

Laparoscopic insertion of a magnetic ring for gastro-oesophageal reflux disease (Jan 2023)¹

IPG Process

Systematic literature review of clinical and safety data



Review by NICE Interventional Procedure Advisory Committee and clinical experts to develop draft recommendations



Consultation and resolution process



Guidance issued

NICE Recommendations (IPG749, Jan 2023)

Evidence on the safety and efficacy of laparoscopic insertion of a magnetic ring for gastro-oesophageal reflux disease (GORD) is adequate to support using this procedure provided that **standard arrangements*** are in place for clinical governance, consent and audit¹

Patient selection, and the procedure, should be done by clinicians who have specific training in the procedure, and experience in upper gastrointestinal laparoscopic surgery and managing GORD¹

Recommendations have been based on a comprehensive literature review (including 3 systematic reviews and meta-analyses, 1 randomised controlled trial, 3 non-randomised comparative studies, 2 case series, and a review of the MAUDE database and the Ethicon's complaint database)¹

The Condition

Gastro-oesophageal reflux disease (GORD) is a common condition in which acid from the stomach flows back up into the oesophagus. It is usually caused by the sphincter at the lower end of the oesophagus becoming weakened. Symptoms can include heartburn, regurgitation, dysphagia and respiratory difficulties.¹

Repeated episodes of GORD can damage the lining of the oesophagus and lead to oesophageal ulceration, oesophageal stricture and Barrett's oesophagus.¹

The Procedure¹

The aim of laparoscopic insertion of a magnetic ring for GORD is to relieve reflux-related symptoms (such as heartburn or regurgitation) without impeding the ability to swallow, belch or vomit.¹

The procedure is done under general anaesthesia. Using a laparoscopic approach, a specially designed sizing tool is placed around the distal oesophagus to assess the size of implant needed. The sizing tool is then removed, and the implant is placed at the gastro-oesophageal junction, with the posterior vagus nerve trunk located outside the magnetic ring. The ends of the implant are secured together to hold it in place. Intraoperative endoscopy may be used to help identify the anatomic gastro-oesophageal junction and to assess device position.¹

Current Treatments

The standard treatments for symptomatic GORD are lifestyle modification and drug therapy. People may be offered anti-reflux surgery (usually laparoscopic fundoplication) if their symptoms do not improve, or if they develop complications despite medication or they have an intolerance to medication.¹

Endoscopic interventions (such as endoscopic radiofrequency ablation at the gastro-oesophageal junction) and electrical stimulation of the lower oesophageal sphincter can also be used.¹

The implant consists of a ring of interlinked beads, each with a weak magnetic force that holds the beads together and reduces reflux. When the person swallows, the magnetic force is overcome, allowing the ring to open. After swallowing, magnetic attraction brings the beads together and the distal oesophagus is again closed.¹



Key efficacy outcomes of procedure determined by NICE

Improved quality of life, reduced reflux symptoms and reduced need for medical therapy for reflux¹

This guidance supersedes IPG585 published July 2017 (Laparoscopic insertion of a magnetic titanium ring for gastro-oesophageal reflux disease)

* Standard arrangements are the most positive recommendation. It means that there is enough evidence for doctors to consider this procedure as an option. 1. NICE Interventional procedures guidance. 749. Laparoscopic insertion of a magnetic ring for gastro-oesophageal reflux disease. Published: 11 January 2023. www.nice.org.uk/guidance/ipg749. 2. LINX™ Reflux Management System. <https://www.jnjmedtech.com/en-US/product/linx-reflux-management-system>. Accessed 11 January 2023