Background: Non-Variceal Upper GI Bleeding (NVUGIB) accounts for nearly 150,000 hospital admissions yearly and more than 1 billion dollars in health care expenditures.

- Appropriate triaging of patients into high- and low-risk categories that can be achieved by using the Rockall risk score (RRS), which is the most widely used and validated tool to triage patients. (Figure 1)

The RRS was endoscopic and clinical criteria to risk stratify patients with NVUGIB.

Methods:

1. This was a retrospective, cohort study, performed at St. Joseph Mercy Hospital (SJMH), Ann Arbor, MI (529-bed community teaching hospital). IRB approval obtained.

2. Consecutive subjects (age>18) were identified through computerized medical records using ICD-9-CM codes in relation to non-variceal upper GI bleeding. Data regarding Rockall score, pro-hemorrhagic medication use and patient demographics were abstracted and analyzed by a non-blinded abstractor.

3. Inclusion Criteria: >18 years of age, admitted through the emergency department of SJMH, diagnosis of NVUGIB, developing NVUGIB during hospital stay although initially admitted with another diagnosis, admission not done through the emergency department.

4. Exclusion Criteria: presence of a variceal bleed, lack of a diagnostic endoscopy, developing NVUGIB during hospital stay although initially admitted with another diagnosis, admission not done through the emergency department, or prisoner status.

5. Utilizing the above algorithm, patients presenting with NVUGIB to a community teaching hospital.

Aims:

1. To assess the applicability of the RRS in a community teaching hospital.

2. To evaluate the effect of pro-hemorrhagic medications on resource utilization, LOS and patient triaging.

3. To evaluate the effect of pro-hemorrhagic medication on RRS stratification.

Results:

- There was no difference between LOS among groups of different risk based on RRS (Table 2). 68% of low risk patients were admitted to a monitored bed and 29% of them received intravenous proton pump inhibitor (IV PPI). Increasing level of care and IV PPI use were associated with higher risk groups.

- The RRS of all patients are demonstrated in Figure 2.

Conclusions:

- RRS is applicable in our community teaching hospital setting when used on patients not on ASA, clopidogrel and/or warfarin.

- There was poor association between RRS and outcome measures in the patients of pro-hemorrhagic medications.

- Length of stay, IV PPI use and level of care did not differ between patients at low (RRS <3) and high risk for recurrent GI bleeding.

- Based on the literature to date and findings in our hospital regarding LOS, upon improving LOS and IV PPI use, RRS may aid in better identification of low risk patients (which are candidates for early and safe discharge) and in improving resource utilization.

Significance:

1. Patients on pro-hemorrhagic medications may not be suitable candidates for RRS stratification.

2. Based on findings of this study we propose the following algorithm for the use of the RRS in managing NVUGIB.

3. Utilizing the above algorithm, patients presenting with NVUGIB to a community teaching hospital may be more effectively triaged for recurrent bleeding. This may promote more cost-effective care of these patients by decreasing LOS, decreasing IV PPI use and improve resource utilization.

References:


7. T o assess the applicability of the RRS in a community teaching hospital.


9. Based on the literature to date and findings in our hospital regarding LOS, upon improving LOS and IV PPI use, RRS may aid in better identification of low risk patients (which are candidates for early and safe discharge) and in improving resource utilization.

10. Exclusion Criteria: presence of a variceal bleed, lack of a diagnostic endoscopy, developing NVUGIB during hospital stay although initially admitted with another diagnosis, admission not done through the emergency department.

11. Inclusion Criteria: >18 years of age, admitted through the emergency department of SJMH, diagnosis of NVUGIB, developing NVUGIB during hospital stay although initially admitted with another diagnosis, admission not done through the emergency department.

12. Fig. 3: Comparison of sensitivity, specificity and missed diagnoses.

13. Fig. 4: Comparison of sensitivity, specificity and missed diagnoses.

14. Fig. 5: Comparison of sensitivity, specificity and missed diagnoses.