Medication Use Evaluation: Appropriate Indications for Utilization of Proton Pump Inhibitors in Hospital Practice
Racquel Reese, PharmD Candidate¹, Kimberly A. Couch, PharmD, MA, FIDSA, FASHP² & Alekhya Uppala, PharmD, BCPS²
¹University of Maryland Eastern Shore School of Pharmacy and Health Professions  ²CompleteRx

Purpose: Gastric acid is bactericidal and protects the gastrointestinal tract from ingested bacteria. Proton pump inhibitors (PPIs) suppress gastric acid secretion by irreversibly inhibiting the hydrogen/potassium adenosine triphosphatase enzyme system of gastric parietal cells. Impairing gastric acid secretion with an acid-suppressive agent, such as a PPI, increases the risk for gastrointestinal infection.

The purpose of this medication use evaluation (MUE) is to determine whether the use of PPIs is consistent with stress ulcer prophylaxis and FDA labeled indications, and to determine the incidence of adverse events, including Clostridium difficile (C. difficile)-associated diarrhea (CDAD).

Methods: This project was approved by the appropriate ethics committee or institutional review board and informed consent was waived. A retrospective PPI MUE will be completed to determine the reasons for utilization of PPIs and determine the incidence of adverse events. A list of all patients who received PPI treatment will be generated from the pharmacy computer system. Data collection will include indication for use, duration of therapy, drug, dose, route, frequency, adverse events, and results of any tests for C. difficile. Collected data will be compared to baseline data on file at a small community hospital. Comparisons between the two groups will be made with Chi square or Fisher’s exact test for nominal data.

Abstract
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Results

Figure 1: Indication for PPI Use at Baseline

Figure 2: Indication for PPI Use Post-Education

Graph 1: Frequency of Adverse Events Post-Education

Graph 2: Frequency of CDAD Post-Education

Discussion

• Complete data collection may reveal additional information
• Change in medical staff may contribute to variations in prescribing habits during the study period
• Lack of prescribing indication may lead to equivocal data

Conclusion

• Indications for PPI use remain inconsistent with current practice guidelines
• Publication of updated guidelines for PPI use and stress ulcer prophylaxis will be important in guiding Evidence Based therapy

References


Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: Racquel Reese: Nothing to disclose Kimberly A. Couch, PharmD: Nothing to disclose Alekhya Uppala, PharmD: Nothing to disclose