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
- 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 adults who present 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 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-dyramol.
- Drugs with antimuscarinic (anticholinergic) effects – Tricyclic/ SSRI/SNRI antidepressants; antipsychotics; antimuscarinic; anti-parkinsonian drugs; antihistamines – especially older sedating antihistamines e.g. chlorphenamine, promethazine and cyclazine; 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)

Treat underlying cause – review medication

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 – 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.
Pregnancy – Ispaghula husk (e.g. Fybogel

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

For hard impacted stools and patients with neurological disorders or learning disabilities, use macrogols or enemas (If no improvement refer to specialist teams)

Women with chronic constipation
Prucalopride is recommended as an option for the treatment of chronic constipation in women 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.

- 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.
<table>
<thead>
<tr>
<th>Class and Generic/Brand Name</th>
<th>Recommended Indications</th>
<th>Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulking Agents</strong>- increase faecal mass thus stimulating peristalsis.</td>
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<td></td>
</tr>
</tbody>
</table>
| 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.  
- In from patient that may take several days to work.  
- Side effects include flatulence, abdominal distension and GI obstruction or impaction. |
| Sterculia (e.g. Normacol®) | 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.  
- First line in elderly.  
- Avoid in intestinal obstruction.  
- May cause abdominal cramp.  
- Excessive use may cause diarrhoea and hypokalaemia.  
- 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 cardioglycosides |
| Bisacodyl | Constipation, Bowel clearance before surgery, labour or radiological examination | |
| Danthron (e.g. Con-danthramer, Co-danthrusate, Normax®) | Only for constipation in terminally ill (end of life) of all ages. Will colour urine red. | |
| **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 APC recommendation April 2011: Laxido® is the macrogol 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.  
- 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 been isolated reports of decreased efficacy with some |
<p>| Lactulose | Constipation, portal systemic encephalopathy | |
| Lactitol monohydrate (e.g. Lactitol®) | Constipation, acute/chronic portal systemic encephalopathy. | |
| Magnesium salts (e.g. magnesium hydroxide mixture, Citramag®) | Chronic constipation, faecal impaction, (bowel cleansing e.g. Klean-Prep®) | |
| Phosphates (rectal) (e.g. Carbalax®, Fleet® ready-to-use Enema) | Rectal use in constipation; bowel evacuation before abdominal radiological | |</p>
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<thead>
<tr>
<th>Medication</th>
<th>Use</th>
<th>Notes</th>
</tr>
</thead>
</table>
| Sodium citrate (rectal) (e.g. Micralax® Micro-enema) | Rectal use in constipation | concomitantly administered medicinal products, e.g. anti-epileptics due to increased GI transit.  
- A course of treatment for constipation with a macrogol (Surrey PCT brand of choice is Laxido® orange) does not normally exceed two weeks although this can be repeated if required after patient has been reviewed.  
- Prolonged use is not usually recommended, however, extended use may be necessary in the care of patients with neurological disorders or learning disabilities.  
- Laxido® orange may be used for faecal impaction: 8 sachets daily over a 6-hour period for up to 3 days.  
- Avoid oral magnesium salts in patients with renal impairment.  
- Oral magnesium preparations should be taken an hour after all other medicines. |
| Docusate sodium (e.g. Dioctyl®, Docusol®, Fletcher’s Enemette®, Norgalax®) | Prevention and treatment of chronic constipation, pre/post operative constipation. | Oral preparations act within 1-2 days.  
- Side effects include nausea and abdominal cramps. |
| 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. | Chronic constipation in women when other laxatives fail to provide an adequate response. | 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.  
2. If treatment is not effective after 4 weeks then consider stopping treatment. |
| Peripheral opioid-receptor antagonists | Opioid-induced constipation in terminally ill patients, when response to other laxatives is inadequate | 3. Only for use in patients with opioid-induced constipation receiving palliative care.  
4. Does not alter the central analgesic effect of opioids. |

References:
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.