



Background:

- We encounter patients in the outpatient clinic who are chronically taking PPIs which are listed as the 7th most frequently prescribed medication in the US .
- In 2019, together, omeprazole and pantoprazole were prescribed 81,426,858 times for 19,647,280 patients.
- Dyspepsia is defined by one or more of the following: postprandial fullness, early satiety or epigastric pain, or burning.
- Approximately 25% of patients with dyspepsia have an underlying organic disease on diagnostic evaluation (EGD vs H. pylori testing), while 75% have idiopathic (functional or non-ulcer) dyspepsia.
- We proposed that many patients who are on PPIs have active dyspepsia symptoms and their management is not consistent with current evidenced-based guidelines.

Methods

- We distributed a questionnaire to patients who were seen in a primary care clinic between December 2021 and March 2022 and who had a PPI listed as an active medication.
- All participants were ≥ 18 year-old. Participants were categorized as “dyspepsia positive” or “dyspepsia negative” based on symptoms at the time of questionnaire completion.
- Dyspepsia positive patients were further categorized as “appropriately managed” vs “inappropriately managed” based on ACG guidelines.

QUESTIONNAIRE – APPROPRIATE MANAGEMENT OF DYSPEPSIA IN PRIMARY CARE

Patient Name: _____ Date of birth: _____ Questionnaire Date: _____

Introduction: Dyspepsia is defined as one or more of the following symptoms: **fullness and discomfort after eating, feeling full easily, upper abdominal pain and burning.** Approximately 25 percent of patients with dyspepsia are found to have an underlying organic disease on diagnostic evaluation. However, approximately 75 percent of patients have no known cause (functional; idiopathic or non-ulcer dyspepsia).

You are receiving this questionnaire as part of a quality improvement (QI) project aiming for the appropriate management of dyspepsia in primary care. Your information will be kept secured according to HIPPA regulations. If you choose to participate in this QI project, one of the resident physicians will contact you at a number and time convenient for you.

SECTION A. TO BE COMPLETED BY PATIENT

1. Do you have any of the following problems? Yes No

An unpleasant sensation such as prolonged persistence of food in the stomach
 You are unable to eat a full meal, or you feel full after eating only a small amount of food
 Pain or discomfort right below your ribs in the area of your upper abdomen
 Burning right below your ribs in the area of your upper abdomen

2. How long have you had these symptoms?

Less than 1 month
 1 - 6 months
 6 months – 1 year
 1 - 2 years
 2 - 5 years
 5 - 10 years
 More than 10 years

3. Have you been evaluated by a gastroenterologist in the past? Yes No
 If answered yes to Question 4, please indicate the name of your Gastroenterologist.

4. Are you currently using or have used in the past one or more of the following medications?
 Yes No

Omeprazole (Prilosec)	Esomeprazole (Nexium)	Pantoprazole (Protonix)
Lansoprazole (Prevacid)	Dexlansoprazole (Dexilant)	Rabeprazole (Aciphex)
Famotidine (Pepcid)	Calcium Carbonate (Tums)	Cimetidine (Tagamet)
Omeprazole and sodium bicarbonate (Zegerid)	Nizatidine (Axid)	

If answered Yes to question 5, How long have you been on this medication?

Less than 1 month
 1 - 6 months
 6 months – 1 year
 1 - 2 years
 2 - 5 years
 5 - 10 years
 More than 10 years

If answered Yes to question 5, Who first started you on this medication?

Primary Care Physician
 Gastroenterologist
 Hospital emergency department
 During hospital admission
 I got it myself (over the counter)
 Unable to recall
 Other: _____

5. Have you been investigated for H. pylori infection (a bacterial infection of the stomach or intestinal lining)? Yes No Unsure

If answered Yes to Question 6, please answer the following questions:

A. When was the test administered? _____
 a. What was the result? Positive Negative
 c. Did you receive treatment for H. pylori? Yes No
 d. Did you receive another test after completing the treatment to confirm cure from H. pylori? Yes No

6. Have you had upper endoscopy (a procedure during which a tube with a camera is passed from the throat down to the stomach to visualize the esophagus and stomach)? Yes No

If answered Yes to Question 7, please answer the following questions:

A. When was the upper endoscopy performed? _____
 B. Were any of the following problems identified?
 Upper GI Bleeding (bleeding from your esophagus, stomach, or intestine)
 Barrett's Esophagus (chronic damage to the lining of the esophagus)
 Esophagitis (inflammation of the esophagus)
 Peptic Ulcer Disease (ulcer in the stomach or intestine)
 Gastritis (inflammation of the stomach lining)
 H. pylori (a bacterial infection of the lining of the stomach or intestine)
 Other: _____

7. Please indicate the time of the day and phone number you prefer to be contacted by the QI resident.
 Time of the day _____ Phone number _____

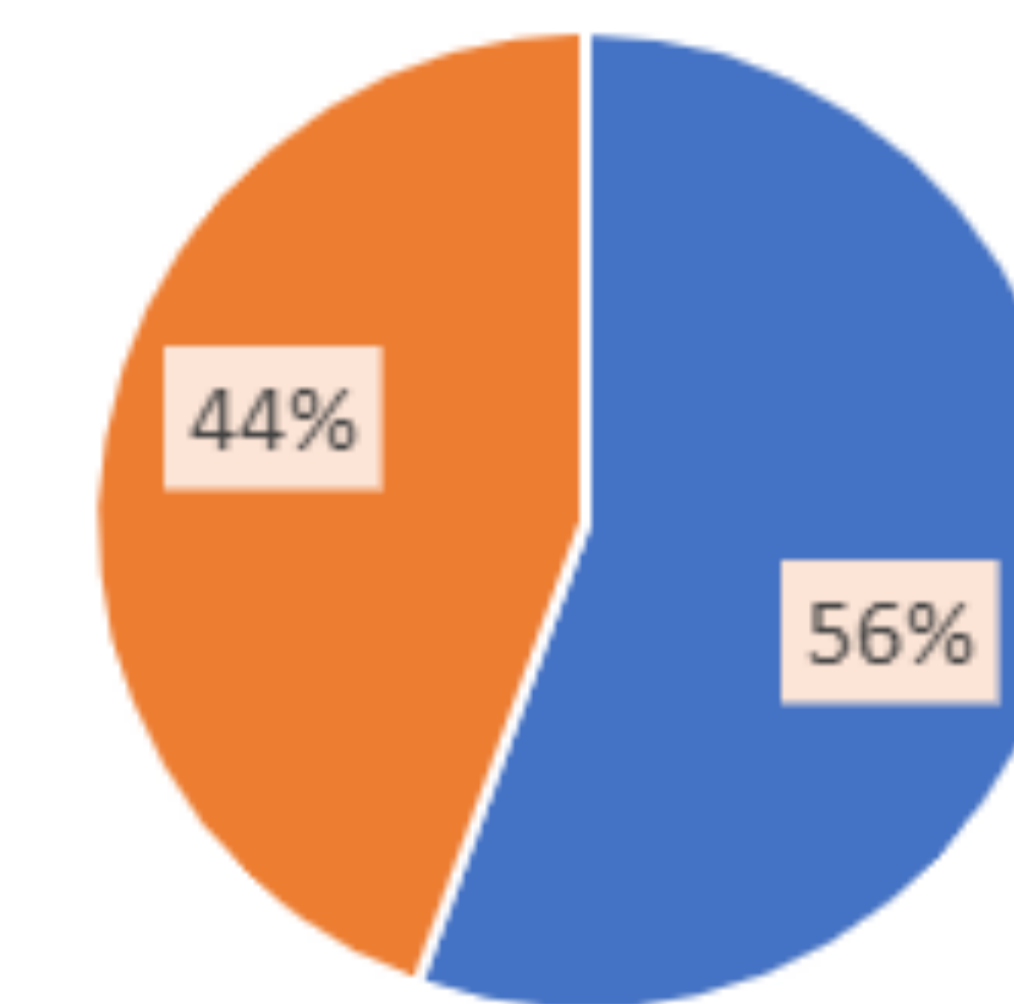
Results

- We received 65 completed questionnaires. 27 participants had dyspeptic symptoms, 15 (56%) of whom were appropriately managed and 12 (44%) were inappropriately managed.
- We contacted patients with inappropriately managed dyspepsia and recommended they discuss guideline-based management with their prescribing physician

Challenges & Limitations

- Having patients fill the questionnaire, we were able to overcome this challenge by preparing a weekly list of the targeted patients (PPI on their outpatient medication list) This helped us receive more filled questionnaires.

Management of dyspepsia



■ Appropriately managed ■ Inappropriately managed

Discussion

- Guideline-based evaluation and management of dyspepsia may reduce the risk for gastric cancer by early detection and eradication of H. pylori infection and may lead to earlier diagnosis of Barrett’s esophagus.
- We identified patients from a primary care clinic with persistent dyspepsia symptoms despite current PPI usage. In a number of these patients, therapy was deemed not appropriate based on ACG guidelines.
- As providers, we must carefully evaluate patients on chronic PPI therapy for active symptoms as well as for the overall appropriateness of their therapy relative to evidence-based guidelines for the evaluation and management of dyspepsia.
- We encourage that dyspepsia management should be added to the onboarding lectures for the coming residents. Also, we encourage that, if possible, evaluation for dyspepsia to be part of the Athena EMR for those patients who are taking PPIs.