

Managing constipation in older people

Constipation is common in older people due to factors such as multimorbidity, polypharmacy, frailty, dehydration, a lack of exercise and poor diet. Consider dietary, lifestyle and reversible causes first, although pharmacological interventions will be required in many cases. Ideally, the use of laxatives will be temporary, and treatment slowly withdrawn when symptoms resolve, however, long-term use may be necessary in patients with unmodifiable secondary causes of constipation.

KEY MESSAGES:

- The possibility of a serious underlying condition, e.g. bowel cancer, should be considered in all older patients who report a recent change in bowel habit in combination with other red flag symptoms or signs
- The goal of constipation management is resolution of symptoms and a soft, fully-formed stool passed without straining at least three times per week, i.e. the lower limit of a healthy frequency of defaecation
- Conservative interventions are first-line including advice about toileting routine, exercise and diet (ensuring adequate fibre and fluid intake)
- Optimising management of co-morbidities and the use of medicines, e.g. opioids, that can cause constipation may resolve secondary constipation
- Osmotic laxatives, e.g. macrogols or lactulose, are often first-line in older patients; bulk-forming laxatives may be preferred in some cases, however, the additional fluid intake required may be an issue for some patients, e.g. those with heart failure or advanced chronic kidney disease
- Treatment duration is guided by the patient's response; a managed withdrawal of laxatives should be considered once the goals of care have been achieved

Constipation: causes and consequences

Constipation may be described as defaecation that is unsatisfactory due to infrequent stools, difficulty passing stools or a sensation of incomplete evacuation.¹ Patients presenting with constipation may report hard stools, straining and pain on defaecation, faecal soiling, abdominal discomfort, nausea, bloating, loss of appetite or the need to manually remove stools.^{2,3} Constipation may be primary, where the cause is colonic or anorectal dysfunction, or secondary, when lifestyle, medicines and/or underlying conditions are the principal cause (Table 1).⁴ In older people where multimorbidity, polypharmacy, frailty and age-related rectal sensory motor dysfunction are more common, primary and secondary constipation often overlap and psychological issues may also contribute, e.g. depression.²

The problem of defining constipation

It is difficult to define constipation as the frequency of defaecation varies between people with a healthy pattern of bowel movements and the perception of symptoms is

Table 1: Common causes of secondary constipation in older people adapted from De Giorgio *et al* (2015).²

Cause	Examples
Lifestyle	Dehydration, low-fibre diet, sedentary lifestyle
Medicines	Opioids, diuretics, all medicines with anticholinergic effects (particularly antipsychotics, e.g. clozapine), antidepressants, antihistamines, some anticonvulsants, antacids containing calcium or aluminium, calcium channel blockers, paracetamol, gabapentanoids, verapamil and occasionally non-steroidal anti-inflammatory drugs (NSAIDs – including aspirin)
Endocrine/metabolic	Diabetes, hypothyroidism
Intestinal disorders	Benign or malignant tumours, coeliac disease, post-viral colon-paresis, hernia, anal stenosis, proctitis, rectal stricture.
Electrolyte imbalances	Hypokalaemia, hypercalcaemia, hypermagnesaemia
Neuropathic or myopathic disorders	Autonomic diabetic neuropathy, stroke and central nervous system lesions, connective tissue disorders, multiple sclerosis, amyloidosis
Neurological	Dementia, Parkinson's disease

influenced by the subjective experience of the individual.³ The Rome IV criteria is used in clinical trials to define primary constipation, although it may be less useful in clinical practice (see: "The Rome IV criteria for constipation"). The Rome criteria does, however, highlight that infrequent bowel movements are only one possible symptom and that patients with once-daily bowel movements may still have constipation, e.g. if they regularly strain to pass hard, lumpy stools. The point at which constipation is considered to be chronic is arbitrary, although this generally refers to the presence of symptoms for at least 12 weeks in the previous six months.¹

Constipation becomes more common as people age

In the general population, approximately 30% of people will experience constipation during their lifetime.² The prevalence of constipation increases beyond age 60 years with a marked increase after age 70 years as frailty increases.⁵ At any point in time, approximately one-third of people aged over 60 years may have constipation and in residential care facilities the prevalence of symptoms can be expected to be greater than 50%.^{5, 6} In general, constipation is more often encountered in females, and older females are more likely to have severe symptoms.⁷

The consequences of constipation

Constipation can cause changes in gastrointestinal motility, e.g. delayed gastric emptying, resulting in symptoms of the upper and lower gastrointestinal tract, e.g. nausea, vomiting, dyspepsia, abdominal bloating, cramping and flatulence.⁷ Repeated straining during defaecation can result in haemorrhoids, anal fissures and rectal bleeding. Faecal overflow incontinence may develop in people with constipation,² or urinary incontinence can occur due to the proximity of the bladder to the rectum.⁸ Urinary retention leading to recurrent urinary tract infections is another possible consequence of constipation.² In severe constipation, faecal impaction, diverticulosis, anal fissures, toxic megacolon or perforation of the colon are rare but potential complications.²

Constipation can cause psychosocial effects

Constipation affects many aspects of a person's life. Reductions in quality of life and negative effects on relationships can occur.³ People with constipation may withdraw socially due to factors such as pain, discomfort or anxiety.³ Older people with constipation often report reductions in physical function, mental health, perceptions of general health and increased pain and health costs.²

A systematic approach to managing constipation is recommended

Chronic constipation may have many causes, however, a standardised approach to management is recommended:¹⁰

1. Identify constipation and the predominant symptoms
2. Conduct a physical examination and exclude red flags
3. Treat any reversible causes
4. Recommend lifestyle changes
5. Initiate laxatives and monitor the response

Talking about constipation

A question about bowel movement patterns can be included as part of a routine health assessment for all adults, but especially for older people at increased risk, e.g. those taking multiple medicines or with frailty. Patients who are at high risk of medicine-induced constipation should be advised of the possibility prior to treatment and the risk managed prophylactically. Asking the patient to keep a written record of their bowel movements may help when there are concerns but their symptom history is not clear. A diary also allows for the treatment response to be monitored.²

Three bowel movements a week is considered the lower limit of “normal”

The symptoms of constipation are subjective, and some people may consider themselves to be constipated because they are not passing a stool each day. A study of over 1,300

adults found that while once-daily defaecation was the most frequently reported pattern, it was only reported by 38% of males and 36% of females.¹¹ Three bowel movements a week is clinically considered to be the lower limit of a healthy pattern of defaecation.⁹

Consider reversible causes of constipation

The patient’s history will often reveal potentially reversible causes of constipation, including:

- Medicine use, including over-the-counter (OTC) products and complementary and alternative medicines
- Co-morbidities
- Diet, particularly insufficient quantities of fibre and fluid
- Low activity and exercise levels
- Poor social and psychological well-being

Also enquire about any products the patient has trialed to manage their constipation as this may guide treatment decisions (see: “Over-the-counter laxatives for treating constipation”).^{2,3}

The physical examination

An abdominal examination should be conducted to exclude a palpable abdominal mass, assess for pain and to detect abnormal bowel sounds. The left lower quadrant in particular should be palpated to determine if the bowel is packed with faecal material.¹²

The Rome IV criteria for constipation

The Rome criteria is often used in clinical trials to define functional constipation, i.e. primary constipation. According to Rome IV criteria, **two or more** of the following must be present for the last three months with symptom onset at least six months prior to diagnosis:⁹

- Straining during more than 25% of defaecations
- Hard or lumpy stools (Bristol stool scale 1 or 2 – see below) for more than 25% of defaecations
- A sensation of incomplete evacuation following more than 25% of defaecations
- A sensation of anorectal obstruction or blockage during more than 25% of defaecations
- Manual manipulation, e.g. digital evacuation or support of the pelvic floor, to facilitate more than 25% of defaecations
- Fewer than three spontaneous bowel movements per week

AND, loose stools are rarely present without the use of laxatives, AND there is insufficient criteria to diagnose irritable bowel syndrome (IBS).⁹

👁 Stool consistency can be assessed with the Bristol stool chart, available from: www.continence.org.au/pages/bristol-stool-chart.html. Further information on the diagnosis of IBS is available from: www.bpac.org.nz/BPJ/2014/February/ibs.aspx



A digital rectal examination is often required

A digital rectal examination is recommended for all older patients with constipation, especially those with red flags (see below) or if a sensation of incomplete evacuation is reported.^{2,7,10} A rectal examination may not be necessary where there is an obvious cause, e.g. opioid-induced constipation.

The digital rectal examination allows the quantity and consistency of faeces in the rectum to be assessed and aids in the detection of masses, anal strictures, haemorrhoids, fissures, blood or faecal impaction.⁷ The muscles associated with defaecation should be assessed, e.g. sphincter tone, ability to squeeze and co-ordination of pelvic floor and rectal muscles.⁷

Investigations are on a case-by-case basis

Depending on the clinical circumstances, investigations may include:^{1,10}


- Full blood count and ferritin – recommended in all older patients, particularly if colorectal cancer is suspected
- Thyroid stimulating hormone (TSH) – if hypothyroidism is suspected
- HbA_{1c} – to exclude diabetes
- Serum electrolytes, creatinine and calcium – to exclude electrolyte disturbances and assess renal function
- An abdominal X-ray –not routinely recommended but may be helpful if proximal faecal loading or obstruction is suspected

Note the presence of any red flags

The possibility of colorectal cancer should be strongly considered in all older patients with an acute change in bowel habit with other red-flag symptoms, including:¹⁰

- Unintentional weight loss
- Blood in or with the stool
- An abdominal or rectal mass
- Iron deficiency anaemia
- Persistent constipation that is unresponsive to treatment

The decision to refer for further investigation is influenced by the severity and duration of any symptoms or the presence of clinical signs. National guidelines state that constipation alone is not sufficient for referral for colonoscopy,¹³ due to it being a poor predictor in isolation of colorectal cancer. In general, a bowel investigation by colonoscopy or CT colonography is recommended within two weeks for patients with unexplained rectal bleeding and iron deficiency anaemia or within six weeks for patients aged over 50 years with unexplained rectal bleeding or iron deficiency anaemia.¹³

 Further information on investigating patients with possible colorectal cancer is available from: www.bpac.org.nz/BPJ/2012/May/colorectal.aspx

Non-pharmacological treatment of constipation in older patients

The primary goal of treatment of constipation is symptom resolution.⁴ The secondary goal is a soft, fully-formed stool passed at least three times per week without straining.⁴ Managing expectations is important as some patients can be fixated on achieving daily bowel movements which may not be possible or necessary.³

Lifestyle change is the first-line intervention for constipation

Improvements in lifestyle, which also increase general health and quality of life, are the first-line interventions for constipation, including:^{1,6,10}


- Regular morning exercise, e.g. walking or swimming
- A caffeinated beverage in the morning, which can have a stimulating effect on colonic activity
- A breakfast high in fibre
- Fluid intake of at least 1.5–2 L per day; this may be inappropriate for some patients with heart failure or advanced chronic kidney disease (CKD)

The benefit of increasing dietary fibre

Dietary fibre comprises complex carbohydrate polymers that are poorly digested and pass into the colon almost unchanged.¹⁴ Fibre accelerates colonic transit time by either drawing fluid into stool and softening its passage or by undergoing partial fermentation into short-chain fatty acids and other by-products.¹⁴

Despite being a mainstay of constipation treatment, there have been relatively few studies on the effects of increasing dietary fibre and those that have been published are of poor quality.¹⁴ The available evidence does, however, support increasing dietary fibre as it is likely to improve stool frequency and possibly decrease straining and the need for laxatives.¹⁴ It can take several weeks before the patient experiences any benefit.¹

Dietary fibre should be titrated upwards to prevent bloating and flatulence.¹⁰ The target of 20–30 g of fibre per day may be difficult to achieve for some people and may not be tolerated.¹⁰ At breakfast, porridge, muesli, bran, wheatgerm, nuts and seeds are high-fibre options.¹⁵ Many fruits and vegetables are also high in fibre, particularly when the skin is left on.¹⁵ Wholegrain varieties of breads, cereals, rice and pasta should be selected.¹⁵ Adding chickpeas, kidney beans or lentils is a good way to increase the fibre content of meals.¹⁵ When baking, half the white flour can sometimes be substituted for wholemeal flour.¹⁵ Patients who are unable to increase their fibre intake through diet alone may wish to trial a bulk-forming laxative (see below).¹⁶

 A chart of the fibre content foods is available from: <https://nutritionfoundation.org.nz/nutrition-facts/nutrients/carbohydrates/fibre>

Fruits rich in sorbitol may provide an additional benefit

Sorbitol is a sugar alcohol that is poorly absorbed and has hyperosmotic properties (like lactulose – see below).⁴ Fruits and juices high in sorbitol are recommended for preventing and managing constipation, e.g. apples, apricots, grapes and raisins, peaches, pears, plums and prunes, raspberries and strawberries.¹ There is also evidence that kiwifruit may improve the symptoms of constipation (see: “Over-the-counter laxatives for treating constipation”).¹⁷

Giving advice on toileting habits


The best times to attempt defaecation are first thing in the morning or within 30 minutes of eating a meal when the gastrocolic reflex increases colonic motor activity.² Abnormalities of the anorectal junction may cause chronic constipation. This may be improved by the patient placing their feet on a small step while on the toilet, rather than the floor, thereby straightening the anorectal junction, and allowing the stool to enter the anal canal.⁴ Defaecation should be unhurried; sufficient time and privacy is required to perform bowel movements, which may be an issue for patients in residential care.⁴ Patients should not attempt to remove stools manually as this can result in rectal tears and bleeding.³

Optimise the treatment of any co-morbidities

Improving the management of co-morbidities may reduce the severity of constipation or in some cases resolve it, e.g. in people with diabetes, CKD, hypothyroidism, electrolyte disturbances and diverticulosis.¹⁰

Withdrawing or switching medicines may be appropriate

There are numerous medicines that can cause secondary constipation. The timing of symptom onset and the duration of treatment are useful when determining whether constipation is likely to be medicine-induced. For example, initiation of a diuretic may result in constipation secondary to fluid loss after four to six weeks.¹⁰ However, constipation with recent onset in a patient who has been taking a diuretic for years is likely to have another precipitating cause.¹⁰ Medicines may need to be withdrawn, reduced in dose, or the patient changed to a similar medicine with less risk of constipation,¹⁰ e.g. from a calcium channel blocker to an angiotensin converting enzyme (ACE) inhibitor for hypertension.

 Further information on withdrawing medicines in older patients is available from: “Stopping medicines in older people – the other side of the prescribing equation”, www.bpac.org.nz/2019/stopping.aspx

Prescribing cascades can cause or exacerbate constipation.

For example, urinary incontinence that is treated with an anticholinergic medicine, e.g. oxybutynin, can trigger constipation or it may cause existing constipation to worsen and exacerbate overflow incontinence due to increased colonic pressure on the bladder. If faecal overflow incontinence is misdiagnosed as diarrhoea and treated with anti-diarrhoeal medicines it is likely to worsen the patient’s condition.

In patients with opioid-induced constipation, first consider whether the opioid is still required, and if so, if it is being used at the lowest effective dose.¹⁸ It is likely that all patients who are taking opioids will experience some degree of constipation. Lifestyle advice and a prophylactic stimulant laxative is routinely recommended when treatment is initiated (see below).^{19,20}


Pharmacological treatment of constipation in older patients

Despite changes in lifestyle, some people will require pharmacological treatment to achieve symptom resolution, or those with severe symptoms may require an immediate intervention. Laxatives are often needed by frail older patients who have a limited ability to make significant changes in lifestyle.⁶

The choice of laxative (Table 2) is influenced by the cause of the constipation, the presence of co-morbidities, the use of other medicines, the general health of the patient and tolerability.² A stepped approach is recommended:¹

1. Begin treatment with a single oral laxative, e.g. an osmotic or a bulk-forming laxative if appropriate; a trial period is recommended to assess effectiveness and tolerability
2. Increase the dose of the laxative, if the patient has not responded sufficiently to treatment
3. Consider switching laxatives if the patient is experiencing adverse effects or if treatment is ineffective
4. A combination of laxatives may be necessary if monotherapy is insufficient

Laxatives should be withdrawn gradually once the patient has established a healthy pattern of bowel movements; ideally ongoing prevention is achieved via lifestyle and dietary measures. Laxatives may need to be taken long-term if the patient has secondary constipation, e.g. due to multiple sclerosis or spinal injury, or caused by another medicine that cannot be withdrawn or the dose reduced, e.g. opioids for malignant pain.¹

 Further information on trial periods is available from: “Prescribing for a trial period: when and how?”, www.bpac.org.nz/2019/trial-period.aspx


Osmotic laxatives are the first-line pharmacological intervention

Osmotic laxatives are the recommended first-line laxative for older people with constipation who are not taking opioids.⁶ These medicines draw water into the lumen of the intestine, increasing stool volume and triggering colon motility.

Macrogols are inert polymers of ethylene glycol that bind to water causing colonic lubrication and stool volume to increase. Macrogols are often preferred to lactulose when treating older people with constipation due to greater evidence of efficacy.^{2,6}

Macrogol 3350 includes sodium chloride (350.7 mg), sodium bicarbonate (178.5 mg) and potassium chloride (46.6 mg).¹⁶ Treatment is initially one sachet of macrogol 3350 with electrolytes dissolved in approximately 125 mL of water, per day, increasing to two or three sachets per day if required.¹⁶ Onset of action can be expected in 24–48 hours.⁴

Macrogols are more likely to cause diarrhoea in older people than lactulose, but less likely to cause flatulence.¹⁰ Treatment should be discontinued if patients develop symptoms of fluid or electrolyte disturbances;¹⁶ lactulose or a bulk-forming laxative may be appropriate if constipation persists.

 Macrogol 3350 has been fully subsidised without restriction since 1 March, 2018. Patient information is available from: www.mymedicines.nz/home/sheet/Macrogol?format=pdfA4&inline=true

Lactulose is a semi-synthetic disaccharide oral liquid. The initial dose is usually 10–15 mL, twice daily, adjusted according to the patient's response.¹⁶ Onset of action can be expected in 24–48 hours.⁴ The main adverse effects are bloating, flatulence, nausea (which may be improved by co-administration with fluids or food), vomiting, intestinal cramping and electrolyte disturbances.¹⁶ Lactulose should not be taken by people with lactose intolerance.¹⁶ Lactulose can be safely taken by people with diabetes* as it is largely broken down in the bowel and not absorbed into the bloodstream.²¹

* N.B. High doses of lactulose used to manage hepatic encephalopathy, e.g. 30–50 mL, three times daily, should be avoided in patients with diabetes.¹⁶

Bulk-forming laxatives are an alternative first-line laxative for some patients

Bulk-forming laxatives, e.g. psyllium husk, also absorb water into the lumen of the intestine and soften the stool. They are often recommended for treating adults with constipation,¹ especially those struggling to increase their fibre intake. However, bulk-forming laxatives can cause bloating and

flatulence.⁶ Bulk-forming laxatives also require fluid intake to be increased which may be difficult to achieve for some older patients and may not be appropriate for those with heart failure or advanced CKD.⁶ Bulk-forming laxatives should not be taken by patients using opioids as reduced colonic motility may result in abdominal colic and rarely bowel obstruction.¹

Psyllium husk powder is fully subsidised in 484 mg/g and 520 mg/g formulations. The powder is dissolved in 250 mL of water or juice, with an additional 250 mL of liquid taken to prevent the fibre obstructing the bowel and exacerbating the constipation.¹⁶ The medicine is taken one to two times daily and should not be consumed immediately before bedtime.¹⁶ Onset of action can be expected in 12–24 hours.⁴ Patients should avoid taking other oral medicines within two hours of taking psyllium husk powder.¹⁶

Stimulant laxatives may be considered for patients with soft stools

Stimulant laxatives have an irritating effect on luminal nerve fibres, causing increased colonic motility and the reduction of colonic water absorption.¹⁸ They are recommended in combination with an osmotic laxative for patients with soft stools that remain difficult to pass.¹ The principal adverse effects of stimulant laxatives are cramping, bloating, nausea and electrolyte disturbances.¹⁰ There are some concerns about long-term use causing atonic colon due to smooth muscle or myenteric plexus damage, however, these appear to be rare adverse effects.¹⁰

Stimulant laxatives can be problematic for some older patients who may be unable to predict the need to defaecate and particular caution is recommended in patients with immobility or at risk of falls.¹⁰ In general, stimulant laxatives should not be taken more than three times per week, unless the patient is being treated for opioid-induced constipation, and should be used for the shortest possible duration.¹⁰

Bisacodyl is dosed orally at 5–10 mg at night with onset of action expected within 10–12 hours.¹⁶ The main adverse effects are diarrhoea and abdominal pain, which often resolve with time.⁴ A single 10 mg suppository may be taken in the morning, with onset of action expected within 10–30 minutes.¹⁶

Docosate sodium with sennoside B is available in combination. Docosate sodium has stimulant laxative properties and stool softening properties and sennoside B is a stimulant laxative.¹⁶ The main adverse effects are abdominal discomfort and cramps, and diarrhoea.¹⁶ Treatment may begin with one to two tablets at night or twice daily, particularly for patients with opioid-induced constipation (see below); onset of action is 6–12 hours.¹⁶

Docusate sodium alone is available in tablet form or as an enema. Oral docusate sodium may be combined with an osmotic laxative, with onset of action expected in 24–48 hours.⁴ Enemas of docusate sodium may be appropriate for patients with faecal impaction (see below). Sennoside B tablets may be used short-term when a stimulant laxative is needed, and patients are unable to tolerate other medicines.

Stimulant laxatives are used to prevent and treat opioid-induced constipation


A prophylactic stimulant laxative, e.g. docusate with senna or bisacodyl, is recommended to prevent opioid-induced constipation.²⁰ Prophylactic laxatives are always initiated at the same time as an opioid in palliative care settings.¹⁹ “As needed” use of laxatives may be appropriate for patients in the community who require opioids for short periods of time.

Enemas are not routinely used to treat constipation

There is a limited role for enemas in the management of constipation in older patients. Generally, they are reserved for the treatment or prevention of faecal impaction (see below) or for patients who are unable to tolerate oral laxatives.⁴ Warm tap water enemas are broadly recommended as the safest option when an enema is indicated, particularly if regular use is required.^{2, 7} Sodium citrate enemas, e.g. Micolette (subsidised) and Microlax, should be avoided in patients with renal impairment due to the risk of hypernatraemia and water retention.¹⁰ Soap enemas may irritate the colonic mucosa.¹⁰ Liquid paraffin enemas may cause anal seepage, granulomatous reactions, lipoid pneumonia and interfere with the absorption of fat-soluble vitamins,¹⁶ and are reserved as a last resort in a hospital setting, e.g. in severe clozapine-induced constipation. Phosphate enemas are used for bowel cleansing prior to colonoscopy or surgery; avoid where possible in patients with dehydration, renal impairment, cardiac dysfunction, or electrolyte imbalances.¹⁰

Opioid-receptor antagonists

Methylnaltrexone subcutaneous injections antagonise the action of opioids in the gut without crossing the blood brain barrier and are subsidised for the treatment of opioid-induced constipation for patients receiving palliative care. This option might be considered when oral and rectal treatments for constipation are ineffective or unable to be tolerated.

 Further information on the management of opioid-induced constipation in palliative care is available from: www.bpac.org.nz/2018/methylnaltrexone.aspx

Treating faecal impaction

Faecal impaction is more likely in people who are chronically constipated,¹ and in those with neurological disorders. The goal of treatment is complete dis-impaction with minimal discomfort to the patient.¹ A digital rectal examination should be performed to assess the volume and consistency of the stool; impaction is characterised by large volumes of faecal material in the rectum. Manual dis-impaction is a treatment option, with a warm water enema used if necessary to soften the material; lidocaine gel (2%) helps to anaesthetise and lubricate the rectum and anus.¹⁰ Alternatively, the contents of a sodium citrate enema, e.g. Micolette, may be inserted into the rectum.

If the stool is hard and an oral laxative is preferred, a high dose of oral macrogol 3350 is recommended,¹ e.g. two to three 13.8 g sachets per day. If hard stools persist after several days of treatment or the faecal material is soft, an oral stimulating laxative is recommended, e.g. bisacodyl or docusate sodium with sennoside B.¹ If the response to treatment is inadequate, a bisacodyl suppository is recommended for soft stools or a docusate sodium enema.¹ The patient should be reviewed every few days during treatment.¹ Bulk-forming laxatives should be avoided in patients with faecal impaction.⁶

Withdraw laxatives gradually

The duration of laxative treatment is guided by the patient's response. A gradual reduction in dose can begin two to four weeks after the patient has begun producing soft, fully-formed stools without straining, at least three times per week.¹ If a patient is taking multiple laxatives, withdraw one at a time, starting with any stimulant laxatives.¹ During treatment withdrawal, relapses often occur and should be treated by re-instating the dose.¹ Laxatives should not be stopped suddenly as there is a risk of faecal impaction.¹

Managing refractory constipation

If a patient has ongoing symptoms despite lifestyle and dietary change and the use of multiple laxatives, the presence of an underlying cause and the need for investigations should be reconsidered.¹

Primary causes of refractory constipation include a disorder of defaecation that was undetected by digital rectal examination, e.g. smooth muscle dysfunction in the rectum, an inability to relax the muscles of defaecation or a reduced ability of rectal receptors to cause the urge to defaecate.⁴ Slow transit constipation may be caused by aberrant innervation of the bowel or myopathy of the viscera and is more likely in patients with hard lumpy stools and a relatively large amount of colonic gas on X-ray.^{4, 6, 23} People with slow-transit constipation or un-

Table 2: Laxatives available in New Zealand that may be appropriate for older patients with constipation.^{10, 16}

Class	Medicines	Adverse effects/contraindications	Notes
Osmotic laxatives	Macrogols <ul style="list-style-type: none"> ● <i>Molaxole</i> <i>Lax-Sachets</i> <i>Movicol</i> Lactulose <ul style="list-style-type: none"> ● <i>Laevolac</i> 	Can cause dose-dependent nausea, bloating, flatulence, diarrhoea and cramping; diarrhoea may be more frequent in older patients with macrogols but flatulence may be decreased, compared to lactulose.	Macrogols and lactulose are not absorbed systemically. Lactulose does not contain electrolytes (unlike macrogols) and therefore it may be preferred in patients with renal or cardiac dysfunction. Macrogol preparations are tasteless. Lactulose is sweet but can be mixed with other liquids, e.g. water, milk, juice. The onset of action of macrogols and lactulose is 24–48 hours.
Bulk-forming laxatives	Psyllium husk powder <ul style="list-style-type: none"> ● <i>Bonvit</i> <i>Konsyl-D</i> <i>Metamucil</i> <i>Mucilax</i> Sterculia <ul style="list-style-type: none"> <i>Normacol</i> Rhamnus frangula + sterculia <ul style="list-style-type: none"> ○ <i>Normacol Plus</i> 	<p>Avoid in patients taking opioids, unable to maintain adequate fluid intake, at risk of dehydration or with problems swallowing, e.g. cognitive impairment, immobility or dysphagia.</p> <p>May cause flatulence, abdominal distension, gastrointestinal obstruction or impaction</p>	Psyllium husk is dissolved in 250 mL of fluid with another 250 mL of fluid taken afterwards to prevent an obstruction of the bowel. Onset of action is 12–72 hours. If possible, take at least two hours before or after other medicines.
Stimulant laxatives	Bisacodyl <ul style="list-style-type: none"> ● <i>Lax-Tab</i> <i>Bisacodyl</i> <i>Dulcolax</i> <i>Medreich bisacodyl</i> <ul style="list-style-type: none"> ● <i>Lax-Suppositories</i> <i>Dulcolax suppositories</i> Docosate sodium with senoside B <ul style="list-style-type: none"> ● <i>Laxsol</i> <i>Sennadoc</i> Docosate sodium <ul style="list-style-type: none"> ● <i>Coloxyl</i> Senoside B <ul style="list-style-type: none"> ○ <i>Senokot</i> <i>Senna Laxative</i> Dantron + poloxamer <ul style="list-style-type: none"> <i>Pinorax</i> Picosulfate sodium <ul style="list-style-type: none"> <i>Dulcolax SP</i> 	Avoid if intestinal obstruction is present. Abdominal pain, cramping and nausea may occur. Prolonged use may result in diarrhoea and hypokalaemia.	Generally, first-line for the treatment and prevention of opioid-induced constipation. Onset of action is typically 6–12 hours. Should be considered cautiously in patients with frailty, immobility or at risk of falls.
Opioid-receptor antagonists	Methylnaltrexone <ul style="list-style-type: none"> ● <i>Relistor</i> subcutaneous injection – Special Authority 	Avoid in patients with faecal impaction or where there are risk factors for gastrointestinal complications, e.g. peptic ulcer or concurrent NSAID use. Abdominal pain, diarrhoea, flatulence, vomiting, nausea, dizziness may occur.	Fully subsidised for patients receiving palliative care where oral and rectal treatments for opioid-induced constipation are ineffective or are not tolerated. Dosing is according to bodyweight and may need to be adjusted if significant renal impairment is present.

● Indicates fully subsidised brand ○ Indicates part subsidised brand

N.B. Subsidised brand is subject to change – check the NZF for up to date information. Prescribing generically is preferable.

co-ordinated pelvic floor muscles, i.e. dyssynergia, may not tolerate high levels of dietary fibre and may actually benefit from a reduction in fibre intake.¹⁰

Discussion with a surgeon specialising in colorectal disorders may be helpful for patients with persistent refractory constipation; specialised treatments may include biofeedback training with a physiotherapist for pelvic floor dyssynergia and rarely surgery, e.g. subtotal colectomy with ileorectal anastomosis, for patients with slow transit constipation if all other treatment options have failed.¹

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Over-the-counter laxatives for treating constipation

As many as one-third of people presenting with constipation may be using OTC products containing bulking or stimulating laxatives. There is some evidence supporting the use of these products,²² although the same product or alternatives are often available fully subsidised on prescription. There is also an increased risk of adverse effects when OTC laxatives are used without advice from a health professional, e.g. taking opioids with bulking laxatives.

Pharmacists are recommended to:

- Check that OTC laxatives are indicated and the appropriate product is chosen
- Ask people how long they have been using OTC laxatives
- Enquire about possible secondary causes of constipation, e.g. medicine-induced
- Advise consultation with their general practitioner if symptoms are reported to be persistent

Psyllium is a plant seed fibre used as a bulking laxative that is available in many OTC products and is also fully subsidised on prescription. The product is dissolved in fluid with additional fluid intake required to prevent the fibre obstructing the bowel.

Epsom salts (magnesium sulfate heptahydrate) act as an osmotic laxative.⁴ Long-term use of magnesium salts may cause hypermagnesemia ileus and exacerbated constipation as well as lethargy, hypotension and respiratory depression.⁴ Epsom salts should be avoided if cardiac or renal dysfunction is present.¹⁰

Sodium citrate acts as an osmotic laxative and is available OTC in enemas or oral formulations, however, it is generally considered inappropriate in older patients due to risk of hypernatremia and water retention.¹⁶ A enema containing sodium citrate is fully subsidised on prescription.

Kiwifruit extracts may decrease abdominal discomfort in people with constipation, possibly via the action of a protease or the characteristics of kiwifruit fibre.¹⁷

Ficus carcia (fig) contains cellulose which may increase the water content of the stool and act as a bulking agent.²²

Anthranoid-containing products, e.g. senna, aloe, rheum officinale and cascara are thought to help in the treatment of constipation via the conversion of naturally occurring glycosides into a stimulating laxative.²²

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