



Incidence of major gastrointestinal bleeding for early versus late hemoglobin monitoring in veterans taking apixaban

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Introduction

- Gastrointestinal bleeding is a major cause of hospital-associated mortality and a financial burden on the health care system
- Hemoglobin levels are frequently used to screen for anemia and bleeding in patients on anticoagulation therapy
- The purpose of this study was to evaluate if early hemoglobin monitoring prevented major gastrointestinal bleeding resulting in hospitalization in patients on apixaban

Methods

- Retrospective analysis of veterans at Dayton VAMC who were started on apixaban between 2013 and 2020
- Demographics, HASBLED score at apixaban initiation, days between apixaban initiation and subsequent Hgb check, duration of apixaban use, and incidence of major gastrointestinal bleeding were collected

Early hemoglobin monitoring was not associated with a decrease in major gastrointestinal bleeding but was associated with significantly earlier discontinuation of apixaban therapy.

Results

- 1376 (75%) had a Hgb screening within 90 days (Early Hgb Monitoring)
- 464 (25%) had an initial Hgb screening after 90 days (Late Hgb Monitoring)
- There were no clinically significant differences between the two groups
- Duration of apixaban use 21.3±16.1 in the early group and 31.0±20.1 in late group (p<0.001)
- Incidence of major gastrointestinal bleeding was 2.9% in the early group and 0.6% in the late group (p=0.005)

Conclusion

- No decrease in major gastrointestinal bleeding with early monitoring
- 10-month longer duration of apixaban use in the late monitoring group
- Earlier monitoring may lead to discontinuation of anticoagulation without prevention of major gastrointestinal bleeding.
- Further prospective should be performed to assess if Hgb monitoring in combination with other interventions can prevent hospitalization

Table 1: Comparisons between early and late hemoglobin monitoring groups

	≤90 days (N=1376)	>90 days (N=464)	P
Age – Years (Mean ± St. deviation)	72.8±10.0	73.6±10.8	0.10
Sex			
Male	1345 (97.7)	454 (97.8)	
Female	31 (2.3)	10 (32.2)	0.90
Race			
Caucasian	1212 (90.7)	425 (93.4)	
African American	124 (9.3)	30 (6.6)	0.08
HASBLED Score (Mean ± St. deviation)	2.27±1.08	2.13±1.02	0.022
Duration of Apixaban - Months (Mean ± St. deviation)	21.3±16.1	31.0±20.1	<0.001
Incidence of Major GI bleed	40 (2.9%)	3 (0.6%)	0.005

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