CONSTIPATION
Supporting information

This guideline has been prepared with reference to the following:

World Gastroenterology Organisation. Constipation. Practice Guideline. WGO, 2010

http://www.worldgastroenterology.org/assets/export/userfiles/05_constipation.pdf

McKay SL, Fravel M, Scanlon C. Management of constipation, 2009. Gerontological Nursing Interventions Research Center, University of Iowa

Drinking more than 1 L of fluid daily encourages a regular bowel habit?
A study in 15 volunteers aged 23-46 years (Chung, 1999) had 9 increase their consumption, over 4 days, of isotonic fluids (Gatorade) and the remaining 6 increased water intake. In both cases this was between 1 and 2L above a measured baseline. No significant change in stool output was noted either during, or 2 days after, 4 days of increased fluid intake.
A study in 8 volunteers aged 21-28 years (Klauser, 1990) measured stool output during a week with a fluid intake of more than 2.5L per day, followed by a week (after a wash-out week in between) in which fluid intake was less than 0.5L per day. Stool frequency diminished from 6.9 +/- 0.9-4.9 +/- 0.3 (mean +/- SEM) defaecations per week ($p = 0.041$) and stool weight from 1.29 +/- 0.20-0.94 +/- 0.17 kg per week ($p = 0.048$) during the period of fluid restriction.
An RCT investigated water supplementation (2 L/day) compared with control ad libitum fluid intake for 2 months (n = 141), both alongside a high-fibre diet (Anti, 1998). Water supplementation resulted in higher stool frequency (4.2 ± 1.3 vs. 3.3 ± 1.8/week, $p < 0.001$) compared with control.

Anti M, Pignataro G, Armuzzi A et al. Water supplementation enhances the effect of high-fiber diet on stool frequency and laxative consumption in adult patients with functional constipation. Hepatogastroenterology. 1998;45:727–2

Chung BD, Parekh U, Sellin JH. Effect of increased fluid intake on stool output in normal healthy volunteers. J Clin Gastroenterol 1999;28:29-32

Klauser AG, Beck A, Schindlbeck NE, et al. Low fluid intake lowers stool output in healthy male volunteers. Z Gastroenterol 1990;28:606-9

Evidence Level: IV

Bisacodyl suppositories are more effective than glycerine suppositories?
No evidence has been found to answer this question.

Arachis oil or docusate enema is more effective than phosphate enema, which in turn is more effective than Microlax enema?
No robust evidence that demonstrates the superiority of one type of enema over another can be identified. Anecdotally, some patients may respond more readily to a particular type of enema, but consideration should be given to possible contraindications in the choice of agent used. Arachis oil, for example, may not be used in patients with a peanut allergy, and phosphate enemas may be dangerous in dehydrated patients or those with renal failure (Bowers, 2006; Davies, 2004).

Bowers B. Evaluating the evidence for administering phosphate enemas. Br J Nurs 2006;15:378-81

Davies C. The use of phosphate enemas in the treatment of constipation. Nurs Times 2004;100:32-5

Evidence Level: V

How does manual evacuation compare with bowel washout in the management of impacted faeces?
No studies that compared the two procedures were identified. The need for an evidence-based guideline has been recognised, especially as “Digital removal of faeces is viewed as a last resort in the management of severe constipation and is only practised when all other methods of bowel evacuation have failed” (Kyle, 2004).

Not found an answer to your question? Wish to suggest an edit to this document?
Please contact the BCGP Clinical Effectiveness Librarian at bedsideclinicalguidelines@uhnm.nhs.uk

Kyle G, Prynn P, Oliver H. An evidence-based procedure for the digital removal of faeces. Nurs Times 2004;100(48):71

Evidence Level: V

What are the relative advantages and disadvantages of senna, bisacodyl and docusate as stimulant laxatives?

A Health Technology Assessment review (Petticrew, 1997) found that "It was not possible to determine the relative effectiveness of different types of laxative as few good quality comparative studies have been carried out. However, a combination of a bulk plus stimulant laxative (Agiolax) was found in two good quality trials to be more effective in improving stool consistency and frequency than an osmotic laxative alone (lactulose)."

More recent reviews (Joy, 2005; Haycox, 2001; Petticrew, 1999) agree that "there appears to be no evidence to support the current NHS trend towards prescribing the more expensive stimulant laxatives" (Petticrew, 1999).

Good evidence does exist, on the other hand, to support the use of osmotic laxatives such as polyethylene glycol (PEG) (Lee-Robichaud 2010; Joy, 2005; Ramkumar, 2005).

Joy JP. Review: good evidence supports the use of polyethylene glycol and tegaserod for constipation. Evidence Based Nurs 2005;8:109
http://ebn.bmj.com/content/8/4/109.full

Lee-Robichaud H, Thomas K, Morgan J and Nelson RL. Lactulose versus Polythylene Glycol for Chronic Constipation Intervention Review. Cochrane Database Syst Rev 2010; 7 (7): Art. No.: CD007570.
http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD007570.pub2/full

Petticrew M, Watt I, Sheldon T. Systematic review of the effectiveness of laxatives in the elderly. Health Technol Assess 1997;1(13):1-52
http://www.journalslibrary.nihr.ac.uk/__data/assets/pdf_file/0009/64863/FullReport-hta1130.pdf

Petticrew M, Watt I, Brand M. What's the 'best buy' for treatment of constipation? Results of a systematic review of the efficacy and comparative efficacy of laxatives in the elderly. Br J Gen Pract 1999;49:387-93
http://bjgp.org/content/bjgp/49/442/387.full.pdf

Ramkumar D, Rao S. Efficacy and safety of traditional medical therapies for chronic constipation: systematic review. Am J Gastroenterol 2005;100:936-71

Evidence Level I (in support of osmotic laxatives)

A minimum daily fluid intake is necessary for effective use of an osmotic laxative such as lactulose?

No evidence has been identified with which to answer this question, although fluid intakes of < 0.5L per day have been shown to result in smaller and less frequent motions in healthy volunteers (Klauser, 1990).

An Effective Health Care review concludes that "Research is also required into the effectiveness of overall dietary change (including increased fluid intake) in the treatment of constipation." (Anon, 2001).

Anon. Effectiveness of laxatives in adults. Effective Health Care 2001;7(1):1-12
https://www.york.ac.uk/media/crd/ehc71.pdf

Klauser AG, Beck A, Schindlbeck NE, et al. Low fluid intake lowers stool output in healthy male volunteers. Z Gastroenterol 1990;28:606-9

Evidence Level: V

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