

A MULTICENTRE STUDY ON AVERAGE WARFARIN DOSE TO MAINTAIN THERAPEUTIC INTERNATIONAL NORMALISED RATIO WITH TIME IN THERAPEUTIC RANGE OF MORE THAN 75% IN ATRIAL FIBRILLATION PATIENTS

ABSTRACT

Large interindividual variability and over-anticoagulation resulting bleeding complications due to narrow therapeutic index of warfarin has causes its pharmacodynamic activity to be highly variable. Studies shown that ethnicity, age and gender contribute to warfarin response variability. Good coagulation control of time in therapeutic range (TTR) > 75% was chosen to determine the average warfarin dose in atrial fibrillation (AF) among ethnicity, age and gender. Data from Warfarin Medication Therapy Adherence Clinic of selected Pulau Pinang hospitals were used for the analysis of average warfarin dose in AF among ethnicity, age and gender. Patients who fulfilled the inclusion criteria from 2015–2016 were followed up for a year. Five hundred and seventy-six patients were included. Two hundred and ten patients had good coagulation control of TTR > 75% with mean warfarin dose of 3.05 ± 1.25 mg. Only Chinese and Indian have significant difference in average warfarin dose with 2.86 ± 1.10 mg and 4.11 ± 1.40 mg, respectively ($p = 0.008$). Average warfarin dose was found not significantly different among gender and age. As for TTR achievement, 210 (36.4%) were able to achieve TTR > 75%, 134 patients achieved TTR 60%–75% and 232 patients has TTR < 60%. The median day to achieve three consecutive targeted international normalised ratio (INR) is 186.5 days for atrial fibrillation patient newly started on warfarin therapy in 2015 until 2016. Indian patients required a higher warfarin dose than Chinese patients. This study found that mean warfarin doses were not affected by age and sex.

Keywords: Warfarin, Atrial fibrillation, Time in therapeutic range, International normalised ratio