Erosive Esophagitis is Associated with High Health Care Resource Utilization and Frequent Changes in Medication

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INTRODUCTION

Erosive esophagitis (EE) is a complication of gastroesophageal reflux disease (GERD), also known as erosive GERD. This study aimed to describe health care cost and utilization and treatment changes associated with newly diagnosed EE in the US. The economic burden due to GERD is estimated to be $10 billion annually in the US.[1]

METHODS

- Commercial and Medicare Advantage enrollees aged 18 years or older were identified using the Optum Research Database.
- Patients with newly diagnosed EE from Oct2016 through Dec2020 and at least one upper endoscopy procedure during the study period were included in the study.
  - The date of the first claim with a diagnosis of EE during the identification period was the index date.
- Patients were required to have continuous enrollment for 12 months before (baseline) and ≥12 months following the diagnosis (follow-up).
- Patients with prevalent EE, Barrett's esophagus, or esophageal adenocarcinoma during the 12-month baseline period were excluded to capture newly diagnosed patients.
- The follow-up ended at the earlier of either disenrollment or 31Dec2021.
- Observed treatment algorithms among providers were described according to lines of therapy (LOTs).
  - Initiation of adjunctive therapies, including H2 receptor antagonists (H2RAs), prokinetic agents, antacids, baclofen, sucralfate, and alginate, was not considered separate LOTs, but was also identified.
- Total all-cause and EE-related health care resource utilization (HCRU) and costs included all medical and pharmacy costs and were calculated by LOT for patients with at least one upper endoscopy procedure.

RESULTS

Table 1. All-cause and EE-related HCRU (N=178,789)

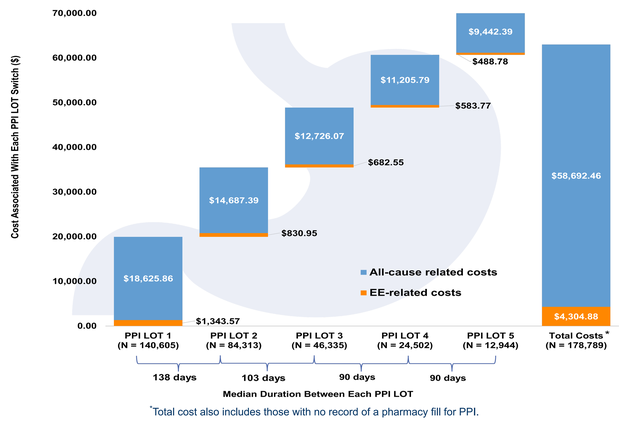
	All-cause		EE-related	
	Baseline Period	Follow-up Period	Baseline Period	Follow-up Period
Ambulatory visit, n (%)	177,479 (99.3)	178,761 (100.0)	7,745 (4.3)	168,399 (94.2)
Emergency room visit, n (%)	78,040 (43.7)	113,387 (63.4)	3,369 (1.9)	15,612 (8.7)
Inpatient stay, n (%)	27,258 (15.3)	56,688 (31.7)	3,936 (2.2)	13,333 (7.5)
Pharmacy use, n (%)	172,602 (96.5)	176,564 (98.8)	101,666 (56.9)	147,049 (82.3)

Ambulatory visits include physician office and hospital outpatient visits.

- Of 178,789 newly diagnosed EE patients with endoscopy procedure, mean age was 61.3 years, 58.6% of patient were female, and mean follow-up time was 2.7 years.
- The average number of PPI LOTs in the 12 months following the index diagnosis date was 1.7.
  - Overall, 21.4% of patients had no pharmacy record for PPIs in the follow-up.
  - Among the 47.2% of patients that went through at least 2 LOTs, 55.0% began a third line, either restarting a previous medication after discontinuation or switching to a new PPI medication.
  - American College of Gastroenterology guidelines recommend only 1 PPI switch after a PPI failure.
- EE-related medical visits for ambulatory and emergency room increased by a factor of 21.7 and 4.6 times in the post-index period vs. baseline period (12 months prior to the EE diagnosis) (Table 1).
- Inpatient stays increased 3.4 times and pharmacy use increased 1.4 times vs. baseline period.

RESULTS (cont.)

Figure 1. All-cause and EE-related Medical and Pharmacy Costs: Costs Associated with Each PPI LOT Switch



*Total cost also includes those with no record of a pharmacy fill for PPI.

- Cycling through PPIs resulted in incurred additional costs. PPI LOT 1 had the largest total costs associated with all-cause and EE-related medical and pharmacy costs (Figure 1).
- Average total all-cause costs per patient (including patients with no record of PPI fills) was $58,692.46 and average total EE-related costs was $4,304.88.

CONCLUSIONS

- Majority of patients switched their initial PPI therapy, and PPI cycling was associated with incurring higher additional medical and pharmacy cost with each switch.
- Once patients were diagnosed with EE, ambulatory visits, ER visits, and inpatient stays increased substantially in the follow-up period compared to the baseline period.
- Despite ACG guidelines recommendation of one PPI switch only, real world treatment patterns indicate majority of patients with a second PPI LOT also initiated a third one.

Reference: [1]Sharma P et al. J Health Econ Outcomes Res. 2023;10(1):51-58

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Conflicts of Interest: Murali Gopal and Rinu Jacob are employees of Phathom Pharmaceuticals. All other authors serve as consultants to Phathom Pharmaceuticals.