

Evidence-Based Management of Irritable Bowel Syndrome and Chronic Idiopathic Constipation

Stepping Up Therapy to Improve Outcomes

Take-Home Messages

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EDUCATING PATIENTS ABOUT THE ETIOLOGY OF IBS AND CHRONIC CONSTIPATION

These are colonic motility disorders. I provide patients with a simplified explanation: symptoms arise from defects in “squeezing” of colonic smooth muscle. When these muscles “squeeze” too quickly, then stool “shoots” through the colon, producing frequent, watery stools. If these muscles “squeeze” too slowly, then stool sits inside colon for too long, producing infrequent, hard stools. These muscles can “spasm” and produce cramping or these muscles may “stretch” and produce bloating.

DIAGNOSIS OF IBS AND CIC

These are NOT diagnoses of exclusion. You do NOT need to order multiple diagnostic studies before confidently diagnosing the patient.¹ If patients have IBS symptoms or constipation symptoms and do NOT have alarm signs, then diagnosis based on symptoms is 98% accurate.

Classic symptoms of IBS include abdominal discomfort associated with altered bowel habits for > 3 months, while those of constipation include defective defecation characterized as passing stool < 3 times per week OR difficult stool passage associated with frequent straining, prolonged time to pass stool, sense of incomplete evacuation, or hard, lumpy stools.^{2,3}

Alarm symptoms or signs are unexplained weight loss > 10 pounds, hematochezia, new onset symptoms after age 50, nocturnal diarrhea, or family history of inflammatory bowel disease/gastrointestinal cancers/celiac disease, anemia (possible sign of occult GI bleeding), or elevated erythrocyte sedimentation rate (ESR) or C-reactive protein (possible sign of inflammatory bowel disease).¹ If any of these signs/symptoms are present, then refer to gastroenterologist.

If the patient does not respond to treatment, then it is also appropriate to refer to a gastroenterologist, but make sure that you start with education, diet modification, and over-the-counter (OTC) medicines.

Take-Home Messages

INITIAL MANAGEMENT OF IBS AND CIC

Educate the patient about the underlying cause of IBS and CC symptoms.

Initial diet modification should focus on a trial of lactose-free diet, minimization of foods that have high fat content (eg, eliminate/minimize McDonald's and other fast foods and processed foods), and add soluble fiber.^{4,5} My preferred agent is one tablespoon of methylcellulose (Citrucel™) daily.

Initiate OTC medicines based on predominant stool pattern: use loperamide (Imodium®) for diarrhea, use stimulant laxative (eg, Dulcolax®) or osmotic laxative (eg, MiraLAX®). For cramping, my preferred agent is generic peppermint oil capsules (150-200 mg dose).

STEP UP THERAPY

if your patient does not get adequate improvement in symptoms with initial management.

DIARRHEA- PREDOMINANT IBS (IBS-D)

Rifaximin (Xifaxan®) is a non-absorbable antibiotic that is FDA-approved for IBS-D.⁶ It modifies colonic bacteria. The dose is 550 mg TID for 14 days. When ordering this, it's crucial to use the ICD-10 code for IBS-D and to use the FDA-approved dose in order to get insurance to cover it. It's minimally absorbed (< 0.4%), and there is no difference in adverse events between rifaximin and placebo.

Eluxadoline (Viberzi®) is a mixed opioid receptor agent that is FDA-approved for IBS-D.⁵ The approved dose is 100 mg BID.⁷ Eluxadoline is contraindicated for use in patients status-post cholecystectomy due to rare incidence of pancreatitis.⁷

Tricyclic antidepressants (TCAs) are NOT FDA-approved for IBS-D. They are commonly used for IBS-D because they modify centrally-mediated pain syndromes.⁵ They also may cause mild constipation because of their anticholinergic properties. Therefore, these agents can be helpful in patients with diarrhea. My preferred dose is nortriptyline (Pamelor®) 10-25 mg QHS.

Take-Home Messages

CONSTIPATION- PREDOMINANT IBS (IBS-C)

Remember that IBS-C differs from CC because IBS-C patients also have clinically important abdominal pain, cramping, and/or bloating. Therefore, it is important to use a medication that treats pain in these patients.

Linaclotide (Linzess®) and plecanatide (Trulance®) are FDA-approved for IBS-C and CC. They bind to the guanylate cyclase-C receptor, which is on the surface of small intestinal and colonic mucosa.^{5,8,9} These agents are minimally absorbed. There is no difference in side effects vs placebo except for diarrhea, which represents their potency as agents for constipation. Based on large randomized controlled trials, they are very potent agents to reduce abdominal pain and improve stool consistency and frequency when compared to placebo.⁵ However, it is important to remember that there are no head-to-head comparisons to other active treatments.

Linaclotide (Linzess®) is available in 3 doses: 290 mcg per day (IBS-C indication), 145 mcg and 72 mcg per day (CC indication) and should be taken daily on an empty stomach.⁸ The 3 mg plecanatide (Trulance®) tablet is taken daily for either IBS-C or CC.⁹ It does not need to be taken on an empty stomach.

Lubiprostone (Amitiza®) is also FDA-approved for IBS-C and CC.¹⁰ It activates the CIC-2 channel in colonic mucosa and is minimally absorbed. The approved dose for IBS-C is 8 mcg BID for CC is 24 mcg BID. Nausea occurs in a minority of patients and may be minimized by having the patient take it with food.

Based on randomized, controlled trials, bulking agents (eg, Metamucil™, Citrucel™), stimulant laxatives (eg, Dulcolax®), osmotic laxatives (eg, MiraLax®) are effective and FDA-approved for treatment of occasional constipation.²

Abbreviations

BID, twice daily; CC, chronic constipation; FDA, Food and Drug Administration; IBS, irritable bowel syndrome; IBS-C, constipation-predominant IBS; IBS-D, diarrhea-predominant IBS; ICD-10, *International Classification of Diseases*, 10th edition; QHS, every evening; TCA, tricyclic antidepressant; TID, three times daily.

References

1. Brandt LJ, Chey WD, Foxx-Orenstein AE et al. American College of Gastroenterology Task Force on Irritable Bowel Syndrome. *Am J Gastroenterol*. 2009;104 (Suppl 1):S1-S35.
2. Ford AC, Moayyedi P, Lacy BE, et al. American College of Gastroenterology monograph on the management of irritable bowel syndrome and chronic idiopathic constipation. *Am J Gastroenterol*. 2014;109(Suppl 1):S1-S26.
3. Lacy BE, Mearin F, Chang L, et al. Bowel disorders. *Gastroenterology*. 2016;150:1393-1407.
4. Ford AC, Lacy BE, Talley NJ. Irritable bowel syndrome. *N Engl J Med*. 2017;376:2566-2578.
5. Ford AC, Moayyedi P, Chey WD, et al. American College of Gastroenterology monograph on management of irritable bowel syndrome. *Am J Gastroenterol*. 2018;113:1-18.
6. XIFAXAN® (rifaximin) [prescribing information]. Salix Pharmaceuticals, a division of Valeant Pharmaceuticals North America LLC; Bridgewater, NJ; 2018.
7. Viberzi® (eluxadoline) [prescribing information]. Allergan USA, Inc.; Madison, NJ; 2018.
8. Linzess® (linaclotide) [prescribing information]. Allergan USA, Inc.; Madison, NJ; 2018.
9. Trulance® (plecanatide) [prescribing information]. Salix Pharmaceuticals, a division of Bausch Health US, LLC; Bridgewater, NJ; 2019.
10. Amitiza® (lubiprostone) [prescribing information]. Sucamp Pharma Americas, LLC; Bedminster, NJ; 2018.
11. DailyMed. Available at <http://dailymed.nlm.nih.gov>. Accessed October 24, 2019.