

Diagnosis

Acid reflux

Proton pump inhibitors for gastro-oesophageal reflux disease: the over-the-counter approach

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Introduction

Heartburn and acid regurgitation (reflux) are the classic symptoms experienced by patients with gastro-oesophageal reflux disease (GORD). This condition has become increasingly common, with patients presenting at pharmacies for a remedy to alleviate these unpleasant symptoms. Fortunately, there are over-the-counter (OTC) treatment options available to assist in managing symptoms of GORD, such as antacids, alginates, histamine- H_2 receptor antagonists (H_2 RAs), and proton-pump inhibitors (PPIs).

PPIs are an effective OTC treatment option for treating GORD and represent a class of medicines which work by reducing the amount of acid produced in the stomach. This article focuses on the use of OTC PPIs for GORD to assist pharmacist's assistants in ensuring the appropriate use of PPIs in the self-care setting.

Understanding GORD

The primary role of the stomach is to produce gastric acid to digest food. In addition to the stomach, the digestive system consists of the oesophagus, the small intestine and the colon, which together make up the gastrointestinal tract (GIT). While it is essential for the stomach to produce acid to ensure food is digested, in some cases the stomach produces too much acid. This is known as gastric hyperacidity or acid dyspepsia which may lead to digestive disorders such as GORD, indigestion, nausea, bloating and flatulence (wind).

Although gastric acid is corrosive, the lining of the stomach is protected by a mucous barrier which protects itself from being eroded. In addition, there is a muscular band, known as the lower oesophageal sphincter (LOS) which, when functioning normally, prevents any contents from escaping upwards into the oesophagus. This sphincter may not work that well in some people and this allows for acid and/or stomach contents to flow up into the oesophagus, resulting in the classic symptoms of GORD or acid reflux – heartburn and acid regurgitation (Figure1).

Heartburn is a burning sensation felt behind the breast bone. Considered the most obvious symptom of GORD, it occurs during reflux when the stomach contents irritate the normal lining of the oesophagus. Acid regurgitation occurs when the contents of the stomach reach the mouth during reflux, leaving an unpleasant acidic taste in the mouth.

OTC management of GORD

When counselling patients for self-treatment, a "safety first" approach should be used, which requires enquiring about

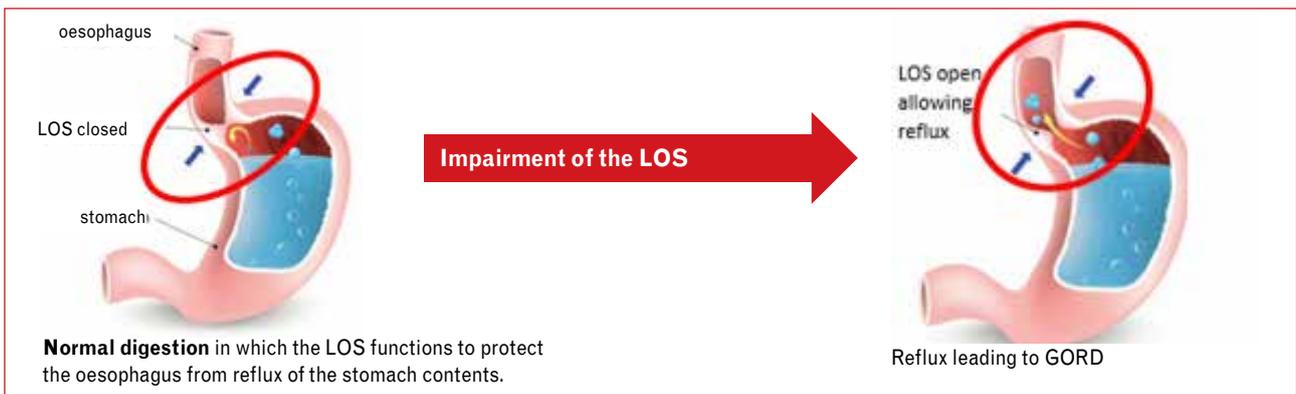


Figure 1. How GORD occurs

the presence of any alarm features or atypical symptoms (described in Table I).

Table 1. Atypical symptoms requiring referral to the doctor

- Vomiting
- Gastrointestinal bleeding (blood in the stool)
- Iron-deficiency anaemia
- Involuntary weight loss
- Difficult/painful swallowing
- Chest pain
- Choking attacks, especially at night
- Recurrent cough/hoarseness
- Family history of oesophageal cancer
- New onset of symptoms at > 50 years of age

Patients with alarm features should be referred to a doctor who can determine if a more serious underlying condition exists and manage such patients accordingly. Likewise, when symptoms appear to be severe and frequent enough to affect daily activities (both personal and professional), such patients should rather be referred to a doctor instead of opting for self-treatment.

PPIs for GORD

Identify patients who are candidates for OTC PPI treatment

OTC PPIs are appropriate for patients who have frequent symptoms and have not had relief following lifestyle changes

and the use of other OTC agents. The algorithm in Figure 2 provides a guide to evaluating patients before initiating PPI treatment.

Are PPIs effective in the management of GORD?

PPIs have been found to be most effective for managing GORD. This is due to their mode of action by blocking the final step of gastric acid secretion, and therefore enabling them to offer the most powerful way of suppressing acid production in the stomach.

What PPIs are available OTC in South Africa? (See Figure 3)

Active ingredient	Strength	Indication	Maximum treatment duration
Lansoprazole	15 mg	Short-term relief of heartburn, hyperacidity, acid dyspepsia or gastric acid reflux symptoms	14 days
Pantoprazole	20 mg		
Omeprazole	10 mg		

Figure 3. OTC PPIs available in South Africa

How to take PPIs to ensure they are most effective

PPIs are effective when the proton pump in the stomach is active, i.e. after a meal when gastric acid is being produced for

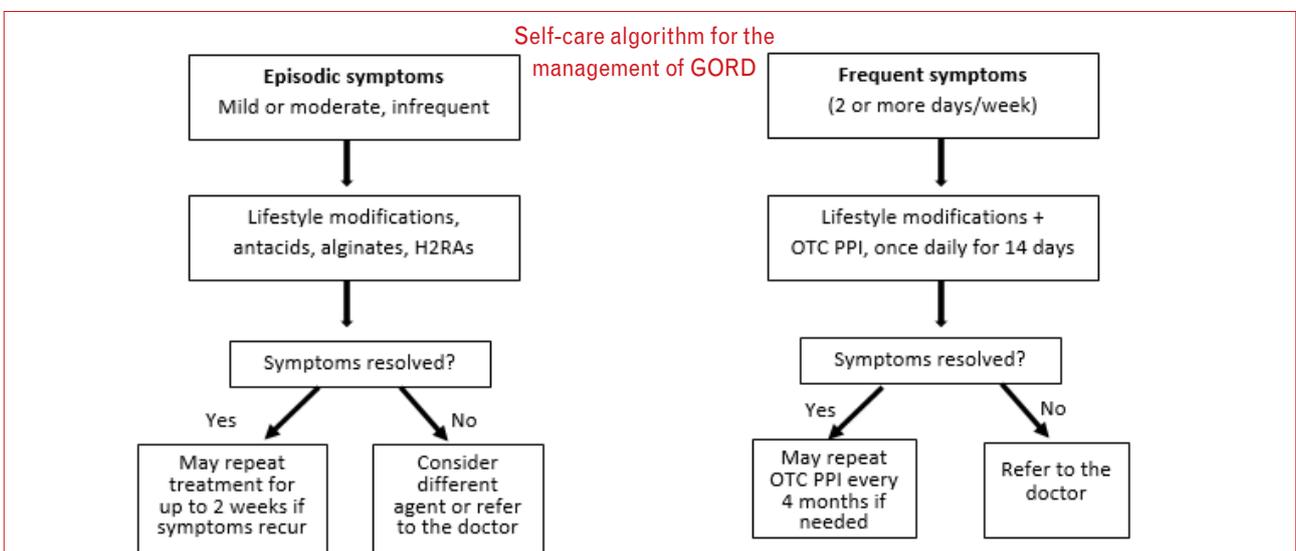


Figure 2. Algorithm for the management of GORD

digestion. Therefore, the timing of the dose is crucial to ensure the maximum benefit of treatment. PPIs should be taken once-daily, 30–45 minutes before a meal to ensure the maximum concentration of the PPI at the time of the meal. PPIs should ideally be taken before breakfast or before the first meal of the day. Regardless of dosage form (tablet or capsule), neither should be chewed nor crushed.

Although some patients may experience relief within a day of starting treatment, PPIs usually require repeated dosing to produce maximal acid suppression in order to be effective, which usually is achieved after approximately 3–5 days of dosing. It is important to counsel patients to take their PPI daily for the entire 14-day treatment course and not to use it on an intermittent, as-needed basis, because this regimen is less likely to provide adequate symptom relief.

Who should not take PPIs?

The pharmacist's assistant should be mindful that using a PPI may not be appropriate for everyone and that patients with pre-existing conditions or co-morbidities should be referred to the pharmacist or doctor to determine the safety and appropriateness of PPI use.

What are some of the side-effects from PPIs?

Although PPIs are generally very well tolerated, particularly when used for short periods, they should only be used when appropriate and for the shortest duration of time to achieve relief of symptoms. The most common side-effects include abdominal pain, diarrhoea, vomiting, flatulence, headache, constipation and nausea.

Long-term use should only be considered under the supervision of a doctor. Due to differences in the metabolism of these medicines, there is potential for drug interactions. Therefore, patients using other medicines should be referred to the pharmacist or doctor to assess for any potential interaction which may compromise safety and/or efficacy of the medicines taken concomitantly.

Conclusion

Through understanding the nature of an individual's presenting symptoms, being able to identify patients who should be referred to their doctor and promoting the safe, appropriate and effective use of OTC PPIs, pharmacist's

assistants have the opportunity to contribute to managing patients experiencing the unpleasant symptoms of GORD.

Key communication points

- Identify/enquire about the presence of alarm features
- Highlight key lifestyle changes that may help relieve symptoms
- Assess symptom response with the recommended treatment
- Advise individual to
 - Take the recommended treatment continually
 - Complete the entire course of the recommended treatment
 - Consult a doctor if symptoms persist or reoccur soon after stopping treatment
- Remind patients that PPIs should be taken 30-45 minutes before breakfast. Antacids can be taken for rapid relief of breakthrough symptoms

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