Serum Antibodies for Diagnosis of Inflammatory Bowel Disease

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Developed By: Medical Necessity Criteria Committee

I. Description

Inflammatory bowel disease (IBD) is a chronic relapsing inflammatory intestinal condition that can be subdivided into ulcerative colitis (UC) and Crohn's disease (CD). Patients with IBD may have a wide variety of symptoms including diarrhea, abdominal pain, and rectal bleeding. Diagnosis is established by a combination of radiographic, endoscopic, and histologic work-up. However, in approximately 10% of patients with IBD, the distinction between ulcerative colitis and Crohn's disease cannot be made with certainty and the diagnosis becomes "indeterminate colitis." Two serum antibodies, anti-neutrophilic cytoplasmic antibody (ANCA) and anti-saccharomyces cerevisiae (ASCA) have been investigated as a technique to improve the efficiency and accuracy of diagnosing IBD. ANCA has been detected in UC patients 50-80%, and less frequently in CD patients, 10-40%. ASCA has been detected in 46-70% of patients with Crohn's disease and 6-12% of patient with ulcerative colitis. Prometheus Laboratories offers Prometheus®IBD sgi Diagnostic test and Prometheus® Crohn's Prognostic. These non-invasive tests examine serological panels of antibodies, including ASCA and ANCA, to diagnose IBD and differentiate between UC and CD. However, research has determined that there is insufficient sensitivity to diagnose ulcerative colitis or Crohn's disease.

Genetic polymorphisms for thiopurine methyltransferase (TPMT), the primary enzyme-metabolizing azathiopurine and 6-mercaptopurine, have been identified to assist in regulating therapy according to the measurements of azathiopurine/6-mercaptopurine metabolites. Current recommendations from the FDA include determination of TPMT (either enzyme of genotype) prior to initiating treatment with azathiopurine or 6-mercaptopurine. The Prometheus® Anser™ IFX and Anser™ ADA were developed by Prometheus® in order to provide guidance in determining therapeutic direction and predicting therapeutic response in individual patients receiving treatment with Infliximab (IFX), vedolizumab (VDZ), or Adalimunab (ADA). Prometheus® Thiopurine Metabolites is a test used during treatment for the ongoing evaluation of patient response to thiopurine therapies.

II. Criteria: CWQI HCS-0061

A. Moda Health covers request for serum antibody testing for ALL of the following:

*The tests may be performed by other laboratories besides Prometheus® but the medical criteria below applies regardless of the requesting laboratory.

a. Baseline TPMT genotype testing is medically necessary to determine candidacy for thiopurine treatment prior to initiation of 6-Mercaptopurine and Azathiopurine. The test is covered for this indication one time during the patient's lifetime. (i.e. Prometheus® TPMT Genetics)
b. The requested testing does NOT include ASCA, ASMA or ANCA testing (i.e. Prometheus® IBD sgi Diagnostics). These tests are considered experimental, investigational or unproven to diagnose IBD, to distinguish ulcerative colitis from Crohn's disease, to manage IBD, and for all other indications.
c. The request does NOT include additional assay tests (including but not limited to Prometheus® ANSER IFX (infliximab), ANSER VDZ (vedolizumab) and ANSER ADA (adalimumab)) to monitor response to therapy by measuring serum levels and antibodies to the drug during treatment or testing to evaluate disease progress (i.e. Prometheus® Crohn's Prognostic). These are considered experimental and investigational as the clinical value has not been established.
d. The request does NOT include Thiopurine Metabolites (i.e. Prometheus® or other labs) to test for therapeutic response to 6-mercaptopurine and azathiopurine (Imuran). This test is considered experimental and investigational as the clinical value has not been established.
e. Fecal measurement of Calprotectin for the management of inflammatory bowel disease is considered experimental and investigational as the clinical value has not been established.

III. Information Submitted with the Prior Authorization Request:

1. Chart notes and history and physical from ordering specialist
2. Results of colonoscopy and other diagnostic studies performed
3. Pathology report

IV. CPT or HCPC codes covered:

Codes	Description
81401	TPMT genetics (Molecular pathology procedure, Level 2 (eg, 2-10 SNPs, 1 methylated variant, or 1 somatic variant [typically using nonsequencing target variant analysis], or detection of a dynamic mutation disorder/triplet repeat)

V. CPT or HCPC codes NOT covered:

Codes	Description
Thiopurine Metabolites	
82542	Quantitative HPLC (High Pressure Liquid Chromatography) for 6-thioguanine (6-TGN) in peripheral RBC, separate stationary and mobile phase
IBD sgi Diagnostic	

83520 (X8)	Immunoassay for analyte other than infectious agent antibody or infectious agent antigen; quantitative, not otherwise specified (ELISA)
88346	pANCA; Indirect Immunofluorescent assay IgG specific
88350	DNAse sensitivity; Indirect Immunofluorescent assay IgG specific; DNAse digested slide
82397 (X3)	Chemiluminescent assay
86140 (X1)	C-reactive protein
81479 (x4)	Unlisted molecular pathology procedure
ANSER IFX; ANSER ADA; ANSER VDZ	
84999	Unlisted chemistry procedure
80299	
IBCause	
82784	Gammaglobulin (immunoglobulin); IgA
83520 (X2)	Immunoassay for analyte other than infectious agent antibody or infectious agent antigen; quantitative, (NOS)
83993	Calprotectin, fecal
86141	C-reactive protein; high sensitivity (hsCRP)
87507	Infectious agent detection by nucleic acid (DNA or RNA); gastrointestinal pathogen; includes multiplex reverse transcription, when performed, and multiplex amplified probe technique, multiple types or subtypes, 12-25 targets.
88346	Immunofluorescence, per specimen; initial single antibody stain procedure
Calprotectin, Fecal	
83993	Calprotectin, fecal

VI. Annual Review History

Review Date	Revisions	Effective Date
05/2013	Annual Review: Added table with review date, revisions, and effective date. Revised criteria to include criteria for approval of TPMT testing.	05/2013
04/2014	Annual Review: Revised names of tests – added new tests from Prometheus considered E/I, added fecal calprotectin considered E/I	04/14
04/2015	Annual Review: Added test names from Prometheus and updated CPT codes covered and non-covered for each test.	04/25/2015
05/2016	Annual Review: Minor wording revisions – no change to criteria	05/25/2016
05/2017	Annual Review: Revised wording for the non-covered tests	05/24/2017
05/2018	Annual Review: Added language tests may be performed by labs other than Prometheus. Removed fecal calprotectin for children 12 and under – no literature to support	05/24/2018

VII. References

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29. Physician Advisors

Appendix 1 – Centers for Medicare and Medicaid Services (CMS)

Medicare coverage for outpatient (Part B) drugs is outlined in the Medicare Benefit Policy Manual (Pub. 100-2), Chapter 15, §50 Drugs and Biologicals. In addition, National Coverage Determination (NCD) and Local Coverage Determinations (LCDs) may exist and compliance with these policies is required where applicable. They can be found at: http://www.cms.gov/medicare-coverage-database/search/advanced-search.aspx. Additional indications may be covered at the discretion of the health plan.

Medicare Part B Covered Diagnosis Codes (applicable to existing NCD/LCD):

Jurisdiction(s): 5, 8	NCD/LCD Document (s):

NCD/LCD Document (s):

Medicare Part B Administrative Contractor (MAC) Jurisdictions		
Jurisdiction	Applicable State/US Territory	Contractor
F (2 & 3)	AK, WA, OR, ID, ND, SD, MT, WY, UT, AZ	Noridian Healthcare Solutions, LLC