

Proton pump inhibitors (PPIs) and gastro-oesophageal reflux disease (GORD)

In New Zealand there are three fully subsidised proton pump inhibitors (PPIs): omeprazole, lansoprazole and pantoprazole. All three PPIs have a similar efficacy at recommended doses. PPIs are indicated for:

- Treatment of gastro-oesophageal reflux disease (GORD)
- Prevention of NSAID-associated gastric ulcers (omeprazole and pantoprazole only)
- Treatment of benign gastric ulcers
- Eradication of *Helicobacter pylori* (in a combination regimen)
- Treatment of Zollinger-Ellison syndrome (omeprazole and pantoprazole only)

PPIs should not be prescribed indefinitely, without review, and should always be prescribed at the lowest effective dose for the shortest possible time. Ideally PPIs should be taken 30 – 60 minutes before the first meal of the day. Check adherence if the patient reports that a PPI is ineffective.

When initiating PPI treatment discuss with patients the expected duration of treatment. This will make later discussions about dose adjustment and treatment withdrawal easier. Patients should be warned that rebound acid secretion often occurs following withdrawal, even after periods as short as four weeks. Many patients will be able to manage symptoms during this period with antacids.

GORD is the most common indication for PPI treatment

Gastric reflux is normal but when it causes a person to have symptoms/complications, they are said to have GORD. GORD includes a range of disorders, including non-erosive reflux disease, erosive oesophagitis, Barrett's oesophagus and oesophageal adenocarcinoma.

GORD can be caused or exacerbated by hiatus hernia, central obesity and impaired oesophageal or gastric clearance. Symptoms of GORD may be aggravated by lifestyle factors, e.g. diet, smoking, alcohol. Up to half of pregnant women will experience symptoms of GORD.

Diagnosis of GORD involves history and a therapeutic trial

The characteristic features of GORD are heartburn and regurgitation. The patient's history may reveal triggers for GORD which can be avoided. Review the use of any medicines which may contribute to symptoms. A therapeutic trial of PPIs

may be useful for establishing a diagnosis of GORD in younger patients with mild, long-term symptoms and an absence of red flags.

Endoscopy often provides limited information as the majority of patients with GORD will not have visible lesions. The role of endoscopy is limited to investigating patients with red flags, atypical symptoms, a poor response to PPI's or possible complications of GORD such as Barrett's oesophagus.

Patients with red-flags should be referred promptly for endoscopy:

- Dysphagia
- Odynophagia (pain with swallowing)
- Haematemesis
- Weight loss with no obvious explanation
- Patients aged 55 years or older with unexplained and persistent dyspepsia of recent onset are at increased risk of gastric and oesophageal cancer.

Proton pump inhibitors are first-line for GORD

Lifestyle treatment strategies and antacids may be effective in patients with mild symptoms, however, there is no evidence that lifestyle changes alone will allow healing of established oesophagitis. Begin treatment for GORD with 20 mg omeprazole, once daily, for four to six weeks. The majority of patients who have responded to a diagnostic trial can then be switched from daily to "as needed" treatment without affecting symptom control or quality of life. Alternatively, step down treatment to the lowest effective daily dose. If the patient experiences a return of symptoms they can resume their previous dose.

Peer group discussion points

1. How often do you review patients on long-term PPI treatment?
2. Do you have a system or plan for reviewing PPI use in patients? Do you discuss expected duration of treatment when you initiate PPIs?
3. Have you ever had reason to suspect that PPI was associated with adverse effects, e.g. osteoporosis or acute interstitial nephritis, in any patients?
4. Were you aware of the issue of rebound acid secretion and do you/will you discuss this with patients?
5. Do you encounter resistance from patients to withdraw from PPIs as they prefer PPIs to lifestyle adjustments for symptom control, and if so, how do you manage this?