



UNIVERSITI TEKNOLOGI MARA

**SAFETY AND EFFICACY OF WARFARIN VERSUS DABIGATRAN IN ATRIAL
FIBRILLATION**

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ABSTRACT

Background: Warfarin is the most anticoagulant used for more than 50 years old as stroke prophylaxis in atrial fibrillation. New oral anticoagulant which is Dabigatran was developed and showed to be safer over Warfarin due to lower tendency of bleeding. This study aimed to compare the pattern of anticoagulant used and to evaluate the safety and efficacy profile of Warfarin. Besides that, comparison of the safety and efficacy of Warfarin versus Dabigatran as stroke prophylaxis in atrial fibrillation was done by evaluating both bleeding and stroke incidence in both group. *Results and Discussions:* A total of 71 patient were recruited for this study and currently 21, 21 and 29 patients use Warfarin, Dabigatran 110 mg and Dabigatran 150 mg respectively. Out of 50 Dabigatran users, 36 of them are warfarin-experienced. Both Dabigatran 110 mg and 150 mg showed to have lower bleeding incidence and no stroke incidence as compared to Warfarin. *Conclusion:* Pattern of anticoagulant used for stroke prophylaxis in atrial fibrillation was slowly changing from Warfarin to Dabigatran. Evaluation of safety and efficacy profile of Warfarin showed that Warfarin require extensive management and monitoring in order to achieve the therapeutic goals with less side effect. Comparison between both anticoagulant showed that Dabigatran was safer and effective as compared to Warfarin.

CHAPTER 1

INTRODUCTION

1.1 Background of study

Atrial Fibrillation (AF) is one of the most common types of sustained cardiac arrhythmia which is associated with the risk of stroke and mortality (Dobrev & Nattel, 2011). It can be defined as an atrial tachyarrhythmia which is due to uncoordinated atrial activation and can lead to deterioration of atrial mechanism function (Malaysia, 2012). The prevalence of atrial fibrillation increases with aging of the population. Malaysia (2012) reported that the prevalence increase by double which is 0.5% at 50-59 years old to almost 9% when reached at 80-89 years old.

Besides that, atrial fibrillation is closely associated with stroke incidence. A study reported that around 20-25 % of all stroke was due to atrial fibrillation and it is more severe than stroke that occurs due to the other reason (Schotten, Verheule, Kirchhof, & Goette, 2011). Thus, one of the goals of treatment in AF is to prevent thromboembolism and ischemic stroke occurrence (Malaysia, 2012).

Warfarin is oral vitamin K antagonist, the most commonly prescribed form of outpatient anticoagulation for the prophylaxis treatment of atrial fibrillation (Woo et al., 2012). According to Connolly et al. (2009) Warfarin can reduce the risk of stroke and death but at the same time increase the haemorrhage incidence. Despite of its