

UNIVERSITI TEKNOLOGI MARA

**DRUG UTILIZATION REVIEW OF ANTIHYPERTENSIVE
AGENTS ON THE MANAGEMENT OF HYPERTENSION IN THE
PRIMARY HEALTHCARE SETTING**

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**Dissertation submitted in full fulfilment of the requirements for the
Bachelor of Pharmacy (Hons)**

Faculty of Pharmacy

2015

ACKNOWLEDGEMENT



In the name of Allah, the Most Gracious and the Most Merciful.

Peace be upon Prophet Muhammad SAW.

Praise to Allah, the One and Only one for giving me strength to complete this dissertation.

My deepest appreciation goes to my supervisor, Professor Dr. Mohamed Mansor bin Manan, for his endless guidance and borderless knowledge that he shared throughout this research project.

My appreciation goes to Madam Nor Azlina binti Sariam, the Postgraduate Student of Pharmacy who is indirectly helping me in my research study.

A billion thanks to my family and also my friends, Nurulaida binti Baharom, Nur Syafiqah binti Mat Bashah and Zaty Syafiqah binti Zulkarnain who are always supporting me during the completion of my research study.

Thank you very much.

“May Allah bless you with goodness and happiness”

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ABSTRACT

Background: Drug utilization research provides understanding on how drugs being consumed in the populations. The main focus of drug utilization research is to help the rational consumption of drugs in the society. According to National Health and Morbidity Survey III (NHMS III), the prevalence of hypertension among 30 years and above have increase from 32.9% as reported in National Health and Morbidity Survey II (NHMS II) to 42.6%. For the hypertensive patients who are 60 years old and above, the prevalence has been increased from 6.3% in 2000 to 7.4% in 2010. It is expected that the prevalence rate will be increased to 9.9% in 2020.

Objective: To describe the utilization of antihypertensive drugs for the hypertension treatment in primary health clinics at Klang, Selangor.

Method: This study was retrospective drug utilization study held in the government health clinics in Klang. The data of the patients were analyzed thoroughly from the raw data which were obtained from electronic Clinic Management System (e-CMS) from 1 January 2013 until 31 December 2013. Defined Daily Dose (DDD) were calculated and compared in accordance with WHO and CPG.

Results: 303 patients were selected and the results showed that 54.8% were females ($p=0.817$). The age group between 46 to 60 years old was the highest percentage contributed to the study population (77.9%) with the mean age of 50.15 ± 7.61 ($p<0.0001$). Malay had the highest percentage contributed to the study population (89.6%) with the $p=0.804$. This study found that the lowest mean drug cost was

CHAPTER 1: INTRODUCTION

1.1 Background of Study

Pharmacoepidemiology is a clinical study of the drug consumption as well as its beneficial or adverse effects. It is a study in a population which is closely related to the rational use and cost-effectiveness of the drugs in order to improve the health outcomes. It is thus a drug-oriented study which is focused on the effectiveness and safety of the drugs. Finally, a drug utilization-oriented study will focus on the quality use of drugs (World Health Organization [WHO], 2003).

Drug utilization review (DUR) or is also called drug use evaluation (DUE) is defined by World Health Organization in 1977 as the marketing, distribution, prescription and use of drugs in a society with the special emphasis on the resulting medical, social and economic consequences. The main purpose of DUR is to aid the rational drug consumption in the society. DUR provides understanding on how drugs being consumed in the populations (WHO, 2003). Rational use of drugs can be described as patients are administered with appropriate medications by which each patient receives correct drug dosage in a specified time period at the lowest drug cost both to them and also society (WHO, 2012).