QSOFA Score Predicts Serious Clinical Outcomes in Patients Presenting with Non-Variceal Upper Gastrointestinal Bleeding on Dual Anti-Platelet Therapy

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Background

- Non-variceal upper gastrointestinal bleeding (NVUGIB) in patients taking dual antiplatelet therapy (DAPT) is a major GI related adverse event
- There is a lack of data on prognostic scoring systems for NVUGIB due to DAPT. Predictors of clinical outcomes may help physicians identify patients that may have an increased likelihood of an adverse events and help in prioritization and better allocation of resources.
- **We aim to assess predictive ability of four GI bleeding risk scores [Glasgow Blatchford score (GBS), AIMS65, qSOFA and Rockall] serious clinical outcomes (composite end point of re-bleeding, ICU admission, and death within 30 days).**

Methods

- A retrospective chart review was done for all consecutive adult patients between 2015-2020 who presented with NVUGIB on DAPT (aspirin, clopidogrel; aspirin, ticagrelor; aspirin, prasugrel) to Allegheny Health Network and underwent endoscopy.
- Patients who had DAPT discontinued as per ASGE guidelines were excluded from the study.
- An exploratory analysis was done to assess predictive ability of four GI bleeding risk scores for serious clinical outcomes.
- Logistic regression was used to identify variables independently associated with serious clinical outcomes and to estimate their odds ratios and 95% CI.
- P value <0.05 was considered as the level of significance.

Table 1: Gastrointestinal bleeding risk scores as predictors of serious clinical outcomes (a composite of re-bleeding, ICU admission, or death).

Variable	N	Odds Ratio	95% Confidence Interval	P-value
Serious clinical outcomes				
GBS	74	1.11	0.968 - 1.277	.14
AIMS65	74	1.53	0.886 – 2.652	.13
qSOFA	75	2.42	1.218 – 4.823	.01
Rockall score	74	1.06	0.824 – 1.360	.66

Results

- Out of 203, 75 patients (M: F 53:22), mean age±S.D. 70.1±11.2 years meeting inclusion criteria were included for final analysis.
- Mean±S.D. for various risk scores for the patient population include GBS (11.69±3.47, 95% C.I. 10.89-12.49), AIMS 65 (1.34±0.88, 95% C.I.1.13-1.54), qSOFA (0.57±0.0.81, 95% C.I. 0.39-0.76) and Rockall score (5.49±1.84, 95% C.I. 5.06-5.91). Serious clinical outcome occurred in 39/75 (52%) patients.
- Out of 4 scoring systems evaluated, only qSOFA was able to predict composite serious clinical outcome in patients with NVUGIB on DAPT undergoing endoscopy (Table 1).
- qSOFA could predict serious clinical outcomes with a sensitivity of 55.6%, specificity of 71.8%, PPV 64.5% and NPV 63.6% and accuracy of 64%.

Conclusions

- qSOFA is a fast, simple scoring system that can be performed at bedside. It was originally developed to predict mortality in sepsis.
- **Our study shows that qSOFA can be a better prognostic indicator of serious clinical outcomes in NVUGIB due to DAPT than other relatively complicated scoring systems like Rockall score, GBS and AIMS-65.**
- However, the study needs to be validated in a larger study population before it can be used in clinical practice.