
Subject:	Fecal Analysis in the Diagnosis of Intestinal Disorders	Publish Date:	07/06/2022
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Description/Scope

This document addresses the use of fecal analysis for the diagnosis of intestinal disorders. Fecal analysis may be suggested for people with gastrointestinal symptoms such as indigestion, constipation, diarrhea, gas, bloating or abdominal pain; symptoms that may overlap with a variety of gastrointestinal disorders such as intestinal dysbiosis, irritable bowel, malabsorption or small intestinal overgrowth of bacteria.

Note: For additional information regarding related documents, please see:

- LAB.00037 Serologic Testing for Biomarkers of Irritable Bowel Syndrome (IBS)

Position Statement

Investigational and Not Medically Necessary:

Fecal analysis panels are considered **investigational and not medically necessary** as a diagnostic test for the evaluation of intestinal dysbiosis, irritable bowel syndrome, malabsorption or small intestinal overgrowth of bacteria.

Fecal analysis of the following components is considered **investigational and not medically necessary** as a diagnostic test for the evaluation of intestinal dysbiosis, irritable bowel syndrome, malabsorption or small intestinal overgrowth of bacteria:

- Beta-glucuronidase;
- Cholesterol;
- Chymotrypsin;
- Fecal secretory IgA;
- Iso-butyrate, N-butyrate;
- Iso-valerate and N-valerate;
- Levels of Lactobacilli, bifidobacteria and E. coli and other “potential pathogens,” including Aeromona, 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);
- Long chain fatty acids;
- Meat and vegetable fibers;
- pH;
- Short chain fatty acid distribution (adequate amount and proportions of the different short chain fatty acids reflect the basic status of intestinal metabolism);
- Total short chain fatty acids;

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Fecal Analysis in the Diagnosis of Intestinal Disorders

- Triglycerides.

Rationale

Intestinal dysbiosis as a specific disorder is poorly defined. The gastrointestinal symptoms attributed to intestinal dysbiosis (for example, bloating, flatulence, diarrhea or constipation) overlap in part with irritable bowel syndrome and small intestinal bacterial overgrowth syndrome. The diagnosis of irritable bowel syndrome is typically made clinically, based on a set of criteria referred to as the Rome criteria (Lacy, 2017). Small intestine bacterial overgrowth may result from altered motility (including blind loops), decreased intestinal acidity, exposure to antibiotics, or surgical resection of the small bowel. Symptoms include diarrhea, bloating, abdominal pain and, in more severe cases, steatorrhea (Quigley, 2020). Although the diagnosis of bacterial overgrowth may be made clinically and the condition treated empirically with antibiotics, the laboratory diagnosis may consist of cultural analysis of a jejunal fluid sample or hydrogen breath testing. Hydrogen breath tests, commonly used to evaluate lactose intolerance, have been adapted for use in diagnosing both small intestinal bacteria overgrowth and irritable bowel disease (Rana, 2014; Quigley, 2020). Chronic intestinal candidiasis has been linked with various gastrointestinal complaints as well as systemic complaints, such as chronic fatigue syndrome. However, chronic intestinal candidiasis is an ill-defined condition without established diagnostic parameters.

Literature searches did not identify any published studies regarding the diagnostic performance of fecal analysis of digestion, absorption, microbiology, metabolic markers or immunology as a diagnostic tool for suspected malabsorption syndrome, small intestine bacterial overgrowth or intestinal dysbiosis. Moreover, to date there have not been any high-quality studies linking fecal analysis for intestinal disorders with any specific treatment or other clinical utility.

Background/Overview

The symptoms and conditions that have been attributed to intestinal disorders include irritable bowel disease, inflammatory or autoimmune disorders, food allergy, atopic eczema, unexplained fatigue, arthritis and ankylosing spondylitis, malnutrition, breast and colon cancer, and neuropsychiatric symptoms, including autism.

Laboratory analysis of stool has been investigated for potential markers of intestinal disorders. Reference laboratories specializing in the evaluation of intestinal disorders may offer comprehensive panels or individual testing of various aspects of digestion, absorption, microbiology and metabolic markers. For example, Genova Diagnostics offers the Comprehensive Digestive Stool Analysis (CDSA)[™] (Asheville, NC) that evaluates a stool sample for the following components:

Digestion/Absorption

- Chymotrypsin
- Putrefactive Short-Chain Fatty Acids
- Meat and Vegetable Fibers
- Fecal Fats

Gut Metabolic Markers

- Beneficial Short-Chain Fatty Acids (SCFA) with n-Butyrate

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- n-Butyrate
- Beta-Glucuronidase
- pH
- SCFA distribution
- Fecal Lactoferrin
- Macroscopic (color, mucus)
- Occult Blood

Gut Microbiology Markers

- Beneficial Bacteria
- Additional Bacteria
- Mycology

Definitions

Autoimmune: Disease that results when the immune system mistakenly attacks the body's own tissues.

Intestinal flora: Microorganisms (for example, bacteria) that inhabit the intestinal tract and are essential for its normal functioning.

Coding

The following codes for treatments and procedures applicable to this document are included below for informational purposes. Inclusion or exclusion of a procedure, diagnosis or device code(s) does not constitute or imply member coverage or provider reimbursement policy. Please refer to the member's contract benefits in effect at the time of service to determine coverage or non-coverage of these services as it applies to an individual member.

When Services are Investigational and Not Medically Necessary:

When the code(s) describes a procedure indicated in the Position Statement section as investigational and not medically necessary.

CPT

81599	Unlisted multianalyte assay with algorithmic analysis [when specified as fecal analysis using PCR or next generation sequencing of microbiome DNA]
89240	Unlisted miscellaneous pathology test [when specified as fecal analysis for intestinal dysbiosis or other intestinal symptoms and disorders]

ICD-10 Diagnosis

	All diagnoses, including but not limited to the following:
K58.0-K58.9	Irritable bowel syndrome
K63.9	Disease of intestine, unspecified (no specific diagnosis code for intestinal dysbiosis)

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Fecal Analysis in the Diagnosis of Intestinal Disorders

Peer Reviewed Publications:

1. Lacy BE, Patel NK. Rome criteria and a diagnostic approach to irritable bowel syndrome. J Clin Med. 2017 Oct 26; 6(11):99.
2. Pimentel M, Chow EJ, Lin HC. Eradication of small intestinal bacterial overgrowth reduces symptoms of irritable bowel syndrome. Am J Gastroenterol. 2000; 95(12):3503-3506.
3. Rana SV, Malik A. Hydrogen breath tests in gastrointestinal diseases. Indian J Clin Biochem. 2014 Oct; 29(4):398-405.

Government Agency, Medical Society, and Other Authoritative Publications:

1. Quigley EMM, Murray JA, Pimentel M. AGA clinical practice update on small intestinal bacterial overgrowth: Expert review. Gastroenterology. 2020; 159(4):1526-1532.

Index

Comprehensive Digestive Stool Analysis (CDSA)
 Fecal Analysis in the Diagnosis of Intestinal Dysbiosis
 GI Effects Comprehensive Profile
 Intestinal Dysbiosis

Document History

Status	Date	Action
Reviewed	05/12/2022	Medical Policy & Technology Assessment Committee (MPTAC) review. Updated References section.
Reviewed	05/13/2021	MPTAC review. Updated Rationale, Background/Overview, and References sections.
Revised	05/14/2020	MPTAC review. For clarification, added Investigational and Not Medically Necessary fecal panel analysis statement to the Position Statement. Updated Rationale, Background/Overview, and References section.
Reviewed	06/06/2019	MPTAC review. Updated Coding section; added NOC code 81599.
Reviewed	07/26/2018	MPTAC review. Updated Background/Overview and Index sections.
	05/15/2018	The document header wording updated from “Current Effective Date” to “Publish Date.”
Reviewed	08/03/2017	MPTAC review. Updated Background/Overview section.
Reviewed	08/04/2016	MPTAC review. Updated Rationale and Background/Overview sections. Removed ICD-9 codes from Coding section.
Reviewed	08/06/2015	MPTAC review. Title revised. Updated Description and Rationale sections.
Reviewed	08/14/2014	MPTAC review. Updated Description/Scope and Coding sections.
Reviewed	08/08/2013	MPTAC review.
Reviewed	08/09/2012	MPTAC review.
Reviewed	08/18/2011	MPTAC review.
Reviewed	08/19/2010	MPTAC review.
Reviewed	08/27/2009	MPTAC review.

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Reviewed	08/28/2008	MPTAC review.
	02/21/2008	The phrase "investigational/not medically necessary" was clarified to read "investigational and not medically necessary." This change was approved at the November 29, 2007 MPTAC meeting.
Reviewed	08/23/2007	MPTAC review.
Reviewed	09/14/2006	MPTAC review.
	11/17/2005	Added reference for Centers for Medicare and Medicaid Services (CMS) – National Coverage Determination (NCD).
Revised	09/22/2005	MPTAC review. Revision based on Pre-merger Anthem and Pre-merger WellPoint Harmonization.

Pre-Merger Organizations	Last Review Date	Document Number	Title
Anthem, Inc.	None		None.
WellPoint Health Networks, Inc.	04/28/2005	2.01.21	Fecal Analysis in the Diagnosis of Intestinal Dysbiosis.

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