Sustainability of a Performance Improvement Project: Inappropriate Use of GI Prophylaxis in Non-ICU hospitalized patients.

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INTRODUCTION
The use of anti-secretory therapy (AST) for stress ulcer prophylaxis is well defined in ICU patients. Several studies have also looked at the use of AST in patients admitted to general medical floors. Frequency of AST on general medical floors varies from 26.8% to 71%. Furthermore, these studies demonstrate that 56% to 69% patients were inappropriately started on AST therapy. Common practice to extend AST to patients on admission based on what is routinely done. Inappropriate use of AST results in significant economic costs and increases the risk of C. Difficile associated-diarrhea (CDAD). The inappropriate use of AST and interventions made to improve their proper utilization has been shown. The aim of this study is to illustrate the long-term sustainability of the interventions made to reduce the inappropriate use of AST in non-ICU hospitalized patients.

METHODS

Criteria evaluated were (a) AST on admission, (b) Indication for AST on admission and (c) AST appropriately started on admission.

Initial chart review, Group 1 included 221 patients. Group 2, four months after intervention included 225 patients and Group 3, 1 year after intervention included 199 patients.

Interventions included didactic lectures, e-mail alerts, posting of recommended guidelines and frequent reminders by the research collaborators. House staff was provided with feedback on their practice patterns, including the results of the pre-intervention data.

Data was collaborated on Excel and analyzed by a statistician using Chi-square analysis.

RESULTS

• Patient demographics and admitting diagnoses are summarized in Table 1, guidelines for AST in Table 2, ethnicity in Figure 1 and admitting diagnosis in Figure 2.
• Our study demonstrates a significant reduction in inappropriate administration of AST at both 4 months and 1 year post intervention, (p<0.0001).
• In Group 1, 72.1% of patients who had no indication for AST were inappropriately started on AST on admission. In Group 2, 40.3% patients and Group 3, 34.4% patients. (Figure 1)
• The study illustrates the ability of house staff to maintain and improve prophylaxis practices where indicated. (Figure 2)
• All groups of chart analysis showed that house staff is proficient in reconciling medications when patients had an indication for AST. (Figure 3)

DISCUSSION AND CONCLUSION
This study demonstrates that a simple educational intervention based on published guidelines for stress ulcer prophylaxis in non-ICU patients can positively cut down the inappropriate use of AST. It further illustrates the sustainability of the interventions made to reduce the inappropriate use of anti secretory therapy.

The outcome of this project has indirectly helped decrease economic costs and complications associated with prescribing PPIs and H2RB.

LIMITATIONS
The results may however be reflective of house staff that were part of the intervention and interns under their direct supervision.

The results could also be secondary to new studies published during the study period and increasing awareness of the relationship between C. Difficile associated diarrhea and the use of PPIs.

REFERENCES