



MAYO CLINIC
Mayo Medical Laboratories

INFLAMMATORY BOWEL DISEASE (IBD)

COMPREHENSIVE TESTING FOR DIFFERENTIATION, DIAGNOSIS, AND THERAPEUTIC MONITORING



FIRST-LINE DIFFERENTIATION BETWEEN IBD AND IBS

OVERLAPPING SYMPTOMS PRESENT CHALLENGES

Patients with symptoms that arouse clinical suspicion of either inflammatory bowel disease (IBD) or irritable bowel syndrome (IBS) are both common and tough to differentiate. However, because IBD and IBS are very distinct conditions with contrasting treatment strategies, differentiating between the two is essential.

A NON-INVASIVE OPTION

Calprotectin, an indirect marker of intestinal inflammation, is a first-line testing option that can help differentiate between IBD and IBS. Furthermore, it may eliminate the need for additional invasive procedures or imaging studies, which are costly, involve sedation, and require patient compliance with fasting and bowel preparation.

TESTING USEFUL FOR DIFFERENTIATION OF IBD AND IBS

- ▶ Calprotectin, F (Mayo Test ID: CALPR)

DIFFERENTIATING ASPECTS OF IBD AND IBS

IBD	IBS
Disease	Disorder
Changes bowel tissue and increases risk of colorectal cancer	Doesn't increase risk of disease
Diagnosis based on endoscopic evaluation and lab tests	Diagnosis based on symptoms—no biological marker
Rectal bleeding	No rectal bleeding
Treatment requires steroids or immunosuppressive medications	Treatment requires non-prescriptive lifestyle changes
Close surveillance of patients—repeat tests and colonoscopic evaluations	Limited follow-up with patients



\$31 Billion

Annual financial burden of IBD in the U.S.

3.9 Million

Prescriptions written for medications to treat IBD in the U.S. in 2010

1.6 Million

Number of Americans who currently have IBD

294,000

Hospitalizations specifically for Crohn's disease and ulcerative colitis in the U.S. in 2010

DIAGNOSIS OF CROHN'S DISEASE AND ULCERATIVE COLITIS THROUGH SEROLOGICAL TESTING

OVERUTILIZATION ADVOCATED BY COMMERCIAL LABORATORIES

Many commercial laboratories that do not treat patients advocate much wider application of laboratory testing, including serologic assessment, genetic testing, and inflammatory marker quantitation approaches. Peer-reviewed clinical literature only supports the use of three serologic tests for IBD and for limited applications.

APPROPRIATE TESTING, GUIDED BY TREATMENT OF IBD PATIENTS

At Mayo Clinic, serologic testing for IBD is only used when a diagnosis of IBD has been made using modalities such as flexible sigmoidoscopy or colonoscopy with mucosal biopsies and radiographic studies, but where the results do not clearly differentiate between ulcerative colitis and Crohn's disease.

Our serology panel, which is based on significant peer reviewed literature, examines only the characteristic patterns of antibodies with demonstrated clinical utility:

- ▶ *Saccharomyces cerevisiae* antibodies, IgA
- ▶ *Saccharomyces cerevisiae* antibodies, IgG
- ▶ Neutrophil specific antibodies (perinuclear anti-neutrophilic cytoplasmic antibody—pANCA)

TESTING USEFUL FOR DIAGNOSIS OF CROHN'S DISEASE AND ULCERATIVE COLITIS

- ▶ Inflammatory Bowel Disease Serology Panel, Serum (Mayo Test ID: IBDP)

MONITORING THERAPY THROUGH TESTING OF INFLIXIMAB CONCENTRATIONS

REFLEXIVE TESTING—A NOVEL APPROACH

Measurement of infliximab concentrations helps guide clinicians in making treatment decisions for their IBD patients. Clinically significant antibodies-to-infliximab are found in patients with very low-trough infliximab concentrations in their serum. Therefore, a reflexive approach, which performs testing for antibodies-to-infliximab only when it is clinically relevant, benefits patients and reduces costs for the ordering institution.

TESTING TO AID IN THERAPEUTIC MONITORING OF INFLIXIMAB

- ▶ Infliximab Quantitation with Reflex to Antibodies to Infliximab, Serum (Mayo Test ID: INFXR)

COLLEGIAL ACCESS TO MAYO CLINIC CLINICIANS, LABORATORIANS, AND GENETIC COUNSELORS

When you partner with Mayo Medical Laboratories, you extend your network to include some of the world's leading gastroenterology experts. Mayo Clinic clinicians, laboratorians, and genetic counselors are available to discuss testing options, interpret results, or help with case review and coordination.

BY THE NUMBERS CITATION

1. The Facts About Inflammatory Bowel Diseases. Available from:
<http://www.cdfa.org/assets/pdfs/updatedibdfactbook.pdf>.
Retrieved June 14, 2016.

**FOR MORE INFORMATION ABOUT
GASTROENTEROLOGY TESTING, VISIT:**

MayoMedicalLaboratories.com/GI