- Alarm symptoms are present.
- Symptoms occur daily.
- The patient has a family history of gastrointestinal cancer or is on long-term NSAID therapy.[3]
- Symptoms are inadequately controlled following a two-week trial of initial therapy.[2,3]

When the patient is aged over 55 years and is experiencing first-time or longstanding, frequent and troublesome symptoms, or the patient is aged less than 18 years, referral for further investigation may be required.

Recommend treatment

G. Treatment options

Patients who have mild typical reflux symptoms and no alarm symptoms may be given a trial of therapy without further investigation. Diagnosis can be confirmed through a clear symptom response to therapy.[1]

Initial therapy with a proton pump inhibitor (PPI) is appropriate for the majority of patients. If a standard daily dose results in symptom control within one week, the diagnosis will be confirmed.[1] In 80% of people, pantoprazole 20 mg daily will lead to complete relief of heartburn, acid regurgitation and pain on swallowing at two weeks. Symptom relief is not immediate, so adjuvant therapy with an antacid may be required initially.

Following a satisfactory response, intermittent, symptom-driven therapy with either an H_2 antagonist or PPI should be trialled.[1]

The traditional step-up approach from trialling antacids, then H_2 antagonists, then PPIs may take weeks to achieve symptom control. Oesophageal healing will be slow and diagnosis may still be uncertain.[1]

Provide counselling supported by written information

H. How to use the medication

Once a medicine is selected, the patient should be told how to use it, the correct dose, and any specific precautions[6]:

- *Pantoprazole.* Recommended dose for initial therapy is 20 mg daily for two weeks.
- *H_2 antagonists.* Due to risk of accumulation, consider dose reduction in severe renal impairment.
- *Antacids.* optimum effect if taken one to three hours after meals; separate administration with other medications by at least two hours because the antacids may affect their absorption.

I. Goals of therapy

The goals of treating reflux are to[1,6]:

- relieve symptoms and restore quality of life
- heal oesophagitis if present
- reduce the risk of complications.

A daily PPI at a standard dose will usually lead to symptom control in one week.

J. Adverse effects

The patient needs to know the most common and important adverse effects of the therapy selected[6]:

- *Pantoprazole.* Generally well tolerated; headache, nausea, vomiting, diarrhoea, abdominal pain, constipation, and flatulence most commonly reported.
- *H_2 antagonists.* Generally well tolerated; cimetidine has been associated with anti-androgenic effects (e.g. gynaecomastia, galactorrhoea, impotence, decreased libido) and more frequent central nervous system effects (e.g. dizziness, tiredness, confusion).
- *Antacids.* Aluminium-containing antacids commonly cause constipation; calcium-containing antacids commonly cause constipation, belching, flatulence and abdominal distension; magnesium-containing antacids commonly cause diarrhoea and belching.

K. Lifestyle modifications

Although lifestyle changes have not been comprehensively evaluated in clinical trials, some lifestyle modifications may be beneficial[1,4]:

- *Dietary modification.* Strict dietary control is unnecessary. Foods that are commonly associated with reflux (e.g. fatty and spicy foods, cola, excessive coffee, tomato and orange juice) should be avoided. Avoiding late, large meals, lying down shortly after meals and wearing tight fitting garments after meals may also help. Consuming excessive amounts of alcohol and low pH beverages (e.g. red wine) may exacerbate symptoms.
- *Bed-head elevation.* Patients with nocturnal or laryngeal symptoms may benefit from raising the bed-head or using a wedge pillow.