

Constipation in the elderly

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Constipation is a common problem in the elderly, negatively affecting patients' social and professional lives. After ruling out secondary causes, the management of patients with chronic idiopathic constipation involves patient education, dietary changes, laxatives and enemas.

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REMEMBER

- Constipation is a common problem in the elderly and has a variety of causes, including reduced fibre and fluid intake, reduced physical activity, pelvic floor dysfunction, medication side effects and multiple medical conditions.¹ Constipation is variably defined and its diagnosis is often arbitrary. Physicians generally define it as there being fewer than three bowel motions per week.¹ The Rome III criteria for diagnosis of functional constipation combines objective and subjective symptoms, as outlined in the box on page 58.²
- Prevalence of constipation varies widely, ranging from 2% to 28%.³ In nursing homes, prevalence is as high as 50%, with 74% of residents using laxatives.¹ A survey about constipation in Australian women found that 27% of women older than 70 years experience constipation.⁴
- Constipation ranks among the five most common diagnoses by physicians for gastrointestinal disorders among outpatient clinic visits.¹ In the USA, constipation results in 2.5 million physician visits, 92,000 hospitalisations and several hundred millions of dollars of laxatives sales each year.³
- Risk factors for constipation include advanced age, female gender, low level of education, low level of physical activity,

ROME III DIAGNOSTIC CRITERIA FOR FUNCTIONAL CONSTIPATION

1. Must include two or more of the following:
 - straining during at least 25% of defaecations
 - lumpy or hard stools in at least 25% of defaecations
 - sensation of incomplete evacuation for at least 25% of defaecations
 - sensation of anorectal obstruction or blockage for at least 25% of defaecations
 - manual manoeuvres to facilitate at least 25% of defaecations
 - fewer than three defaecations per week
2. Loose stools are rarely present without the use of laxatives
3. There are insufficient criteria for irritable bowel syndrome

The criteria must be fulfilled for the past three months, with symptom onset at least six months before diagnosis.

low socioeconomic status, non-white ethnicity and the use of certain medications.³ Other risk factors include dehydration and a diet low in fibre.

- In the elderly, remember the 10 Ds: Drugs, Defaecatory dysfunction, Degenerative disease, Decreased dietary fibre intake, Dementia, Decreased mobility, Dependence, Decreased privacy, Dehydration and Depression.¹
- Constipation can be divided into primary and secondary.²
 - Primary constipation is divided into normal transit, slow transit and pelvic floor dysfunction, with the latter two being more prevalent in the elderly.^{1,2} Symptoms range from incomplete evacuation and sometimes abdominal pain in normal transit; infrequent stool, poor response to fibre supplements

and generalised symptoms in slow transit; and frequent straining, incomplete evacuation and need of manual manoeuvres in pelvic floor dysfunction.^{1,2}

- Secondary constipation has multiple causes, those more important being: Endocrine and metabolic: diabetes, hypothyroidism, hypercalcaemia and renal failure²
Neurological: cerebrovascular disease, Parkinson disease and spinal cord injury^{2,3}
Structural: colonic mass lesion and anal fissure²
Medications: anticholinergics, calcium channel blockers, diuretics, antidepressants, anti-Parkinson's drugs, calcium supplements, iron supplements, narcotics and antipsychotics.²
- Further evaluation to exclude secondary causes is required if the patient has alarm symptoms or signs that may indicate more serious disease.

The elderly and constipation

Constipation is a bothersome problem that negatively affects patients' social and professional lives.

Elderly people tend to plan their days around their bowel movements; they also tend to ignore calls to defaecate, which leads to suppression of rectal sensation. Constipation can lead to faecal incontinence, urinary retention and sexual dysfunction, and can increase the risk of falls. In patients with cognitive impairment, it can precipitate delirium. Laxatives can also precipitate incontinence.¹

ASSESSMENT

A comprehensive history, including a thorough medication review is needed, most importantly to check for the presence of symptoms or signs that may indicate more serious disease. These alarm features include weight loss, anaemia, rectal bleeding and acute onset of constipation at age more than 50 years.¹⁻³

Physical examination is not complete

without a careful rectal examination.¹ Initial screening tests include full blood count, glucose level, electrolytes, urea and creatinine levels, calcium levels, thyroid function tests and erythrocyte sedimentation rate measurement.¹⁻³ Abdominal x-ray imaging is usually performed to assess for faecal loading, impaction or bowel obstruction.² Colonoscopy is indicated in the presence of alarming symptoms or signs.¹⁻³ Other measurements, such as colonic transit study, anorectal manometry, defaecation proctography and surface electromyography for anal sphincter functions, are occasionally needed.¹⁻³

Patients who fail conservative medical management should be referred to a gastroenterologist for further management.

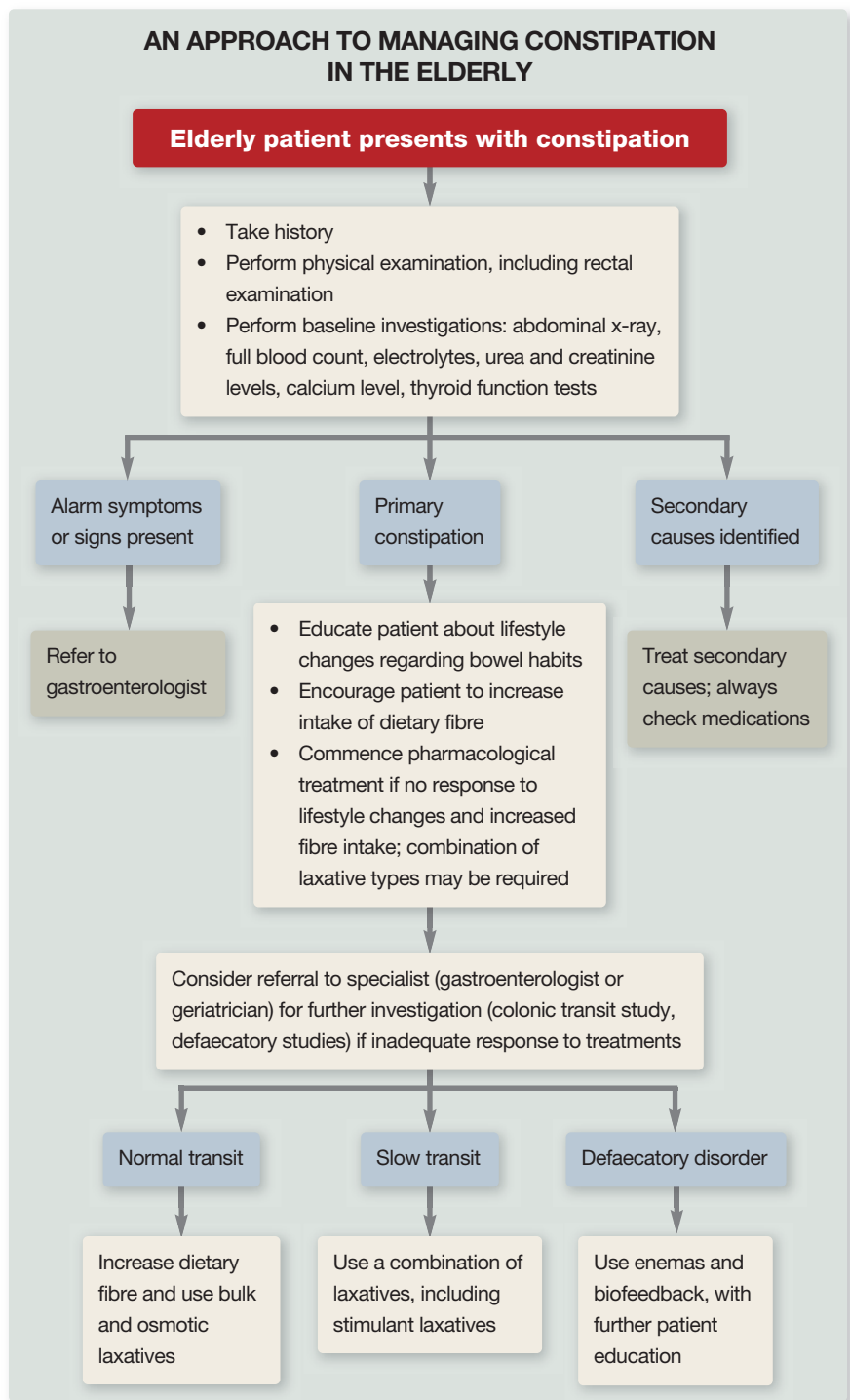
MANAGEMENT

The management of patients with secondary constipation depends on the underlying pathology. After ruling out secondary causes, the management of patients with chronic idiopathic constipation involves patient education, dietary changes, laxatives and enemas, as discussed below.⁵

A suggested algorithm for the management of constipation in the elderly is outlined on page 59.

- Education. Counselling on normal bowel habits and simple lifestyle changes might improve bowel irregularity.² Patients should be educated about recognising and responding to the urge to defaecate, and encouraged to attempt to stimulate defaecation first thing in the morning (when the bowel is two to three times more active than later in the day) and 30 minutes after meals (to take advantage of the gastrocolic reflex).² Despite lack of evidence, hydration and regular exercise are recommended as part of the management of patients with constipation.³ However, this can be particularly difficult in patients with cognitive impairment or physical limitations.

- Fibre. The daily recommended fibre intake is 20 to 35 g. Patients should be encouraged to increase the fibre in their diet to this level; increasing it incrementally by 5 g/day will minimise bloating.¹⁻³ Foods rich in fibre include bran, fruits, vegetables and nuts. An increased dietary fibre intake appears to be effective in mild to moderate constipation, but is unlikely to be sufficient to treat severe constipation such as that caused by slow colonic transit or pelvic floor dysfunction or which is medication induced.³ Fibre can sometimes worsen abdominal bloating.
- Pharmacological treatment – laxatives: There are few studies comparing specific treatment approaches for constipation, and no evidence-based guidelines for the order of use of various types of laxatives.² There are four main classes of oral laxatives, namely bulking agents, stool softeners, osmotic laxatives and stimulant laxatives, and a new 5-HT₄ (serotonin) receptor modulator, prucalopride, has recently become available.
 - Bulk-forming laxatives (ispaghula, psyllium hydrophilic mucilloid, sterculia, sterculia plus frangula) absorb water from the intestinal lumen and thereby soften and increase stool mass. These are most beneficial in normal transit constipation but less effective in slow transit constipation or in the presence of functional outlet problems. They can cause bloating and increased gas production.²
 - Stool softeners (sodium docusate) are surfactants that increase the penetration of fluid into the stool, thereby softening it. They are usually less effective than bulk laxatives but are well tolerated.²
 - Osmotic laxatives cause the intestines to hold more water, thereby softening the stool. Lactulose and sorbitol cause secretion of water into the lumen



of the bowel by osmotic activity. They need to be used cautiously in patients with renal and heart failure because they can precipitate water and electrolytes imbalance.

Polyethylene glycol (PEG; also known as macrogol 3350) is an isotonic osmotic laxative that causes less water and electrolytes imbalance than the other osmotic

- laxatives and can be used in patients with renal impairment.^{2,3} PEG without electrolytes can be mixed with juice (giving a pleasant taste for elderly people) and has the same result as PEG with electrolytes, which can only be mixed with water.⁶ A meta-analysis showed PEG to be more effective than lactulose.⁷
- Stimulant laxatives (senna and bisacodyl) stimulate intestinal motility and fluid secretion, and generally produce bowel movements within a few hours. Chronic use of agents containing anthraquinone (i.e. senna) can cause melanosis coli, which is benign and might resolve when stimulant laxative is discontinued. Patients with diabetes have a slow transit and can benefit from treatment with stimulant laxatives with or without other types of laxatives.³
 - Prucalopride is a high affinity selective 5-HT₄ receptor agonist that has shown promising results in patients with severe chronic constipation.⁸ It is indicated for use in patients with refractory constipation. Linaclotide is an experimental minimally absorbed peptide agonist of the guanylate cyclase 2C receptor, and its use has been shown to be associated with reduced bowel and abdominal symptoms in patients with chronic constipation.⁹
 - Pharmacological treatment – other:
 - Enemas and suppositories (bisacodyl, glycerol, sorbitol, sodium phosphate) are used to stimulate colonic contractions and to soften stool. These agents can be used episodically.
 - Opioid-induced constipation can be managed by subcutaneous injections of methylnaltrexone, a peripheral opioid receptor antagonist that does not evoke symptoms of opioid abstinence. It is indicated in patients with opioid-induced constipation with insufficient response to other laxatives.¹⁰
 - Pelvic floor training such as biofeedback is beneficial for patients with pelvic floor dysfunction.³ Visual and auditory anorectal biofeedback aims to improve co-ordination of defaecatory muscles.
 - Surgery is reserved for patients with intractable and persistent constipation. Subtotal colectomy with ileorectal anastomosis is the procedure of choice.^{2,3}

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References are included in the pdf version of this article available at www.medicinetoday.com.au.

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