

Management of Constipation in Patients with Chronic Kidney Disease

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 BCR 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

Recommended	
Osmotic Laxatives	
• Not absorbed — does not affect blood glucose in diabetics	
Lactulose	<ul style="list-style-type: none"> 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 [®])	<ul style="list-style-type: none"> Onset: 48 to 96 hours Usual starting dose: 17g po daily
Stimulants	
<ul style="list-style-type: none"> 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	
<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Onset: 15 to 60 minutes Usual dose: 1 suppository PR PRN
Microlax [®] enema	<ul style="list-style-type: none"> Onset: 2 to 15 minutes Usual dose: 1 enema PR PRN

Use with Caution	
Fiber (psyllium, guar gum, calcium polycarbophil) e.g. Metamucil [®] , Prodiem [®]	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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

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