TOO MUCH OF A GERD THING: Reducing Inappropriate Inpatient Proton Pump Inhibitor Use

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BACKGROUND & AIMS:

Causes of PPI Overuse:
- Increased aspirin and NSAID use
- Inexpensive generic formulations
- Growing proportion of non-indicated uses

Common Complications of Overuse:
- Infectious: Pneumonia, C difficile colitis
- Cardiovascular: Myocardial infarction, stroke
- Renal: Chronic renal insufficiency, acute interstitial nephritis
- Other: Fractures, Dementia

>50% of patients initiated on PPI therapy during a hospital admission do not have an appropriate indication for therapy. Once PPIs are started in the hospital, approximately 70% of patients continued to take them 6 months after discharge.

Aim: Decrease the number of inpatient doses of oral PPI across Vidant Hospitals by 10% in 6 months.

RESULTS:

Prior to intervention: Total number of doses of PO pantoprazole across all Vidant hospitals was 50,875 (extrapolated to 25,437 doses for a 3 month period or 8,479 doses for a 1 month period).

1 month post-intervention: Total number of doses of PO pantoprazole across all Vidant hospitals was 8,500 doses.

3 months post-intervention: Total number of doses of PO pantoprazole across all Vidant hospitals was 26,930 doses.

There was no significant change in inpatient oral pantoprazole use at 1 and 3 months post-intervention.

DISCUSSION:

Conclusion: Addition of as-needed Maalox to the General Adult Admission order set did not decrease the number of doses of oral pantoprazole at 1 months or 3 months.

Possible Explanations: Providers were not using the new option and/or they are continuing to prescribe new PPI at the time of admission or throughout hospital stay vs providers are inappropriately continuing an existing oral PPI from home medication reconciliation, even if not indicated.

Future interventions:
- Analysis of how often our intervention was utilized
- Additional options for inpatient dyspepsia treatment on admission order set (Tums, Pepcid)
- Education to providers against continuation of unnecessary outpatient PPI at time of admission

TAKE HOME POINTS:

- PPIs are commonly inappropriately prescribed and continued for prolonged periods.
- Improper use of PPI can lead to complications among multiple organ systems
- Offering alternative treatment for episodic dyspepsia can prevent overuse of PPI and chronic complications.
- Further interventions are needed to decrease inpatient PPI use across Vidant Hospitals.

METHODS:

Metric: Number of doses of 40mg oral pantoprazole administered across all Vidant hospitals

Intervention: Addition of as-needed (PRN) category for Dyspepsia to General Adult Admission Order Set with option to order PRN Maalox upon admission to the hospital as an alternative to PPI

Follow-up: Monitoring of metrics at 1, 3, and 6 months after intervention