**FDA APPROVED INDICATIONS AND DOSAGE**¹,³,⁹,¹⁶

<table>
<thead>
<tr>
<th>Agent</th>
<th>Indication(s)</th>
<th>Dosage and Administration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Amitiza</strong></td>
<td>Treatment of irritable bowel syndrome with constipation (IBS-C) in women ≥ 18 years old.</td>
<td>IBS-C - 8 mcg taken twice daily orally with food and water.</td>
</tr>
<tr>
<td>(lubiprostone)</td>
<td>Treatment of chronic idiopathic constipation (CIC) in adults.</td>
<td></td>
</tr>
<tr>
<td>capsules</td>
<td>Treatment of opioid-induced constipation (OIC) in adults with chronic, non-cancer pain including patients with chronic pain related to prior cancer of its treatment who do not require frequent (e.g., weekly) opioid dosage escalation. Limitation of Use: Effectiveness of Amitiza in the treatment of OIC in patients taking diphenylheptane opioids (e.g., methadone) has not been established.</td>
<td>CIC, OIC - 24 mcg taken twice daily orally with food and water.</td>
</tr>
<tr>
<td>(8 mcg, 24 mcg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Linzess</strong></td>
<td>Treatment of irritable bowel syndrome with constipation (IBS-C) in adults.</td>
<td>IBS-C - 290 mcg taken once daily orally on an empty stomach, at least 30 minutes prior to the first meal of the day.</td>
</tr>
<tr>
<td>(linaclootide)</td>
<td>Treatment of chronic idiopathic constipation (CIC) in adults.</td>
<td></td>
</tr>
<tr>
<td>capsules</td>
<td></td>
<td>CIC - 145 mcg orally once daily or 72 mcg orally once daily based on individual presentation or tolerability, at least 30 minutes prior to the first meal of the day.</td>
</tr>
<tr>
<td>(72 mcg, 145 mcg, 290 mcg)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Motegrity</strong></td>
<td>treatment of chronic idiopathic constipation (CIC) in adults.</td>
<td>Adults: 2 mg once daily</td>
</tr>
<tr>
<td>(prucalopride)</td>
<td></td>
<td>CrCL &lt;30 mL/min: 1 mg once daily</td>
</tr>
<tr>
<td>Tablets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1 mg, 2 mg)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Trulance (plecanatide)

<table>
<thead>
<tr>
<th>Tablets (3 mg)</th>
<th>Treatment of chronic idiopathic constipation (CIC) in adults.</th>
<th>Treatment of irritable bowel syndrome with constipation (IBS-C) in adults</th>
</tr>
</thead>
</table>

### CLINICAL RATIONALE

#### Chronic Idiopathic Constipation (CIC):

Rome IV diagnostic criteria for functional constipation requires the presence of the following for at least 3 months: 12

- Must include two or more of the following:
  - Straining during more than 25 percent of defecations
  - Lumpy or hard stools (Bristol Stool Scale Form 1-2) in more than 25 percent of defecations
  - Sensation of incomplete evacuation for more than 25 percent of defecations
  - Manual maneuvers to facilitate more than 25 percent of defecations (e.g., digital evacuation, support of the pelvic floor)
  - Fewer than three spontaneous bowel movements per week
- Loose stools are rarely present without the use of laxatives
- There are insufficient criteria for Irritable Bowel Syndrome (IBS)

The American College of Gastroenterology (ACG) (2014) states that although linaclotide and lubiprostone are effective in CIC and are well tolerated, there have been no comparative studies. As both were evaluated in comparison with placebo rather than “standard therapy,” a recommendation regarding their precise position in a CIC treatment algorithm (i.e., for those who have failed fiber, osmotic, or stimulant laxatives, or as primary therapy) cannot be made at this time. 5

American Gastroenterology Association recommends a gradual increase in fiber intake, as both foods included in the diet and as supplements and/or an inexpensive osmotic agent (e.g., milk of magnesia or polyethylene glycol). Depending on stool consistency, the next step may be to supplement the osmotic agent with a stimulant laxative (e.g., bisacodyl or glycerol suppositories), preferably administered 30 minutes after a meal to synergize the pharmacologic agent with the gastrocolonic response. A newer agent (e.g., linaclotide, lubiprostone, etc) should be considered when symptoms do not respond to other laxatives. 11

UpToDate states that for initial management, suggest dietary fiber and bulk-forming laxatives (e.g., psyllium or methylcellulose), together with adequate fluids. For patients who do not tolerate bulk-forming laxatives or respond poorly to fiber, suggest an osmotic laxative next if tolerated. Other options include stool softeners, stimulant laxatives (bisacodyl, senna, and sodium picosulfate), and secretory agents (lubiprostone, linaclotide, plecanatide). 10

#### Irritable Bowel Syndrome with Constipation (IBS-C):

Rome IV defines IBS as recurrent abdominal pain, on average, at least one day per week in the last three months associated with two or more of the following: 13

- Related to defecation
- Associated with a change in stool frequency
- Associated with a change in stool form (appearance)

The goal of treatment of IBS-C is to improve symptoms such as abdominal bloating, discomfort, and constipation. The American College of Gastroenterology states that in some patients, lifestyle modifications, high fiber diets, over-the-counter laxatives (including bulking agents such as psyllium and polyethylene glycol [PEG]), tricyclic antidepressants and SSRIs, or
antispasmodics may be effective treatment. In more severe cases of IBS-C, lubiprostone may be effective. The guideline states that lubiprostone has not been studied in men and that more data is needed before lubiprostone can be recommended in men with IBS-C.

The American College of Gastroenterology monograph (2014) on the management of IBS and CIC states that although linaclotide and lubiprostone are effective in constipation-predominant IBS, these agents were evaluated vs. placebo rather than “standard therapy”. Their position in an IBS treatment algorithm (i.e., for those who have failed other treatments or as primary therapy) is difficult to define and complicated by lack of consensus on what “standard” therapy should be in IBS, given the limitations of data on other agents.

A review (2015) states relatively small response rates, higher costs, and adverse effects associated with lubiprostone and linaclotide will likely render these agents suitable as second-line therapies in the treatment of IBS-C and CIC.

The World Gastroenterology Organization (2015) states there is no general agreement on the cause of IBS, and no single treatment is currently regarded throughout the world as being universally applicable to the management of all IBS patients. Lubiprostone and linaclotide are considered safe and effective for treatment of IBS-C. However, nausea has been the major side effect limiting use of lubiprostone. Diarrhea is the major adverse effect of linaclotide; and further studies are needed to evaluate its long-term efficacy and safety.

UptoDate recommends beginning with lifestyle and dietary modification (eg, exclusion of gas-producing foods; a diet low in fermentable oligo-, di-, and monosaccharides and polyols [FODMAPs]; and in select cases, lactose and gluten avoidance) and a trial of psyllium in patients with IBS with constipation (IBS-C). In patients with IBS-C who fail a trial of psyllium, recommend polyethylene glycol. In patients with IBS-C who fail a trial of psyllium, polyethylene glycol is recommended. Suggest a trial of lubiprostone or linaclotide in patients with symptoms of constipation that are refractory to osmotic laxatives.

Opioid-Induced Constipation (OIC):
OIC Consensus Recommendations (2015): In anticipation of potential OIC development with long-term opioid use, treatment guidelines recommend initiation of a prophylactic bowel regimen that may involve increased fluid and fiber intake, stool softeners, and/or laxatives. When a diagnosis of OIC is suspected despite prophylactic treatment, clinicians should confirm that initiation of opioid therapy has led to a change from baseline in the patient’s typical bowel habits, before consideration of further or alternative interventions. First line approaches to intervention also include dietary changes, OTC treatments, and exercise. The panel believes that the accessibility and relatively low risk of dietary and OTC options justify their prophylactic and first-line use for OIC.

National Comprehensive Cancer Network (NCCN, 2018) guidelines on adult cancer pain include the following recommendations on OIC. Preventative measures include prophylactic medications (stimulant laxative, polyethylene glycol), maintaining adequate fluid intake, maintaining adequate dietary fiber, and exercise if feasible. Supplemental medicinal fiber is unlikely to control OIC and may worsen constipation. Docusate may not provide benefit. If constipation develops, titrate stool softeners/laxatives as needed to achieve one non-forced bowel movement every 1-2 days. Consider adjuvant analgesics to allow reduction of opioid dose. If constipation persists, consider adding another agent (magnesium hydroxide, bisacodyl, lactulose, sorbitol, magnesium citrate, polyethylene glycol). When response to laxative therapy has not been sufficient for OIC in patients with advanced illness, then consider methylnaltrexone or naloxegol; other second line agents include lubiprostone and linaclotide.

Up to Date (2017) states that prevention is preferred over management of OIC. For all patients with predisposing factors, suggest prophylactic therapy when opioid treatment is
initiated. This is accomplished with a contact cathartic (eg, senna), with or without a stool softener (eg, docusate), or daily administration of an osmotic laxative (polyethylene glycol or lactulose), except if lactose intolerant. All patients should be encouraged to increase fluid intake, mobility, and dietary fiber (unless severely debilitated with limited oral fluid intake, or bowel obstruction is suspected). For patients who develop OIC despite a prophylactic regimen, before proceeding to an approach typically considered for refractory cases, the conventional starting strategies can be switched (eg, from a contact cathartic to an osmotic cathartic or vice versa), and dose escalation can be considered. Some patients also are able to improve bowel function by dietary modifications (increased consumption of fluids and soluble dietary fiber) and increased physical activity. Fiber should not be increased if the patient is debilitated, bowel obstruction is suspected, or hydration has been difficult to maintain. Regular ingestion of probiotics can improve chronic constipation and given the safety of these therapies, a trial in patients with OIC is reasonable. For refractory cases, opioid receptor antagonist therapy, which are specifically approved for this indication, are available.14

Safety
Linaclotide carries a black box warning that it is contraindicated in pediatric patients up to 6 years of age. Linaclotide caused deaths due to dehydration in young juvenile mice. Avoid use of linaclotide in pediatric patients 6 through 17 years of age. The safety and efficacy of linaclotide has not been established in pediatric patients under 18 years of age. It also carries an additional contraindication in patients with known or suspected mechanical gastrointestinal obstruction.3

Lubiprostone is contraindicated in patients with known or suspected mechanical gastrointestinal obstruction.1

Plecanatide is contraindicated in patients less than 6 years of age due to the risk of serious dehydration and also in patients with known or suspected mechanical gastrointestinal obstruction.9

Plecanatide carries the following black box warnings:9
  • Plecanatide is contraindicated in patients less than 6 years of age; in young juvenile mice, plecanatide caused death due to dehydration.
  • Avoid use of plecanatide in patients 6 years to less than 18 years of age.
  • The safety and effectiveness of plecanatide have not been established in patients less than 18 years of age.

Prucalopride is contraindicated in patients with:16
  • A history of hypersensitivity to Motegrity. Reactions including dyspnea, rash, pruritus, urticaria, and facial edema have been observed
  • Intestinal perforation or obstruction due to structural or functional disorder of the gut wall, obstructive ileus, severe inflammatory conditions of the intestinal tract such as Crohn's disease, ulcerative colitis, and toxic megacolon/megarectum.

For additional clinical information see the Prime Therapeutics Formulary Chapters 7.1: Laxatives and 7.7E: Irritable Bowel Syndrome Agents and Formulary Monograph: Linaclotide.

REFERENCES


Constipation Agents Prior Authorization

OBJECTIVE
The intent of the Constipation Agents Prior Authorization (PA) program is to ensure appropriate selection of patients for treatment according to product labeling and/or clinical studies and/or guidelines. The PA defines appropriate use as use in patients with a Food and Drug Administration (FDA) approved indication of chronic idiopathic constipation (in adults), irritable bowel syndrome with constipation, or opioid-induced constipation in adults with chronic non-cancer pain, including patients with chronic pain related to prior cancer or its treatment (Amitiza only). The PA criteria require that the patient has had symptoms of chronic idiopathic constipation or irritable bowel syndrome with constipation ≥ 3 months. The PA criteria also require that patients have tried and had an inadequate response to at least two standard laxative therapy classes for constipation, including osmotic laxatives (polyethylene glycol, lactulose, magnesium hydroxide-based including milk of magnesia), fiber or bulking agents (psyllium, bran, methylcellulose), stool softeners (docusate), or over-the-counter stimulant laxatives containing senna or bisacodyl. Criteria do not allow coverage in patients who have FDA labeled contraindication(s) to the requested product. Requests will be reviewed when patient-specific documentation has been provided.

TARGET AGENTS
Amitiza (lubiprostone)
Linzess (linaclotide)
Motegrity (prucalopride)
Trulance (plecanatide)

PRIOR AUTHORIZATION CRITERIA FOR APPROVAL
Target Agents will be approved when ALL of the following are met:
1. The patient is ≥18 years of age
   AND
2. ONE of the following:
   a. BOTH of the following:
      i. ONE of the following:
         1. The request is for the treatment of irritable bowel syndrome with constipation (IBS-C) AND ALL of the following:
            a. The patient has documentation of IBS-C symptoms for ≥3 months
            AND
            b. ONE of the following:
               i. The request is for Amitiza (lubiprostone) AND ONE of the following:
                  1. The patient is female
                  OR
                  2. The prescriber has provided documentation that the requested agent is medically appropriate for the patient’s gender and the intended diagnosis
               OR
               ii. The request is for Linzess (linaclotide) OR Trulance (plecanatide)

   OR
   2. The request is for the treatment of chronic idiopathic constipation (CIC) AND the patient has documentation of CIC symptoms for ≥3 months
   AND
ii. ONE of the following:
   1. The patient has tried and had an inadequate response to at least 2 standard laxative therapy classes
      OR
   2. The patient has a documented intolerance, FDA labeled contraindication, or hypersensitivity to at least 2 standard laxative therapy classes
      OR

   b. ALL of the following:
      i. The request is for the treatment of opioid-induced constipation (OIC) AND ONE of the following:
         1. The request is for Amitiza (lubiprostone) AND BOTH of the following:
            a. The patient is not currently receiving a diphenylheptane opioid (e.g. methadone)
               AND
            b. ONE of the following:
               i. The patient has chronic non-cancer pain
                  OR
               ii. The patient has chronic pain related to prior cancer or its treatment
                  OR
               iii. The patient has active cancer pain
                  OR
         2. The request is for Linzess (linaclotide) and the patient has active cancer pain
            AND
         ii. The patient has chronic use of an opioid agent in the past 30 days
            AND
         iii. ONE of the following:
            1. The patient has tried and had an inadequate response to at least 2 standard laxative therapy classes (not including fiber or bulking agents)
               OR
            2. The patient has a documented intolerance, FDA labeled contraindication, or hypersensitivity to at least 2 standard laxative therapy classes (not including fiber or bulking agents)
               AND
      3. The patient does NOT have any FDA labeled contraindication(s) to the requested agent

Length of Approval: 12 months
Step Therapy Supplement

This program applies to FlexRx Closed, FlexRx Open, GenRx Closed, GenRx Open, Health Insurance Marketplace, FocusRx and KeyRx formularies.

Please note, this does not include or apply to quantity limit questions.

STEP THERAPY SUPPLEMENT

OBJECTIVE
The intent of the Step Therapy Supplement is to provide additional questions, to ensure compliance to MN Statute 62Q.184. These questions will apply if the step therapy component within a Prior Authorization or Step Therapy program is not able to be approved.

CONDITIONS FOR APPROVAL
The requested agent will be approved when ONE of the following are met:

1. The patient is currently being treated with the requested agent as indicated by ALL of the following:
   a. A statement by the prescriber that the patient is currently taking the requested agent
   AND
   b. A statement by the prescriber that the patient is currently receiving a positive therapeutic outcome on requested agent
   AND
   c. The prescriber states that a change in therapy is expected to be ineffective or cause harm

OR

2. The patient’s medication history include the required prerequisite/preferred agent(s) as indicated by:
   a. Evidence of a paid claim(s) within the past 999 days
   OR
   b. The prescriber has stated that the patient has tried the required prerequisite/preferred agent(s) in the past 999 days AND the required prerequisite/preferred agent(s) was discontinued due to lack of effectiveness or an adverse event

OR

3. The prescriber has provided documentation that the required prerequisite/preferred agent(s) cannot be used due to a documented medical condition or comorbid condition that is likely to cause an adverse reaction, decrease ability of the patient to achieve or maintain reasonable functional ability in performing daily activities or cause physical or mental harm

Length of Approval: As per program specific criteria