



## TREATMENT OPTIONS FOR IRRITABLE BOWEL SYNDROME

Irritable bowel syndrome (IBS) is a disorder of the bowel that has been identified as a brain-gut disorder. IBS is associated with negative effects on the quality of life and work productivity. Approximately 7-16% of the US population has IBS and it is most common in women and young people. Patients with risk factors (e.g., genetic predisposition or exposure to environmental factors), abnormal stress response that is associated with psychological distress (e.g., anxiety, depression, or somatization), and an infectious or inflammatory response that may alter intestinal permeability, are at most risk for IBS. The Rome IV criteria are typically used to diagnose the disorder. This issue of *CLIPs* describes the classification, diagnosis, and treatment of IBS. If you need further information, please contact the Center for Healthcare Innovation and Patient Outcomes Research (CHIPOR) at [chipor@samford.edu](mailto:chipor@samford.edu).

**Ford AC, Lacy BE, Talley NJ. Irritable bowel syndrome. *N Engl J Med.* 2017;376:2566-2578.  
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### Introduction

- IBS is associated with direct costs of over \$1 billion dollars.
- Quality of life studies indicate that patients would give up 10-15 years of life expectancy for an immediate cure of disease.

### IBS Classification

- Classification is made based on the Rome IV criteria and IBS is classified into 4 subtypes (e.g., IBS with diarrhea, IBS with constipation, IBS with mixed symptoms of constipation and diarrhea, or unsubtyped IBS) based on patient self-report and quality of stools.
- Determining the appropriate classification for these patients is important because this information will guide appropriate diagnosis and treatment recommendations for IBS.

### IBS Diagnosis

- The Rome IV criteria are used to diagnosis IBS and can be found in Table 1.
- Although many clinicians order blood tests (e.g., C-reactive protein) to diagnosis IBS, this action is not supported by current guidelines.
- However, patients with IBS-type symptoms may receive blood testing to confirm diagnosis of celiac disease.
- Patients with chronic constipation-dominated IBS should be evaluated for obstructive defecation.
- IBS with predominant diarrhea symptoms or with both diarrhea and constipation may be more difficult to distinguish based on patient symptoms between organic and functional lower GI disease. Fecal calprotectin testing may be appropriate for these patients.

### IBS Treatment

#### Dietary Modifications

- Dietary fiber should be increased as a first-line therapeutic option for IBS; however, insoluble fiber (e.g., bran) may make abdominal pain and bloating worse.
- Low fermentable oligosaccharides, disaccharides, and monosaccharides and polyols (FODMAP) diets have gained some interest as a dietary option for IBS, as studies have indicated that IBS symptom scores, bloating, and pain were significantly reduced with this diet.

**Table 1: Rome IV criteria for IBS**

<ul style="list-style-type: none"> <li>• Patient has recurrent abdominal pain (≥1 day / week, on average, in the previous 3 months), with an onset ≥6 months before diagnosis</li> </ul>	<p>Patient has none of the following warning signs: Age ≥50 years; no previous colon cancer screening, and presence of symptoms; recent change in bowel habit; evidence of overt GI bleeding (i.e., melena or hematochezia); nocturnal pain or passage of stools; unintentional weight loss; family history of colorectal cancer or inflammatory bowel disease; palpable abdominal mass or lymphadenopathy; evidence of iron-deficiency anemia on blood testing; positive test for fecal occult blood.</p>
<ul style="list-style-type: none"> <li>• Abdominal pain associated with at least 2 of the following symptoms: pain related to defecation; change in frequency of stool; change in form (appearance) of stool</li> </ul>	

**Table 2: Medication options for IBS**

Therapy	Dosage / Frequency	Efficacy/Quality	Adverse Effects	Monthly cost without insurance
Antispasmodic drugs	Dicyclomine, 20-40 mg four times daily	May be effective, but class dependent / Low	Abdominal pain, constipation, dry mouth, and dry eyes	\$50
Lubiprostone	8 mcg twice daily	Effective / Moderate	Nausea, diarrhea, and abdominal distention	\$348 - \$358
Linaclotide	290 mcg once daily	Effective / High	Diarrhea, abdominal pain, and headache	\$350
5-HT3 receptor antagonists	Alosetron 0.5 – 1 mg once daily)	Effective / High	Constipation, abdominal pain, nausea, and ischemic colitis	\$360 - \$1100
Eluxadoline	75-100 mg twice daily	Effective / High	Constipation, nausea, abdominal pain, sphincter of Oddi spasm, and pancreatitis	\$1076
Rifaximin	550 mg three times daily	Effective / Moderate	Headache, abdominal pain, nausea, and diarrhea	\$1400 - \$1900
Tricyclic depressants	Amitriptyline, 25 mg once daily; can increase to 50-75 mg once daily	Effective / Moderate	Sedation, dry mouth, dry eyes, orthostatic hypotension, arrhythmias, and sexual dysfunction	\$4 - \$9

- Probiotics and gluten-restricted diets may be beneficial; however, the quality of the evidence for these studies is low. Peppermint oil may be effective and the quality of evidence supporting use is moderate.

**Conclusions**

- Patients with IBS should have an effective doctor-patient relationship because the approach to therapy should be individualized.
- Patients should be initiated on dietary modifications if they have constipation-predominant symptoms or a low FODMAP if the patient has diarrhea-predominant or mixed subtype of IBS.
- Patients should receive a month of therapy prior to discontinuation.
- Persistent constipation symptoms should be treated with linaclotide or lubiprostone and those with diarrhea-predominant symptoms should receive alosetron, eluxadoline, or rifaximin.

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