1: Gastrointestinal System (8th Edition)

Sheffield self-care guidance encourages the use of Over the Counter (OTC) products for minor illnesses, such as indigestion, infant colic, constipation, diarrhoea.
Please see South Yorkshire self-care guidance for full details and https://www.nhs.uk/ for self-care information.
For drugs used in the treatment of obesity, please see here

1.1.1 Simple antacids

Co-magaldrox 195/220mg/5ml (Mucogel®) suspension (available OTC)

1.1.2 Compound alginate antacids

Peptac® sugar-free suspension (available OTC)
Infant Gaviscon® sachets (available OTC)

Mucogel® has low sodium content and is sugar free.

Gaviscon Advance® is not recommended locally in Sheffield. However, where a more concentrated volume of alginate is required, Acidex Advance® (has higher alginate content and lower (2.55mmol/5ml) sodium concentration than Peptac® (3.1mmol/5ml)) could be considered as a cost-effective alternative.

1.2 Antispasmodics and other drugs altering gut motility

Hyoscine butylbromide 10mg tablets (available OTC)
Mebeverine 135mg tablets (available OTC)

In treatment of IBS antispasmodic agents should be considered alongside dietary and lifestyle advice.

NICE CG61 (2017) Irritable bowel syndrome in adults: diagnosis and management.
For advice on self-help and managing IBS with constipation see here.
Consider fibre supplements(available OTC) (see 1.6.1).

See PHE and NHSE statement about the misuse of hyoscine butylbromide in HM prisons.

Motility stimulants

No recommended products for routine use

Metoclopramide has been removed from the GI chapter. In Aug 2013, the MHRA and EMA indicated that the risks of neurological effects such as extrapyramidal disorders and tardive dyskinesia outweigh the benefits of long term metoclopramide.
Metoclopramide is recommended only for short-term use (up to 5 days) for nausea and vomiting; it is still included in the CNS chapter 4.6 drugs used in nausea and vertigo.
MHRA safety alert (2013)

Domperidone is restricted to short-term use (up to 1 week) for nausea and vomiting and does not have a licence to cover indications associated with its properties as a prokinetic agent (due to risk of serious cardiac adverse drug reactions, including QTc prolongation, torsade de pointes, serious ventricular arrhythmia, and sudden cardiac death). The maximum dose is 10mg three times daily in adults and adolescents 12 years of age or older and weighing 35kg or more. Domperidone is no longer recommended in children younger than 12 years of age.

Domperidone carries risk of serious ventricular arrhythmia and sudden cardiac death particularly for patients older than 60 years and patients who receive daily oral doses of more than 30 mg.
MHRA safety alert (2014)
MHRA safety alert (2019)

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1.3 *Helicobacter Pylori* test

See NICE/PHE guidance: Summary of antimicrobial prescribing guidance – managing common infections
for Helicobacter Pylori eradication regimens – all regimens are for seven days.

Helicobacter Faecal Antigen Test
Helicobacter serology is no longer available from STH laboratories having been replaced by faecal antigen testing (95-97% sensitive and specific comparable to the Urea Breath Test). Unlike serology, a positive stool antigen test is highly predictive of current infection. *H. pylori* disappears quite quickly from the stool after eradication, therefore a negative result indicates clearance and a positive result indicates persisting active infection. This test is suitable for identifying current infection, relapses and successful eradication, although retesting is not recommended in the absence of a strong clinic need. To avoid false negative results, patients should be off antibiotics for at least four weeks and off PPIs and bismuth for at least two weeks before testing.

Prior to *H. pylori* stool antigen test, the following washout periods are recommended if the patient is taking any of the following:

- PPIs- 2 weeks
- Bismuth- 4 weeks
- Antibiotics- 4 weeks
- H_2 receptor antagonists – 48 hours

H_2 receptor antagonists and/or simple antacids or compound alginate antacids may be considered if alternative treatment is required during washout period in order to reduce symptoms of rebound acid hypersecretion.

Metronidazole is not recommended as first line regimen except if allergic to penicillin or the patient has used clarithromycin in the past 12 months for any infection. This is due to increasing resistance in Sheffield.
Do not use metronidazole if used in the past 12 months for any infection.
Use caution when prescribing clarithromycin containing regimens in patients taking statins – see the BNF for information on interactions.

PHE (2017) Test and treat for *Helicobacter pylori* (HP) in dyspepsia
NICE (2019) Summary of antimicrobial prescribing guidance – managing common infections
Helicobacter pylori testing and eradication in adults pathway

1.3.1 H_2 receptor antagonists

In 2019 the MHRA and the EMA have suspended supply of ranitidine due to possible contamination with an impurity called NDMA (N-nitrosodimethylamine), which has been identified as a risk factor in the development of certain cancers.
A DHSC disruption alert recommends to identify current patients prescribed oral ranitidine and review to establish if ongoing treatment is still required. See flowchart for reviewing of oral ranitidine for further advice.

1.3.5 Proton Pump Inhibitors
Lansoprazole caps 15mg, 30mg
Omeprazole caps 10mg, 20mg

The table below gives advice on dosing regimes for PPIs to support the management of patients.
For further information see NICE CG184 (2014): Dyspepsia and gastro-oesophageal reflux disease.

Proton pump inhibitor	Full/standard dose	Low dose (on-demand dose)	Double dose
Lansoprazole	30 mg once a day	15 mg once a day	30 mg twice a day
Omeprazole	20 mg once a day	10 mg[1] once a day	20 mg twice a day[2]

[1]Off-label dose for gastro-oesophageal reflux disease.
[2] Omeprazole 20mg BD is more cost and clinically- effective than omeprazole 40mg 1OD

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Ensure that the lowest effective dose is prescribed for the shortest period of time. Step down doses when symptoms are controlled / stabilised. PPIs are associated with a number of potential risks, including *Clostridium difficile* infection and hypomagnesaemia.

For a review of long term safety issues with proton pump inhibitors, please see the PPIs long term safety and gastroprotection (prescqipp.info).You need to log into PrescQIPP. To register see link. For advice on when to measure magnesium levels and management of hypomagnesaemia, see here.
Related flow charts:

Proton Pump Inhibitors – Advisory guidance on PPI prescribing in adults
Gastroscopy

PPIs may increase the risk of *Clostridium difficile* infection. See Sheffield Clostridium difficile Good Practice Points for further advice.

PPIs capsule formulations should be prescribed in preference to tablet / dispersible tablet PPIs formulations as tablet equivalents are significantly more expensive.

Omeprazole orodispersible and Zoton Fastab® are not recommended for routine use (due to high cost).
Omeprazole MUPs are not recommended except for the management of GORD in children.
Avoid liquid specials where possible as they are usually very expensive. Orodispersible tablets can be dispersed in a small amount of water and administered via a naso-gastric tube or oral syringe (see SPCs for full instructions and Sheffield Children's Hospital guidance on the prescribing and administration of oral/enteral proton pump inhibitors (PPIs) and H2 antagonists

PPIs- additional tips for prescribing:

- Split dosing- BD dosing may be helpful due to short PPIs half life
- Meal timing- take PPI 30-60mins before meal
- When stepping down PPIs: wean off PPIs by 25% dose reduction every 1 to 2 weeks to on demand use, consider adjuvant therapy:
  - Alginates (post meals and nocte)
  - H_2 antagonists especially nocte
  - Support with alginate and/or H_2RA use
- Lansoprazole is more likely to cause watery diarrhoea. Stop lansoprazole before colonoscopy.

In adults, if PPI in liquid form is required, consider orodispersible lansoprazole in the first instance.
If a gelatin-free PPI is needed, consider rabeprazole tablets in the first instance.
Note that rabeprazole is not licensed for gastroprotection with NSAIDs, use pantoprazole instead.

1.4 Antidiarrhoeal Treatments

Dioralyte® Sachets –blackcurrant, citrus, plain (Available OTC)

1.4.2 Antimotility drugs

Loperamide Caps (Available OTC)
Loperamide oral solution S/F 1mg/5ml

MHRA safety alert (2017) reported serious cardiac adverse reactions (cardiac events including QT prolongation, torsades de pointes, and cardiac arrest) with high doses of loperamide in patients who have taken high or very high doses of loperamide as a drug of abuse or for self-treatment of opioid withdrawal.

For further local advice see:

- Assessment and monitoring of patients taking high dose Loperamide for high output from stoma and fistula
- Loperamide - high dose High output from stomas and fistulas. Information for patients.

1.5 Treatment of chronic bowel disorders

Hospital initiated / refer to BNF

There is no evidence to show that any one oral preparation of mesalazine is more effective than another; however, the delivery characteristics of oral mesalazine preparations may vary. If it is necessary to switch a patient to a different brand of mesalazine, the patient should be advised to report any changes in symptoms.

Note- Asacol® MR 400mg and 800mg and Octasa® MR 400mg and 800mg have very similar release characteristics. Octasa® MR is the preferred brand of mesalazine MR.

NICE NG130 (2019) suggests considering use of once daily aminosalicylates in patients with poor compliance.

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1.6 Laxatives

Consider dietary, lifestyle changes and increased fluid intake. See here for more information.

1.6.1 Bulk forming laxatives

Ispaghula Husk – lemon, plain, orange (Available OTC)

1.6.2 Stimulant laxatives

Senna 7.5mg tablets	(Available OTC)
Bisacodyl 5mg gastro-resistant tablets	(Available OTC)
Bisacodyl 10mg suppositories	(Available OTC)
Glycerin suppositories 1g, 2g, 4g	(Available OTC)

Products containing danthron (e.g. co-danthramer & co-danthrusate) have potential carcinogenic risk and should only be prescribed for terminally ill patients. Other patients should receive alternative treatments.

1.6.4 Osmotic laxatives

CosmoCol® plain, orange, orange / lemon / lime (macrogols)	(Available OTC)
Lactulose solution	(Available OTC)
Cleen® Ready-to-use enema	
Relaxit Micro® enema	

For adults and children over 12 years **CosmoCol®** brand is an equivalent formulation to Movicol® but is less costly.
Paediatric patients – use caution when prescribing macrogols for children, see Childhood Constipation and Soiling Summary Guidance for GP Practices ; CosmoCol® Paediatric is a cost effective paediatric macrogol preparation and is available in orange / lemon / lime flavour.
Please note that CosmoCol® Paediatric and CosmoCol® orange / lemon / lime contain sorbitol. Patients with rare hereditary problems of fructose intolerance should not take this medicine.

NICE CG99 (2017) Constipation in children and young people: diagnosis and management
Local advice on children's constipation and soiling is available here.
Childhood Constipation Patient Information Leaflet

1.7 Local preparations for anal disorders

Anusol® cream	(Available OTC)
Anusol® ointment	(Available OTC)
Anusol® suppositories	(Available OTC)
Scheriproct® ointment	
Scheriproct® suppositories	

These preparations should only be used for a maximum of 2 weeks to avoid sensitisation

Anal Fissures
Glyceryl trinitrate 0.4% rectal ointment (Rectogesic®)

Licensed glyceryl trinitrate 0.4% ointment (Rectogesic ®) should be considered prior to unlicensed diltiazem 2% ointment. Treatment with Rectogesic® may be continued until the pain abates, up to a maximum of eight weeks. If side effects such as headaches are experienced with its use, consider managing with analgesics.
For patients whose anal fissure has healed, advise continuing a high fibre diet to ensure soft, easily passed stools (see Bristol stool chart).

1.8 Stoma care
For advice contact the stoma nurses

For further details and guidance click on the following links:

NICE CG184 (2014) Gastro-oesophageal reflux disease and dyspepsia in adults: investigation and management.
NICE QS96 (2015) Dyspepsia and gastro-oesophageal reflux disease in adults.

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NICE NG 12 (2017) Suspected cancer: recognition and referral.
NICE CG99 (2017) Constipation in children and young people: diagnosis and management.
NICE CG61 (2017) Irritable bowel syndrome in adults: diagnosis and management.
NICE NG 129 (2019) Crohn's disease: management
NICE NG130 (2019) Ulcerative Colitis: management.
NICE & PHE (2019) Summary of antimicrobial prescribing guidance – managing common infections.
NICE NG1 (2015, updated 2019) Gastro-oesophageal reflux disease in children and young people: diagnosis and management.
NICE TA147 (2019) Diverticular disease: diagnosis and management.