

**UNIVERSITI TEKNOLOGI MARA**

**GUIDELINE IMPLEMENTATION IN LONG TERM  
PRIMARY HYPERTENSION WITH DIABETES  
MANAGEMENT: AN AUDIT USING A MEDICATION  
ASSESSMENT TOOL IN SELAYANG HOSPITAL**

**NIK MOHD FADHIL BIN NIK MAT**

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

Faculty of Pharmacy

NOV 2009

## TABLE OF CONTENTS

TITLE PAGE	
APPROVAL	i
TABLE OF CONTENTS	ii-iv
ACKNOWLEDGEMENTS	v
LIST OF TABLE AND FIGURES	vi
LIST OF ABBREVIATIONS	vii
ABSTRACT	viii
CHAPTER ONE (INTRODUCTION)	
1.1 Development of Guideline	1
1.2 Statement of Problems	3
1.3 Aim and Objectives	4
1.4 Significance of Study	4
CHAPTER TWO (LITERATURE REVIEW)	
2.1 Introductions	6
2.2 Pathophysiology	6
2.3 Diagnosis	7
2.3.1 Signs and symptoms	7
2.3.2 Diagnostic test and clinical assessment	8
2.4 Prognosis	9
2.5 Goal	9
2.6 Treatment	10

## ABSTRACT

There are many guidelines was published via internet for references on management of hypertension. It has been suggested that guidelines developed at local level based on the available evidence from epidemiological studies and clinical trials would be most effective. Luckily, for Malaysian the Malaysia clinical practice guidelines on hypertension management was constantly reviewed and kept updated. Supposedly the adherence to this guideline should provide the best possible ways for hypertension management. However, do the Malaysia hypertension guidelines recommendation are being followed and practiced after being introduced to the local clinical setting? In reality, health providers should uses the relevant suggestions and recommendation within the hypertension guideline and apply it according to specific cases and conditions of individual hypertensive patients with diabetes. Development of this medication assessment tools (MAT) that based on local hypertension guideline seems to be ideal solution to evaluate hypertension management in Malaysia. Based on finding the total level of adherence to the guideline used is 62.9 %. This shows intermediate level of adherence for patients at diabetes MTAC of Selayang General hospital. Also, from findings it is found that there are 5 criteria showed high adherence to guideline, 5 criteria showed intermediate adherence and 5 criteria showed low adherence to guideline. For this study we only focused at finding the adherence level without determine the effects of this level of adherence towards hypertensive patients. Thus, it is suggested that we could conduct a future study that will evaluate the effects of level of adherence to hypertension guidelines towards hypertensive patients.

# CHAPTER 1

## INTRODUCTION

### 1.1 Development of Guideline

Clinical practice guidelines (CPG) are “systematically developed statements to assist practitioner and patient decisions about appropriate health care for specific clinical circumstances” [Field MH & Lohr KN, 1990]. Guidelines are nothing new; physicians have had them for centuries [Eddy DM, JAMA 1269; 263:1265]. In the past, guidelines were found in textbooks of medicine, where experts presented recommendations according to their clinical experience.

Regularly, the recommendations were based on the opinion of the author, but occasionally the recommendations also were based on rigorous investigation. The recommendations were adopted because of the prestige and seniority of the expert physician. Once adopted, these recommendations became the standard of practice. The physician must use good judgment and vigilance to determine if the guideline is valid. The term valid, in this context, refers to whether or not the use of the guideline will lead to the anticipated health or cost outcomes [Field MH & Lohr KN, 1992]

The Clinical Practice Guideline on the Management of Hypertension in Malaysia was developed to give a clear and concise approach to all health care providers on the current concepts in the management of hypertension. In Malaysia hypertension is managed by various levels of health care providers. Representation of the committee members which

developed the guideline will ensure that the different health care workers will gain benefits from this CPG.

There were two previous guidelines on hypertension in Malaysia that is in 1998 and 2002. This is the third edition in the series and was considered necessary because of new evidence which has come out since the last edition. Before the publication of this edition, the Third National Health and Morbidity Survey were completed and the results have since been made available. Prevalence of hypertension has increased with very little difference in awareness rate and rate of blood pressure control in the hypertensive population [Third National Health and Morbidity Survey (NHMS III)].

The rate of blood pressure control remained poor even with an increase in the prevalence of diagnosed patients who were prescribed antihypertensive medication. This may reveal the fact that clinicians are still not clear of the target blood pressure to achieve in their patients while on treatment. Hopefully this CPG will be fully utilized in order to overcome this worrying trend. The current edition of the CPG was initiated by the Malaysian Society of Hypertension.

The development of this guideline adheres strictly to the methodology outlined in the Guidelines for Clinical Practice Guideline 2003 by the Medical Development Division of the MOH. All attempts were made to ensure references quoted were current and relevant to the issues discussed. Whenever clinical recommendations were made, the best available evidence was used to support the recommendations.

The guideline was posted on both of the Academy of Medicine, Malaysia and Ministry of Health Malaysia websites for feedback and comment. This guideline has also been presented to the Technical Advisory Committee for Clinical Practice Guidelines, and the Health Technology Assessment and Clinical Practice Guidelines Council, Ministry of Health Malaysia for review and approval.