Assessment and management of constipation in older people

Sue Woodward examines the causes and symptoms of this disorder and the role nurses can play in promoting healthy bowel habits

Abstract

Older people, particularly those with underlying health problems, commonly experience constipation, which is a distressing symptom that can adversely affect quality of life. Assessment of constipation is vital to exclude treatable and underlying conditions and a step-wise approach should be taken to managing chronic constipation in older people.

Lifestyle modification and laxatives remain the mainstay of constipation management, but newer interventions are being developed and applied to the care of older people. Nurses are often pivotal to the identification and successful management of constipation. They should ensure that their knowledge and skills are maintained to enable them to implement care that is effective and evidence based.

Keywords
Constipation, functional bowel disorders, gastrointestinal system and disorders, laxatives

Constipation is a symptom-based disorder defined as ‘unsatisfactory defecation, characterized by infrequent stools, difficult stool passage, or both. Difficult stool passage includes straining, a sense of difficulty passing stool, incomplete evacuation, hard/lumpy stools, prolonged time to stool or need for manual manoeuvres to pass stool’ (American College of Gastroenterology (ACG) Chronic Constipation Task Force 2005). It is a common problem in the UK, affecting up to one fifth of the population at some point in their lifetime (Kamm 2003), especially women.

Constipation is often perceived to be more common among older people, but a wide range of prevalence has been found in different studies and the evidence to support this assertion is not clear. Among community-dwelling older populations its prevalence ranges between 15 and 50 per cent (Bosshard et al 2004), but it is likely that the difference between studies is due to the definition of constipation used in the studies themselves rather than an increased prevalence among this group. Constipation is subjective and is perceived differently by different individuals. Prevalence is often higher if the symptom is self-reported by individuals than if strict diagnostic criteria, such as the Rome (III) Consensus Criteria (Longstreth et al 2006), are applied.

Negative effects

It has also been suggested that there is a higher prevalence of constipation among nursing home populations, but again this is likely to be due to the comorbidities experienced by residents that contribute to its development, rather than an effect of ageing (Tariq 2007). What is clear is that the symptoms can have significant negative effects on those who experience it, with anxiety and depression commonly associated with constipation (Mason et al 2002, Cheng et al 2003).

Koch and Hudson (2000) have demonstrated that older people can experience social isolation and anxiety related to constipation and the need to use laxatives on a daily basis, so this seemingly innocuous problem needs to be taken seriously. Constipation should be treated as any other symptom and underlying causes investigated and treated, rather than relying on laxatives, which provide only short-term symptomatic relief.

This article addresses the assessment and management of constipation in older people and
the role that nurses can play in promoting healthy bowel habits.

**Types of constipation**

Constipation may occur secondary to an underlying pathology, for example, Parkinson’s disease or irritable bowel syndrome, or as a side effect of drugs and should always be investigated. If investigations exclude all underlying bowel and other pathologies that could be causing the constipation then the condition is considered functional or idiopathic. Idiopathic constipation is a symptom reflecting either slow colonic transit and/or rectal evacuation difficulties (Emmanuel 2004).

Constipation commonly presents as an acute symptom, but may also develop into a chronic problem. In older people, chronic constipation can lead to faecal impaction, faecal incontinence and delirium, which may necessitate hospital admission (Tariq 2007).

Slow transit constipation arises from the slow movement of luminal contents through the gut and is estimated to affect between 15 and 30 per cent of the total population of patients with chronic idiopathic constipation (El-Salhy 2003). Slow transit constipation is thought to be caused by a disorder of the autonomic and/or enteric nervous system (Frattini and Nogueras 2008), although the exact aetiology is unclear.

Rectal evacuation difficulties are likely to be due to abnormal use of a normal pelvic floor. During straining, the puborectalis muscle contracts instead of relaxing and the anal canal remains closed, preventing defecation (Gilliland et al 1997). It has also been suggested that instead of an unrelaxed pelvic floor, in some patients the problem is caused by insufficient propulsive force being generated in the pelvis (Koutsomanis et al 1995). It is thought that some patients will also develop slow transit constipation secondary to a functional outlet disorder (Talley 2005).

**Causes**

Nurses encounter patients with constipation in a variety of practice settings and are ideally placed to help alleviate this distressing symptom. It is common for patients to experience constipation in an acute setting, with many contributing factors including change in diet or reduction in oral intake, dehydration, side effects from medication and not least of all, psychological issues (Ross 1998). Age-related changes can affect the gastrointestinal tract and delay transit time, but there is no evidence that healthy older people are affected more by delayed transit than younger patients (McCrea et al 2008). Older people can experience changes in the strength of their pelvic floor muscles as well as changes in rectal sensitivity and anal function (McCrea et al 2008). These physiological changes can predispose older people to develop constipation, but it is likely to be multifactorial in origin rather than simply due to the effects of ageing.

**Assessment**

Many factors can contribute to the development of constipation among older people (Box 1) that need to be considered during assessment. However, any patient presenting with an acute onset of constipation should be screened for the ‘red flag’ signs of bowel cancer (Box 2).

Nurses should assess patients’ symptoms, how they are affected by them and what they understand about their constipation. Past medical history and history of dietary habits and fluid intake, as well as a complete list of prescribed and over-the-counter medication, should be taken. The assessment is then completed by asking about specific bowel symptoms including (Norton and Chelvanayagam 2004):

- Bowel frequency.
- Longest time bowels unopened.
- Stool form/consistency using Bristol Stool Form Scale (Figure 1) (Lewis and Heaton 1997).
- Passing blood on wiping/in toilet bowl.
- Mucus.
- Straining.
- Urge to defecate in abdomen/in rectum.
- Feeling of incomplete evacuation.
- Digitation: using a finger to help empty the rectum.
- Pain in abdomen/rectum; on defecation; relieved by defecation.
- Bloating.
- Impact on daily life and relationships.

After taking a careful history, the patient should be examined physically. The nurse should look for any obvious anorectal abnormalities, such as haemorrhoids, which may be painful and contributing to the patient’s reluctance to defecate.

**Box 1 Factors contributing to constipation**

- Polypharmacy and the effects/side effects of prescription medication.
- Reduced dietary intake, particularly dietary fibre.
- Reduced fluid intake.
- Reduced mobility.
- Significant comorbidity, for example, diabetes, neurological disorders.
- Anorectal disorders, for example, haemorrhoids or rectal prolapse.

Norton and Chelvanayagam 2004)
Digital rectal examination should also be performed, with the patient’s consent, to assess the amount and consistency of stool in the rectum as well as the anal sphincter tone (Tariq 2007). In patients with faecal impaction the anus may be unable to close completely and irritant faecal fluid can come into contact with the skin, which can lead to incontinence-associated dermatitis (Beeckman et al 2011). The nurse should also therefore inspect the condition of perianal and surrounding skin for any signs of moisture lesions.

**Lifestyle modification**

Most cases of constipation are dealt with using simple methods. Nurses are more likely than GPs to use non-pharmacological methods to treat the problem in older people (Mihaylov et al 2008). Capitalising on the gastrocolic reflex, particularly in the morning or 30 minutes after meals when the gut is most active can help (Norton and Chelvanayagam 2004). Many people routinely open their bowels in the morning after breakfast and if this is the patient’s normal routine it should be maintained if possible (Tariq 2007). Nurses can also aid patients with defecation by ensuring that they get into a good functional position when sitting on a toilet, with the knees above the hips and the feet elevated on a foot stool if necessary (Figure 2, page 24). Defecation is most effective when in a sitting position, rather than lying (Rao et al 2006), so bedpans should be avoided whenever possible.

Nurses have long been taught to recommend increased fluid intake, dietary fibre and exercise or mobilising to help in the relieve of constipation. If patients are dehydrated or have an inadequate fibre intake then these measures may assist. In a primary care setting increasing dietary fibre to 30g a day is a simple and inexpensive first-line treatment (Emmanuel 2004). This quantity of dietary fibre is contained in approximately ten slices of wholemeal bread, but many patients will find it difficult to consume such large quantities. In addition, increasing dietary fibre is not usually effective in the management of chronically constipated patients and can induce symptoms such as abdominal distension and flatulence (Bassotti et al 2004, Müller-Lissner et al 2005). If these symptoms occur patients are often advised to reduce their fibre intake.

There is no evidence that stool consistency and constipation can be affected by increasing fluid intake or exercise (Müller-Lissner et al 2005). In older people, there is evidence of an association between reduced physical activity and constipation, but it is thought that many co-factors play a part rather than constipation being an effect of reduced mobility (Müller-Lissner et al 2005). Given the lack of definitive evidence and emphasis on evidence-based practice, further research into the effectiveness of these interventions is required.

**Pharmacological remedies**

In the 12 months to July 2007, almost 14 million NHS prescriptions were issued for laxatives in England at a cost of £60 million (Prescription Pricing Authority 2007). Laxatives are commonly used regularly by older people, especially in nursing home settings, with as many as

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**Box 2  Signs and symptoms of bowel cancer**

- Bleeding per rectum in stools or in the toilet pan.
- Recent change in bowel habit for more than six weeks.
- Recent unexplained weight loss.
- Abdominal pain.

(NHS Choices 2010)

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**Figure 1  Bristol Stool Form Scale**

![Bristol Stool Form Scale](image)

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78 per cent of residents being prescribed laxatives (Tariq 2007). Laxatives are used to treat constipation in primary and secondary care but these tend to lose their effect over time (Emmanuel 2004). Laxatives are also associated with adverse effects, such as abdominal pain and bloating (ACG Chronic Constipation Task Force 2005) and some patients are reluctant to take drugs to treat constipation.

Patient satisfaction with laxative treatment is often low (Mihaylov et al 2008). There is a paucity of robust evidence underpinning the effectiveness of laxatives and most studies are of low methodological quality, with even fewer studies involving older people in the samples (Mihaylov et al 2008). However, there is a consensus that treatment of constipation should involve a step-wise approach (Bosshard et al 2004, Mihaylov et al 2008).

Commonly used pharmacological agents for the treatment of constipation are outlined in Table 1.

**Bulk-forming laxatives** These increase the amount of fibre and therefore water absorption in the gut, making colonic transit time faster, but they are only helpful for patients with mild symptoms who are unable to take sufficient dietary fibre (Emmanuel 2004). They often take several days to work, require the patient to have an adequate fluid intake and can produce side effects such as flatulence and bloating (Bosshard et al 2004).

**Stimulant laxatives** These are the most widely used (Bosshard et al 2004) and work by increasing gut motility, thereby improving stool consistency and frequency. Senna is one of the most commonly prescribed stimulant laxatives and is converted by colonic bacteria to an active form. Stimulant laxatives have been shown to be more effective than placebo, but they produce adverse effects and can cause electrolyte disturbance in frail older people when given in high doses (Joint Formulary Committee (JFC) 2012). Stimulant laxatives are therefore only recommended for use as second-line laxatives if bulk-forming or osmotic laxatives have been ineffective (Bosshard et al 2004).

**Osmotic laxatives** Formed of large sugary molecules such as lactulose, or macrogols, for example, polyethylene glycol, these laxatives remain in the gut and attract water into the stools via osmosis, but require the patient to maintain an adequate fluid intake to work (JFC 2012). Lactulose is commonly prescribed, but can be metabolised by bacteria in the gut, causing flatulence and abdominal cramps, and delaying the osmotic effects by up to two to three days (Bosshard et al 2004).

Polyethylene glycol is an iso-osmotic laxative and is able to bind water molecules. It is available in liquid form to be diluted with water, which removes the need for making up sachets. Polyethylene glycol has been shown to be more effective than lactulose for the treatment of chronic constipation and is recommended, although none of the studies of polyethylene glycol have focused on older people (Lee-Robichaud et al 2010). Phosphate enemas should be used with caution in older people, particularly those with renal impairment. They have an osmotic effect, but if the fluid is not excreted hyperphosphataemia and other electrolyte disturbance can occur, although this is rare (Carl and Mitchell 2007).

**Faecal softeners** These agents work by softening the stools, making them easier for the patient to pass, but there is little evidence to support their use (Bosshard et al 2004, Emmanuel 2004) and
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they can cause skin irritation. Faecal softeners are therefore no longer recommended for the treatment of constipation.

Prokinetic agents

New pharmacological prokinetic agents have been developed more recently to treat constipation that is not resolved by first-line laxatives. For example, prucalopride, which is not a laxative, has been shown to be effective (Camilleri et al 2008, Tack et al 2009, Sloots et al 2010).

Other interventions

Biofeedback is a learning strategy based on behaviour modification. Gut-directed biofeedback retraining has become an established therapy for chronic idiopathic constipation, where patients are taught to defecate effectively using bracing of the abdominal wall muscles and effective relaxation of the pelvic floor muscles (Emmanuel and Kamm 2001). Biofeedback treatment is considered by many to be the first-line medical management for chronic idiopathic constipation that is intractable and non-responsive to dietary manipulation or laxatives.

Through biofeedback patients learn to recognise the sensations associated with relaxing the pelvic floor and anus by various methods (Denis 1996) and correct use of abdominal muscles to create an effective pushing force. It is generally accepted that biofeedback is effective in around 70 per cent of patients (Koh et al 2008) and age has not been a barrier to inclusion in the significant number of non-randomised and randomised controlled trials of this intervention.

More recently, transanal irrigation has been used to manage chronic constipation and may be helpful for patients who have not benefited from biofeedback. This intervention aims to ensure the rectum, sigmoid and descending colon are emptied and there is evidence that evacuation of the rectosigmoid can prevent constipation (Christensen and Krogh 2010).

Transanal irrigation is particularly useful for people with neurogenic bowel disorders (Christensen and Krogh 2010) and can help to prevent faecal impaction for older people who are bedbound and often experience this distressing symptom. Different commercial systems are available for undertaking transanal irrigation (Christensen and Krogh 2010). Some use rectal cones such as the Qura irrigation system, but others, such as Peristeen, introduce the irrigation fluid via a rectal catheter. Patients using these systems are trained and supported by specialist nurses.

Dignity and privacy

Defecation is a private function and lack of privacy and access to toilet facilities in hospital can contribute to the development of constipation for patients (Tariq 2007). Many people are reluctant to use public toilet facilities for defecation because of concerns about privacy, so it is unsurprising that this is a risk factor for constipation. The Department of Health (2010) has highlighted the need for attention to fundamentals in bladder and bowel care, including privacy and dignity. Wherever possible it is better to ensure patients are taken to a toilet, rather than bringing a commode to the bedside. Management of constipation should therefore take a multidisciplinary approach to ensure patients are able to mobilise to and access appropriate toilet facilities.

Faecal impaction

In extreme cases, particularly in patients with neurogenic bowel problems or frail bedbound older people, clinical experience shows that constipation may lead to faecal impaction and nurses must ensure they have the necessary skills to deal with this.

Polyethylene glycol has proved to be effective in treatment of faecal impaction (JFC 2012). Four sachets should be prescribed for treatment of impaction on the first day and increased in steps of two sachets daily to a maximum of eight sachets daily. Each two-sachet dose should be dissolved in approximately 250ml of water (so eight sachets need to be dissolved in one litre) and the total daily dose must be drunk within a six-hour period (JFC 2012). The solution can be stored in a fridge but discarded after six hours if not used.

Table 1

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<tr>
<th>Commonly used pharmacological agents</th>
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<tr>
<td>Bulk forming laxatives</td>
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<tr>
<td>- Ispaghula husk</td>
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<td>- Methylcellulose</td>
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<td>- Bran</td>
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<tr>
<td>Stimulant laxatives</td>
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<td>- Senna</td>
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<tr>
<td>- Bisacodyl</td>
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<td>- Sodium picosulfate</td>
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<td>- Glycerin suppositories</td>
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<td>Osmotic laxatives</td>
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<td>- Lactulose</td>
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<td>- Magnesium sulphate</td>
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<td>- Phosphate enema</td>
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<td>Faecal softeners</td>
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<td>- Docusate sodium</td>
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<td>- Liquid paraffin</td>
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<td>- Arachis oil</td>
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<td>Prokinetic agents</td>
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<tr>
<td>- Prucalopride</td>
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<td>- Tegaserod</td>
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Digital rectal examination is indicated if faecal impaction is suspected and this may identify the need for manual removal of faeces. Some nurses mistakenly think that they are no longer allowed to carry out this intervention, or that it is a form of assault, however this is not the case (Woodward 2009). Manual removal of faeces is not routinely taught during pre-registration nurse education and even if nurses are aware that this intervention may be indicated, they often lack the skills and confidence to carry it out.

Conclusion
Assessment of constipation is vital to exclude treatable and underlying conditions in patients and a step-wise approach should be taken to the management of chronic constipation in older people (Mihaylov et al 2008). Lifestyle modification and laxatives are the mainstays of management, but newer interventions are being developed and applied to the care of older people. Nurses are often pivotal in identifying and successfully managing constipation among patients and should ensure that their knowledge and skills are maintained to enable them to implement care that is effective and evidence based.

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References


Woodward S (2009) Yes, we can manually remove faeces. *British Journal of Neuroscience Nursing*. 5, 3, 196.

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Conflict of interest
None declared