



OTC PPIs for the management of minor GORD

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In normal digestion, the lower oesophageal sphincter (a ring of muscle between the oesophagus and the stomach) opens to allow food in the oesophagus to pass into the stomach and closes to prevent the acidic contents of the stomach from flowing back ('refluxing') into the oesophagus. Gastro-oesophageal reflux disease (GORD) occurs when the lower oesophageal sphincter muscle is weak or relaxes inappropriately allowing the contents of the stomach to reflux back into the oesophagus.

GORD is a debilitating condition, characterised by symptoms of heartburn (a burning sensation in the chest and throat) and acid regurgitation (a sensation of acid in the oesophagus or mouth). In addition to these typical symptoms, GORD is associated with a range of atypical symptoms, including sleep disturbances, chest pain, chronic cough and hoarseness. For most patients, visits to the pharmacy are prompted when heartburn and acid regurgitation disrupt daily life.

Due to the high prevalence of heartburn and acid regurgitation in the population and the number of over-the-counter (OTC) treatment options that are available, individuals experiencing these symptoms often seek treatment in the community pharmacy setting. Before discussing treatment options, it may be of value for the healthcare worker to remind patients who wish to self-treat their heartburn about the potentially modifiable risk factors for GORD.

Risk factors for GORD

Many potential risk factors are associated with GORD and are summarised in Table 1.

Table 1: Risk factors for GORD

GORD risk factor	Description
Obesity	People who are overweight or obese, especially around the abdominal area, have a higher risk of developing GORD
High fat diet	GORD episodes may be more likely after eating a high-fat meal compared to a low-fat meal
Tobacco smoking	The risk of GORD is higher in current and former smokers
Alcohol consumption	Moderate to high alcohol consumption may increase the risk of GORD
Pregnancy	Symptoms of GORD are reported by up to 85% of women during pregnancy with symptoms worsening as the pregnancy advances
Medications	A number of medications can cause symptoms of GORD, such as aspirin, nonsteroidal anti-inflammatory drugs, vitamin C, iron and cortisone-like medicines
Other risks	Consumption of coffee, chocolate, citrus products, tomato products, spicy foods and carbonated beverages may increase the risk of GORD

Management principles

While the severity and frequency of symptoms vary greatly between patients, occasional reflux symptoms are not considered to be gastro-oesophageal reflux disease. These infrequent episodes may be managed with intermittent treatment and lifestyle adjustments. See Table 2. It is important to note that these lifestyle modifications alone may not alleviate even minor symptoms. In such cases, the addition of non-prescription medicines may be required.

When symptoms are severe or frequent enough to impact personal or professional activities, more aggressive interventions or referral to the doctor should be considered.

Table 2: Lifestyle adjustments for patients presenting with heartburn

- Lose weight, especially in the context of recent weight gain or if the body mass index (BMI) is ≥ 30 kg/m²
- Stop smoking
- Reduce alcohol consumption
- Avoid lying down soon after eating
- Consume smaller and more frequent meals
- Avoid foods that trigger symptoms e.g. high-fat, acidic or spicy foods
- Avoid restrictive clothing
- If nocturnal symptoms are bothersome:
 - Raise the head of the bed
 - Avoid eating 2 to 3 hours before bedtime

Determining an appropriate treatment for managing reflux-related symptoms

Selection of an appropriate treatment is based primarily on the frequency and intensity of symptoms and the degree to which they impact quality of life and daily functioning.

- Infrequent heartburn occurring less than twice per week is likely to respond to self-treatment with an antacid or alginate-antacid, taken once a week or less often for symptom relief. Alginate-antacid combinations are useful and are superior to antacids alone.
- Patients who have more frequent symptoms e.g. on two or more days per week may be treated with an acid inhibitor, such as a proton pump inhibitor (PPI) or a histamine-2 receptor antagonist (H₂RA). Alginate-antacid combinations may also be used if PPIs or H₂RAs are unavailable, or for prompt symptom relief in patients taking an acid inhibitor.

A 'safety first' approach should be used for individuals who wish to self-treat their heartburn in the pharmacy setting. This approach necessitates inquiry about the presence of alarm symptoms that require the patient to be referred to the doctor. See Table 3.

Use of OTC PPIs for heartburn and regurgitation

PPIs have been shown to be more effective than H₂RAs for treating heartburn. For individuals experiencing symptoms on two or more days per week, an OTC PPI may be recommended. However, those patients who have been experiencing symptoms for more than three months and those who do not respond adequately to two weeks of PPI treatment should be referred to the doctor.

Table 4: Questions to identify appropriate candidates for OTC PPI therapy

Question	Consider OTC PPI	Refer to the doctor
What is the nature of your symptoms?	Symptoms consistent with heartburn or acid reflux	Patients presenting with any alarm symptoms (see Table 3)
How frequently are the symptoms occurring and when did they start?	Infrequent, mild or moderate symptoms or symptoms occurring ≥ 2 times/week	Patients presenting with severe or nocturnal heartburn or symptoms that have lasted for > 3 months
Have you tried lifestyle modifications or medications to improve your symptoms? If so, were they effective?	May repeat effective treatment for two weeks	Continued symptoms after treatment with heartburn medication for ≥ 4 weeks
Do you have a family history of stomach or oesophageal cancer?	No	Yes

Table 3: Alarm symptoms and patients who require referral to the doctor

- Alarm symptoms that require referral:
- Vomiting
 - Gastrointestinal bleeding (e.g. blood in the stools)
 - Iron-deficiency anaemia
 - Involuntary weight loss
 - Difficult or painful swallowing
 - Chest pain
 - Choking attacks, especially at night
 - Recent cough or hoarseness
- Patients requiring referral:
- Patients with severe symptoms
 - New onset of symptoms in patients > 50 years of age
 - Pregnant women
 - Patients with comorbid conditions or taking medicines that could be causing or exacerbating symptoms

Compared with other options, OTC PPIs have demonstrated benefits in terms of efficacy and the practical advantage of more convenient once-daily dosing. Although some patients may experience relief within a day of initiating treatment, most PPIs generally require repeated dosing to produce maximal acid suppression and therapeutic effects, which generally occur after approximately three to five days of dosing. Patients should therefore be instructed to take the PPI daily for the entire 14-day treatment course and not use it on an intermittent, as-needed basis, because this regimen is less likely to provide adequate symptom relief.

To identify individuals who are appropriate candidates for an OTC PPI, it is important to ask several relevant questions. See Table 4.

Several PPIs are currently available in South Africa without a doctor's prescription for treating gastric acid reflux symptoms such as heartburn and acid regurgitation e.g. lansoprazole, omeprazole and pantoprazole. If no symptom relief is obtained within two weeks of continuous treatment, the patient should be referred to the doctor. In addition, the treatment should not exceed four weeks without consulting a doctor.

Compared with OTC PPIs, prescription PPIs are generally used at higher doses and for longer periods to treat GORD and peptic ulcers.

In summary

The pharmacy is a valuable resource for individuals experiencing symptoms of heartburn or acid reflux who wish to self-treat their symptoms. When in doubt, the pharmacist's assistant must refer the patient to the pharmacist. Frequent reflux symptoms

are not optimally managed with antacids or alginates. Over-the-counter PPIs have a valuable role in the treatment of frequent heartburn. It is important, however, that patients make informed self-care decisions and that the pharmacist and pharmacist's assistant ensure that OTC treatment is used in an optimal manner.

Bibliography

1. Liker H, Hungin P, Wiklund I. Managing gastroesophageal reflux disease in primary care: The patient perspective. *J Am Board Fam Pract.* 2005;18:393-400.
2. WebMD. Gastroesophageal reflux disease (GERD). 2019. Available from <https://www.webmd.com/heartburn-gerd/guide/reflux-disease-gerd-1#1>.
3. MacFarlane B. Management of gastroesophageal reflux disease in adults: a pharmacist's perspective. *Integrated Pharmacy Research and Practice.* 2018;7:41-52.
4. Armstrong D, Nakhla N. Non-prescription proton-pump inhibitors for self-treating frequent heartburn: the role of the Canadian pharmacist. *Pharmacy Practice.* 2016;14(4):868 doi: 10.18549/PharmPract.2016.04.868.
5. Boardman HF, Heeley G. The role of the pharmacist in the selection and use of over-the-counter proton-pump inhibitors. *Int J Clin Pharm.* 2015;37:709-716.
6. WGO. GERD: Global perspective on gastroesophageal reflux disease. 2015. Available from <https://www.worldgastroenterology.org/guidelines/global-guidelines/gastroesophageal-reflux-disease>.

