# GLYCAEMIC CONTROL AMONG DIABETIC PATIENTS IN MEDICAL WARD, HOSPITAL SELAYANG

### BY:

## SITI NUR FADZILAH BINTI MUHSAIN MOHD IZANI BIN OTHMAN NOOR HAZARINA BINTI NOORDIN PROF MADYA DR SALMIAH BINTI MOHD ALI

**JANUARY 2011** 

### **TABLE OF CONTENTS**

ACK	NOWL	EDGMENT	i	
TABLE OF CONTENTS				
LIST OF TABLES				
LIST OF FIGURES				
LIST OF ABBREVIATIONS				
ABSTRACT				
1.0	Introduction			
	1.1	Background study	1	
2.0	Literature Review			
	2.1	Overview of Diabetes Mellitus in Malaysia	4	
	2.2	Pathogenesis of Diabetes Mellitus	5	
	2.3	Glycaemic Control in Diabetes Mellitus	7	
		2.3.1 Glycosylated Haemoglobin (HbA1 <sub>c</sub> )	9	
		2.3.2 Glycaemic Control and Adherence to Treatment	13	
3.0	Meth	odology	16	
5.0	Methodology  3.1 Design of Study			
	3.2 Data Collection			
	3.3 HbA1c analysis			
	3.4 Questionnaire			
	5.5	Data analysis	18	

4.0	Results		
	4.1	Demographic findings	19
	4.2	Diabetes diagnosis, diabetic medications and diabetic	22
		complications	
	4.3	Glycaemic control	24
	4.4	Comparison of HbA <sub>1c</sub> levels between the variables	27
	4.5	Morisky scores	29
	4.6	Factors influencing patients' adherence and glycaemic control	30
5.0	Discu	ssion	33
6.0	Concl	usions	40
BIBI	IOGRA	РНҮ	42
APPI	APPENDIX		

#### **ABSTRACT**

Inadequate glycaemic control remains one of the problems that need to be addressed by health practitioners. Increasing complexity in the diabetes medication regimen as well as the need for treatment for other co-morbidities among the diabetics patients have led to poor glycaemic control. This prospective study was conducted to assess the good and inadequate glycaemic control among type 2 diabetic patients in Medical Ward, Selayang Hospital and patients' adherence to prescribed diabetes treatment. Fifty one diabetic patients who fulfilled the inclusion criteria participated in the study. Data were collected trough questionnaires and patients' medical profile. Statistical Package for the Social Science (SPSS) Version 12.0 was used in analyzing the data. Majority of the patients were Malays and Indians (35%) and females (56.9%) with mean age  $59.9 \pm 13$  years. 45.1% of the patients completed secondary school education and 47% of the patients were with more than 10 years of diabetic duration. 88.2% of the patients showed inadequate glycaemic control. The mean HbA1c level was 8.8±2.2%. Females, elderly, Malays, patients with more than one antidiabetic agent and more than one diabetic complications were the characteristics of patients with highest percentage of inadequate glycaemic control although no statistical difference was reached. Adherence level was poor with 54.9% of the patients were non-adherent to their prescribed antidiabetic treatment. The study showed that glycaemic control and adherence level among type 2 diabetic patients in Malaysia is still inadequate and at a poor state. Frequent review of the glycaemic control and adherence level together with patient counseling may increase achievement of goal of antidiabetic therapy thus improved patients' health related quality of life.