UNIVERSITI TEKNOLOGI MARA

A RETROSPECTIVE STUDY

PRESCRIBING PATTERN OF ANTIHYPERTENSIVE DRUGS

IN AN OUTPATIENT SETTING IN HOSPITAL KAJANG,

SELANGOR

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ABSTRACT

Introduction: Hypertension is known as a silent killer that can affect the global health crisis. Elevated blood pressure is difficult to control if the diagnosed patients have co-morbidities.

Aim: The aim of this study is to identify the characteristics of hypertensive patients treated in Hospital Kajang. This study also aim to observe the trend of the management of hypertension in terms of drug classes and types of medication and to observe the trend of the management of hypertension among patients with comorbidities.

Method: Complete data from antihypertensive prescriptions were collected retrospectively from October 2014 until December 2014. A total of 1002 prescriptions for patients diagnosed with hypertension were identified using convenient sampling and undergo further analysis.

Results: The dominant gender in hypertensive patients were male (52.3%). The majority of patients were Malay (53.5%), followed by 24.1% of Chinese and 22.0 % for Indian. Most hypertensive patients were in the range of 50-59 years old. The most common drug classes involved in this study was calcium channel blockers (58.5%) followed by beta blockers (50.6%).Combination therapy 653(65.2%) were used more than monotherapy 349(34.8%). Most hypertensive patients with comorbidities use calcium channel blockers.

Conclusion: This study showed that most hypertensive patients were given combination drug therapy rather than monotherapy as most of them have comorbidities. The frequently used class of antihypertensive drugs was calcium channel blockers. Based on the Eighth Joint National Committee (JNC 8), calcium channel blockers are also highly recommended as first line treatment as monotherapy or combination therapy for hypertension.

CHAPTER ONE

INTRODUCTION

1.1 Hypertension

Hypertension is known as a silent killer that can affect the global health crisis (WHO, 2013). Hypertension is defined when a person prolonged systolic blood pressure of greater than 140 mm Hg or which sustained diastolic blood pressure of greater than 90 mmHg. Hypertension is caused by the increase of peripheral vascular arteriolar smooth muscle tone, which it can lead to the increase of arteriolar resistance and reduce of capacitance of the venous system (Clark, Harvey, Finkel, Rey, & Whalen, 2011). Hypertension commonly occurs in Malaysia, which is about 15 % - 20 %, and subsequently generates many types of disease such as heart failure, stroke, myocardial infarction and renal disease (L Rampal, Rampal, Azhar, & Rahman, 2008). According to a survey conducted, an estimate of 65 million US adults showed increased diagnosed of hypertension as the epidemic of obesity increased (Ma, Lee, & Stafford, 2006).

According to World Health Organization (2013), high blood pressure affects more than one in three adults and leads to more than nine million deaths worldwide every year.