Therapeutic brief 10

Constipation: a quality of life issue for veteran patients

Constipation is often dismissed as a trivial occurrence yet causes significant social and psychological trauma for veteran patients. Constipation has been shown to significantly reduce quality of life with respect to mental and physical health[1,2]. Working to prevent constipation and its medical sequelae can make an important difference for your veteran patients.

This therapeutic brief discusses appropriate choices of laxatives for specific patient circumstances, selected medicines known to commonly cause constipation and management strategies to help avoid and treat constipation.

Content

Key messages

- Constipation can severely reduce quality of life of patients. Optimal management can improve quality of life.
- Many medicines used to treat chronic conditions in veterans can cause constipation. Removing or replacing these medicines with alternatives less likely to cause constipation can make a significant difference for your patients.
- Where drug therapy is required, bulk forming laxatives are usually first choice followed by osmotic laxatives. Stimulant laxatives are best reserved for specific clinical circumstances such as opioid-induced constipation.

Constipation is common although patients may be reluctant to report this condition. Constipation occurs in both the primary care and nursing home settings with prevalences of 20% and 50% respectively[3-5].

Faecal impaction is a serious complication of constipation. Faecal impaction can lead to faecal overflow incontinence, which is a socially and psychologically disruptive problem. Faecal incontinence and constipation are both risk factors for urinary tract infections[6] and pressure ulcers.

A recent study found a statistically significant association between constipation and physical aggression in nursing home residents. This can cause physical and psychological trauma to both staff and other residents[7]. Use of antipsychotics may compound the constipation and does not address the underlying problem.

Current best practice guidelines indicate that the pharmacological treatment of constipation should have a primary emphasis on using bulk forming or osmotic laxatives. In 2005 approximately 60,000 or 18% of medicine taking veterans were dispensed laxatives with over half dispensed stimulant laxatives[8]. This indicates that many still use stimulant laxatives that are best reserved for specific circumstances such as veterans taking opioid analgesics.

Many medicines used to treat chronic conditions in veterans can cause constipation[9]. Some of these medicines have less constipating alternatives.

Other common causes of constipation are immobility, depression, reduced fluid/fibre intake, obstruction, hypothyroidism and hypercalcaemia.

Diagnosing constipation

The wide variation in normal bowel habits makes it difficult to define constipation. Self reported changes from normal bowel habits may be significant. The Rome II criteria serves as a diagnostic tool for chronic constipation and states that constipation is present if two or more of the following symptoms are present for at least 12 weeks in the preceding year:

- three or fewer bowel movements a week
- straining at defecation
- stools that are lumpy/hard
- a sensation of incomplete evacuation on at least a quarter of occasions[4].

Initial assessment of constipation

Before starting treatment check for obstruction or faecal impaction and consider investigating for colon cancer[10]. Co-morbidities such as depression, diabetes, hypothyroidism and hypercalcaemia can cause constipation.

It is important to ask about laxative use and review the current medications for medicines that may be causing constipation. A Home Medicines Review is worth considering to identify non prescription medicines and other issues associated with constipation.

Table 1: Medicines known to commonly* cause constipation[5, 10-12].

*commonly meaning it has been consistently reported in several sources including clinical guidelines.

Anticholinergic medicines e.g. tricyclic antidepressants, oxybutynin, benztropine, benzhexol, atropine, biperiden, propantheline and hyoscine.

All opioids.

Verapamil (the most likely of all calcium channel blockers to cause constipation).

Iron supplements e.g. Ferro-liquid, Ferrosig and Ferro-gradumet.

Calcium supplements.

Aluminium antacid preparations.

Typical antipsychotics e.g. chlorpromazine, fluphenazine, trifluoperazine, pericyazine, thioridazine and haloperidol^.

Atypical antipsychotics e.g. clozapine, olanzapine, aripiprazole, quetiapine and risperidone^.

^ Haloperidol and risperidone are the antipsychotics with the least anticholinergic effects and are less likely to cause constipation

Preventing constipation

Encourage adequate fluid intake

Six to eight glasses of water (1500 to 2000 mls) per day are recommended for most people. However the risk of fluid overload in people with heart failure or renal impairment needs to be considered[10,13,14]. Patients may deliberately reduce fluid intake in an attempt to control urinary frequency or incontinence. Reduced fluid intake may also occur in people with dementia.

Increasing patient's activity level

Immobility can prolong whole gut transit time[10]. Advise mobile patients to walk for half an hour a day. If the patient's mobility is restricted then encourage sitting up in bed instead of lying down or a short walk around the room.

Increasing dietary fibre

Patients should be advised to eat more vegetables (particularly beans, peas, broccoli), fruits (dried fruit, prunes, avocado) wholegrain cereals and breads. The recommended amount of dietary fibre is 30g per day[13]. This needs to be introduced gradually to avoid bloating and flatulence[10]. While increasing the dietary fibre intake is associated with improved bowel transit[13], this may take a few weeks to become effective.

Sources of fibre include:[15]

1 slice of white bread = 1 g of fibre
1 cup of cooked wholemeal pasta = 10g of fibre
1 apple or banana = 3g of fibre
half a cup of baked beans = 6.5g of fibre

Reviewing medicine regimen

In 2005 up to 30% of medicine-taking Australian veterans were dispensed medicines known to commonly cause constipation[8]. These include calcium supplements, anticholinergic antidepressants, opioids, aluminium antacids, iron supplements, verapamil and antipsychotics.

Advise the patient to visit the toilet soon after meals

The gastrocolic reflex is maximal soon after meals[16].

Pharmacological treatment of constipation[3, 10, 12]

Acute constipation	If rectum requires clearing first line therapy includes suppositories, enemas, iso-osmotic or magnesium/sodium laxatives.	If dietary fibre cannot be adequately increased use bulk forming agents, sorbitol or lactulose.
Chronic constipation	Bulking agents for people on low fibre diets and who are mobile. Osmotic and or stimulant laxatives for bed bound people.	Second line treatment includes combined laxative treatment with enema.
Opioid induced constipation	For prophylaxis initiate laxative at the time of prescribing opioids[17]. Use a stimulant laxative combined with either a softening laxative or osmotic laxative[10].	For resistant or established cases glycerol suppository, small volume enema, iso-osmotic laxative, sodium/magnesium laxative. While in general laxatives should be used for the shortest duration possible, chronic laxative use may be unavoidable with patients on long term opioids[18].
Faecal impaction	First line treatment involves clearing the rectum either by the use of suppositories, enemas or through manual extraction.	Once impaction is relieved consider use of appropriate laxative to prevent consipation.

Information on the management of constipation is based upon consensus guidelines. There have been very few comparative studies to determine what constitutes effective treatment of constipation in the elderly[4].

Table 2: Using laxatives optimally[10]

Bulk agents

Ispaghula Husk (eg Fybogel®)[1]
Psyllium (eg Metamucil®)[1]
Sterculia (eg Normafibe®)[1]

Onset of action is 2-3 days.

- ensure adequate fluid intake
- first line for ongoing management if ambulant, and fluid intake tolerated
- contraindicated in intestinal obstruction, impaction, colonic atony; avoid in dysphagia

Osmotic laxatives

1. Sorbitol (Sorbilax®)[2]
Lactulose (eg Duphalac®)[2]

Onset of action is 1-3 days.

- use in opioid induced constipation
- contraindicated in intestinal obstruction

2. Saline laxatives containing Magnesium (eg Epsom Salts, Magnesia S Pellegrino®)[1] or Polyethylene Glycol Laxatives (eg Movicol®)

Onset of action is 0.5-3 hours.

- used short term
- magnesium salts second line for ongoing management
- risk of electrolyte disturbance and dehydration; use with caution in renal impairment
- use with caution in heart failure; avoid sodium salts

Stool softeners

Docusate (eg Coloxyl®)[3]

Onset of action is 2-3 days, use to reduce straining, eg, in rectal surgery, acute perianal disease, ischaemic heart disease

Stimulant laxatives

eg Bisacodyl (eg Bisalax®)[1]
Frangula Bark (in Normacol Plus®)[1]
Senna (eg Senokot®)[1]

Onset of action is 6-12 hours.

- use short term in acute constipation; long term, eg in neuromuscular disease
- contraindicated in intestinal obstruction
- Normacol Plus®, ensure adequate fluid intake

Laxatives in suppository form

Osmotic Laxatives:
Glycerol Suppository[4]
Saline Microenema (eg Microlax®)
Sodium Phosphate Enema (eg Fleet®)[1]

Onset of action is 5–30 mins (Glycerol); 2–30 mins (Saline Laxatives)

Stimulant Laxatives Bisacodyl Microenema or Suppository (eg Bisalax®)

Onset of action is 5-60 minutes.

Stool Softeners Docusate Microenema (eg Enamax®)

Onset of action is 5-20 minutes.

- use in faecal impaction or for intermittent maintenance (eg every 3 days)
- avoid embedding suppositories in faecal matter (delays effect)
- avoid sodium phosphate enema in renal impairment

Fleet is not an appropriate oral laxative in older people.

Special cases

Preventing opioid induced constipation

Approximately 95% of patients taking opioids will develop constipation, and in the elderly constipation can occur even with low doses of opioids. This can be prevented by starting laxatives at the time of prescribing opioids[18] using a combination of a stimulant and softening laxatives or osmotic laxatives[10] and continuing attention to fibre, fluid and exercise.

For resistant cases or established opioid-induced constipation, glycerol suppository, small volume enema, iso-osmotic laxative or a sodium/magnesium laxative may be used[10].

Considerations for treating constipation in residents of aged-care facilities.

Immobile patients are prone to constipation. There is a complex relationship between urinary incontinence and constipation. Constipation may exacerbate urinary incontinence and its pharmacological treatment can lead to constipation. Medicines commonly used in aged-care facilities such as aluminium-containing antacids can cause constipation.

Ensure an accurate bowel chart is kept, recording time, amount and consistency of stools. Toileting patients soon after meals or hot drinks is important. Ensure adequate access to toileting facilities ensuring patient's dignity is respected.

A serious consequence of constipation is megacolon and it can be insidious in onset in the frail elderly.

Laxative Overuse

Excessive or inappropriate use of laxatives can result in diarrhoea and consequently dehydration and hypokalaemia. Approximately 4% of new cases of diarrhoea presenting to gastroenterology clinics are laxative induced[19]. Long term use of laxatives can cause reliance on them and can eventually cause constipation rather than faecal passage.

What to tell your patient

- Constipation is a relatively common problem.
- Constipation may be prevented by lifestyle measures such as diet, fluid intake and exercise.
- Delaying bowel movements can cause constipation.
- Laxatives are an effective treatment for constipation.
- Contact you immediately if their bowel movements stop completely or if they develop abdominal pain or distension or if they are bleeding from the rectum.

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