

INTRODUCTION

- ❑ Bleeding events complicate the use of Novel oral anticoagulants (NOACs).
- ❑ There is sparse information on the rate and the factors associated with NOAC-induced bleeding events in Malaysian patients with nonvalvular atrial fibrillation (NVAF).

OBJECTIVES

- ❑ To determine the rate and the factors associated with bleeding events among patients with NVAF receiving dabigatran or rivaroxaban therapy for stroke prevention.

METHODS

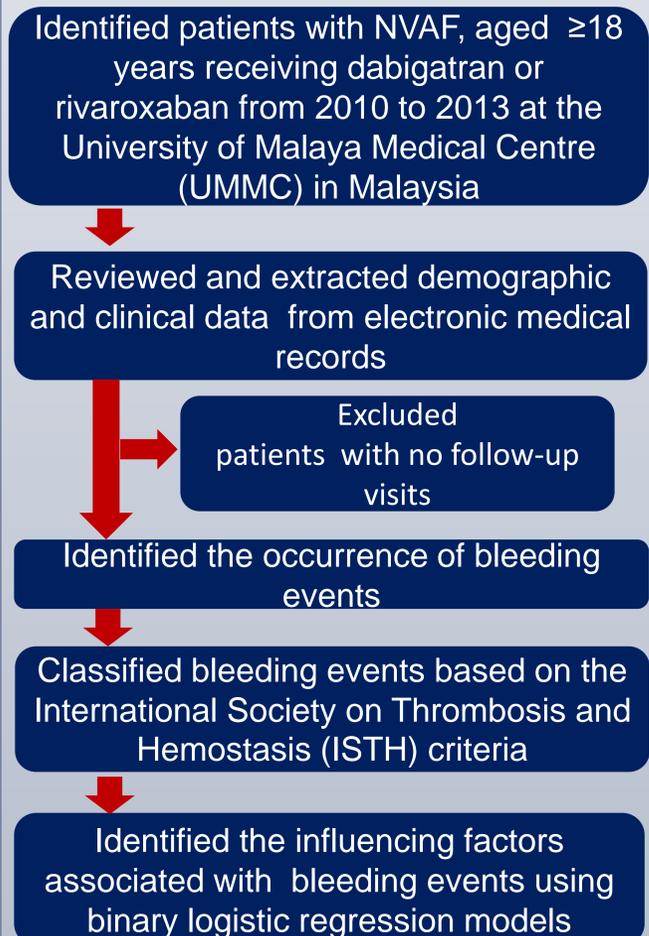


Figure 1. Flow chart of study procedures.

RESULTS AND DISCUSSION

- ❑ **50%** were male
 - ❑ **20%** used warfarin earlier
 - ❑ **68%** were of Chinese descent
 - ❑ **35%** had stroke earlier
 - ❑ **75%** are aged ≥ 65 years
 - ❑ Median CHA₂DS₂VASC score = **4 (3-5)**
- ❑ During the median followed-up period of 23 months (range 3 to 45 months) **45** out of the **220** patients experienced a total of **55** bleeding events (**19** major, **21** minor and **15** clinically relevant minor bleeding events).
- ❑ **4** mortalities reported in the **19** patients who had major bleeding events,

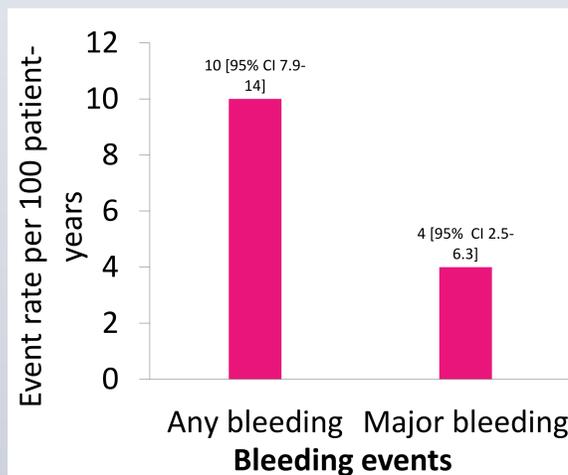


Figure 2. Bleeding event rates per 100 patient-years of follow-up.

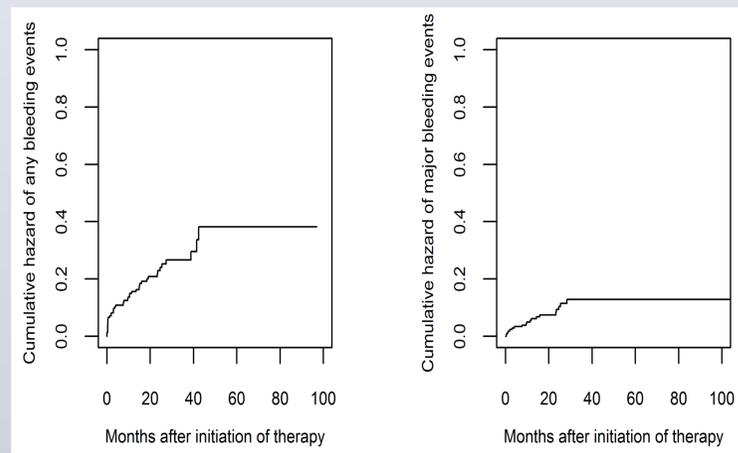


Figure 3. Estimated cumulative hazard rate function of any bleeding events (left pane) and major bleeding events (right pane) of all patients.

Table 1. Factors associated with bleeding events.

Risk factors	Patients with bleeding events n (%)	*Adjusted OR	95% CI	P value
Age >75 years	21 (47)	2.584	1.194 - 5.674	0.016*
Concomitant ACEI use	24 (53)	2.536	1.233 - 5.302	0.011*
Congestive heart failure	23 (51)	2.530	1.205 - 5.373	0.014*

*Adjusted for anemia, peptic ulcer disease, CHADS₂ >3 & CHA₂DS₂VASC >3
Abbreviation: ACEI, Angiotensin-converting-enzyme inhibitor

CONCLUSION

- ❑ NOAC-induced major bleeding episodes were infrequent but carried a high fatality risk.
- ❑ Interventional programs for bleeding prevention should target older patients, patients with congestive heart failure and those receiving ACEI therapy.

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ACKNOWLEDGMENTS

The authors would like to thank the staff at the Department of Pharmacy and the Patients Information Services of UMMC for facilitating the retrieval and access to data from the medical folders of patients used in this study.

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