

Management of bowel problems in older people: an update*

Jonathan Potter and Adrian Wagg

ABSTRACT – Seventeen per cent of people over the age of 65 and 80% of people in care homes are constipated. Approximately 3–10% of older people in the community have faecal incontinence. Careful attention to assessment, based on an understanding of pathophysiology, will provide an explanation for bowel dysfunction. The causes are often multiple and may relate to local bowel pathology, systemic disease, complications of medication or functional disability. The possibility of underlying serious bowel disease must be borne in mind.

Management should be directed to correcting the underlying causes. Laxatives, suppositories and enema use should be determined by the presence or absence of delayed transit and difficulty in evacuation. In the presence of dementia, a clear understanding of the physical and psychological disturbances present must be established to enable an effective management plan. Particular attention should be paid to the environment to promote privacy, comfort and dignity, as well as to enhance normal bowel function.

KEY WORDS: bowel care, constipation, commodes, dementia, enemas, faecal incontinence, laxatives, older people, suppositories, toilets

Introduction

Constipation is a constant complaint of older people, and faecal incontinence is a great scourge suffered generally in silence. Both have a considerable impact on the quality of life of older people, yet both, with careful assessment, are amenable to effective treatment and management.¹

A meeting held at the Royal College of Physicians in June 2004 provided the material for the update described below on the management of bowel prob-

lems in older people, and formed a basis for the national audit of continence care being organised by the Clinical Effectiveness and Evaluation Unit of the RCP in 2005.

Pathophysiology

Physiology

Important physiological functions of the bowel are listed below.

Colonic motility. Small-scale forward and retrograde contractions occur regularly to ‘churn’ bowel content and facilitate water re-absorption in the bowel. Propulsion is achieved by high-amplitude propagated contractions (HAPCs) which drive matter down the bowel. These contractions are common in the morning and after food – the ‘gastro-colic’ reflex.

Internal anal sphincter. Under autonomic control, the internal anal sphincter is normally at high tone, keeping the anus closed. The internal sphincter relaxes with increasing intra-luminal volume so that initial increases in volume are accommodated with no rise in pressure.

External anal sphincter. Under voluntary control, the external sphincter increases in tone as the internal sphincter relaxes. The external sphincter is maintained in high tone until the voluntary wish to defecate occurs. After relaxation, the external sphincter has a rebound high tone which ‘snaps’ close the anus, facilitating continence after defecation.

Key Points

A direct enquiry for evidence of constipation or faecal incontinence should be made in all at-risk older people

Constipation is a common cause of faecal incontinence

A rectal examination is an essential component of the assessment of older people with bowel dysfunction

Older people, whenever possible, should be offered the opportunity to use a toilet rather than a bedside commode

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Anal internal membrane. This is a highly sensitive mucosa that can distinguish between solid, liquid and gas. A close link to voluntary control permits appropriate passage of wind while maintaining continence for solids and liquid.

Pelvic musculature. This maintains the anal canal at an angle in the normal state. Before defecation, the action of muscles brings the anal canal into a straight passage which facilitates stimulation of the anal sphincters and passage of stool.

Pathological processes

Impairment of contractions. Colonic contractions may be reduced due to:

- reduced motor function, eg Parkinson’s disease
- impaired sensory function, eg diabetic autonomic neuropathy
- abnormalities of the colonic wall – eg megacolon.

Psychological states such as depression and anxiety also influences colonic motility:

‘The gut is a window of our emotional state.’

Sensory denervation. Impairment of sensation may occur locally in association with neuropathy, ie diabetes or spinal cord disease. Local conditions such as Hirschsprung’s disease, though rare, do occur in older people. Loss of appreciation of sensory input occurs in dementia and plays a role in associated bowel problems:

‘Continence is not only a motor phenomenon.’

Sphincter pathology. Disturbed sphincter function may arise from pelvic floor descent, often due to long-standing straining. Sphincter damage occurs in association with childbirth, sphincterotomy for procedures such as fissure *in ano*, and from anal stretch procedures carried out in former years for childhood constipation.

Definitions, epidemiology and causes

Constipation

Definition. Infrequent bowel movements are a sensitive but not a specific symptom of constipation. Studies of older people indicate that 65% of older people reporting constipation had their bowels open at least once a day. Constipation is more meaningfully defined in terms of difficulty in evacuation and important symptoms include: straining, hard stools and a feeling of incomplete evacuation.

A functional definition – the ‘Rome criteria’ – of constipation is as follows:

- two or fewer bowel movements per week, *or*
- two or more of the following symptoms:
 - straining on one in four occasions
 - hard stools on one in four occasions
 - feeling of incomplete evacuation on one in four occasions.

There are two types of constipation, which often co-exist:

- 1 constipation due to low transit time of the bowel leading to a reduced number of bowel movements per week
- 2 constipation due to difficulty in evacuation (rectal outlet delay).

Prevalence. Using the Rome criteria the prevalence of constipation increases with age. Seventeen per cent of people aged over 65, and 80% of people in care homes (despite high laxative use) are constipated.

Causes of constipation. These are shown in Table 1.

Complications of constipation. These include impaction leading to overflow incontinence, volvulus and bladder outlet obstruction.

Practice point: Identification of constipation calls for routine objective enquiry using the symptoms outlined above, particularly in at-risk groups of older people.

Faecal incontinence

Faecal incontinence is a hidden problem: only one in eight older people with faecal incontinence seek help. Most accept it as a feature of aging, even though it is a socially isolating condition. Once asked about it, older people are often only too happy to

Table 1. Causes of constipation in older people.

Primary	Secondary
Normal diameter colon	Metabolic disorder
irritable bowel syndrome	dehydration
idiopathic slow transit constipation	hypothyroidism
evacuation difficulty	uraemia
Dilated colon	hypokalaemia
Hirschsprung’s disease	hypercalcaemia
idiopathic megacolon	Endocrine
chronic intestinal pseudo-obstruction	hypothyroid disease
	Neurological disease
	Parkinson’s disease
	CVA
	diabetes mellitus
	spinal cord disease
	dementia
	depression
	Reduced mobility
	Dementia
	Medications
	anticholinergics
	opiates
	calcium channel-blockers
	iron supplements
	NSAIDS
	calcium supplements
	Arthritis/hypertension
	Colon cancer

CVA = stroke/cerebrovascular accident; NSAIDS = non-steroidal anti-inflammatory drugs.

receive help. It is also a treatable condition once the cause has been established.

Prevalence. A systematic review of 15 studies in the literature on faecal incontinence was reported. Studies were excluded if there was no rateable measure of incontinence and if the data gathering was unreliable. As faecal incontinence was defined differently in the studies, a grading scale was introduced:

- minor – in terms of frequency or volume
- moderate – in terms of either frequency or volume
- major – in terms of both frequency and volume.

Overall the rates in older people in the community were:

- minor: 6.2–13.1%
- moderate: 2.8–10.0%
- major: 0.7–3.8%.

Studies indicate an increase with age in all studies. Overall there is no apparent gender difference in prevalence. However, faecal incontinence is more prevalent in younger men (30–40 years) and in older women.

Specific association are shown in Table 2.

Practice point: The systematic review demonstrated the need to clarify definitions and terminology. Only then can population studies be undertaken which will help elucidate the health factors associated with faecal incontinence and allow reliable studies of intervention.

Causes of faecal incontinence. These are shown in Table 3.

Practice point: A history of faecal incontinence should be actively sought in older people, especially those at risk, ie:

- hospital patients aged 65 and over
- older people aged 80 and over
- those with urinary incontinence
- those with impaired mobility.

Assessment

‘Not rocket science. A systematic planned approach.’

A careful general assessment as well as a detailed assessment of the lower bowel is essential. The various causes of faecal incontinence and constipation are outlined in Tables 1 and 3 above. Each individual may well have several contributory causes. The assessment must include careful attention to the history, examination and investigation.

Specific issues

How far to assess and investigate. Weigh up the need for complete, detailed assessment against the need to determine what will make a difference. No older person should be denied investigations and treatment where appropriate. However, the over-

zealous assessment and investigation with intrusive tests of a frail older person may equally be doing them a disservice.

Rectal examination. Rectal examination is an essential part of routine assessment. In addition to assessing whether constipation exists, other important features need to be included:

- assessment of constipation – impaction, hard or loose stool
- anal tone – gaping, squeeze
- masses
- skin condition
- rectal prolapse
- pelvic floor condition at rest
 - on straining
 - rectocele
- sacral dimple suggestive of neurological impairment.

Table 2. Specific associations with faecal incontinence.

	Association
Date of study	No association
Geographic location, ie UK, Asia, USA	No association
Residency:	
compared with own home, rented accommodation	1.5-fold increased prevalence
compared with own home, residential accommodation	7-fold increased prevalence
Ethnicity	No association
Self-reported health status including depression and anxiety	Strong association
Urinary incontinence	
urge incontinence	Strong association
stress incontinence	No association
Learning disability	5-6 fold increased prevalence

Table 3. Causes of faecal incontinence.

1 Overflow due to faecal impaction
2 Loose stools
laxative overuse
medications
SSRIs
infections
<i>Clostridium difficile</i>
lactose intolerance
3 Ano-sphincter weakness
diabetes mellitus
sphincter damage
4 Neurological disease
spinal cord disease
5 Functional
loss of mobility
loss of manual dexterity
cognitive impairment

SSRI = selective serotonin reuptake inhibitor.

Evaluation of rectal loading. Constipation should first be determined by rectal examination. Some patients with an empty rectum can still have colonic loading that contributes to symptoms. Abdominal palpation is not a sensitive method of assessment except in very thin people. Plain abdominal X-rays are frequently used and can provide helpful information. However, it must be recognised that the colon will be expected to contain faeces and it is not possible to distinguish between physiological and pathological states using a plain film. The most sensitive test, if required, is a measurement of transit time using radio-opaque markers.

Rectal prolapse. Rectal prolapse is common and is not easily identified in routine examination. A careful history is required to elicit symptoms. Examine the patient after s/he has been sitting on the toilet and straining for 1–2 minutes. Prolapse can then be observed. Any such prolapse causing symptoms will normally require surgery for correction.

Bowel cancer and inflammatory bowel disease. Always keep in mind the possibility of serious pathology, eg cancer and inflammatory bowel disease. Be alert for symptoms and signs such as rectal bleeding, change in bowel habit, anaemia, weight loss and masses.

Management

Consider the impact of symptoms on the patient and determine what is important to them in examination, investigation and treatment. Consider also the carer, and how they feel about providing personal care.

Management is based on correcting or ameliorating the underlying causes identified from the assessment, eg:

- stop the constipating medicines
- treat the Parkinson's disease that is impairing mobility and causing constipation
- check for Clostridium toxin that might be causing loose stools.

Specific approaches

Diet and fluid. There is no evidence that people with faecal incontinence have a different nutritional profile from people without faecal incontinence. Some foods and drinks will precipitate loose stools, ie lactose, sorbitol, caffeine and alcohol. There is no evidence of a link between fluid intake and faecal incontinence.

Fibre. Insoluble fibres may exacerbate faecal incontinence. Soluble fibres may, however, reduce faecal incontinence. The benefit may arise from forming matrices for water holding, forming a gel which assists water absorption or by a probiotic effect, altering the bowel bacterial flora.

Bowel emptying regimes. Straining will tend to stimulate increased sphincter tone to prevent leakage and can be counter-productive in assisting evacuation. There is evidence in children

that education in appropriate bowel emptying techniques can enhance evacuation. Such retraining should take advantage of the gastro-colic reflex and should be complemented by a review of medication and the use of laxatives and suppositories (Fig 1).

Symptomatic treatment. If loose stool is causing faecal incontinence and no correctable cause can be identified, symptomatic treatment with loperimide should be considered. Phenylephrine gel may also be helpful.

Irrigation. Rectal irrigation is commonly used in other European countries. Tap water (200–300 ml) using phosphate enema tubing can be helpful. Care should be taken in frail older people in whom the metabolic state is unstable. It should also be avoided in those with sensory impairment due to the risk of perforation. Colonic irrigation may be harmful in view of high pressure and large volumes.

Laxatives/suppositories and enemas. See section below on laxative treatment.

Biofeedback. There is evidence that biofeedback can improve bowel function and reduce constipation. The provision of simple information is as effective as more sophisticated forms of feedback. Benefit can be sustained over many months.

Practice points:

- Always do a rectal examination.
 - Constipation is a common cause of faecal incontinence.
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Laxative treatment

'We spend more on prescribed laxatives than on depression, anxiety or hypertension in this country.'

The cost of prescribed laxatives is approximately £48 million. The cost of over-the-counter laxatives is approximately £27 million per year. One-third of people take laxatives to maintain bowel frequency. One-half to two-thirds of people have difficulty evacuating their bowels. One-quarter of people have no symptoms of constipation but feel that a regular stool is necessary.

An important role for clinicians is to debunk myths surrounding constipation. It is not necessary to have bowels open on a daily basis. Constipation does not result in the build-up of toxins and there is no link between constipation and cancer.

The evidence base for laxative use in older people is very limited and studies are generally of very poor methodology.

Some of the laxatives available are described below.

Bulking agents (bran, psyllium, guar). These retain water in stool, aid mechanical distension of colon and alter bacterial environment. Studies indicate that bulking agents increase number of stools by one per week. Gain is limited, but bulking agents are helpful in augmenting the diet of those who cannot

manage a high fibre intake. Complications include bloating and wind.

Stimulant laxatives (senna, danthron, bisacodyl). Hydrolysed by intestinal or bacterial enzymes, these laxatives stimulate the myenteric plexus and alter electrolyte secretion. Rapid onset of action indicates usefulness on an 'as needed' basis. Chronic use leads to tolerance and reduced effectiveness.

Contrary to folklore, there is no evidence that stimulants 'burn out' the myenteric plexus. Similarly, the appearance of melanosis coli is of no functional significance. Stimulant laxatives can cause loose stools and colic. Their action may be unpredictable depending on the time they are in contact with the colonic mucosa.

Stool softeners (dioctyl, milpar, arachis oil). These facilitate the mixing of fats and water in the stool. There is no evidence that they are beneficial on their own. They should be used as an adjunct to stimulant or osmotic laxatives.

Stool softeners can be intensely irritant. Oral use can lead to lipoid pneumonia, and when taken rectally they can cause skin irritation.

Osmotic agents (magnesium sulphate, lactulose, polyethylene glycol). These act directly or indirectly by an osmotic effect in the colon and by reducing luminal pH.

Onset of action occurs in one to two days. Osmotic laxatives are effective in increasing stool frequency by three stools per week compared with placebo. Salts are simple and cheap. The effectiveness of osmotic laxatives can be titrated against need.

Complications of salts include the risk of hypermagnesaemia – with potential cardiac and neurological complications – especially if renal impairment exists.

Suppositories and enemas (glycerin, bisacodyl, phosphate). These play a very important role in the management of constipation, especially where there are difficulties with evacuation. They act by stimulating the rectal mucosa and inducing contraction:

'It's like a sink – unplug the plug and outflow and transit time will improve.'

A practical guide to the use of laxatives is shown in Fig 1.

Toileting and toilets

Toileting

*'People become constipated in hospital because of inaccessible toilets, privacy and dignity and how they feel about defecating when other people can hear it and other people can smell it. We have not moved on that far over 35 years.'*²

Important considerations in providing adequate toileting are listed below.

- *Ensure maximum privacy and dignity*
Transfer to toilet whenever possible; avoid use of commodes.
Ensure privacy and dignity in transferring.
Ensure appropriate clothing for dignity and privacy.
Ensure well protected when toileting: good curtaining, doors, locks and signs.
- *Reduce inhibition*
Ensure privacy.
Control noise levels (noisy ventaxia, radio).
Control odours (ventaxia, neutradol, air freshener).
- *Ensure ability to summon help*
Ensure that call button or bell is accessible for use.

Toilets and commodes

In a recent study of 147 people with disability, 50% were dissatisfied with their commode and chair facilities.³ Problems included difficulty in hand access for wiping, difficulty in turning and rolling chairs, and problems keeping chairs clean. Thirty per cent had had chair-related falls.

Older people may be on the toilet/commode

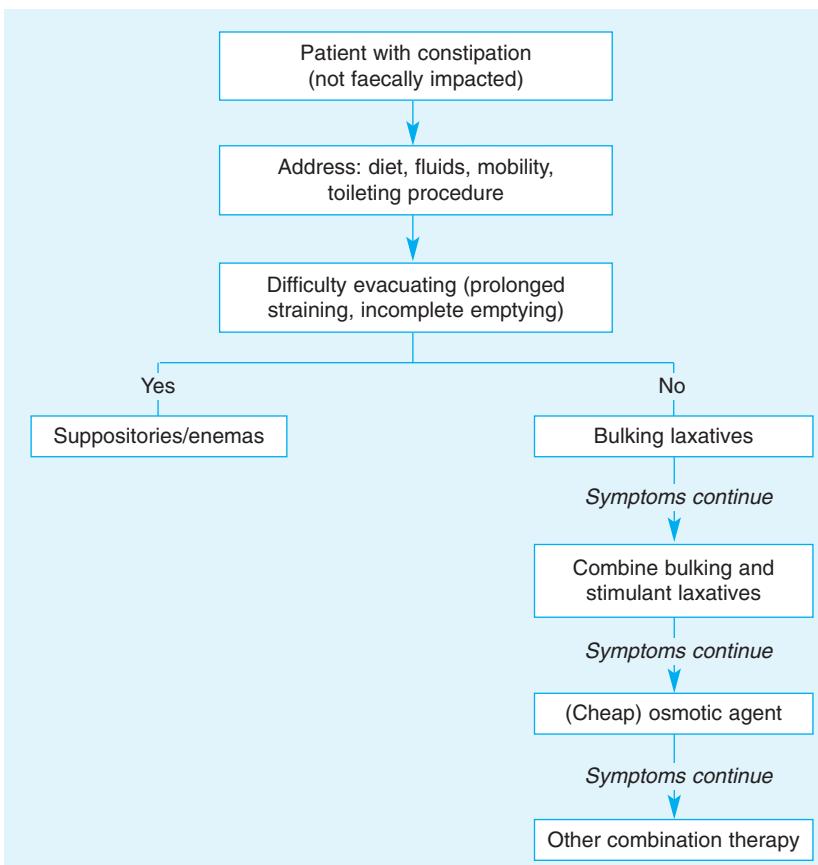


Fig 1. A practical guide to the use of laxatives.

for prolonged periods. Toilets/commodes should be designed with the considerations listed below in mind.³

Trunk support. Trunk support is required for comfort, to prevent pressure build-up and to reduce the risk of falls. Lockable, swing-away armrests will assist transfers while enhancing support.

Pressure area. Prolonged time on the toilet in frail older people increases the risk of pressure build in high-risk areas, causing discomfort, inhibition of defecation and the risk of ulcers. Toilets and commodes should have appropriately padded seats and backs, and curve-edge foot supports.

Stability of chair. Commodes should be stable to help transfers and to reduce the common risk of falling. There should be lever-activated brakes.

Wiping. Toilets and commodes should be designed to facilitate wiping. There should be adequate access to the perineal area. Extended wipers, moist tissues, shower units or portable bidet units should be available and accessible to help older and disabled people.

Mobility of commodes. Wheels of commodes should be designed to simplify forward and sideways movement to enhance manoeuvrability. Wheels should be maintained to avoid noise (squeaking), in order to enhance privacy when being wheeled to the toilet.

Practice point: The older person should be given the opportunity to use the toilet (either directly or by using a shower chair) rather than a bedside commode.

Continence problems in dementia

‘What is learnt first is lost last, and what is learnt last is lost first.’

Toilet training and associated continence are deeply ingrained at an early ‘pre-memorial’ stage of growing up. The skill is not surrendered easily and is only given up at a late stage of dementia.

Causes

Continence problems can arise for three main reasons:

- 1 The dementia has progressed so far that neurological control of bladder and bowel is impaired. This affects only a small group who are in the most advanced stages of dementia.
- 2 Although basically continent, co-morbidity renders the patient incontinent. The coexisting illness is often ignored or not recognised for the following reasons:
 - Dementia is associated with old age and there is an element of ageism.
 - Demented people are often seen as depersonalised – a shell of their former self with a diagnosis of dementia and a set of bodily problems requiring management.

- Impaired communication prevents the dementing person from indicating their needs or concerns.
- 3 In people with dementia presenting with behavioural disturbance, continence is essentially intact but the social and physical context of getting to the toilet and evacuating becomes damaged. This is a common problem in dementia. Psychological impairments in dementia which will impact on a person’s ability to maintain normal patterns of bowel behaviour are shown in Table 4.

Disturbed behaviour

Examples of disturbed behaviour in bowel care are listed below.

Parcelling, ie wrapping and concealing faeces. It is likely that this represents the effort to preserve dignity and self-respect and to avoid embarrassment and self degradation.

Soiling clothes while sitting or standing. Such behaviour may represent:

- true incontinence
- apathy due to depression or frontal disease
- fear of moving due to:
 - fear of the unknown
 - fear of falling
 - worries about the flooring
- difficulties communicating fears.

Using inappropriate receptacle. Mobility in an unfamiliar environment may prevent access to the toilet. In this situation, a person with dementia may use what is available or looks like toilet facilities. The ability to recognise a toilet may be distorted by agnosia.

Smearing. Smearing is the consequence of man’s innate curiosity. Ineffective or uncomfortable evacuation may arise in a person with dementia due, for example, to difficulty undoing clothing or constipation. The demented person will follow their instinctive reaction to investigate the cause. This essentially appropriate but misguided action (dysexecutive function) results in faeces on the hands. Again, the innate reaction to keep the hands clean will result in the appropriate action of cleaning the hand, but using the wrong facilities. Short-term memory

Table 4. Neuropsychological impairments that can impede continence.

Memory impairment – disorientation
– loss of goal-orientated behaviour
Expressive and receptive aphasia
Agnosia
Apraxia
Dysexecutive function
‘Frontal’ apathy

impairment may result in further investigation and a repeat of the cycle with further smearing.

Management

Continue considering the person with dementia as a whole person. By careful 'pinpointing' of his/her behaviour, it is possible to move from 'what the problem is' to 'why is it occurring'. It must be appreciated that in many cases the person with dementia is trying to maintain continence but their executive function is impaired. Simple measures may then facilitate normal function, ie prevent constipation: ensure clothing is easily undone; simplify access to toilets; ensure the environment is familiar; bear in mind that people with dementia cannot communicate their anxieties.

Conclusion

Bowel problems in older people have many contributory causes that are often amenable to correction. Systematic attention to history, examination and investigation, especially in older people with dementia, can be highly effective in resolving problems and in enhancing the quality of life for older people.

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