UNIVERSITI TEKNOLOGI MARA

SAFETY AND EFFICACY OF WARFARIN IN TREATING PATIENTS WITH ATRIAL FIBRILLATION IN SARAWAK GENERAL HOSPITAL HEART CENTER

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Dissertation submitted in partial fulfillment of the requirement for the Bachelor of Pharmacy (Hons.)

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July 2016

ACKNOWLEDGEMENT

TABLE OF CONTENTS

Page

ABSTRACT

Atrial fibrillation is a condition where the heart does not beat regularly. This condition is usually treated with warfarin to prevent the risk of blood clotting and bleeding. Warfarin has narrow therapeutic window. Thus, monitoring is needed and international normalised ratio (INR) is used for this purpose. From the INR readings, time in therapeutic range (TTR) is calculated to evaluate the quality of the anticoagulant. 120 patients with atrial fibrillation were randomly selected and their INR readings were recorded. At least four INR readings were inserted into INR template to obtain the TTR. 61 males and 59 females were involved. 25.8% of the patients were 75 years old and above while the remaining 74.1% were with the age of 74 and below. 73% of the patients have TTR less than 75% while the remaining 27% have TTR 75% and above. Warfarin prescribing should be taken seriously to increase the TTR and minimize risk of developing stroke or bleeding.

CHAPTER 1

INTRODUCTION

1.1 Background of study

Atrial fibrillation (AF) is the irregular rhythm of the heartbeat. It happens when an electrical impulse from the sinoatrial (SA) node in the atria is generated abnormally. This will cause the ability of the atria to pump blood into the ventricle to reduce. As a result, the heart will pump more rapidly (Kulick, 2015). As the rhythm of heart is abnormal, there is risk of blood pooling as the blood starts to move and circulate slowly. This can lead to formation of blood clot, which eventually can lead to stroke ("Atrial Fibrillation," n.d). The AF prevalence in Malaysia was calculated as 2.8% (Freestone, Rajaratnam, Hussain, & Lip, 2003).

Stroke is a condition where the oxygen supply to the brain is being obstructed. According to World Health Organization (WHO), stroke is defined as the clinical syndrome of rapid onset of focal (or global, as in subarachnoid haemorrhage) cerebral deficit, lasting more than 24 hours or leading to death, with no apparent cause other than a vascular one (Warlow et al., 2003). Hospital admission due to stroke associated with AF in Malaysia in 2012 was reported to be 3.1% to 24.2% (Guo, Lip, & Apostolakis, 2012). In the event of atrial fibrillation and hypercoagulability, the risk of developing stroke increases as both AF and hypercoagulability are associated with atrial thrombogenesis and embolism (O'Neal

1