

UNIVERSITI TEKNOLOGI MARA

**PREVALENCE OF INADEQUATE GLYCAEMIC
CONTROL AMONG DIABETIC PATIENTS IN
MEDICAL WARD, SELAYANG HOSPITAL**

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ABSTRACT

Diabetes mellitus (DM) is a metabolic disorder characterized by hyperglycemia as a direct result from lack of insulin or insulin effect or both. Its prevalence is growing exponentially and has even reached epidemic proportion worldwide. It was estimated that there were 942,000 diabetic patients in Malaysia in year 2000 and by 2030, it increases to 2,479,000. Accordingly, this study was conducted as an initial step to collect data on glycaemic control status. Thus, the objective of this study was to assess the good and inadequate glycaemic control among type 2 diabetic patients in Medical Ward, Selayang Hospital. It also tried to investigate patients' adherence to prescribed diabetes treatment. A total of 52 patients met the inclusion criteria and 51 of them participated in the study. Data were collected through 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 ± 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 were off inadequate glycaemic control. The mean HbA_{1c} level was $8.8 \pm 2.2\%$. 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.

CHAPTER 1

INTRODUCTION

Diabetes mellitus (DM) is a condition characterized by a marked increase in plasma glucose concentration. It is a growing public health concern with prevalence escalating exponentially and has even reached epidemic proportions worldwide (Wild et al., 2004). In Malaysia, the prevalence of diabetes in the year 2000 was 942,000 patients and it was estimated that by the year 2030 the prevalence increases to 2, 479,000 (World Health Organization, 2008). This could be explained by the socioeconomic and demographic transformation over the last two decades as a result of massive industrialization and globalization in Malaysia (Lai et al., 2007).

Inadequate glycaemic control in diabetic patients can lead to a range of complications such as kidneys damage, deterioration of the eyesight, nerves damage, coronary heart disease, peripheral vascular disease and stroke (Wells et al., 2006). Emphasize has been put on the importance of good glycaemic control as it has been shown to reduce the risk of long-term complications (Wild et al., 2004). Furthermore, poor control will also affect the quality of life of patients, community as well as placing a significant burden on healthcare resources (Sokol et al., 2005).

Consequently, proper and accurate assessment and management of diabetic patients are needed, as it is hard to block these complications. One of the best ways is to monitor their glycaemic control through glycosylated hemoglobin A_{1c} (HbA_{1c}) testing. HbA_{1c}