UNIVERSITI TEKNOLOGI MARA

# WARFARIN KNOWLEDGE, PERCEPTION, AND ADHERENCE AMONG PATIENTS ATTENDING WARFARIN CLINIC IN TENGKU AMPUAN RAHIMAH HOSPITAL (HTAR), KLANG.

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# ACKNOWLEDGEMENT

# TABLE OF CONTENTS

# ABSTRACT

Warfarin, as an anticoagulant as well as antithrombotic agent has been frequently prescribed for prophylaxis and treating venous and arterial thromboembolism disorder. It has a narrow therapeutic index and bleeding is the most serious complication of this medication. Thus, frequent International Normalized Ratio (INR) monitoring is required to monitor the risk of bleeding. The control of anticoagulation depends on various factors including diet and drug interactions. Therefore, patients' education must be delivered effectively to improve patients' knowledge and adherence toward warfarin therapy. The objective of this study is to evaluate patients' knowledge and self-reported adherence with the outcome of INR number within the target range. In addition, this study was also intended to assess patients' perception about the warfarin therapy. The questionnaire on patients' knowledge, perception, self-reported adherence, and attitude toward warfarin therapy were distributed randomly to 98 patients attending Outpatient Warfarin Clinic in Tengku Ampuan Rahimah Hospital (HTAR), Klang. Patients enrolled in this study had a mean aged of $50\pm16$ years old, where 46.9% were male and 53.1% were female. This study found that majority of the patients (more than 50%) were well educated on warfarin and generally, their self-reported adherence were reasonably high. However, there was a limited association between patients' knowledge and the number of INR within target range, as only 2 out of 12 questions showed significant difference with the INR number within range. No association was found between patients' self-reported adherence with the INR number within range as all of the items asked on their adherence shown $p>0.05$. This study also found that average patients had a positive perception on warfarin therapy. Most of these patients (83.7%) agreed that counseling session in HTAR helped them in improving their life. This is supported by the number of clinic visits increased the number of INR within therapeutic range. The lacking in association between INR control with knowledge and adherence showed that patients with warfarin therapy should be continuously educated as well as closely monitored.

# CHAPTER 1

# INTRODUCTION

## 1.1 Background of Study

Warfarin is a drug that has anticoagulant as well as antithrombotic effect (Horton *et al.*, 1999). It acts by inhibiting the synthesis of blood clotting factors that are dependent on vitamin K, for example, prothrombin; factors VII, IX, and X; protein C; and protein S (Blann *et al.*, 2002). It has been frequently prescribed for prophylaxis and treatment of venous and arterial thromboembolism disorders (Miao *et al.*, 2007; Baker *et al.*, 2004; Ginsberg *et al.*, 2001). In United States, warfarin became the fourth most prescribed cardiovascular agent and overall eleventh most prescribed drugs.

International Normalized Ratio (INR) is the preferred method in monitoring warfarin dosing compared to prothrombin time. In a standard treatment of venous thromboembolism, INR target range should be between 2.0 to 3.0. Higher dose will increase the risk of bleeding. However, in patient with antiphospholipid antibody syndrome, a higher dose of warfarin is recommended to ensure that INR range is between 3.0 to 4.5 (Turpie *et al.*, 2002).