

Comparison of Medication Adherence and Treatment Persistence between New Oral Anticoagulant and Warfarin among Patients

Yi Feng Lai, ^{1,3}BSc (Pharm)(Hons), FISQ, Jun Kai Neo, ¹BSc (Pharm)(Hons), Mcvin HH Cheon, ^{1,2}BSc (Pharm)(Hons), Ming Chai Kong, ¹MPharm, Bee Choo Tai, ³PhD, Heng Joo Ng, ⁴MBBS, MRCP, FRCPath

Abstract

Introduction: This study aimed to compare medication adherence and treatment persistence of patients on warfarin versus rivaroxaban in Singapore. A secondary objective was to identify significant covariates influencing adherence. **Materials and Methods:** A retrospective cohort study was conducted where data from September 2009 to October 2014 was retrieved from the hospital electronic databases. Prescription records of rivaroxaban patients with 3 months or more of continuous prescription were extracted and compared against those of patients on warfarin. Primary outcome of adherence was determined based on the medication possession ratio (MPR), while treatment persistence was determined by outpatient clinic appointment gaps. **Results:** A total of 94 rivaroxaban and 137 warfarin users were analysed by complete case analysis. The MPR of warfarin patients was lower than rivaroxaban patients by 10% (95% CI, 6.4% to 13.6%; $P < 0.0001$). Also, there were more warfarin patients who had gaps in treatment persistence compared to those prescribed rivaroxaban (8.0% vs 1.1%; $P = 0.03$). Significant factors affecting medication adherence were age and duration of anticoagulant use. For every 10-year increase in age, MPR increased by 1.7% (95% CI, 0.7% to 2.8%). Similarly, for every year increase in duration of use, MPR increased by 1.8% (95% CI, 0.6% to 3.0%). Race, gender, concomitant medication and type of residence were not found to be significant covariates in the multivariable analysis. **Conclusion:** Patients on rivaroxaban are likely to be more adherent to their prescribed oral anticoagulant with increasing age and duration of treatment influencing adherence.

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¹Department of Pharmacy, Singapore General Hospital, Singapore

²Faculty of Science, National University of Singapore, Singapore

³Saw Swee Hock School of Public Health, National University of Singapore, Singapore

⁴Department of Haematology, Singapore General Hospital, Singapore

Address for Correspondence: Mr Yi Feng Lai, Department of Pharmacy, Singapore General Hospital, Outram Road, Singapore 169608.

Email: laiweifeng@gmail.com