Medicines for the treatment of constipation in adults

The aim of this article and others in this series is to look at questions that should be asked when reviewing the management of individual groups of medicines prescribed for long-term conditions in adults. This is the second of this type of article in the series — the first being focussed on the management of dyspepsia and peptic ulcer disease.[1]

Laxatives may seem a rather trivial topic to review but constipation can be a significant condition. The NHS spends £60 million per year on laxatives, but more importantly constipation can be an indication of more serious disease (Figure 1) and if poorly managed results in significant patient discomfort and occasionally in hospital admissions.

Aim of treatment

All individuals have different expectations about what is a normal frequency of bowel movement. One of the aims of the medication review is to reach an agreement with the patient on the diagnosis and management plan and to gain an understanding of what is their 'normal' frequency of defecation. A bowel movement occurring less than three times a week, however, is one of the Rome criteria for constipation.[2]

Figure 1. 'Red flags' indicating potentially serious underlying conditions[2]

Persistent unexplained change in bowel habits
Palpable mass in the lower abdomen
Family history such as colon cancer
Inflammatory bowel disease
Unexplained weight loss, anaemia, fever, or nocturnal symptoms
Rectal bleeding
Severe persistent constipation, which is unresponsive to treatment

Specific objectives are:[3]

- to identify and manage any secondary causes where possible, such as medicine causes
- to clear faecal loading/impaction, if present
- to relieve symptoms and achieve a normal stool pattern
- to agree a realistic target date with people with chronic constipation for withdrawing laxatives.

Considerations around the diagnosis

At a medication review evidence should be sought from the clinical record that a diagnosis has been made by the GP. However, questions should be asked to ascertain if 'red flags' are present (Figure 1). It is usually beyond the scope of a pharmacist to perform a physical examination to detect problems such as faecal loading. In faecal loading faeces are usually palpable on abdominal examination or can be felt on internal rectal examination. The patient will report passing hard, lumpy stools. Overflow incontinence (spurious diarrhoea) can also occur with impacted faeces. Small quantities of stool are passed frequently and without sensation.

Other important questions that can be used to assess the severity of constipation include asking about:

- nausea, vomiting, loss of appetite or loss of weight
- the presence of abdominal pain or abdominal distension
- the presence of pain or bleeding with passing stools
- the presence of faecal incontinence.

If, after questioning the patient, you consider the diagnosis may be wrong or you think the condition has worsened, then referral to the GP should be made. If secondary medicine (see below) or medical causes (Figure 2), or faecal impaction are thought unlikely then the medication review can move on to look at the repeat prescribing of laxatives.

Reviewing laxatives

There is insufficient clinical evidence to compare the benefits of one laxative with another.[4] Choice should be based on symptoms, patient preference, adverse drug reactions and cost.[4] Questions should be asked about what has been tried and the response to treatment. The NHS *Clinical Knowledge Summaries* provide the following guide on choice, which is based on consensus opinion.[3]

First-line: **bulk-forming laxatives** —
Ispaghula 3.5g sachets: once or twice daily

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If stools remain hard, add or switch to an **osmotic laxative** such as:
Lactulose solution: 15ml twice per day or
Movicol: one sachet once per day

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If stools are still soft but hard to pass, add a **stimulant laxative** such as:
Senna tablets: two tablets at night
Bisacodyl tablets: 5mg at night
Sodium picosulphate capsules: 5mg at night

The aims of bowel management in older people are to produce stools of the ideal consistency that are not too hard and not too soft, and to allow bowel emptying to occur at a predictable time.[5] The ideal stool has been christened the 'Goldilocks stool' because it is not too hard and not too soft, but 'just right'.[5]

Life style advice such as dietary fibre, maintaining an adequate fluid intake and taking exercise (see below) should be

discussed before considering re-authorising repeat laxatives. The medication review should look for evidence that long-term treatment is required. Suitability for repeat prescribing of laxatives might include:

- inadequate response to life-style and dietary advice
- recurrent faecal impaction
- medical conditions in which bowel strain should be avoided
- need to take medicines that are constipating
- a medical condition that induces constipation.

There are some specific checks that need to be made for some laxatives.[6] Examples include:

- Danthron-containing laxatives, such as co-danthrusate and co-danthramer should be restricted to terminally ill patients.
- Stimulant laxatives, such as senna and bisacodyl should not be used long term because there is a risk of atonic non-functioning colon.
- Osmotic laxatives — Lactulose should be taken regularly and at a sufficient dose, eg. 15ml twice-daily in adults.

Figure 2: Medical causes of secondary constipation[3,8]

- **Endocrine and metabolic diseases:**
  - Hypercalcaemia
  - Hypokalaemia
  - Hypothyroidism
- **Neurologic diseases:**
  - Multiple sclerosis
  - Parkinson's disease
  - Spinal cord injury, tumours
- **Structural abnormalities:**
  - Anal fissures, strictures
  - Haemorrhoids
  - Inflammatory bowel disease
  - Gastrointestinal obstruction (such as colorectal cancer)
  - Rectal prolapse
- **Other:**
  - Diabetes mellitus
  - Depression
  - Coeliac disease
  - Irritable bowel syndrome

Medicine causes of constipation

Many chronically taken medicines can cause constipation. The review needs to check if any of these are the cause and if so whether these can be stopped, such as:

- opioid analgesics
- calcium supplements
- iron supplements
- medicines with antimuscarinic actions such as procyclidine, oxybutynin and tricyclic antidepressants (TCAs), anti-histamines, antipsychotics
- antidepressants (TCAs and others)
- verapamil.

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Stopping repeat prescriptions for laxatives

If it is considered appropriate to stop laxatives then this should occur slowly often over several months.[3] Where several laxatives are prescribed they should be stopped one at a time.[3] Stimulants should be stopped first.[3]

Patient discussion points

Constipation in adults is most often caused by insufficient fibre in the diet. Although sometimes dietary fibre can worsen constipation.[7] Patients should be asked about and be given advice on including in their diet enough foods high in fibre, such as vegetables, fruit and cereals. Not drinking sufficient liquid can also worsen constipation. Most adults should drink 8 to 10 cups of fluid each day, unless they have a medical condition that means fluid should be reduced, such as heart failure.

Medicines are sometimes a cause of constipation. Pain killers such as codeine, some antidepressants, iron (ferrous sulphate) and some antacids can be a cause. Taking exercise helps keep your bowels moving. Holding back can cause stools to accumulate in the gut. You might ask the patient whether toileting being rushed or disturbed. Perhaps they can suggest changes to their lifestyle or normal daily schedule that might help.

Summary

Many people are prescribed laxatives as repeat prescriptions. It is just as important that these medicines are reviewed as any others. Lifestyle changes and advice on how to avoid constipation should be offered before considering drug treatment. The review should identify if there any underlying causes of constipation that have been missed or appeared since the last review. The review should also identify if laxatives are appropriate and effective. Finally, medicine reviews should consider whether it is appropriate to stop laxatives. This may be the case where no underlying cause of constipation has been identified or if excessive numbers or duplication of laxative types are being prescribed. ✣

Declaration of competing interests

The author declares he has no competing interests.

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