MANAGEMENT OF CONSTIPATION IN PATIENTS WITH CHRONIC KIDNEY DISEASE

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Assessment

Constipation is common in patients with kidney disease. Causes include:

- Dietary restrictions (e.g. reduced potassium and phosphorous diets) may result in reduced dietary fibre intake.
- Fluid restrictions for some patients.
- Physical activity may be reduced.
- Some medications used to treat kidney disease can be constipating. e.g. iron, phosphate binders, potassium binding resin, antihistamines for pruritus.

The goal is for regular bowel movements, e.g. every 1 - 2 days. This will also help to minimize the risk of hyperkalemia.

Non-pharmacological Strategies

- Encourage fibre, within allowed diet restrictions. Goal is for 20 - 38 gm per day.
- Optimize fluid intake, within allowed diet restrictions.
- Encourage physical activity.
- See BCPRA patient teaching tool on “Constipation.”

Pharmacologic Options (see options on the next page)

Initial treatment:

- If no BM after 3 days, add PEG 3350 without electrolytes 17 g orally daily PRN or lactulose 15-30 mL orally daily PRN. Titrate to effect.
- For chronic constipation, consider maintenance therapy with regular lactulose or PEG 3350 without electrolytes (+/- docusate, only if hard stool).
- For PD patients, senna glycosides and bisacodyl may be necessary as an initial therapy.

If constipation persists despite the above:

- If no BM for 7 or more days, rule out fecal impaction & bowel obstruction.
- Consider rectal therapies PRN, i.e., suppository, Microlax enema (excluding Fleet enema) or manual disimpaction.
- If no fecal impaction, add senna glycosides or bisacodyl orally PRN. Titrate to effect.
- Titrate the scheduled laxative regimen to regular BM pattern of q1-2 days.

LAXATIVE OPTIONS IN PATIENTS WITH CHRONIC KIDNEY DISEASE

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Recommended	
Osmotic Laxatives • Not absorbed – does not affect blood glucose in diabetics	
Lactulose	• Onset: 24 to 48 hours • Usual starting dose: 15-30 mL po daily PRN or regularly • Flatulence more common
Polyethylene glycol 3350 (e.g. Lax-a-day®, Restoralax®)	• Onset: 48 to 96 hours • Usual starting dose: 17g po daily
Stimulants • Onset: 6-12 hours • Tolerance may occur with regular use	
Senna glycosides (Senokot®)	• Usual starting dose: 8.6-12mg po HS PRN
Bisacodyl (e.g. Dulcolax®)	• Usual starting dose: 5mg po HS PRN
Stool Softener • Onset: 12 to 72 hours • Requires adequate water intake for effect. May not be as effective for patients with restrictions on water intake, e.g., dialysis patients	
Docusate	• Docusate sodium – usual starting dose: 100-200mg po daily • Docusate calcium – usual starting dose: 240-480mg po daily
Suppositories/Enema • For PRN use only; not recommended for chronic use	
Glycerin or bisacodyl suppository	• Onset: 15 to 60 minutes • Usual dose: 1 suppository PR PRN
Microlax® enema	• Onset: 2 to 15 minutes • Usual dose: 1 enema PR PRN

Use with Caution	
Fiber (psyllium, guar gum, calcium polycarbophil) e.g. Metamucil®, Prodiem®	• Must be taken with > 250mL of water to prevent fecal impaction; therefore, not the best option for dialysis patients with fluid restriction • May affect absorption of medications and need to space apart from other medications
Fleet enema	• Contains phosphorus and best to avoid • Occasional PRN use per rectum will not likely result in significant phosphorus absorption

Do Not Use	
Magnesium containing laxatives e.g. Milk of Magnesia, Mg citrate	• Risk of hypermagnesemia due to the accumulation of Mg^{2+}
Phosphate containing laxatives e.g. oral sodium phosphate	• Risk of hyperphosphatemia due to the accumulation of Phosphorus
Mineral oil e.g. Magnolax	• May impair absorption of fat soluble vitamins and increase the risk of aspiration pneumonia
Polyethylene glycol (PEG) with electrolytes	• May cause electrolyte imbalances and high volume water loss
Sorbitol 70%	• May cause intestinal necrosis when used in combination with potassium binding resin
Fruitlax	• Contains K+; may cause hyperkalemia

Go to bcrenalagency.ca > Health Professionals > CKD, for information on costs of medications and whether coverage may be available through BCPRA, Pharmacare or Palliative Care benefit plans.