

CLINICAL GUIDELINE

Appropriate use of Oral Proton Pump Inhibitors

A guideline is intended to assist healthcare professionals in the choice of disease-specific treatments.

Clinical judgement should be exercised on the applicability of any guideline, influenced by individual patient characteristics. Clinicians should be mindful of the potential for harmful polypharmacy and increased susceptibility to adverse drug reactions in patients with multiple morbidities or frailty.

If, after discussion with the patient or carer, there are good reasons for not following a guideline, it is good practice to record these and communicate them to others involved in the care of the patient.

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Important Note:

The online version of this document is the only version that is maintained. Any printed copies should therefore be viewed as 'Uncontrolled' and as such, may not necessarily contain the latest updates and amendments.

OBJECTIVE AND SCOPE

This guideline is intended for use in both acute and primary care settings to support prescribers in the initiation and review of Proton Pump Inhibitor (PPI) therapy in adults. It includes:

Key Prescribing Messages

Recommended PPI dosing and duration for conditions affecting the:

Oesophagus

Stomach

Pancreas

Duodenum

<u>Ileum / Jejunum</u>

Guidance on PPI therapy for **gastroprotection** in patients taking:

Non-steroidal anti-inflammatory drugs (NSAIDs)

Antiplatelets

Oral Corticosteroids

INTRODUCTION

PPIs are the second most commonly prescribed drug class in NHS Greater Glasgow and Clyde (NHSGGC), with nearly 1.5 million prescriptions issued annually by primary care alone. While the absolute risk of harm to individual patients from PPI use is low, growing evidence suggests that long-term use is associated with an increased risk of adverse effects. For further information on the potential adverse effects of PPI therapy, refer to the GGC Medicines Update PPI Blog Series:

General overview of PPIs

Potential link with Clostridioides difficile infection and pneumonia

Adverse Effects Reported by the MHRA

PPIs: KEY PRESCRIBING MESSAGES			
Indication	Prescribe only for clear, evidence-based indications.		
Dosing	Use the lowest effective dose to achieve symptom control.		
Duration	☑ Limit therapy to the shortest appropriate duration.		
Review	Periodically review long-term use to reassess ongoing need.		
Document	Document clearly in clinical records: indication, duration and review plan. Share this information across care settings, when needed.		
Adverse effects	Be aware of potential long-term risks, including: fractures, Clostridioides difficile infection, nutrient deficiencies.		

GUIDELINE

The following tables are designed to assist prescribers in initiating and reviewing the appropriate dose and duration of PPI therapy. A [®] symbol denotes an unlicensed 'off-label' use of PPI treatment (indication or dose falls outside the terms of the UK license). For further details, refer to the <u>Acute Unlicensed Medicines Policy</u>. Key considerations for off-label PPI use include; obtaining informed consent from the patient or carer, clear documentation of clinical rationale and duration, and outlining supply and monitoring arrangements.

OESOPHAGUS				
Indication		Omeprazole	Lansoprazole	Duration
Achalasia [©]	If symptoms of reflux	Refer to GGC Therapeutics Handbook Management of GORD		
Barrett's	Chemoprevention	40mg once daily	30mg once daily	
	Patients undergoing	40mg twice daily	30mg twice daily	long-term
	endoscopic eradication therapy	confirmed. Thereafter, the	quamous re-epithelialisation is dose may be reduced to once specialist advice.	
Gastro-oesophageal reflux disease (GORD)		Refer to GGC Therapeutics Handbook Management of GORD		
Oesophageal stent	phageal stent [®] 40mg once daily 30mg once daily		long-term	
Oesophageal stricture [©]	Initially	40mg twice daily	30mg twice daily	6 weeks (or until endoscopic control)
	Followed by	20mg twice daily	15mg twice daily	long-term
Oesophagectomy [®]	Initially	40mg twice daily	30mg twice daily	long-term
	If symptoms controlled , reduce to	20mg twice daily	15mg twice daily	
Reflux	Severe oesophagitis	40mg once daily	30mg once daily	8 weeks
	Refractory to initial treatment [©]	40mg twice daily	30mg twice daily	4 weeks
	Long-term maintenance (if	Maximum 40mg daily	Maximum 30mg daily	long-term
	required)		dose to achieve symptom itrol.	

STOMACH					
Indication		Omeprazole	Lansoprazole	Duration	
Bariatric	Initially	40mg twice daily			
surgery [©]	If symptoms controlled,	20mg once daily		review at	
reduce to		Dispersible formulations should be prescribed for the first 2 weeks post operatively. After this period, switch to capsule formulations, provided the patient can tolerate them.		post-operative clinic	
Double bypass: hepatic jejunostom	gastrojejunostomy and ny [®]	40mg twice daily		long-term	
Dyspepsia [©]	Un-investigated	Refer to GGC Therapeutics Handbook Management of <u>Dyspepsia</u>			
	Functional	10mg once daily	15mg once daily	4 weeks	
Gastrectomy [©]	Partial (Sub-total)	40mg twice daily	30mg twice daily	long-term	
Gastrectomy	Total	Stop PPI treatment post-operatively			
Gastric Ulcer		Refer to GGC Therapeutics Handbook Management of Gastroduodenal Ulcers			
	Perforated Gastric				
Perforated Gastric Ulcer [©]		Dose determined by surgical team post operatively			
	Oloci	20mg once daily	urvory		
	Prevention of relapse (for poorly responsive	Zonig once daily		long-term	
	cases)	High risk cases 40mg once daily			
	If lifestyle measures not	· · · · · · · · · · · · · · · · · · ·	s Handbook Management of		
Hiatus hernia [®]	effective	GORD			
Helicobacter py	dori oradioation	Refer to GGC Therapeutic	s Handbook Management of		
пенсорастег ру	non eradication	Helicobacter Pylori			
	Initially	60mg once daily	60mg once daily		
Zollinger-	Dose individually adjusted,	120mg daily*	180mg daily*	long-term	
Ellison syndrome	tailored to symptom control up to a maximum dose		of omeprazole or 120 mg of nistered in two divided doses.	(unless surgically treated)	
PANCREAS					
Indication		Omeprazole	Lansoprazole	Duration	
		Treatment ma	y be required.		
Pancreatitis [®]		Dose and duration decided on an individual basis,			
		tailored to symptom control		review at	
Surgical procedures [®] (Cystogastrostomy, Frey's procedure, Pancreaticoduodenectomy (Whipple's procedure), Pancreaticogastrostomy, Pancreaticojejunostomy, Percutaneous necrosectomy)		40mg twice daily		hospital clinic	
Pancreatic cancer [®]		40mg twice daily		long-term	
DUODENUM					
Indication		Omeprazole	Lansoprazole	Duration	
Duodenal Ulcer		Refer to GGC Therapeutics Handbook Management of Gastroduodenal Ulcers			
Perforated Duodenal		Dose determined by surgical team post-			
	Ulcer [®]	operatively			
	Prevention of relapse	10-20mg once daily	15mg once daily	long-term	
	(in <i>H.pylori</i> negative patients or if		j		
	eradication is not possible)	40mg once daily			

ILEUM / JEJUNUM Indication **Omeprazole** Lansoprazole Duration PPI dose tailored to stoma output, up to: 40mg twice daily 30mg twice daily PPI should be 1st line, in combination with loperamide and/or High Output Stoma® codeine (discuss with local sector nutrition team). long-term If patient fails to respond to capsules or tablets, consider switching to lansoprazole orodispersible formulation. Refer to Clinical Guideline High Output Stoma management in adult acute inpatients for further information.

GASTROPROTECTION

Indication	Omeprazole	Lansoprazole	Duration
Gastroprotection for patients who require continued NSAID treatment	20mg once daily	15-30mg once daily	whilst on NSAID
4			treatment

While some medications are known to carry a high risk of gastrointestinal (GI) adverse events, the routine use of PPI therapy for gastroprotection is not necessary in all patients. The decision to initiate PPI therapy should be made on an individual basis, taking into account the patient's GI symptoms and other risk factors for GI toxicity. The following information outlines current gastroprotection recommendations for patients receiving NSAIDs, antiplatelets or oral corticosteroids.

NSAIDs

Refer to GGC Clinical Guideline Oral Non-Steroidal Anti-Inflammatory (NSAID) for guidance on assessing GI risk factors and the requirement for gastroprotection with NSAID treatment. The licensed doses of PPI used for gastroprotection in patients who require continued NSAID treatment are detailed in the table above.

Antiplatelets

A person is at risk of GI adverse effects with antiplatelet treatment if the following risk factors are present:

- Older age, especially aged over 75 years.
- History of gastroduodenal ulcer, GI bleeding, or gastroduodenal perforation.
- Helicobacter pylori infection.
- Concomitant use of medicines that are known to increase the risk of GI bleeds.
- High dose of aspirin.

For patients on dual antiplatelet therapy and / or anticoagulants in the secondary prevention of coronary artery disease, refer to GGC Clinical Guideline Antiplatelet Therapy Prescribing in the Secondary Prevention of Coronary Artery Disease. Lansoprazole is recommended as the preferred PPI of choice for co-administration with clopidogrel. For further details, see the MHRA guidance Clopidogrel and proton pump inhibitors: interaction—updated advice - GOV.UK.

Oral Corticosteroids

The risk factors for GI adverse effects with oral corticosteroids include:

- Older age.
- History of gastroduodenal ulcer, gastrointestinal bleeding, or gastroduodenal perforation.
- Concomitant use of drugs that are known to increase the risk of gastrointestinal bleeding.
- Serious comorbidity, such as advanced cancer.
- Excessive alcohol consumption.
- Heavy smoking.

Consider prescribing gastroprotection with PPI in patients at high risk of gastrointestinal bleeding or dyspepsia.