UNIVERSITI TEKNOLOGI MARA

SAFETY AND EFFICACY OF WARFARIN IN TREATING DEEP VEIN THROMBOSIS

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ABSTRACT

Background: Deep vein thrombosis occurs when there is a blood clot or thrombus within the deep vein in which usually is treated with warfarin. Warfarin is an oral anticoagulant that basically functions to stop blood from clotting by inhibiting the Vitamin K synthesis. This study is performed to determine the reason of INR of patients being outside the range and to determine the relationship of the patients' time therapeutic range with the risk of bleeding and stroke incidences in order to evaluate the safety and efficacy of warfarin in treating deep vein thrombosis. *Results and Discussions:* Out of total data of patients, 96% of the patients have TTR below 75% while the other 4% have TTR within intended range, which is more than 75%. From the 96% patients, 18% experienced minor bleeding during the warfarin treatment while none for patients with TTR more than 75%. Nonetheless, there is no stroke incidences experienced by any of the patients from both groups. Most of the patients have unknown reason for INR being outside the range, while the second highest identified reason is the patients have more than one reason. From the data collected, it is shown that most of the patient have drug – drug interaction that caused INR to be outside the range. *Conclusion:* TTR play an important role as an indicator whether INR reading is within the target range that is also important in maintaining good therapy of warfarin. TTR within the range shows less bleeding and stroke incidence. Thus, it can be conclude that, maintaining INR reading by following proper warfarin guideline can ensure the efficacy and safety of patients in treating deep vein thrombosis.

Chapter 1

INTRODUCTION

1.1Background of Study

Deep vein thrombosis (DVT) or known as venous thrombolism is considered as a type of lethal disease with an average incidence rate of more than 1 per 1000 in a year (Heit, O'Fallon et al. 2002). It is one of the major manifestations of venous thromboembolism (VTE) that associated with blood clotting condition (Wilbur and Shian 2012). There are three highest levels of classification for each episode of deep vein thrombosis which are definite, probable and possible (Silverstein, Heit et al. 1998). The first classification of deep vein thrombosis is definite in which it can be determine by analysing the pathologic findings of examination of a thrombus that had been removed at surgery or autopsy, or magnetic resonance imaging scan other than venography and computed tomographic scan (Heit, O'Fallon et al. 2002).