

UNIVERSITI TEKNOLOGI MARA (UITM)

**ADHERENCE TO ANTIDIABETIC THERAPY AMONG
HOSPITALIZED PATIENTS WITH DIABETES MELLITUS IN
SUNGAI BULOH HOSPITAL**

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ABSTARCT

The prevalence of diabetic patients in Malaysia continuously increases from year to year. Many antidiabetic medications are prescribed in order to achieve optimum blood glucose level. Regardless of this, there is still many diabetic patients that had uncontrolled HbA1c readings. This study aims to determine the adherence levels of hospitalized diabetic patients in Sungai Buloh Hospital and to determine the association between patient's demographic and clinical data with adherence levels. There is two questionnaire which are 1) *Borang Soal Selidik* and 2) Morisky Medications Adherence Scale – 8 items (MMAS-8). 490 patients from Sungai Buloh Hospital were interviewed. Data were analyzed using SPSS 20.0, using the descriptive statistic and non-parameter tests. The majority of patients in this study were male (56.1%), with the presence of comorbidities (84.7%), had HbA1c reading more than 7.5% (59.4%) and had less than two prescribed antidiabetic medications. Most of the patients were ranging from 60 to 69 years old (26.7%), Malay (49.4%), had been diagnosed with diabetes more than 9 years (33.3%) and are on combination therapy (40.8%). There is no significant difference ($p>0.05$) between age, race and number of medications. There is a significant association ($p<0.05$) between adherence levels with gender, presence of comorbidities, durations of illness and HbA1c readings. 61.6% of the patients had low adherence level (score = < 6). This study leads to better understanding of adherence level among hospitalized patients. Patients counseling by the pharmacist are necessary for patients that have multiple admissions to hospital to increase adherence among hospitalized patients.

Keyword: adherence, hospitalized patients

CHAPTER ONE

INTRODUCTION

1.1 OVERVIEW

Based on International Diabetes Federation (IDF), there are about 387 million people in the world is living with diabetes and in every 7 seconds, there is one person who died from diabetes. Approximately 4.9 million deaths in 2014 are caused by diabetes mellitus. It is estimate that, there will be an increase of 205 million diabetic patients in 2015. In the whole world, Western pacific regions showed the highest reading of diabetic cases. It is stated that about 138 millions of people living with diabetes in Western Pacific. Malaysia is categorized under Western Pacific and about 3 thousand cases have been reported as diabetic cases in year 2014 (International Diabetes Federation, 2014). According to K.a.i, S.a, & A, (2013), there will be three-fold increase of diabetes in rapidly developing country such as Malaysia (K.a.i et al., 2013).

Diabetes mellitus is a metabolic disorder which characterized by hyperglycemia due to defect in insulin secretion, insulin action or both (American Diabetes Association, 2013). Hyperglycemia is the conditions where persons' having high blood glucose level in their body which is more than 140 mg/dL (Bogun & Inzucchi, 2013). Symptoms of hyperglycemia include weight loss, polyphagia, polydipsia, and polyuria (International Diabetes Federation, 2014). Uncontrolled diabetes can cause acute, life-threatening consequences such as hyperglycemia with ketoacidosis or nonketotic hyperosmolar syndrome. Long-term complications of diabetes are retinopathy, nephropathy, peripheral neuropathy and autonomic neuropathy (American Diabetes Association, 2013).

Diabetes mellitus can be classified into four categories, which are type 1 (insulin-dependent diabetes), type 2 (non-insulin-dependent diabetes), type 3 (other) and type 4 (gestational diabetes mellitus) (Katzung, B. *Basic & Clinical Pharmacology*, 2009). The two principle classes are type 1 and type 2 diabetes mellitus. Type 1 and type 2 diabetes have several differences such as in causes, symptoms, characteristics, and management.