



# INCIDENCE OF MAJOR GASTROINTESTINAL BLEEDING IN VETERANS TAKING APIXABAN VS. RIVAROXABAN



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## INTRODUCTION

- Gastrointestinal bleeding is one of the major adverse effects of Direct oral anticoagulants (DOACs).
- The incidence of GIB has been extensively compared between Warfarin and DOACs but population-based studies comparing incidence of GIB among different DOACs are limited.
- The objective of our study was to compare the incidence of GIB in veterans taking apixaban vs. rivaroxaban.

## METHODS

- We retrospectively evaluated electronic medical records of veterans at Dayton VA medical center who were started on Apixaban and Rivaroxaban between 2012 and 2020.
- Demographics, HAS BLED Score, and duration of anticoagulation were collected.
- Outcome included admission to the hospital for gastrointestinal bleeding. SPSS was used to calculate incidence of GIB per 100 years of usage and incidence rate ratio.

## RESULTS

- In total, 2170 veterans were started on apixaban, and 677 veterans were started on rivaroxaban between 2012 and 2020.
- Of these patients, 2781 were male and 66 were female. Patients started on apixaban were older than patients started on rivaroxaban (73.1 years vs. 67.6 years,  $p < 0.001$ ).
- The duration of treatment on rivaroxaban was slightly longer than apixaban (2.02 years vs. 1.90 years,  $p = 0.09$ ).
- HAS BLED score of patients started on apixaban was significantly higher than patient started on rivaroxaban (2.22 vs. 1.84,  $p < 0.001$ ).
- The incidence of GIB in patients taking apixaban was 0.996 per 100 years of usage, whereas the incidence of GIB in patients taking rivaroxaban was 1.314 per 100 years of usage. The incidence rate ratio of GIB between patients taking rivaroxaban vs. apixaban was 1.32.

	Apixaban	Rivaroxaban	p-value
<b>N</b>	2170	677	
<b>Mean Age (Years)</b>	73.1	67.6	<0.001
<b>Average Duration of treatment (Years)</b>	2.02	1.90	0.09
<b>HAS BLED Score</b>	2.22	1.84	<0.001
<b>Incidence of GI Bleed per 100 years of usage</b>	0.996	1.314	

## CONCLUSION

- In our study, the incidence of GIB was higher in patients on rivaroxaban even though they had lower mean age and HAS BLED scores.
- Apixaban should be considered first in patients requiring anticoagulation with higher risk of bleeding.