UNIVERSITI TEKNOLOGI MARA KAMPUS BERTAM OCTOBER 2009

FACULTY OF PHARMACY



ASSESSMENT OF THE RIGHT METERED DOSE INHALER (MDI) TECHNIQUE PATIENT WITH ASTHMA AND CHRONIC OBSTRUCTIVE DISEASE (COPD) AT HOSPITAL SULTANAH NURZAHIRAH K.TERENGGANU

MOHD AZMIE BIN ENDUT

MUHAMMAD ADIB BIN OMAR

ACKNOWLEDGEMENT

First of all, we would like to say most grateful to Allah because after about one year, we finish our project successfully. We would like to dedicate special thanks to all the pharmacists and pharmacist assistants in Hospital Sultanah Nur Zahirah, Kuala Terengganu, also to all support staffs that participated in the various components of this evaluation. We would also like to thank Puan Nurul Hayati and Puan Norhafidah, who are ours supervisors for her advice, help and support.

Grateful thanks are also extended to our lecturers especially Miss Siti Nur Fadzilah who assisted us during practical training. In addition, we also appreciate our friends' support until the end of our project. We also do not forget those who give full commitment to help us.

Lastly, we hope our lecturers and our supervisor satisfied with our work. We also hope that our project can give benefit and knowledge in increasing working quality especially in pharmacy department. Thank you.

TABLE OF CONTENTS

Acknowledgement Table of Contents			ii
			iii
Abstract			iv
CHAPTER 1	:	INTRODUCTION	1
CHAPTER 2	:	LITERATURE REVIEW	3
CHAPTER 3	:	AIM AND OBJECTIVES	6
CHAPTER 4	:	MATERIALS AND METHODS	7
CHAPTER 5	:	RESULTS AND DISCUSSION	8
CHAPTER 6	:	CONCLUSION	22
REFERENCES			23

APPENDICES

ABSTRACT

Asthma is a one of the respiratory diseases. Metered Dose Inhaler (MDI) is one of the types of inhaler that use in asthma therapy. MDI can divide into two type relievers and preventers. Using such an MDI requires considerable coordination, and it is important technique. It is the dose may not to be inhaled correctly. This not only makes it less effectively. There are nine steps of effective MDI technique. Those steps can be further divided into common step and essential step. Please refer to appendix 14 and 15 to learn more about common and essential step.

The main objective is to determine the correct technique in asthmatic or COPD patients using MDI in Respiratory Clinic at Hospital Sultanah Nur Zahirah Kuala Terengganu. Beside that, to determine patients awareness to maintean their MDI. Furthermore, we recommended the right technique using MDI that can improve patient health and the last one is to determine the factors that contribute to inappropriate at inhalation technique.

For the result we focus about inhalation technique that done by patients. From the nine given steps, we gave mark to patients to evaluate their skill of how to use their MDI appropriately. A total of 33 patients (47%) achieved unsatisfactory mark, 7 patients (10%) received satisfactory score while the remaining 30 patients (43%) obtained good mark. This data show that the patients who gained unsatisfactory mark almost equivalent with the patients who got satisfactory score. Thus, there still some weaknesses performed by the patients when applying MDI.

The data was collected by questionnaires that were distributed to 70 asthmatic or COPD patients at respiratory clinic that using MDI from June to July 2009.We use Microsoft office excel 2007 to analyze all data that we collected.

Form this study we can conclude that many asthmatic or COPD patients from Respiratory Clinic at Hospital Sultanah Nur Zahirah Kuala Terengganu do not comply with the right technique using MDI properly.

CHAPTER 1

1. Introduction

The title of this study is assessment of the right Metered Dose Inhaler (MDI) technique patient with asthma and Chronic Obstructive Pulmonary Diseases (COPD). The study was conducted in Hospital Sultanah Nur Zahirah, Kuala Terengganu at Respiratory Clinic from June to July 2009.

The diagnosis of asthma is a clinical one; there is no standardized definition of the type, severity or frequency of symptoms, nor of the findings on investigation. The absence of a gold standard definition means that it is not possible to make clear evidence based recommendations on how to make a diagnosis of asthma. Central to all definitions is the presence of symptoms (more than one of wheeze, breathlessness, chest tightness, cough) and of variable airflow obstruction. More recent descriptions of asthma in children and in adults have included airway hyperresponsiveness and airway inflammation as components of the disease. How these features relate to each other, how they are best measured and how they contribute to the clinical manifestations of asthma in children and in adults there are many shared features in the diagnosis of asthma in children and in adults there are also important differences. The differential diagnosis, the natural history of wheezing illnesses, the ability to perform certain investigations and their diagnostic value, are all influenced by age.

Metered Dose Inhaler (MDI) is one of the types of inhaler that use in asthma therapy.MDI can divide into two type relievers and <u>preventers</u>. Inhalers are usually colors coded. Blue inhalers are 'relievers'. They contain medicine to relax the airways and are used to relieve shortness of breath and wheezing. They should work within a few minutes. Brown/beige/white/red/orange inhalers are '<u>preventers</u>'. Preventers contain medicine that reduces inflammation in the airways and prevents asthma attacks. They must be used regularly as directed by your doctor in order to prevent shortness of breath and wheezing.