

bleeding ulcers were subject to meta-analysis. Significant reductions in the rates of recurrent bleeding and surgery within 30 days of randomization were found (odds ratio [OR] 0.46 and 0.59, respectively). There was, however, no detectable effect of PPIs on mortality during the same period (OR 1.11).

Subgroup analyses revealed that PPIs exert their positive effects regardless of their route of administration (bolus, infusion, oral or a combination thereof). The benefits of drug treatment were noted in patients who had received prior endoscopic hemostatic therapy—the standard care option for those at major risk of rebleeding—and those who had not.

This review goes some way to resolving the controversy surrounding off-label use of PPIs for bleeding peptic ulcers. By maintaining gastric pH at 6 or above, these drugs facilitate optimization of platelet activity and minimization of fibrinolysis, thereby aiding clot formation and reducing the risk of rebleeding. The authors contend that PPIs are a useful adjunct to endoscopic hemostatic management of ulcers and encourage formal studies of their cost-effectiveness.

Original article Leontiadis GI *et al.* (2005) Systematic review and meta-analysis of proton pump inhibitor therapy in peptic ulcer bleeding. *BMJ* [doi: 10.1136/bmj.38356.641134.8F]

Chronic constipation: a review of the evidence

EBM The problem of chronic constipation is complicated by 'myths and misconceptions', according to Müller-Lissner and colleagues. In their recent review, they have examined the quality of evidence supporting common beliefs about the condition.

Data from several studies suggest that a lack of dietary fiber is unlikely to be the cause of constipation in most patients. Although some individuals may benefit from increasing their fiber intake, this approach may make symptoms worse in patients with severe constipation. It is commonly believed that increasing fluid intake can alleviate the problem, but no evidence was found to support this, except in dehydrated patients. Regarding the chronic use of laxatives, the authors found that recommended doses are unlikely to cause harm and

that patients rarely develop tolerance to these agents. The concept of 'rebound constipation' after stopping laxatives was not supported by the literature and this therapy did not appear to be addictive.

Dolichocolon—an elongated but not dilated colon—should not be considered a cause of constipation, say the authors, and there is no evidence that shortening the colon or straightening colonic 'kinks' can alleviate symptoms. Despite the lack of evidence supporting the concept of 'auto-intoxication', whereby various diseases are caused by the absorption of toxins from the bowel, the practice of colonic cleansing is not uncommon.

In summary, the review demonstrates that several commonly held beliefs about chronic constipation—some of which affect treatment strategies—are not supported by scientific evidence.

Original article Müller-Lissner SA *et al.* (2005) Myths and misconceptions about chronic constipation. *Am J Gastroenterol* **100**: 232–242

Colonoscopy warranted in adults with rectal bleeding

EBM Although rectal bleeding is usually attributable to benign causes such as diverticula, some cases result from colon cancer or other serious colorectal disorders. There is no set standard of care, however, for the evaluation of this common symptom. Allen *et al.* have compared the cost-effectiveness of four evaluation strategies used by primary care physicians in this context.

The authors developed a Markov decision model to compare watchful waiting, flexible sigmoidoscopy, colonoscopy, and flexible sigmoidoscopy followed by air-contrast barium enema, for the evaluation of rectal bleeding in patients aged 40–80 years. The base case was an asymptomatic patient aged 55 years with at least one episode of rectal bleeding and no history of colon cancer or polyps. Following a systematic review of the literature, data were pooled using a random-effects model to estimate the prevalence of serious disease and the accuracy of diagnostic procedures. Costs for each strategy were estimated using Medicare reimbursement data.