

# Early diagnosis of Oesophageal Cancer

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## Topics covered

- Epidemiology
- Risk factors
- BEST results
- BSG guidelines on Barrett's oesophagus surveillance

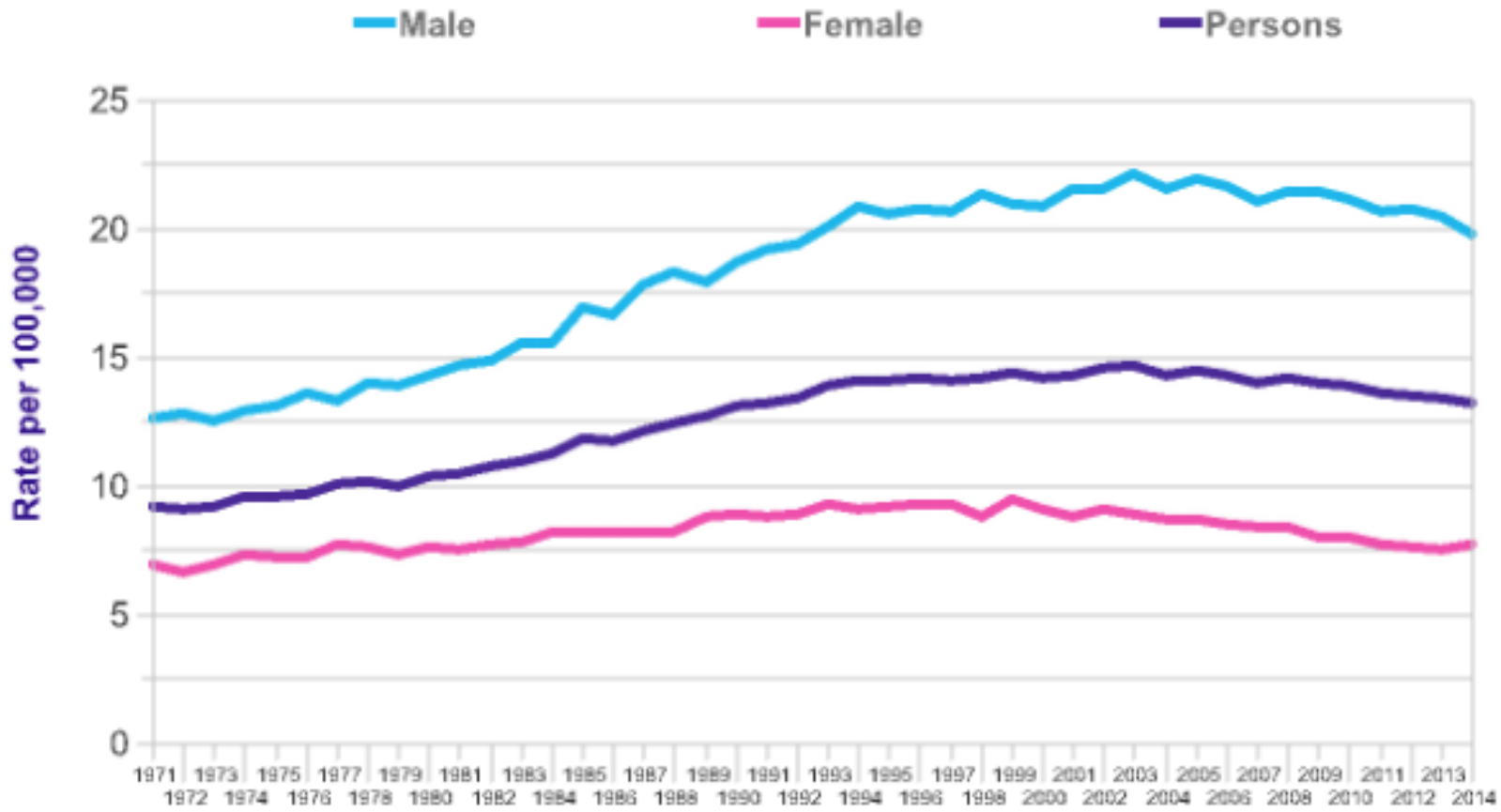
# Oesophageal Cancer Incidence

- There are around 9,000 new oesophageal cancer cases in the UK every year, that's 25 every day (2013-2015).
- Oesophageal cancer is the 13th most common cancer accounting for 3% of all new cancer cases (2015).
- In males oesophageal cancer is the 9th most common cancer, with around 6,200 new cases in 2015.
- In females oesophageal cancer is the 15th most common cancer, with around 3,000 new cases in 2015.
- Incidence rates for oesophageal cancer are highest in people aged 85 to 89 (2013-2015).
- Around 7 in 10 oesophageal cancer cases are diagnosed at a late stage in England (2014)

# Oesophageal Cancer Incidence

- 1 in 55 men and 1 in 115 women will be diagnosed with oesophageal cancer during their lifetime.
- Oesophageal cancer in England is more common in people living in the most deprived areas.
- Oesophageal cancer is more common in White people than Asian or Black people.
- The UK incidence rate is second highest in Europe for males and the highest for females.

# Oesophageal Cancer Age-Standardised Mortality Rates UK



# Oesophageal Cancer Mortality

## Deaths



Deaths from  
oesophageal cancer,  
2014, UK

## Proportion of all deaths



Deaths from  
oesophageal cancer,  
2014, UK

## Age



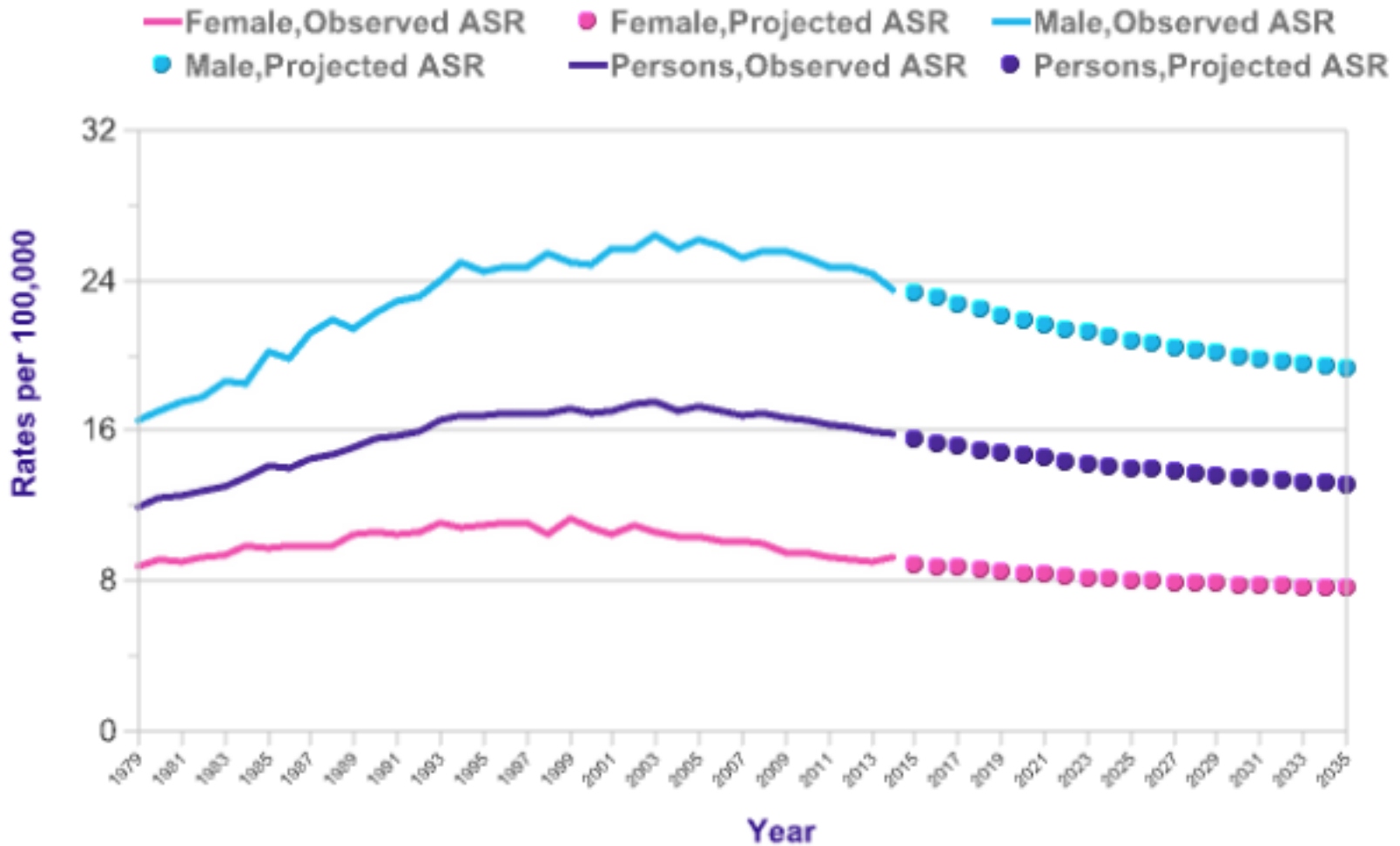
Peak rate of  
oesophageal cancer  
deaths, 2012-2014,  
UK

## Trend over time



Oesophageal cancer  
mortality rates have  
increased by 46%  
since the early 1970s,  
UK

# Oesophageal Cancer Projections



### High grade dysplasia of the oesophagus

Patients have a change in the cells where the oesophagus joins the stomach which increases their risk of developing cancer.

For 732 patients diagnosed between April 2014 and March 2016, the Audit found:

85%

of patients had their initial diagnosis confirmed by a second pathologist.

86%

of patients were discussed by a multidisciplinary team of clinicians.

73%

of patients had endoscopic treatment to remove the high grade dysplasia.

30%

of these patients were found to have small cancer tumours in the removed part of the oesophagus.

### Patients with oesophago-gastric cancer

Three-quarters of cancers were in the oesophagus or where the oesophagus meets the stomach. One quarter of cancers were in the stomach.

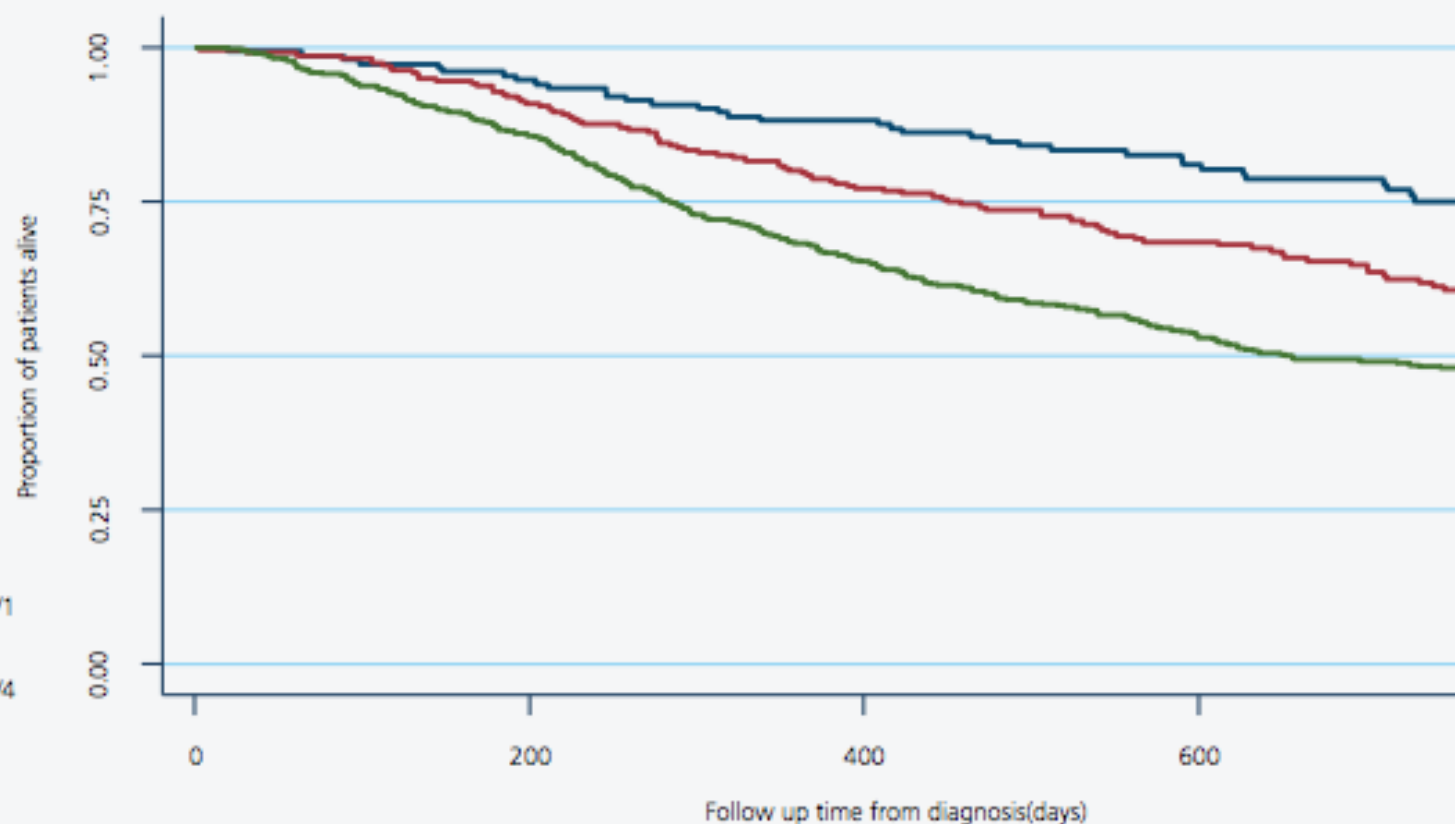


**Table 5.1**  
**Route to diagnosis among OG cancer patients in England and Wales**

Route to diagnosis	No. of patients	%
GP referral	13,315	65.2
Emergency admission	2,786	13.7
Other hospital consultant	4,039	19.8
Open access endoscopy	159	0.8
Barrett's surveillance	99	0.5
Total	20,398	
Missing	844	

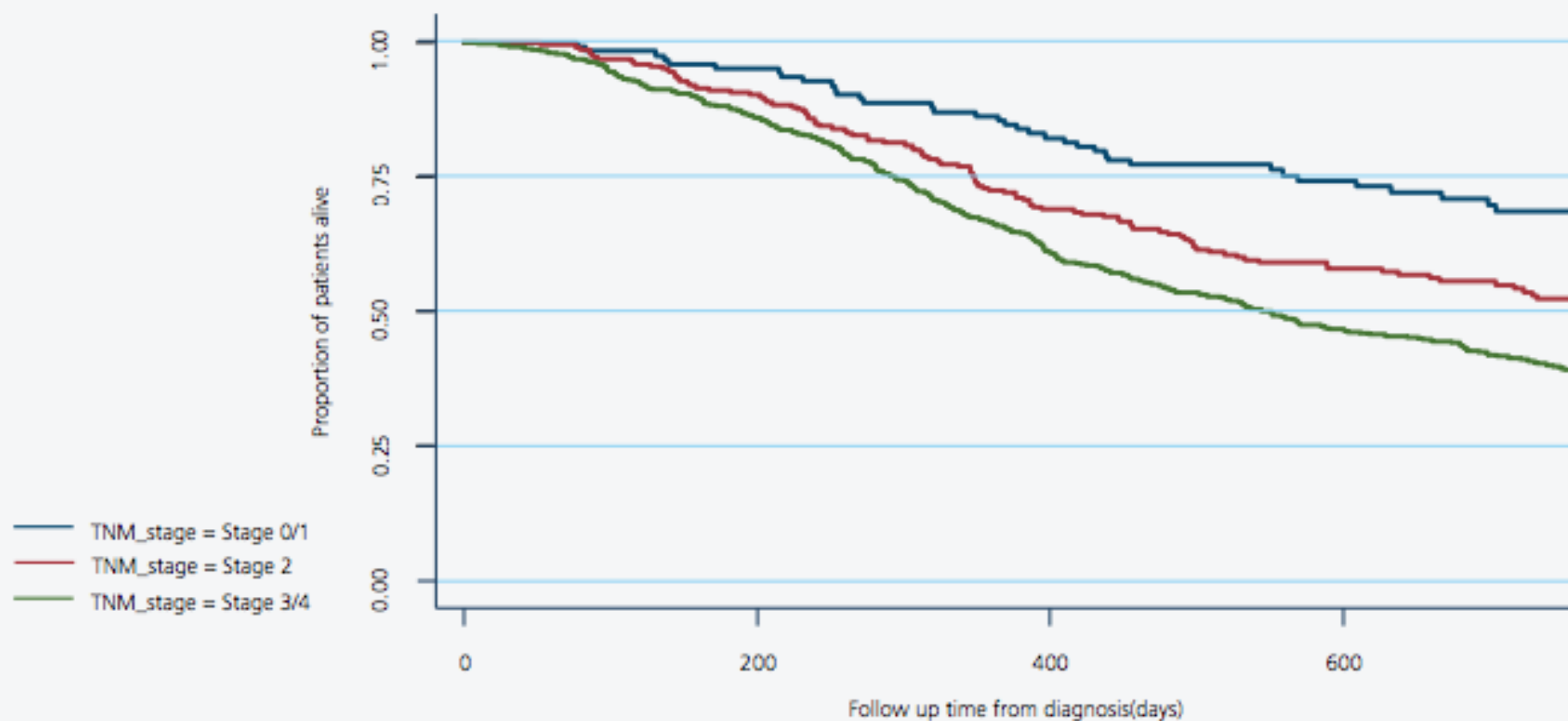
**Figure 8.1**  
**Unadjusted survival of patients diagnosed between April 2013 and March 2016 in England and Wales stratified by TNM stage and mode of treatment**

Surgery with / without neoadjuvant therapy



No. of patients at risk				
Stage 0 / 1	152	144	134	106
Stage 2	240	218	185	136
Stage 3 / 4	506	433	330	218

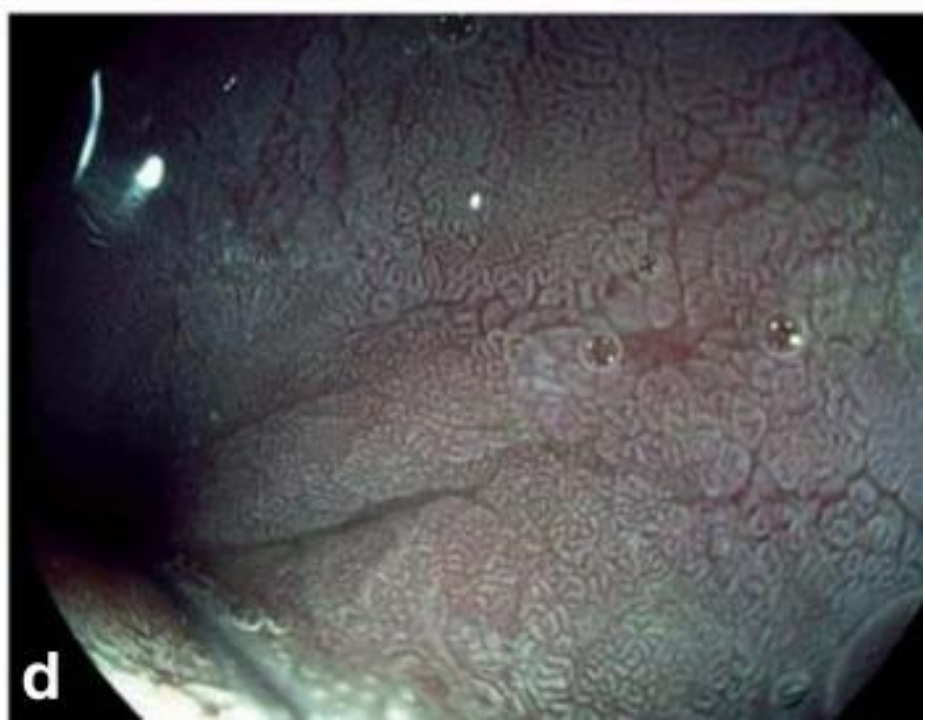
Definitive chemoradiotherapy



No. of patients at risk				
Stage 0 / 1	124	118	102	70
Stage 2	222	203	155	105
Stage 3 / 4	541	465	331	200

# Risk Factors for Oesophageal Cancer

- Oesophageal cancer risk factors vary between adenocarcinoma (AC) and squamous cell carcinoma (SCC) , but smoking causes both types.
- Smoking is the main avoidable risk factor for oesophageal cancer, linked to an estimated 66% of oesophageal cancer cases in the UK. Smoking is also related to Barrett's oesophagus, a precursor for oesophageal AC.
- An estimated 89% of oesophageal cancers in the UK are linked to lifestyle factors including smoking, overweight and obesity (22%), and alcohol (21%).
- Smokeless tobacco, betel quid, and ionising radiation cause oesophageal cancer.
- A diet high in fruit and vegetables may protect against oesophageal cancer – insufficient fruit and vegetables intake is linked to an estimated 46% of oesophageal cancer cases in the UK.
- Certain occupational exposures, meat, and high-temperature drinks may relate to higher oesophageal cancer risk, but evidence is unclear.



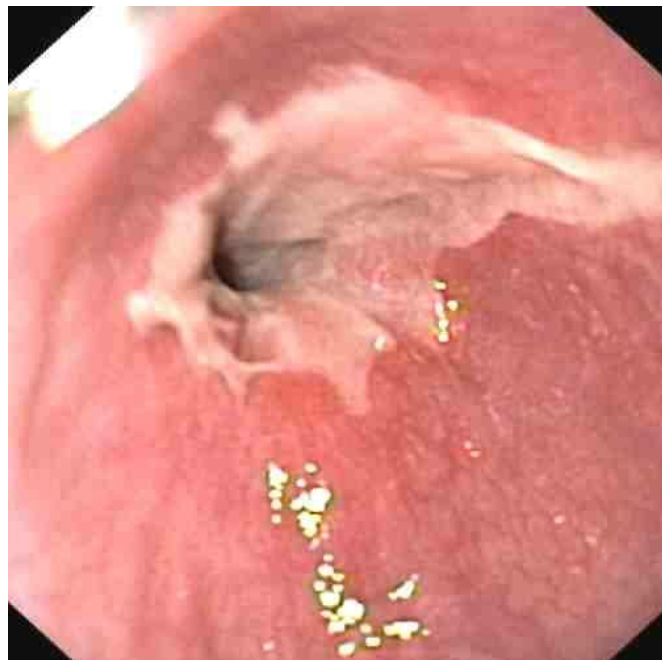
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PillCam® SB



Common

# BEST

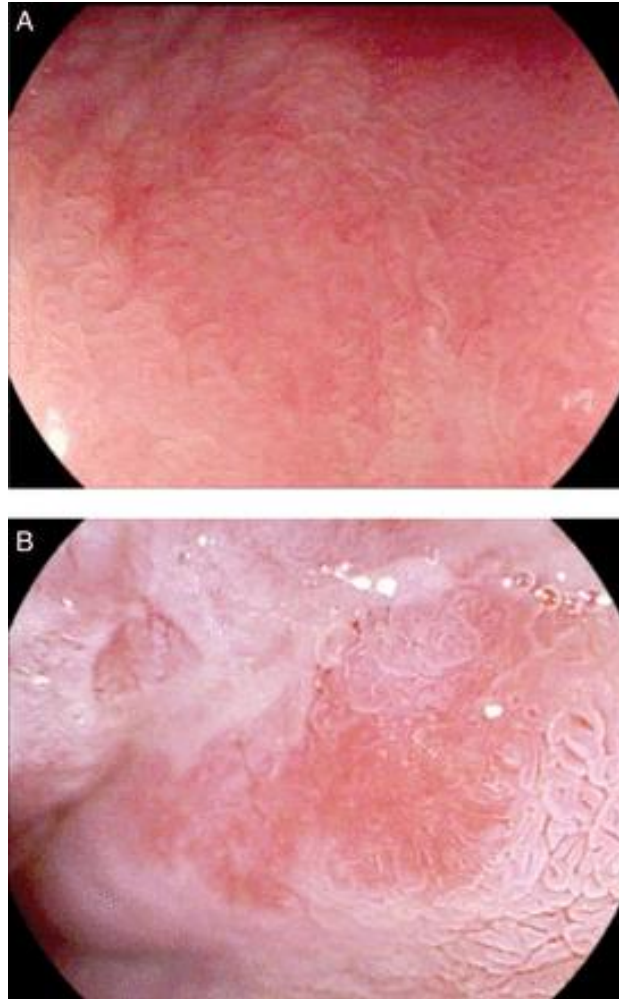
- Single operator Barretts Oesophagus (BO) surveillance list with a trained group of nurses
- Double slot, once a month
- Pentax gastroscopes with i-scan
- 2.5% acetic acid spray to identify areas of loss of aceto-acetic acid whitening (LOAW)
- Biopsies according to Seattle protocol and histology sent according to BSG guidelines
- Prospective database



# Barrett's Esophagus Surveillance Team BEST





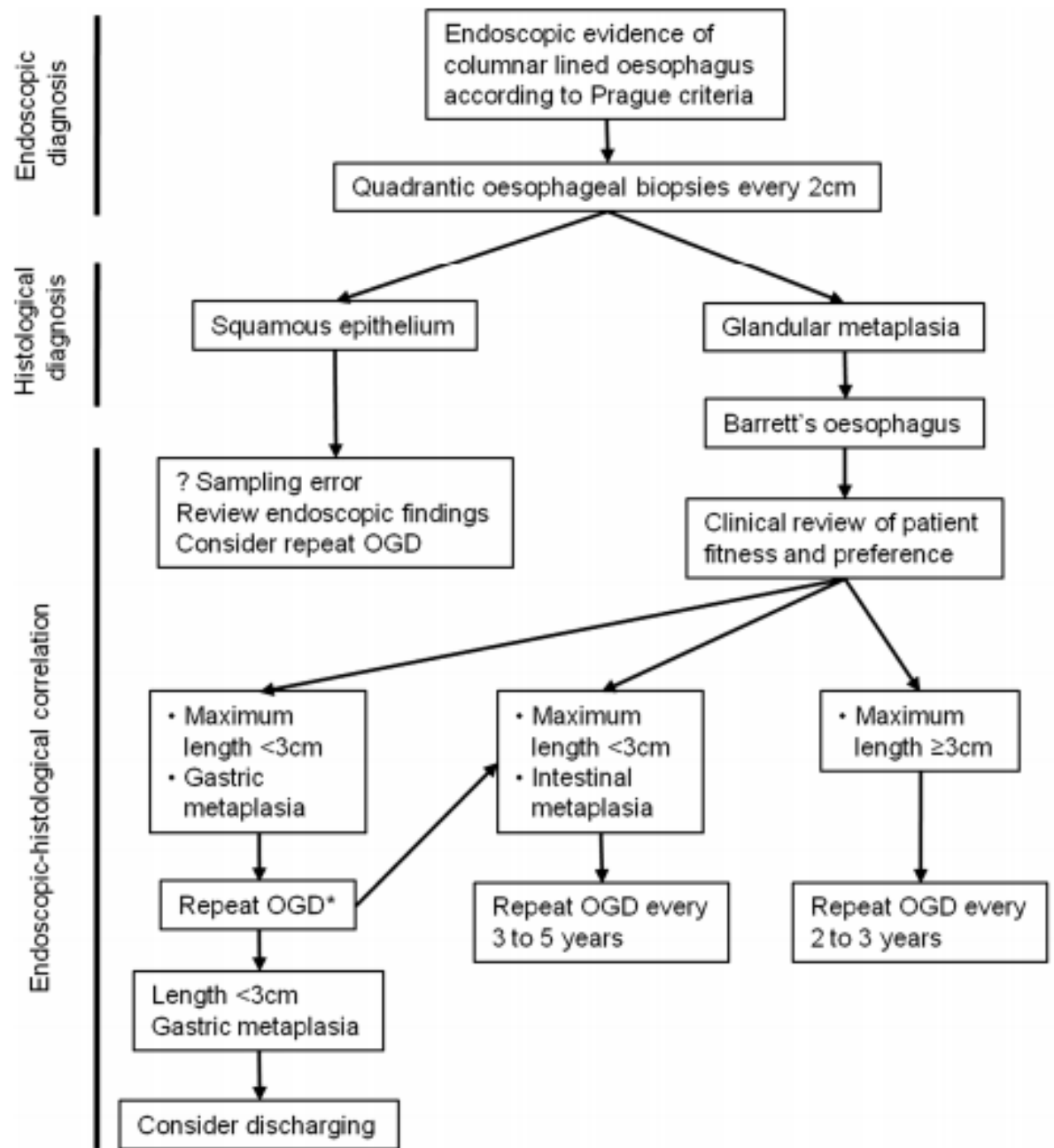


Endoscopic images of Barrett's mucosa ( $\times 136$  zoom using Pentax iScan surface enhancement imaging). (A) Normal. (B) Dysplastic area after application of 3% acetic acid (AcA), showing typical 'loss of aceto-whitening' and distortion of mucosal pattern. This usually becomes clear within 30–60 s of AcA application.

# Results

- June 2016-January 2018
- 148 gastroscopies
- 70% men, mean age 64 yrs (25-90)
- 1 patient had oesophageal adenocarcinoma
- 1 patient had LGD
- 5 patients had IFD
- 4 referred to St Thomas' s Hospital for RFA/EMR

# Surveillance Protocol



# Surveillance strategy for Croydon

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