National Coverage Determinations Manual, Chapter 1, Section 310 and Medicare Claims Processing Manual Chapter 32, Sections 69.0-69.11).*

POLICY:

Blue Advantage will treat **fecal analysis** of the following components as a **non-covered** benefit and as **investigational** as a diagnostic test for the evaluation of intestinal dysbiosis, irritable bowel syndrome, malabsorption, or small intestinal overgrowth of bacteria:

- Triglycerides
- Chymotrypsin
- ISO-butyrate, 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-butyrate
- Beta-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)
- Fecal secretory IgA

Blue Advantage does not approve or deny procedures, services, testing, or equipment for our members. Our decisions concern coverage only. The decision of whether or not to have a certain test, treatment or procedure is one made between the physician and his/her patient. Blue Advantage administers benefits based on the members' contract and medical policies. Physicians should always exercise their best medical judgment in providing the care they feel is most appropriate for their patients. Needed care should not be delayed or refused because of a coverage determination.

DESCRIPTION OF PROCEDURE OR SERVICE:

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.

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 the below table.

Table. Components of the Fecal Dysbiosis Marker Analysis

Markers	Analytes
Digestion	• Triglycerides • Chymotrypsin • Iso-butyrate, iso-valerate, and n-valerate • Meat and vegetable fibers
Absorption	• Long-chain fatty acids • Cholesterol • Total fecal fat • Total short-chain fatty acids
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) • b-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) • Calprotectina

Fecal calprotectin as a stand-alone test not addressed in this policy.

A related topic, fecal microbiota transplantation (FMT), the infusion of intestinal microorganisms to restore normal intestinal flora is not addressed in this policy. FMT has been rigorously studied for the treatment of patients with recurrent Clostridioides difficile infection.

KEY POINTS:

The most recent literature review was updated through October 15, 2021.

Summary of Evidence

For individuals who have gastrointestinal conditions such as suspected intestinal dysbiosis, irritable bowel syndrome (IBS), malabsorption, or small intestinal bacterial overgrowth who receive testing with fecal analysis, the evidence includes several cohort and case-control studies comparing fecal microbiota in patients with a known disease and healthy controls. Relevant outcomes are test accuracy and 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 IBS subtypes. No studies were identified on the diagnostic accuracy of fecal analysis versus another diagnostic approach or compared health outcomes in patients managed with and without fecal analysis tests. No studies were identified that directly informed on 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 outcome.

Practice Guidelines and Position Statements

No guidelines or statements were identified.

Ongoing and Unpublished Clinical Trials

Some currently ongoing and unpublished trials that might influence this review are listed in the table below.

NCT No.	Trial Name	Planned Enrollment	Completion Date
Ongoing			
NCT03278912	Natural History of Intestinal Inflammation in People with Primary Immune Dysregulations	339	July 2030
Unpublished			
NCT02839317	Comparison of MicroBiota According to Age in Crohn's disease (COMeBACK)	300	May 2021

U.S. Preventive Services Task Force Recommendations

Not applicable.

KEY WORDS:
Comprehensive Digestive Stool Analysis 2.0, Fecal Analysis, Intestinal Dysbiosis, Genova Diagnostics, Stool Analysis, comprehensive stool analysis

APPROVED BY GOVERNING BODIES:
Clinical laboratories may develop and validate tests in-house and market them as a laboratory service; laboratory-developed tests must meet the general regulatory standards of the Clinical Laboratory Improvement Amendments (CLIA). Laboratories that offer laboratory-developed tests must be licensed by the Clinical Laboratory Improvement Amendments for high-complexity testing. To date, the U.S. Food and Drug Administration has chosen not to require any regulatory review of comprehensive testing for fecal dysbiosis.

BENEFIT APPLICATION:
Coverage is subject to member's specific benefits. Group specific policy will supersede this policy when applicable.

CURRENT CODING:
CPT Codes:
The following CPT codes may be used to identify individual components of fecal analysis of intestinal dysbiosis:

82239	Bile acids, total
82542	Column chromatography, includes mass spectrometry, if performed (e.g., HPLC, LC, LC/MS, LC/MS-MS, GC, GC/MS-MS, GC/MS, HPLC/MS, non-drug analyte(s) not elsewhere specified, qualitative or quantitative, each specimen
82710	Fat or lipids, feces; quantitative (used to test for fecal triglycerides)
82715	Fat differential, feces, quantitative (used to test for fecal cholesterol)
82725	Fatty acids, nonesterified (used to test for long chain fatty acids)
83520	Immunoassay, for analyte other than infectious agent antibody or infectious agent antigen; quantitative, not otherwise specified (used for eosinophil protein X)
83630	Lactoferrin, fecal; qualitative

83986	pH, body fluid, except blood (used to measure fecal pH)
83993	Calprotectin, fecal
84311	Spectrophotometry, analyte, not elsewhere specified (used twice, once each to test for stool B-glucuronidase and chymotrypsin)
87102	Culture, fungi, isolation, with presumptive identification of isolates: other source (used for fecal culture for fungi)
87328	Infectious agent antigen detection by immunoassay technique, qualitative or semiquantitative, multiple-step method; cryptosporidium
87329	Infectious agent antigen detection by immunoassay technique, qualitative or semiquantitative, multiple-step method; giardia
87336	Infectious agent antigen detection by immunoassay technique, qualitative or semiquantitative, multiple-step method; Entamoeba histolytica dispar group
89160	Meat fibers, feces

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POLICY HISTORY:

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Medical Policy Panel, February 2010
Medical Policy Group, June 2010
Medical Policy Group, February 2013
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