AGA-ACG Clinical Practice Guideline: Pharmacological Management of Chronic Idiopathic Constipation

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The Emoroid Digest
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- **Chronic idiopathic constipation (CIC)** = disorder of gut-brain interaction causing infrequent & incomplete defecation w/o mucosal or structural abnormalities
  - Affects 8-12% of US population
  - Nonpharmacologic treatments = dietary changes (↑ fluid intake & ↑ dietary fiber), behavioral changes (i.e., exercise), squatty potty
  - Pharmacologic treatments = **fiber**, **osmotic laxatives**, **stimulant laxatives**, **secretagogues**, **serotonin type 4 agonist**

**1st guideline to recommend MgO & senna as evidence-based treatments

Over-the-Counter (OTC) Pharmacologic Treatments for CIC

✓indicates strong recommendation

Medication	Mechanism of Action	Initial dose	Maximum dose	Cost	Side Effects	Comments
Fiber (1st line for CIC)	Soluble = traps water to soften Insoluble = ↑ bulk	14 g/ 1,000 kcal/ day	No benefit for total intake (dietary & supplement) > 25-30 g	$	Flatulence	-Need adequate hydration -Psyllium = only effective fiber per studies -No evidence if soluble vs insoluble is more effective
✓**Polyethylene Glycol (PEG)**	Osmotic laxative	17 g daily	No clear maximum	$	Bloating, abdominal discomfort/cramping	-Can be used with fiber -Durable response over 6 months
Magnesium Oxide (MgO)	Osmotic laxative	400-500 mg daily	No clear maximum (~1,000-1,500 mg/day)	$		-Caution with renal insufficiency (due to risk of hypermagnesemia) & pregnancy
Lactulose	Osmotic laxative	15 g daily	No clear maximum	$	Bloating, flatulence	-Significant diarrhea → ↑ Na & ↓K -Only osmotic agent studied in pregnancy -In studies, led to ↓ impactions & need for enemas
✓**Bisacodyl & Picosulfate**	Stimulant laxative	Bisacodyl 5mg daily	10 mg oral daily	$	Abdominal discomfort/cramping	-Short-term use (<4 weeks) or rescue therapy -Prolonged/excess use → diarrhea,↑/↓ electrolyte -Contraindicated in ileus/obstruction, severe dehydration, or acute inflammatory conditions
Senna	Stimulant laxative	8.6-17.2 mg/daily	No clear maximum (~4 tabs, 2x daily)	$	Abdominal discomfort/cramping	-Present in many laxative teas -Long-term safety/efficacy unknown

Chang, L, et al. (2023). AGA-ACG Clinical Practice Guideline: Pharmacological Management of Chronic Idiopathic Constipation. *The American journal of gastroenterology*, *118*(6), 936–954.

Prescription Pharmacologic Treatments for CIC

Reserved for those who do not respond to OTC therapy agents → can be used as adjunct to OR replacement of OTC therapy
All are contraindicated in known/suspected mechanical GI obstruction

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Medication	Mechanism of Action	Initial dose	Maximum dose	Cost	Side Effects	Approved for IBS-C	Comments
Lubiprostone	Intestinal secretagogue acting on chloride channel type 2 → ↑ chloride secretion	24 µg BID	24 µg BID	$$	Dose-dependent nausea, diarrhea	Yes (8 µg BID dosing)	-Potential benefit for abdominal pain -Nausea risk is lower if taken with food & water -Adjust dosage for moderate/severe hepatic insufficiency (8 µg BID)
✓**Linaclotide**	Intestinal secretagogue acting on guanylate cyclase-C → activates CFTR → ↑ chloride secretion	72 – 145 µg daily	290 µg daily	$$$	Diarrhea	Yes	-Potential benefit for abdominal pain -Most common reason for discontinuation in 1st year of therapy= loss of efficacy & insurance barriers
✓**Plecanatide**	Intestinal secretagogue acting on guanylate cyclase-C → activates CFTR → ↑ chloride secretion	3 mg daily	3 mg daily	$$$	Diarrhea	Yes	
✓**Prucalopride**	5-HT_4 agonist	1-2 mg daily	2mg daily	$$$	Diarrhea, abdominal pain, nausea, headache	No	-Potential benefit for abdominal pain -Caution: unusual changes in mood/behavior, suicidal ideation -Contraindicated in intestinal perforation, IBD, & toxic megacolon/megarectum

✓**indicates strong recommendations**

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