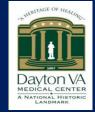


Incidence of major gastrointestinal bleeding for early versus late hemoglobin monitoring in veterans taking apixaban

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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

Table 1: Comparisons between early and late hemoglobin monitoring groups

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	≤90 days (N=1376)	>90 days (N=464)	Р	
Age – Years (Mean \pm St. deviation)	72.8±10.0	73.6±10.8	0.10	
Sex				Ĺ
Male	1345 (97.7)	454 (97.8)		Ĺ
Female	31 (2.3)	10 (32.2)	0.90	Ĺ
Race				Ĺ
Caucasian	1212 (90.7)	425 (93.4)		
African American	124 (9.3)	30 (6.6)	0.08	
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HASBLED Score (Mean ± St. deviation)	2.27±1.08	2.13±1.02	0.022	
				ĺ
Duration of Apixaban - Months (Mean \pm 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	

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

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