







## Chapter 1. Gastro-intestinal System

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For cost information please go to the most recent cost comparison charts

### Key

	<b>Red drug</b> see <a href="#">GMMMG RAG list</a> <i>Click on the symbols to access this list</i>
	<b>Amber drug</b> see <a href="#">GMMMG RAG list</a> <i>Click on the symbols to access this list</i>
	<b>Green drug</b> see <a href="#">GMMMG RAG list</a> <i>Click on the symbols to access this list</i>
	If a medicine is unlicensed this should be highlighted in the template as follows  <b>Drug name U</b>
	<b>Not Recommended</b>
	<b>Over the Counter</b>
<b>Order of Drug Choice</b>	Where there is no preferred 1 <sup>st</sup> line agent provided, the drug choice appears in alphabetical order.

<b>BNF chapter</b>	<b>1</b>	<b>Gastro-intestinal system</b>
<b>Section</b>	<b>1.1</b>	<b>Dyspepsia and gastro-oesophageal reflux disease</b>
<b>Subsection</b>	<b>1.1.1</b>	<b>Antacids and simeticone</b>
<b>First choice</b>	<b>Co-magaldrox</b> Suspension <sup>SF</sup> 195/220 (low sodium, bowel neutral)	
<b>Subsection</b>	<b>1.1.2</b>	<b>Compound Alginates and proprietary indigestion preparation</b>
<b>First choice</b>	<b>Peptac<sup>®</sup> or Acidex<sup>®</sup></b> Suspension <sup>SF</sup> (Contains 6.2 mmol, 6.0 mmol of sodium in 10ml respectively)	
<b>Alternative</b>	<b>Gaviscon<sup>®</sup> Advance</b> Liquid (Contains 4.6 mmol of sodium in 10ml, plus 2 mmol of potassium)	Lower sodium content, but more expensive
<b>Additional notes</b> Alginate containing products have low acid suppressant activity and should be reserved for patients with reflux symptoms.		
<b>Do Not Prescribe</b>	<b>Lactase drops</b> e.g. Colief <sup>®</sup>	<u>Criterion 1 (see RAG list)</u>

<b>BNF chapter</b>	<b>1</b>	<b>Gastro-intestinal system</b>
<b>Section</b>	<b>1.2</b>	<b>Antispasmodics and other drugs altering gut motility</b>
<b>Antimuscarinics</b>		
<b>First choice</b>	<b>Mebeverine</b> Tablets 135mg	<a href="#">NICE CG61: IBS in adults</a>
<b>Alternatives</b>	<b>Hyoscine butylbromide</b> Tablets 10mg	
	<b>Peppermint oil</b> Capsules	Mintec® best value option
	<b>Alverine citrate</b> Capsules 60mg, 120mg	
<b>Do Not Prescribe</b>	<b>Dicycloverine</b> Tablets, oral solution	<a href="#">Criterion 2 (see RAG list)</a>
<b>Motility stimulants (<a href="#">see section 4.6</a>)</b>		
<b>First choice</b>	<b>Metoclopramide</b> Tablets 10mg	<a href="#">MHRA Safety Update 2013: metoclopramide</a>
<b>Alternatives</b>	<b>Domperidone</b> Tablets 10mg	<a href="#">MHRA Safety update 2014: domperidone</a>
<b>Additional Notes</b>		
For abdominal cramps, antispasmodics are of limited clinical benefit but are occasionally used. The drug with the lowest acquisition cost should be used.		

<b>BNF chapter</b>	<b>1</b>	<b>Gastro-intestinal system</b>
<b>Section</b>	<b>1.3</b>	<b>Antisecretory drugs and mucosal protectants</b>
<b>Helicobacter pylori eradication regimes</b>		
<b>First choice regimes</b>		
<p><b>Lansoprazole</b> 30 mg twice daily <b>or Omeprazole</b> 20 mg twice daily + <b>Amoxicillin</b> 1 g twice daily + <b>Clarithromycin</b> 500 mg twice daily (7 day course)</p> <p><b>OR</b></p> <p><b>Lansoprazole</b> 30 mg twice daily <b>or Omeprazole</b> 20 mg twice daily + <b>Amoxicillin</b> 1 g twice daily + <b>Metronidazole</b> 400 mg twice daily (7 day course)</p> <p>Choose the treatment regimen with the lowest acquisition cost, and take into account previous exposure to clarithromycin or metronidazole.</p>		
<b>First choice regime for those patients with penicillin allergy</b>		
<p><b>Lansoprazole</b> 30 mg twice daily <b>or Omeprazole</b> 20 mg twice daily + <b>Clarithromycin</b> 500mg twice daily + <b>Metronidazole</b> 400 mg twice daily (7 day course)</p> <p>If the patient is allergic to penicillin and has had previous exposure to clarithromycin offer a seven day twice daily course of</p> <p>PPI + Bismuth + Metronidazole 400mg + Tetracycline 500mg</p>		
<b>Alternative choice regimes (For those who still have symptoms after first-line eradication treatment)</b>		
<p>As per first choice regime above using the alternative antibacterial option to the one used first line.</p> <p>If the patient has previously been exposed to clarithromycin or metronidazole use amoxicillin 1g BD + a quinolone BD or tetracycline 500mg BD (7 day course) Use the option with the lowest acquisition cost</p> <p>If the patient has a penicillin allergy and no previous quinolone exposure use PPI + metronidazole 400mg BD + Levofloxacin 250mg BD (7 day course)</p> <p>If eradication is unsuccessful following second-line treatment seek advice form a gastroenterologist.</p>		
<p><b><u><a href="#">NICE CG184: Gastro-oesophageal reflux disease and dyspepsia in adults: investigation and management</a></u></b></p>		

<b>Subsection</b>	<b>1.3.1 H<sub>2</sub>-receptor antagonists</b>	
<b>First choice</b>	<b>Ranitidine</b> Tablets 150mg, 300mg	
<b>Subsections</b>	<b>1.3.2. Selective antimuscarinics – not recommended for use</b> <b>1.3.3. Chelates and complexes – not recommended for use</b> <b>1.3.4. Prostaglandin analogues – not recommended for use</b>	
<b>Subsection</b>	<b>1.3.5 Proton Pump Inhibitors (PPIs)</b>	
<b>First choice</b>	<b>Lansoprazole</b> Capsules 15mg, 30mg	<a href="#">MHRA Safety Update 2015: PPIs and SCLE</a> <a href="#">MHRA Safety Update 2014: PPIs and hypomagnesaemia</a>
	<b>Omeprazole</b> Capsules 10mg, 20mg	<a href="#">MHRA Safety Update 2014: Clopidogrel and PPIs interaction</a>
<b>Alternatives</b>	<b>Lansoprazole</b> Dispersible tablets 15mg, 30mg Substantially cheaper than dispersible omeprazole <b>Omeprazole</b> Dispersible tablets 10mg, 20mg, 40mg	<b>Dysphagic patients only</b>
<a href="#">NICE CG141: Acute upper gastrointestinal bleeding in over 16s: management</a>		

<b>BNF chapter</b>	<b>1 Gastro-intestinal system</b>	
<b>Section</b>	<b>1.4 Acute diarrhoea</b>	
<b>Subsection</b>	<b>1.4.1 Adsorbents and bulk-forming drugs – Not recommended for use</b>	
<b>Subsection</b>	<b>1.4.2 Antimotility drugs</b>	
<b>First choice</b>	<p><b>Loperamide</b> Capsules 2mg Oral Syrup SF 1mg/5ml</p>	<p><a href="#">MHRA DSU: Loperamide (Imodium): reports of serious cardiac adverse reactions with high doses of loperamide associated with abuse or misuse, Sep 2017</a></p>
<b>Alternatives</b>	<p><b>Codeine phosphate</b> Tablets 15mg, 30mg, 60mg</p>	

<b>BNF chapter</b>	<b>1 Gastro-intestinal system</b>	
<b>Section</b>	<b>1.5 Chronic bowel disorders</b>	
<b>Subsection</b>	<b>1.5.1 Aminosalicylates – needs further discussion</b>	
<p>Available formulations of mesalazine have different licensed indications, strengths and pharmacological properties.</p> <p><b>Mesalazine tablets should be prescribed by brand.</b></p>		
<b>First choice</b>	Mesalazine MR tablets <b>Octasa® MR</b> tablets 400mg, 800mg <b>Pentasa® MR</b> tablets 500mg, 1g	<b>G<sub>n</sub> Following specialist initiation</b>
<b>Alternatives</b>	Mesalazine once daily tablets <b>Mezavant® XL</b> tablets 1.2g  Mesalazine granules <b>Pentasa®</b> Granules 1g, 2g <b>Salofalk®</b> Granules 500mg, 1g, 1.5g, 3g	<b>G<sub>n</sub> Following specialist initiation</b>  When concordance is an issue  For patients unable to take tablets
<b>Rectal formulations</b>		
	Mesalazine suppositories <b>Pentasa®</b> suppositories 1g  Mesalazine foam enema <b>Asacol®</b> foam enema	<b>G<sub>n</sub> Following specialist initiation</b>  Preparation choice will depend on site of action required
<p><a href="#">NICE CG166: Ulcerative colitis June 2013</a></p> <p><a href="#">NICE CG152: Crohn's disease: management</a></p>		
<b>Subsection</b>	<b>1.5.2 Corticosteroids</b>	
<b>First choice</b>	<b>Hydrocortisone</b> Foam enema	For initial treatment or relapse
	<b>Prednisolone</b> Tablets (non-EC) 5mg	
<b>Alternatives</b>	<b>Prednisolone</b> Enema 20mg Foam enema 20mg Suppositories 5mg	<b>G<sub>n</sub> Following specialist initiation</b>  <b>GI specialist initiated</b>

	<p><b>Budesonide</b> Modified release capsules 3mg</p>	<p>GI specialist initiated</p>
<b>Subsection</b>	<b>1.5.3 Drugs affecting the immune response</b>	
<b>First choice</b>	<p><b>Azathioprine U</b> Tablets 25mg, 50mg</p>	<p>GI specialist initiated <a href="#">Refer to section 8.2.1</a> ⚠️</p>
<b>Alternatives</b>	<p><b>Mercaptopurine U</b> Tablets 50mg</p>	<p>GI specialist initiated <a href="#">Refer to section 8.1.3</a> ⚠️</p>
	<p><b>Neoral® (ciclosporin) U</b> Capsules 10mg, 25mg, 50mg, 100mg Oral solution 100mg/ml <b>MUST be prescribed by BRAND</b></p>	<p>GI specialist initiated <a href="#">Refer to section 8.2.2</a> ⚠️</p>
	<p><b>Methotrexate U</b> Tablets 2.5mg <b>Weekly</b>  Injections – Usually sub-cutaneous 7.5mg, 10mg, 15mg, 20mg, 25mg</p>	<p>GI specialist initiated ⚠️  May be supplied via homecare <a href="#">Refer to section 8.1.3</a> Ⓡ</p>
<b>Cytokine modulators (full product details in section 10.1.3)</b>		
<b>First choice</b>	<p><b>Adalimumab (Humira®)</b> Injection 40mg pre-filled syringe – s/c administered</p> <p><b>Infliximab (Remicade®, Inflectra®, Remsima®)</b> Vial 100mg - IV administered</p> <p><b>Golimumab (Simponi®)</b> Injection – subcutaneous 50mg and 100mg pre-filled pen</p>	<p>Ⓡ GI specialist initiated <a href="#">NICE TA187: infliximab and adalimumab for Crohn's disease</a> PBR excluded drug</p> <p>Ⓡ GI specialist initiated <a href="#">NICE TA187: infliximab and adalimumab for Crohn's disease</a> PBR excluded drug</p> <p>Ⓡ GI specialist initiated <a href="#">NICE TA329: Infliximab, adalimumab and golimumab for treating moderately to severely active ulcerative colitis after failure of conventional therapy</a></p>




	<p><b>Ustekinumab (Stelara®)</b> Injection – subcutaneous 45mg and 90mg</p> <p><b>Vedolizumab (Entyvio®) ▼</b> Concentrate for intravenous infusion, 300mg vial This treatment should be assessed at least every 12 months see <a href="#">NICE TA342</a> and <a href="#">NICE TA352</a> for details.</p>	<p><b>R</b> <a href="#">NICE TA456: Ustekinumab for moderately to severely active Crohn’s disease after previous treatment</a></p> <p><b>R</b> <a href="#">NICE TA342: Vedolizumab for treating moderately to severely active ulcerative colitis</a> <a href="#">NICE TA352: Vedolizumab for treating moderately to severely active Crohn’s disease after prior therapy</a></p>
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<b>BNF chapter</b>	<b>1 Gastro-intestinal system</b>	
<b>Section</b>	<b>1.6 Laxatives</b>	
<b>Subsection</b>	<b>1.6.1 Bulk forming laxatives</b>	
<b>First choice</b>	<b>Ispaghula husk</b> Sachets 3.5g	
<b>Alternatives</b>	<b>Sterculia</b> Normacol® granules 500g, sachets 7g	
<b>Subsection</b>	<b>1.6.2 Stimulant laxatives</b>	
<b>First choice</b>	<b>Bisacodyl</b> Tablets e/c 5mg <b>Senna</b> Syrup 7.5mg in 5ml	Oral
	<b>Glycerol</b> Suppositories 4g	Rectal use
<b>Alternatives</b>	<b>Docusate sodium</b> Capsules 100mg	
<b>Palliative care only</b>		
	<b>Co-danthramer</b> Capsules 25/200, 37.5/500 Suspension 25/200 in 5ml, 75/1000 in 5ml	<a href="#"><u>Restricted to use in terminally ill people</u></a>
	<b>Co-danthrusate</b> Capsules 50/60 Suspension 50/60 in 5ml	<a href="#"><u>Restricted to use in terminally ill people</u></a>
<b>Subsection</b>	<b>1.6.3 Faecal Softeners – not recommended for use</b>	


<b>Subsection</b>	<b>1.6.4 Osmotic laxatives</b>	
<b>First choice</b>	<b>Macrogol 3350</b> Sachets	
<b>Alternatives</b>	<b>Lactulose</b> Solution	
<b>Rectal use</b>	<b>Phosphate</b> Enema 128ml	
	<b>Sodium citrate</b> Relaxit <sup>®</sup> Micro-enema 450mg	
<b>Subsection</b>	<b>1.6.5 Bowel cleansing solutions</b>	
Bowel cleansing solutions are only for use before colonic surgery, colonoscopy or radiological examination to ensure the bowel is free of solid contents. They are not treatments for constipation.		
<b>First choice</b>	<b>Sodium picosulfate with magnesium citrate</b> (Citrafleet <sup>®</sup> , Picolax <sup>®</sup> ) Oral powder	Should be given by pre-op clinic
<b>Alternatives</b>	<b>Phosphates (oral)</b> Fleet <sup>®</sup> phospho-soda Oral solution	Should be given by pre-op clinic
	<b>Macrogols</b> Moviprep <sup>®</sup> Oral powder	Should be given by pre-op clinic
<b>Subsection</b>	<b>1.6.6 Peripheral opioid-receptor antagonists</b>	
	<b>Naloxegol</b> ▼ Tablets 12.5mg, 25mg  <b>Only as an option for treating opioid induced constipation in adults whose constipation has not adequately responded to laxatives AS per NICE TA345</b>	<b>G<sub>n</sub> Following specialist initiation</b> <a href="#">NICE TA345: Naloxegol for treating opioid-induced constipation</a>

Subsection	<b>1.6.7 Other drugs used in constipation</b>	
	<p><b>Lubiprostone</b> Capsules 24 micrograms</p>	<p><b>G<sub>n</sub> Following specialist initiation</b> <a href="#">NICE TA318: Lubiprostone for treating chronic idiopathic constipation</a></p>
	<p><b>Prucalopride</b> Tablets 1mg, 2mg</p>	<p><b>G<sub>n</sub> Following specialist initiation</b> <a href="#">NICE TA 211: Constipation (women) - prucalopride</a></p>

<b>BNF chapter</b>	<b>1 Gastro-intestinal system</b>	
<b>Section</b>	<b>1.7 Local preparations for anal and rectal disorders</b>	
<b>Subsection</b>	<b>1.7.1 Soothing haemorrhoidal preparations</b>	
<b>First choice</b>	<b>Anusol<sup>®</sup></b> Cream, ointment, suppositories	Best value soothing preparations
<b>Alternatives</b>	<b>Germoloids<sup>®</sup></b> Cream, ointment suppositories	Best value anaesthetic preparations
<b>Subsection</b>	<b>1.7.2 Compound haemorrhoidal preparations with corticosteroids</b>	
<b>First choice</b>	<b>Anusol HC</b> ointment <b>Xyloproct<sup>®</sup></b> Ointment	Best value product
<b>Alternatives</b>	<b>Scheriproct<sup>®</sup></b> Suppositories	Best value product
<b>Subsection</b>	<b>1.7.3 Rectal sclerosants – not recommended for use</b>	
<b>Subsection</b>	<b>1.7.4 Management of anal fissures</b>	
<b>First choice</b>	<b>Glyceryl Trinitrate ointment</b> Rectogesic <sup>®</sup> 0.4% ointment 30g	Prescribe by brand. Do not prescribe other strengths of GTN ointment.
<b>Alternatives</b>	<b>Diltiazem U</b> Anoheal <sup>®</sup> 2% ointment U	 <b>Following specialist initiation</b> Prescribe by brand, although all preparations are unlicensed

<b>BNF chapter</b>	<b>1 Gastro-intestinal system</b>	
<b>Section</b>	<b>1.8 Stoma care</b>	
<b>First choice</b>	There is a Stoma Advisory Team at most local hospitals that stock and maintain a full range of ostomy products and are available for advice.	
<b>Do Not Prescribe</b>	<b>Stoma appliance deodorants</b> Should not be required if pouch is correctly fitted. No odour should be apparent except when bag is emptied or changed.	<u>Criterion 3 (see RAG list)</u>

<b>BNF chapter</b>	<b>1 Gastro-intestinal system</b>	
<b>Section</b>	<b>1.9 Drugs affecting intestinal secretions</b>	
<b>Subsection</b>	<b>1.9.1 Drugs affecting biliary composition and flow</b>	
<b>First choice</b>	<b>Ursodeoxycholic acid</b> Ursofalk® capsules 250mg	<a href="#">NICE CG188: Gallstone disease</a>
<b>Alternative</b>	<b>Obeticholic acid ▼</b> Tablets 5mg, 10mg	<a href="#">NICE TA443: Obeticholic acid for treating primary biliary cholangitis</a>  Assess the response to obeticholic acid after 12 months. Only continue if there is evidence of clinical benefit.  <a href="#">MHRA DSU: Obeticholic acid (Ocaliva ▼): risk of serious liver injury in patients with pre-existing moderate or severe hepatic impairment; reminder to adjust dosing according to liver function monitoring (April 2018)</a>
<b>Additional notes</b> Ursofalk® is included as it is licensed for primary biliary cirrhosis.		
<b>Subsection</b>	<b>1.9.2 Bile acid sequestrans</b>	
<b>First choice</b>	<b>Colestyramine</b> Questran Light® Powder 4g sachet	 <b>Following specialist advice</b>
<b>Additional notes</b> Questran light® is more expensive than Questran® but is included as it is more palatable.		

<b>Subsection</b>	<b>1.9.4 Pancreatin</b>	
<b>First choice</b>	<b>Creon®</b> Capsules 10,000, 25,000, 40,000	 <b>Following specialist initiation</b> GI specialist initiated