

Irritable Bowel Syndrome: ACG Clinical Guideline on the Management of Irritable Bowel Syndrome (2021)

About the Guideline

- This is the American College of Gastroenterology's (ACG) first clinical guideline for irritable bowel syndrome (IBS).
- This guideline was developed using the Grading of Recommendations, Assessment, Development, and Evaluation (GRADE) methodology and focused on 25 clinically important questions, 9 that address diagnostic testing and 16 related to therapeutic choices.
- An individualized search was performed for each question using MEDLINE, EMBASE, PubMed, and the Cochrane Controlled Trials Register from the initiation of research through February 1, 2020.

Key Clinical Considerations

Become familiar with the recommendations and best-practice statements provided in this guideline, especially if you work in an acute care setting.

Overview

- IBS is defined as a chronic, highly prevalent disorder of gut-brain interaction (formerly known as functional gastrointestinal [GI] disorders).
- IBS is often debilitating and has a prevalence of approximately 4% in the United States, United Kingdom, and Canada.
- IBS most commonly affects women and people younger than 50.
- Direct medical costs for IBS in the United States are approximately \$1.5 to \$10 billion/annually not including medications, whether prescription or over-the-counter medications.
- Common symptoms of IBS include the following:
 - Abdominal pain occurring at least once a week that is associated with a change in stool frequency and form, and/or relief or worsening of abdominal pain with defecation
 - Bloating

Testing

- For patients with IBS with diarrhea, serologic testing is recommended to rule out celiac disease.
 - Celiac disease is an immune-mediated disease in which the small intestine reacts to the ingestion of gluten. Patients with celiac disease often present with symptoms similar to IBS, such as abdominal pain, bloating, and/or altered bowel habits.
 - Serologic testing to rule out celiac disease includes immunoglobulin A (IgA) tissue transglutaminase and a quantitative IgA level.
- To rule out inflammatory bowel disease (IBD) in patients with suspected IBS symptoms and diarrhea who do not present with alarm features, checking either fecal calprotectin or fecal lactoferrin and a C-reactive protein level is suggested.
 - Fecal calprotectin and fecal lactoferrin are two fecal-derived markers of intestinal inflammation.
- Routine stool testing for enteric pathogens is not recommended, except for patients at high risk for *Giardia* exposure.

- Outside of cancer screening, routine colonoscopy is not recommended for patients younger than 45 with IBS symptoms and no alarm features present.
- A positive diagnostic strategy is suggested over a diagnostic strategy of exclusion in order to initiate proper therapy sooner.
 - A positive diagnostic strategy includes the following:
 - Careful clinical history, focusing on key symptoms such as altered bowel habits, abdominal pain, and the duration of symptoms (more than 6 months).
 - Bloating, while a common symptom, is not needed to correctly diagnose IBS.
 - Physical examination with minimal diagnostic testing.
- Delaying diagnostic workup and treating patients with IBS empirically is recommended to minimize unnecessary healthcare testing and cost.
- For patients with suspected IBS, alarm features indicate a need for further testing and include the following:
 - Hematochezia
 - Melena
 - Unintentional weight loss
 - Older age at onset of symptoms
 - Family history of IBD
 - History or presence of colon cancer
 - Other known, significant GI disease
- To improve patient therapy, categorizing patients based on an accurate IBS subtype is suggested. IBS subtype is based on the patient's predominant stool consistency.
 - To obtain the most accurate assessment of stool consistency, the following is recommended:
 - Use the Bristol Stool Form Scale (BSFS) to evaluate the predominant stool consistency.
 - Determine stool consistency only on days of abnormal bowel movements and only while off therapies that could affect bowel pattern and consistency. A daily stool diary should be kept for at least 2 weeks.
 - Once stool consistency and pattern is determined, a decision can be made regarding subtype using the Rome IV criteria as follows:
 - IBS-C (constipation)
 - IBS-D (diarrhea)
 - IBS-M (mixed)
 - IBS-U (unsubtyped due to insignificant irregular stool pattern).
 - IBS subtyping should be reassessed regularly, as more than half of patients affected change principal subtype over a year.
- Testing all patients with IBS for food allergies and intolerances is not recommended unless a true food allergy is suspected.
 - A food allergy is defined as an immune-mediated response to a particular food, that presents as a reaction that is replicated usually within minutes, such as itching of the mouth and lips, angioedema, rhinorrhea, periorbital edema, dysphagia, laryngospasm, bronchospasm, nausea, vomiting, abdominal pain, diarrhea, urticaria, hypotension or anaphylaxis, that occurs in conjunction with testing.

- Food intolerance is defined as an unpleasant or undesirable reaction to food that is not immune-mediated.
- Performing anorectal physiology testing is suggested for patients with IBS who also have symptoms indicative of a pelvic floor disorder and/or refractory constipation in which routine medical treatment is ineffective.
 - Anorectal dysfunction may occur to some degree in all subtypes of IBS and may be as prevalent as 40% of patients with IBS.
 - Anorectal physiology testing may include anorectal manometry (ARM) and/or balloon expulsion test (BET), however there are no absolute guidelines, and availability is limited.

Treatment

- A limited trial of a low FODMAP diet is recommended for patients with IBS to improve overall symptoms.
 - FODMAPs are dietary fermentable oligosaccharides, disaccharides, monosaccharides, and polyols that lead to increased water retention and increased fermentation resulting in abdominal pain, bloating, and gas.
 - Consultation with a trained GI dietitian is recommended if a low FODMAP diet is to be sustained.
 - When a GI dietitian is not practical due to cost or availability, clear, thorough teaching material should be provided and reviewed with the patient.
- Using soluble rather than insoluble fiber is suggested therapy for overall IBS symptoms.
 - Examples of soluble fiber include psyllium, oat bran, barley, and beans.
 - Examples of insoluble fiber include wheat bran, whole grains, and some vegetables.
- Antispasmodics are not recommended therapy for overall IBS symptoms.
 - Examples of antispasmodics include dicyclomine, hyoscyamine, and hyoscine.
 - Only limited, outdated, and poor-quality data support the use of antispasmodics.
- The use of peppermint oil is suggested for the relief of overall IBS symptoms, as data has shown it may be beneficial for general symptoms and abdominal pain.
- The use of probiotics as therapy of overall IBS symptoms is not suggested due to lack of quality data.
- The use of polyethylene glycol (PEG) to relieve overall IBS-C symptoms is not suggested.
 - There is no evidence available that proves PEG relieves abdominal pain or overall symptoms in patients with IBS-C; however, due to its low cost and availability, PEG may be used as a first-line treatment for constipation.
- The use of chloride channel activators is recommended as therapy for overall IBS-C symptoms.
 - Lubiprostone 8 mcg PO twice daily has been shown to be effective. The initial response may be delayed, but symptom improvement increases and is sustained over time.
 - Nausea may occur and may be resolved by taking lubiprostone with meals.
- Guanylate cyclase activators are recommended therapy for overall IBS-C symptoms.
 - Linaclotide 290 mcg PO once daily, or plecanatide 3 mg PO once daily, has been shown to elicit quick relief of symptoms that is sustained over time.
- To treat IBS-C symptoms in women younger than 65 years with one or no cardiovascular risk factors who have not responded to lubiprostone, the use of a serotonin agonist, such as tegaserod, is suggested.

- Cardiovascular risk factors in this setting include the following:
 - History of cardiovascular disease
 - History or presence of hypertension
 - History or presence of diabetes mellitus
 - Active smoker
 - History or presence of hyperlipidemia
 - Older than 55 years at baseline
 - Obesity (body mass index [BMI] greater than 30 kg/m² at baseline).
- Tegaserod is contraindicated in patients with more than one cardiovascular risk factor.
- To treat overall symptoms of IBS-D, the use of bile acid sequestrants is not suggested.
 - Bile acid malabsorption (BAM) conditions, which may be common in IBS-D, are not commonly tested for in the United States, making such treatment unreliable.
- RifAXIMin is recommended therapy for overall IBS-D symptoms.
 - RifAXIMin is a nonabsorbed antibiotic that helps normalize the microbiome of select patients with IBS-D.
- Alosetron, a serotonin antagonist, is recommended to relieve overall IBS-D symptoms in women who have severe symptoms and for whom traditional therapy has been unsuccessful.
 - Adverse effects of alosetron include severe constipation, and ischemic colitis, which may be mitigated if dosing is kept within a small therapeutic window (0.5 to 1 mg twice daily).
- The use of mixed opioid agonists/antagonists, such as eluxadoline, is suggested for treatment of overall IBS-D symptoms.
 - The recommended dose of eluxadoline is 75 to 100 mg PO twice daily.
 - Only the 75 mg dose should be used for those with mild to moderate hepatic impairment.
 - Eluxadoline is contraindicated in the following instances:
 - History of pancreatitis
 - Patients without a gallbladder
 - Severe hepatic impairment
 - History of alcoholism, alcohol abuse, or addiction
 - Patients who consume more than three alcohol-containing beverages per day.
- Tricyclic antidepressants (TCAs) are recommended therapy for overall symptoms of IBS.
 - TCAs are thought to relieve visceral pain and central pain, and they may improve abdominal pain due to their anticholinergic effects. TCAs in higher doses may also slow gastrointestinal transit, thus improving diarrhea symptoms in select patients.
 - The use of a specific TCA and its dosage, which should be started low and titrated, is at the discretion of the health care practitioner, who must determine efficacy and side effects.
 - Examples of TCAs include amitriptyline and desipramine.
 - Side effects may include dry mouth and/or eyes, urinary retention, constipation, and cardiac arrhythmias.
- Gut-directed psychotherapies (GDP) are suggested as therapy for IBS symptoms.
 - GDP may include cognitive-behavior therapy (CBT-GI) and gut-directed hypnotherapy (GDH) and is suggested for emotionally stable patients and in conjunction with other IBS therapies.

- GDP offers minimal risk and long-lasting benefits even after treatment has been discontinued.
- Fecal transplants are not recommended as therapy for overall IBS symptoms.
 - There have been minimal studies and further research is needed in this area of treatment.

Reference

Lacy, B. E., et al. (2021). ACG clinical guideline: Management of irritable bowel syndrome. *American Journal of Gastroenterology*, 116 (1), 17-44. <https://doi.org/10.14309/ajg.000000000001036>