UNIVERSITI TEKNOLOGI MARA

UTILIZATION OF CALCIUM CHANNEL BLOCKER DRUGS (CCBs) IN SERDANG HOSPITAL – RETROSPECTIVE STUDY

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Dissertation submitted in partial fulfilment of the requirement for the

Master of Pharmacy Practice

Faculty of Pharmacy

February 2016
CONFIRMATION BY PANEL OF EXAMINERS

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I declare that the work in this dissertation was carried out in accordance with the regulations of University Technology MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledge as referenced work. This dissertation has not been submitted to any other academic institution or non-academic institution for any degree of qualification.

I, hereby, acknowledge that I have been supplied with Academic Rules and Regulations for Post Graduate, University Technology MARA, regulating the conduct of my study and research.

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ABSTRACT

Introduction: Hypertension is one of the most top leading of death and it is very high prevalent in world wide’s population, mostly in geriatric. Hypertension is also one of the most costly diseases because of high health care expenditure. The utilization of antihypertensive drugs is higher and expensive. Drug utilization study can be used in providing the useful information to health care policy makers and clinicians in decision making. Objective: To describe the utilization of CCB drugs among the hypertension patients at Serdang’s Hospital. Methodology: This is retrospective study and was conducted at the Outpatient Pharmacy Department in Hospital Serdang from January 2015 to March 2015. In this study, descriptive statistical analysis was used to analyse the patient’s prescribing patterns and demographic data. Paired t-test was used to compare the effectiveness of Calcium Channel Blocker (CCBs) drug. Multivariate logistic regression analysis was performed to identify the factor associated with blood pressure goal attainments. Results: During this study, there were three drug of antihypertensive from Calcium Channel Blocker (CCBs) drug which has been prescribed to the patient, and they were Amlodipine, Felodipine and Nifedipine. The highest expenditure of CCBs drug was Felodipine with percentage is 92.9%, followed by amlodipine (7.0%) and nifedipine (0.1%). Overall CCBs a significant different between pre and post SBP was noted (p =0.014 and 95% CI [4.5 (0.194 – 8.086)]) and also for DBP, a significant different between pre and post diastolic blood pressure was noted (p =0.014 and 95% CI [2.49 (-0.308 -5. 288)]). In SBP and DBP, there were some significant results while simple logistic regressions were done. After multiple logistic performed only DBP showed there is statistically significant predictor in baseline characteristic that affecting to achieve BP goal attainment. The factors are family history (p=0.010), ethnicity (p=0.042), and concomitant Chronic Kidney Disease (CKD) (p=0.044). Conclusion: In this study, Amlodipine is the highest utilized, but Felodipine contributed the highest expenditure. CKD, family history and ethnicity showed as a strong factors influence achieving BP goal especially for DBP goal.
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