

An approach to the patient with chronic constipation

Based on a talk by

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Introduction

Chronic idiopathic constipation is a very common condition affecting approximately 15% of the population and is seen most often in females and with increasing age.¹ It has a considerable impact on quality of life and treatment can be extremely challenging; recent survey data indicate that only 30% of those receiving treatment are satisfied. At the eighth annual congress of the Faculty of Consulting Physicians of South Africa, 14-16 June 2019, Dr Gillian Watermeyer outlined an approach to managing the patient with chronic constipation.

KEY MESSAGES

- Constipation means different things to different people – listen to your patient and find out exactly what their issues are
- Identify alarm signals and exclude secondary causes of constipation
- There is no need for extensive and expensive investigation in the patient without alarm signals or secondary causes
- Lifestyle modification is the first tier of intervention
- Bulking agents and iso-osmotic laxatives are first-line therapy and can be used concurrently
- Try to use traditional laxatives sparingly, with investigation required in patients refractory to these measures and where constipation is having a considerable impact on quality of life
- On specialist work-up, dyssynergic constipation needs to be ruled out first, with biofeedback key to treating this condition
- Patients who become completely refractory with slow-transit constipation may require surgery.

There is generally a discord between the perceptions of the patient and the clinician's view of constipation. Often, the clinician will focus on symptoms such as stool frequency (<3 spontaneous bowel actions per week) and stool consistency (passage of hard or lumpy stools). These symptoms are not of primary concern for the patient, as they are more affected by issues of prolonged difficult incomplete defecation, painful defecation,

the need to perform manual manoeuvres to facilitate defecation and, in patients with concurrent irritable bowel syndrome (IBS), the presence of pain and bloating. The new Rome IV criteria for diagnosis of constipation reflect these symptoms (Tables 1 and 2).² Dr Watermeyer emphasises the importance of talking with the patient to identify which issues are troubling them, as this will dictate management going forward.

Table 1. Rome IV diagnostic criteria for constipation*

Must have ≥2 of the following:

- Straining for >25% of defecations
- Lumpy or hard stools – form 1 or 2 on the Bristol Stool Form Scale - for >25% of defecations
- Sensation of incomplete evacuation for >25% of defecations
- Sensation of anorectal obstruction/blockage for >25% of defecations
- Manual manoeuvres to facilitate defecation – digital evacuation, pelvic floor support – for >25% of defecations
- <3 spontaneous bowel movements per week

Must have both of the following:

- Loose stools rarely present without the use of laxatives
- Does **not** meet Rome IV criteria for IBS

*For use in patients with symptoms suggestive of constipation for at least the last three months with symptom onset ≥6 months ago. Do not use in patients with alarm symptoms such as gastrointestinal bleeding, unexplained iron deficiency anaemia, unintentional weight loss, palpable abdominal mass, family history of colon cancer or symptom onset ≥50 years of age and not yet screened for colon cancer, or sudden/acute onset of new change in bowel habits.

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Table 2. Rome IV diagnostic criteria for IBS*
Must have ≥2 of the following:
• Related to defecation – either increasing or improving pain
• Associated with a change in stool frequency
• Associated with a change in stool form (appearance)
*For use in patients with recurrent abdominal pain at least one day per week in the last three months on average, associated with ≥2 of the listed criteria. The criteria are fulfilled with symptom onset six months prior to diagnosis.

Which considerations are important in the clinical assessment of chronic constipation?

Clinical history and lifestyle

During history-taking and clinical examination, it is important to enquire about lifestyle – diet, fluid intake, physical activity – and define the defecatory process of the patient in detail. Because patients often underestimate frequency of defecation, it is useful for them to keep a stool diary; the Bristol Stool Form Scale (Figure 1) is a valuable visual aid for characterising stool consistency.

Identify alarm symptoms

Red flags include gastrointestinal bleeding, unexplained iron deficiency anaemia, unintentional weight loss, palpable abdominal mass, family history of colon cancer or inflammatory bowel disease, symptom onset ≥50 years of age and not yet screened for colon cancer, or sudden/acute onset of new change in bowel habits.^{1,3} These patients need further investigation and a colonoscopy as soon as possible.

“Talk with the patient to identify the issues that are troubling them”
Dr Watermeyer

Type 1		Separate hard lumps, like nuts (hard to pass)
Type 2		Sausage-shaped but lumpy
Type 3		Like a sausage but with cracks on its surface
Type 4		Like a sausage or snake, smooth and soft
Type 5		Soft blobs with clear cut edges (passed easily)
Type 6		Fluffy pieces with ragged edges, mushy stool
Type 7		Watery, no solid pieces, ENTIRELY LIQUID

Figure 1. Bristol Stool Form Scale

Consider secondary causes of chronic constipation

Severe constipation is very common in neurological illnesses and spinal cord injuries. Structural issues such as rectal prolapse or, very importantly, the pain caused by anal fissures can also lead to secondary

constipation. Other associations are with psychological conditions (depression, anorexia), medications, diabetes, hypothyroidism and hypercalcaemia.^{1,3}

Further investigations

If clinically indicated, test TSH, full blood count, calcium and glucose. If there are no alarm features and no secondary causes, further work-up is not routinely recommended.

The yield of endoscopy, radiology and blood testing beyond this adds very little value and the clinician should proceed directly to considering therapy options.

Managing chronic idiopathic constipation

Which lifestyle modifications are recommended?

The first level of intervention focuses on lifestyle modifications, advising increased fluid intake and levels of physical activity. It is recommended that dietary fibre be increased to 30mg per day, which is very

difficult to achieve through diet alone. Fibre supplements (bulking agents) should be added to the diet. The natural sugars in fruit have an osmotic effect that may be of benefit and a randomised controlled trial

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has shown that prunes significantly improve spontaneous bowel actions compared to psyllium.⁴

Patients should be advised to attempt defecation within two hours of waking up,

half an hour after breakfast, when colonic motility is strongest; to establish a routine – same time, same place – and to ‘heed nature’s call’ immediately.

Which therapeutic agents are available for treatment of chronic constipation?

Of available therapeutic agents (Table 3),^{1,3} bulking agents are the recommended first-line laxatives. Bulking agents are safe, cheap and effective when taken with at least 200ml water. Be aware of the side effects of gaseousness, bloating and cramps in the patient with constipation related to IBS, as this may make the patient feel worse.

Osmotic laxatives can also be used as first-line therapy, and concurrently with bulking agents. Polyethylene glycol (PEG) 3350 is the most commonly prescribed and used osmotic laxative. Osmotic laxatives are safe and relatively cheap but do take time to work and may cause problems with sugar control in the diabetic patient. The sodium phosphate-containing osmotic preparations used for bowel cleansing are problematic as, if used as a laxative, they can cause acute phosphate nephropathy; numerous deaths have been reported. The US Food and

Drug Administration has issued a black-box warning that they should not be used in patients older than 55 years or people with renal dysfunction. If taken in excess, they produce hypotension, hypokalaemia and lactic acidosis.

The stimulant laxatives are very effective and safe to use over the long term. Sodium picosulphate (SPS) is not recommended for long-term use.

Of the stool softeners, glycerine suppositories are useful as an adjunct to other laxative agents. Liquid paraffin, widely used by patients, should be avoided as it causes anal seepage, anal irritation and possible fat-soluble vitamin malabsorption.

Patients often take multiple laxative agents and yet remain refractory with associated quality of life concerns. It is recommended that these patients be referred for specialist investigations.

“It is important to enquire about lifestyle... and define the defecatory process in detail”

Dr Watermeyer

Table 3. Therapeutic agents

Bulking agents	Soluble fibre supplements that retain water to increase stool biomass, which stimulates motility	<ul style="list-style-type: none"> • Ispaghula (psyllium) • Sterculia • Methylcellulose
Osmotic laxatives	Poorly absorbable sugars draw water into the lumen	<ul style="list-style-type: none"> • Sorbitol • Lactulose • Low-dose PEG • Magnesium-containing • Sodium phosphate-containing
Stimulant laxatives	Stimulate peristaltic contractions to decrease transit time	<ul style="list-style-type: none"> • Bisacodyl • Senna • SPS
Stool softeners	Anionic surfactants with emulsifying detergent-like properties	<ul style="list-style-type: none"> • Glycerine suppositories • Liquid paraffin

Understanding the types of chronic idiopathic constipation

Chronic idiopathic constipation is classified into three broad categories – normal-transit,

slow-transit and dyssynergic defecation (DD).^{1,3}

Normal-transit constipation

Also known as functional constipation, this is often seen in patients with IBS. Stool frequency and transit may be normal and yet the patient still feels constipated. This may reflect differences in evacuation or the perception that the stools are very hard.

Normal-transit constipation may be associated with psychosocial distress and the patient may need to see a psychologist or psychiatrist, as in such cases it may be better treated with an antidepressant than a laxative.

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Slow-transit constipation

Slow-transit constipation is the rarest form of chronic idiopathic constipation, also called colonic inertia or motility disorder, and typically affects women. It is characterised by markedly increased colon transit times, with abdominal distension a common feature. Stool frequency is very low, with defecation only once a week or every two weeks. The cause remains uncertain and there are no

Dyssynergic defecation

Dyssynergic defecation, the most common form (40%) of chronic idiopathic constipation, is mostly an acquired behavioural disorder, which often stems from ignoring the urge to go to the toilet; there is a common overlap between psychological issues and stress. DD is suggested by the following symptoms:

- Excessive straining
- Digitation
- Splinting of the perineum on the vaginal vault during defecation
- Difficulty passing even soft stools
- No response to high-dose laxatives.

In DD, there is a problem with co-ordination between the abdominal, rectal, anal and pelvic floor muscles during defecation. There are many reasons for this – failure of the external anal sphincter to relax, paradoxical contraction of the external

Opioid-induced constipation

Constipation affects 90% of all opioid-treated patients as a result of strongly reduced peristaltic activity, resulting in slow transit and increased fluid absorption. This causes less frequent, very hard stools that cause abdominal discomfort. It is recommended that patients, particularly those who face long-term opioid use, be given stimulant laxative prophylaxis at the time of

diagnostic features to determine the aetiology.

Slow-transit constipation can be extremely difficult to treat. Every avenue should be considered before opting for a colectomy. New therapeutic agents such as the chloride-channel activator, lubiprostone,⁵ and the guanylate cyclase-C receptor agonist, linaclotide,⁶ are currently not available in South Africa.

anal sphincter, failure of the puborectalis to relax, and inadequate rectal propulsion forces. Available tools for assessing DD are the balloon expulsion test, which can be suggestive of an outlet problem, high-resolution anal manometry (only available in specialist centres) and colonic transit studies. If these tools are inconclusive, defecography can confirm DD.

The most successful treatment for DD is biofeedback, where the patient relearns how to defecate normally and to voluntarily relax the external anal sphincter and puborectalis muscles. Physiotherapy, in conjunction with biofeedback, helps with pelvic floor retraining. A bisocodyl suppository helps to improve rectal force. Also advise the patient to place a low footstool in front of the toilet and to lean forward, thereby simulating a squatting posture to facilitate defecation.

the first prescription. If constipation develops regardless of prophylactic measures, bulk laxatives should be avoided.

Peripherally acting μ -opioid receptor antagonists (PAMORAs) address the pathophysiology of opioid-induced constipation without reducing the analgesic effects of opioids in the central nervous system.⁷ These are not yet available in South Africa.

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