

# BARRETT'S OESOPHAGUS

## What is Barrett's Oesophagus?

Barrett's oesophagus occurs when a portion (at least 1cm) of the normal (squamous epithelium) lining at the bottom end of the oesophagus is replaced with columnar mucosa (metaplasia) as a protective response to frequent acid-induced damage. It is thought to be a pre-cancerous condition that affects about 2% of the adult population (especially white middle-aged, obese males). It occurs in individuals with pre-existing gastro-oesophageal reflux disease (GORD – see Patient Information).

## What are the Prague Criteria?

The extent of Barrett's oesophagus is assessed at upper GI endoscopy using the Prague C&M Criteria. The "C" refers to Circumferential extent and the "M" refers to Maximum extent of metaplasia (see Figure & Photo). The "C" is determined by measuring the distance from the gastro-oesophageal junction (GOJ) to the highest location where metaplasia is present around the entire circumference of the oesophagus. The "M" is the distance from the GOJ to the highest location of metaplasia. The higher the Prague C number (above 3), the higher the risk of developing cancer and this is reflected in the shorter surveillance interval (see below).

## What can I do about it?

General advice: stop smoking; decrease alcohol intake; decrease BMI if high; start an acid-lowering drug (a PPI, such as omeprazole) and consider surveillance OGD.

Surveillance of Barrett's oesophagus is recommended to detect early stage cancer or dysplasia. Patients with Barrett's oesophagus shorter than 3 cm (Prague C1-2) should receive endoscopic surveillance every 3–5 years; patients with Prague C3 or longer should receive surveillance every 2–3 years.

## What is the risk of oesophageal cancer?

Oesophageal cancer is getting more common and this is thought to be related to the rise in GORD & Barrett's oesophagus.

Importantly, even though Barrett's oesophagus is the major risk factor for oesophageal cancer, only a minority of patients with Barrett's oesophagus die from it; most die from cardiovascular disease or chest infections.

It is thought that the risk of developing oesophageal cancer in a patient with Barrett's oesophagus is less than 0.5% each year.

## What are the latest treatment options?

### Medical Therapy

In August 2018 the long-awaited results of the AspECT trial were published in *The Lancet*. Esomeprazole 40mg twice daily with aspirin 300mg daily was significantly better at preventing cancer than a lower dose or no aspirin. About 1% of patients developed serious adverse effects, mostly upper GI bleeding.

Chemoprevention in Barrett's oesophagus with esomeprazole 40mg twice daily with 300mg aspirin appears to improve survival (delaying death, cancer and dysplasia) if given for at least 9 years (no benefit within first 5 years). I am sure that the next edition of the British Society of Gastroenterology guidelines will recommend this in suitable patients.

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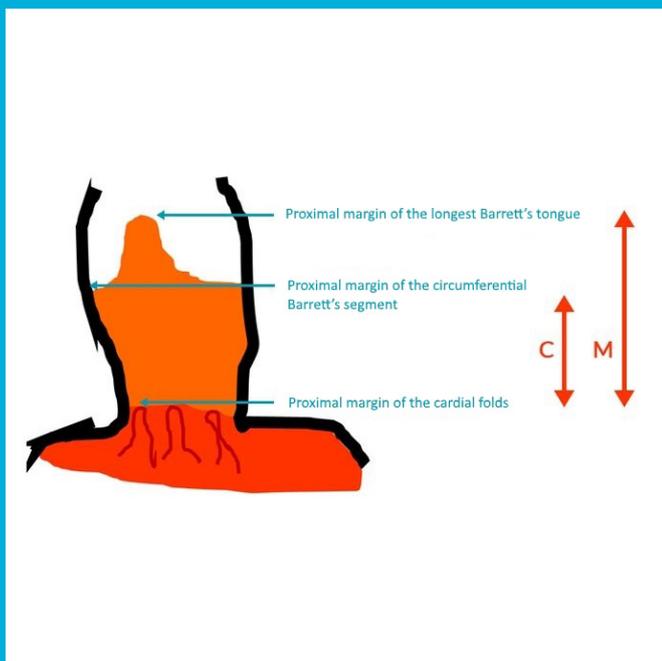
## Endoscopic Therapy.

Radiofrequency ablation (RFA) or endoscopic mucosal resection (EMR) may be used to remove areas of dysplasia (pre-cancer) in patients with Barrett's oesophagus. RFA uses electricity and heat to damage dysplastic cells; EMR is a procedure where part of the lining of the oesophagus is surgically removed at endoscopy. Both these techniques appear safe and significantly reduce the risk of progression to cancer.

Unfortunately, it is common for recurrence of Barrett's oesophagus after ablation therapy so careful long-term surveillance is required.

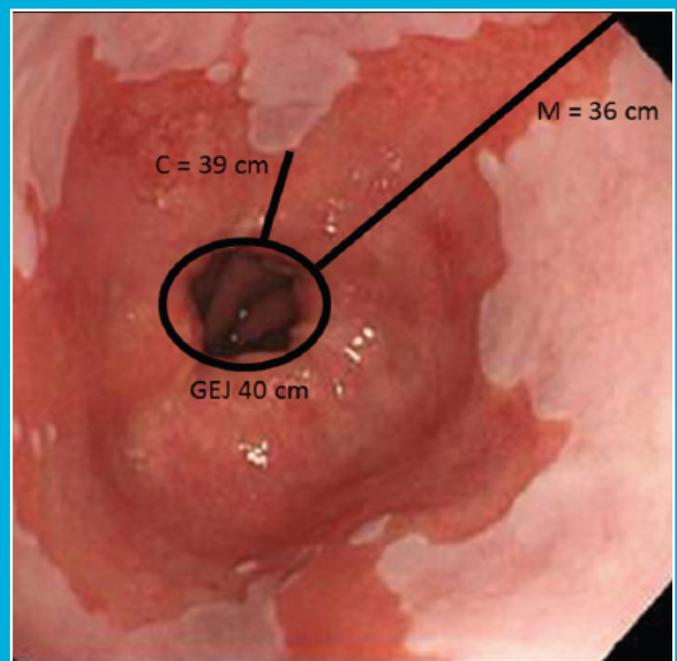
## Prague Criteria

Figure 1 - Explaining the Prague Criteria



Endoscopy Campus, 2018: "Prague classification of Barrett's esophagu"

Photo 1 – Prague CM measurements in Barrett's Oesophagus



Annals Gastro, 30 September 2016: "Progression of Barrett's esophagus towards esophageal adenocarcinoma: an overview"

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