Prescribing Guidance for the Treatment of Constipation in Adults in Primary Care.

The British National formulary defines constipation as ‘the passage of hard stools less frequent than the patient’s own normal pattern’.

While only 3% of young adults are constipated, 20% or more of the elderly population can be affected. It is more common in women due to their slower intestinal transit rate.

Initial assessment should involve investigation of possible causes of constipation. Assessment should include the following:
- Assessment of bowel function
- Mobility
- Dexterity
- Dietary intake and the ability to chew/swallow
- Fluid intake
- Mouth care
- Underlying disease (figure 1)
- Medication (figure 2)
- Previous treatment for constipation.

However, it is not always possible to identify an obvious underlying cause.

Figure 1
Conditions which may cause or contribute to constipation

- Bowel obstruction
- Irritable bowel syndrome
- Cancer
- Diverticular disease
- Dehydration
- Admission to hospital for any cause
- Hypothyroidism
- Neuromuscular disorders (neurological)
- Stimulant laxative abuse
- Anorexia
- Hypercalcaemia
- Pregnancy

Further investigation of all cases should be considered where:
- Constipation is a new symptom which is not due to changes in lifestyle, diet or drug therapy.
- Symptoms are severe and unresponsive to treatment.
- Alarm symptoms (‘red flags’) are present e.g. constipation alternating with diarrhoea, rectal bleeding, passing mucus per rectum, abdominal pain, weight loss, anorexia, tenesmus (painful and ineffectual straining).

Colorectal cancer should be suspected in any adult who presents with alarm symptoms or altered bowel habit without an obvious cause. Ask patient if there is a family history of colorectal cancer. Such patients should be referred for further investigation.
The Rome III criteria is a standardised tool that diagnoses chronic constipation on the basis of two or more of the following symptoms for at least 12 weeks in the preceding 6 months-
– Straining*
– Lumpy or hard stools*
– Sensation of incomplete evacuation*
– Sensation of anorectal obstruction/blockage*
– <3 defecations/wk
(*≥25% of defecations)

Changing potentially constipating medication together with dietary advice may be enough to relieve constipation in many cases. Laxatives may be needed in the short term to provide rapid initial relief of severe symptoms. In general laxatives should only be used:

- Where straining may exacerbate conditions such as angina.
- To reduce the risk of rectal bleeding, e.g. in haemorrhoids.
- Where bowel motility has been reduced by drugs such as opiates or anticholinergics.
- In the elderly who have weak abdominal and perineal muscles.
- Where dietary and lifestyle interventions have persistently failed.
- Patients with neurological conditions.

Prolonged treatment is not usually required, except occasionally in the elderly or some patients with neurological disease or injury.

Figure 2

Drugs which may cause constipation

- Opioid analgesics, including compound products e.g. co-codamol, co-dydramol.
- Drugs with antimuscarinic (anticholinergic) effects – Tricyclic/ SSRI/SNRI antidepressants; antipsychotics; antimuscarinic; anti-parkinsonian drugs; antihistamines – especially older sedating antihistamines e.g. chlorphenamine, promethazine and cyclizine; antispasmodics e.g. hyoscine.
- Calcium salts (note: contained in some antacids & phosphate binders).
- Aluminium salts (in many antacids).
- Iron salts.
- Calcium channel blockers (mainly verapamil).
- Phenothiazines
- NSAIDs (more commonly cause diarrhoea).
- 5HT₃ antagonists e.g. Ondansetron
- Diuretics
Patient presenting with suspected constipation

Confirm abnormal bowel function / altered routine (bowel diary) → Identify cause. Consider pregnancy, disease (figure 1), immobility, diet, neurological disorder and medication (figure 2)

Patient education and lifestyle advice
(Allow about a month for results, however dependant on patient and severity of symptoms)
- Increase fluids: >2 litres per day
- Gradually increase dietary fibre: at least one fibre rich food per meal e.g. Weetabix®, figs, jacket potatoes (with skins)
- Increase exercise
- Educate patients as to which drugs can cause/worsen constipation
- Re-educate e.g. gastro-colic reflex.
- Advice on toilet positioning and not to ignore call to stool.
- Abdominal massage.
- Consider review by continence nurse and/or dietician

If unresolved prescribe a laxative-
- Has patient bought any treatment from pharmacy?
- Ensure patient adhering to prescription.
- Review regularly.

Acute constipation
Short term use senna, bisacodyl, glycerin suppositories or magnesium hydroxide.

Pregnancy – Ispaghula husk (e.g. Fybogel)
If severe constipation or faecal impaction, seek specialist opinion

Chronic constipation
Ispaghula husk used regularly, if fluid intake above 1½ litres. May also need occasional stimulant or macrogol if low fluid intake.

Constipation associated with opiate use.
Start laxative when opiate initiated. Prescribe senna/bisacodyl and docusate. If anticipatory prescribing not done use senna/bisacodyl, docusate or macrogol. If ineffective, in terminal patients only, use co-danthramer (NB. Licence restrictions)

For hard impacted stools and patients with neurological disorders or learning disabilities, use macrogols or enemas (If no improvement/long term gain liaise/refer to appropriate specialist teams for bowel management)

Lupiprostone or prucalopride (for women only) are recommended as an option for the treatment of chronic constipation for whom treatment with at least 2 laxatives from different classes, at the highest tolerated recommended doses for at least 6 months, has failed to provide adequate relief and invasive treatment for constipation is being considered. Other laxatives should be stopped and these drugs should not be used in combination. Lubiprostone and prucalopride have different modes of action so if one fails another may be trialled.

Please note prucalopride is NOT licensed for use in men.

Refer for bowel management if no improvement within 6-8 weeks or if symptoms get significantly worse

- NB. Lactulose is expensive and offers no advantages over other laxatives.
  - To be effective it must be used regularly and with plenty of extra fluids and may even need the use of a stimulant.
  - Reserve for hepatic encephalopathy and for patients who do not respond to other laxatives.
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<tr>
<th>Class and Generic/Brand Name</th>
<th>Recommended Indications</th>
<th>Additional Information</th>
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<tr>
<td><strong>Bulking Agents</strong> - Increase faecal mass thus stimulating peristalsis.</td>
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| Ispagula (e.g. Fybogel®, Isogel®, Manevac®, Regulan®) | Diverticular disease, functional constipation, irritable bowel syndrome. | • Introduce gradually.  
• Best taken in the morning.  
• Should be taken with plenty of fluids.  
• Swell in contact with liquid.  
• Should not be taken before going to bed.  
• May not help in elderly as difficulty increasing fluids.  
• Inform patient that may take several days to work.  
• Side effects include flatulence, abdominal distension and GI obstruction or impaction. |
| Sterculla (e.g. Normacon®) | Constipation due to insufficient dietary fibre | |
| Methylcellulose (e.g. Celevac®) | Constipation | |
| **Stimulant Laxatives** - Increase GI tract secretion and motility-active metabolites created by action of colonic flora. | | |
| Senna (e.g. Senakot®) | Constipation | • Effective in 6-12 hours.  
• Best at bedtime.  
• Useful with opioid analgesics.  
• Avoid in intestinal obstruction.  
• May cause abdominal cramp.  
• Excessive use may cause diarrhoea and hypokalaemia.  
• Senna should not be used for prolonged periods since they may decrease the sensitivity of the intestinal mucous membranes, so larger doses have to be taken and the bowel fails to respond to normal stimuli.  
• Prolonged use may produce watery diarrhoea with excessive loss of fluid and electrolytes, particularly potassium, muscular weakness and weight loss. Changes in the intestinal musculature associated with malabsorption and dilation of the bowel, similar to ulcerative colitis and to megacolon, may also occur  
• Antacids or milk products may affect the absorption of bisacodyl. Concomitant use with diuretics may increase the loss of electrolytes, particularly potassium, causing increased toxicity of cardiac glycosides |
| Bisacodyl | Constipation, Bowel clearance before surgery, labour or radiological examination | |
| Danthron (e.g. Co-danthramer, Co-danthrusate, Normax®) | Only for constipation in terminally ill (end of life) of all ages. Will colour urine red. | • Take with adequate fluids.  
• Lactulose may take up to 48 hours to act and needs to be taken regularly.  
• Lactulose is not recommended for long term use.  
• Sodium salts should be avoided as they may give rise to sodium and water retention in susceptible individuals.  
• Side effects include nausea, flatulence and abdominal pain and discomfort.  
• Patients with cardiovascular impairment should not have more than 2 sachets of macrogol in any 1 hour.  
• Macrogol raises the solubility of medicinal products that are soluble in alcohol and relatively insoluble in water. There is a possibility that the absorption of other medicinal products could be transiently reduced during use with macrogols. There have |
| **Osmotic Laxatives** - Alter osmotic environment of GI tract-osmotic pressure altered to oppose the absorption of water; faeces softened, bulk increased or becomes liquid. | | |
| Macrogols (e.g. Laxido®, Movicol®, Klean-Prep®) | Chronic constipation  
(Surrey Area Prescribing Committee (APC) recommendation April 2011: Laxido® Cosmocol® are the macrogols of choice for adults)  
Faecal impaction (bowel cleansing e.g. Klean-Prep®) | • Take with adequate fluids.  
• Lactulose may take up to 48 hours to act and needs to be taken regularly.  
• Lactulose is not recommended for long term use.  
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<p>| Lactulose | Constipation, portal systemic encephalopathy | |
| Lactitol monohydrate (e.g. Lactitol®) | Constipation, acute/chronic portal systemic encephalopathy. | |</p>
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<th>Magnesium salts (e.g. magnesium hydroxide mixture, Citramag®)</th>
<th>Chronic constipation, faecal impaction, (bowel cleansing e.g. Klean-Prep®)</th>
<th>been isolated reports of decreased efficacy of other drugs when concomitantly administered with macrogols e.g. anti-epileptics due to increased GI transit.</th>
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<td>Phosphates (rectal) (e.g. Carbalax®, Fleet® ready-to-use Enema)</td>
<td>Rectal use in constipation; bowel evacuation before abdominal radiological procedures, endoscopy and surgery.</td>
<td>• A course of treatment for constipation with a macrogol (current brand of choice is Laxido® orange) does not normally exceed two weeks although this can be repeated if required after patient has been reviewed.</td>
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<td>Sodium citrate (rectal) (e.g. Micralax® Micro-enema.)</td>
<td>Rectal use in constipation</td>
<td>• Prolonged use is not usually recommended, however, extended use may be necessary in the care of patients with neurological disorders or learning disabilities.(continued on next page)</td>
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<tr>
<td>Docusate sodium (e.g. Diocyl®, Docusol®, Fletcher’s Enemette®, Norgalax®)</td>
<td>Prevention and treatment of chronic constipation, pre/post operative constipation.</td>
<td>• Laxido® orange/ Cosmocol® may be used for faecal impaction: 8 sachets daily over a 6-hour period for up to 3 days.</td>
</tr>
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<td>Sodium citrate (rectal) (e.g. Micralax® Micro-enema.)</td>
<td>Rectal use in constipation</td>
<td>• Avoid oral magnesium salts in patients with renal impairment.</td>
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<td>Sodium citrate (rectal) (e.g. Micralax® Micro-enema.)</td>
<td>Rectal use in constipation</td>
<td>• Oral magnesium preparations should be taken an hour after all other medicines.</td>
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Faecal softeners- Lubricate, soften and wet stool.

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<th>Docusate sodium (e.g. Diocyl®, Docusol®, Fletcher’s Enemette®, Norgalax®)</th>
<th>Prevention and treatment of chronic constipation, pre/post operative constipation.</th>
<th>Oral preparations act within 1-2 days.</th>
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<tr>
<td>Sodium citrate (rectal) (e.g. Micralax® Micro-enema.)</td>
<td>Rectal use in constipation</td>
<td>Side effects include nausea and abdominal cramps.</td>
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5HT₄-receptor agonists- acting as a selective, high affinity 5-HT₄ receptor agonist which targets the impaired motility associated with chronic constipation, thus normalising bowel movements.

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<thead>
<tr>
<th>Prucalopride (Resolor®)</th>
<th>Chronic constipation in women when other laxatives fail to provide an adequate response.</th>
<th>1. Patient should have been treated with at least 2 laxatives from different classes, at the highest tolerated recommended doses for at least 6 months, and these treatments have failed to provide adequate relief and invasive treatment for constipation is being considered.</th>
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<td>Bicyclic fatty acid and a locally acting chloride channel activator that enhances the secretion of chloride-rich intestinal fluid without altering electrolyte concentration in the serum.</td>
<td>Chronic idiopathic constipation for adults in whom treatment with at least 2 laxatives from different classes has failed to provide adequate response.</td>
<td>3. Patient should have been treated with at least 2 laxatives from different classes, at the highest tolerated recommended doses for at least 6 months, and these treatments have failed to provide adequate relief and invasive treatment for constipation is being considered.</td>
</tr>
</tbody>
</table>

References:
1. British National Formulary 68
2. MeReC bulletin Volume 10, Number 9, 1999. The management of constipation.
5. Treatment of Constipation (in Adults. The Newcastle upon Tyne Hospitals NHS foundation Trust.
What is constipation?
Constipation is common. Usual symptoms include stools (faeces or motions) becoming hard, and difficult or painful to pass. The time between toilet trips increases compared with your usual pattern. You may also feel bloated and feel sick if you have severe constipation.

Bristol Stool Chart

Type 1, 2 or 3 on the Bristol stool chart show some level of constipation, with Type 1 the most severe.

Note: there is a large range of normal bowel habit, from 2-3 times per day to 2-3 times per week. It is a change from your usual pattern and the hardness and pain passing the stools that defines constipation.

What causes constipation?
- Not eating enough fibre (roughage) is a common cause (See below)
- Not drinking enough, as stools require water to keep them soft and easily passed (See below)
- Some medicines can cause constipation as a side-effect. For example, painkillers like codamol, codeine and morphine slow down your gut movements, and you may need a laxative to start it moving again. You may wish to check the patient information leaflet or with your Pharmacist.
- Various medical conditions can cause constipation. For example, an underactive thyroid, irritable bowel syndrome, and conditions that reduce your mobility and exercise.
- Pregnancy. Hormonal changes in pregnancy can slow down the gut movements, and in later pregnancy, the baby pushes the bowels making it more difficult for the stools to move.
- Unknown cause (idiopathic)
Some people have a good diet, drink a lot of fluid, do not have a disease or take any medication that can cause constipation, but still become constipated. Their bowels are said to be underactive.
This is common (up to 1 in 6 people) and mostly occurs in women. This condition starts in childhood or early adulthood, and persists throughout life.

What can I do to reduce my constipation? (Lifestyle advice)
Have plenty to drink. Aim to drink about 8-10 cups (2 litres) of fluid per day. This will allow some to stay in the gut and soften the stools. Most drinks will do, but alcoholic drinks can be dehydrating.

Exercise regularly. Keeping your body active helps to keep your gut moving. It is well known that people with low mobility or bed-bound (even if just temporary) are more likely to get constipated.

Toileting routines. Do not ignore the feeling of needing the toilet. Some people suppress this feeling if they are busy. It may result in a backlog of stools which is difficult to pass later.
As a rule, it is best to try going to the toilet first thing in the morning or about 30 minutes after a meal. This is because the movement of stools through the lower bowel is greatest in the mornings and after meals.
How you sit on the toilet is also important. A small footstool under your feet will help the passage of stools. Relax, lean forward and rest your elbows on your thighs. You should not strain and hold your breath to pass stools.

Lifestyle advice continued...
Eat foods containing plenty of fibre. Fibre from food stays in your gut and adds bulk and softness to the stools. You may have some bloating and wind at first, and it can take up to four weeks to help your constipation. So it is best to increase your fibre slowly and make it a long term change. You will also need to drink lots of water with your high fibre foods.

High-fibre foods include:
- Fruit and vegetables. Aim to eat at least five portions of different fruit and vegetables each day
- Oats, nuts and seeds, wholegrain cereals, bran and wholemeal pasta, bread etc
* Sorbitol is a sugar, which soften the stools and acts like a natural laxative. Sorbitol is found in fruits (and juices) such as apples, apricots, gooseberries, grapes (and raisins), peaches, pears, plums, prunes, raspberries and strawberries. The amount of sorbitol is about 5-10 times higher in dried fruit.
* Sometimes bran and wholemeal may cause more bloating and cramps and worsen constipation in patients with IBS

More information available at:
www.patient.co.uk/health/constipation-in-adults-leaflet
www.nhs.uk/Conditions/Constipation
www.bladderandbowelfoundation.org

Acknowledgement to Rotherham CCG