

Title:

The time to eosinophilic oesophagitis diagnosis for patients presenting with upper gastrointestinal symptoms in primary and secondary care.

Introduction

Patients with eosinophilic oesophagitis (EoE) often experience diagnostic delays. Untreated EoE may result in fibrosis and stricture formation, leading to morbidity and impaired quality of life. Early diagnosis and treatment can potentially prevent these outcomes and reduce emergency admissions with food bolus obstruction. The reasons for these delays have not been examined in primary care previously. This study quantifies the time to EoE diagnosis and examines factors associated with diagnostic delays.

Methods

A retrospective cohort study of incident EoE patients between 1st Jan 2006 and 31st Dec 2022 was undertaken using Clinical Practice Research Datalink (CPRD AURUM) linked to hospital admission data in Hospital Episode Statistics. Patients were followed from first proton pump inhibitor (PPI) prescription or presentation with EoE related symptoms (food bolus obstruction (FBO) or dysphagia) identified from SNOMED CT codes for primary care and ICD-10 codes for secondary care to diagnosis. The association between patient level factors and time to EoE diagnosis was examined using a Robust Poisson regression model.

Results

2300 EoE patients were studied (67.7% male; age 38 (IQR 30-49)). Median time to diagnosis was 3.6 years (IQR 0.5-8.7). 80.7% patients had a PPI prescription record in primary care prior to EoE diagnosis with a time to EoE diagnosis of 4.9 years (IQR 1.5- 9.7). Factors associated with more than 3 years to diagnosis included: female sex (adjusted risk ratio 1.18, 95% CI 1.10-1.27); smoking (1.11, 1.01-1.23); compared with baseline of elective endoscopy, urgent endoscopy for dysphagia (1.35, 1.18-1.54), urgent endoscopy for FBO (1.26, 1.13-1.41), dysphagia presentation in primary care

(1.16, 1.08-1.25), FBO presentation in primary care (1.11,1.00-1.23) and PPI prescription in primary care (3.08, 2.58-3.67). 77% of patients had PPI treatment prescribed after EoE diagnosis. 21% patients with no history of asthma or chronic obstructive pulmonary disease were prescribed a steroid inhaler (presumably swallowed) after EoE diagnosis.

Conclusions

Longer time to EoE diagnosis was associated with being female, smoking, food bolus obstruction and dysphagia presentations in primary or secondary care and particularly PPI prescriptions in primary care.