

UNIVERSITI TEKNOLOGI MARA



**THE EFFECTIVENESS OF CONTROL GLUCOSE
INTAKE AMONG DIABETIC PATIENT IN HOSPITAL
SULTANAH BAHYIAH IN 2015**

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ABSTRACT

Diabetes mellitus is a chronic metabolic disorder characterized by increase of glucose concentration in blood which is hyperglycaemia. It is known that consuming carbohydrate or glucose is important as it is the main source of energy but it is needed to be control among diabetic patient. It can be worse if not being controlled which diabetes complication can be present such as heart disease, kidney disease, nerve damage and many more. In this research, 100 of random diabetic patient in Hospital Sultanah Bahiyah, Alor Setar that has performed HbA_{1C} test and Fasting Blood Glucose in January 2015 until June 2015 was chosen. Their previous and current HbA_{1C} result and current Fasting blood glucose is collected. Then, the data were divided according to age, sex, race and result. The division of result is based upon HbA_{1C} result; exceed 6.5%, below 4%, range 4%-5.6%, and range 5.7%-6.4%. In the result, the 100 chosen patients were 51 of Malay, 36 of Chinese, 9 of Indian and 4 of others. There were 74 of the patient has increase their HbA_{1C} from previous result, 18 of the patient have high-risk of getting diabetes complication, 8 of the patients were in normal or healthy condition and there is 0 of patient get result below than 4% which is called hypoglycaemia. It can be conclude that the number of diabetes patient that improperly control their glucose intake are high.

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Diabetes mellitus is a chronic metabolic disorder characterized by increase of glucose concentration in blood which is hyperglycaemia (Vinik and Flemmer, 2001). It is known that consuming carbohydrate or glucose is important as it is the main source of energy but it is needed to be control among diabetic patient (Genuth, 1998). It can be worse if not being controlled which diabetes complication can be present such as heart disease, kidney disease, nerve damage and many more (Hansen, 2008).

The glucose or the carbohydrate that is consume by a person will give energy to work on their daily routine. However, if the concentration of the substance increase in their blood excessively and do not utilize it (doing vigorous activity), it will cause hyperglycaemia which also can be called diabetes (Hansen, 2009). It can be worse if it going to develop which can attach to the wall of blood capillaries and cause blockage to the bloodstream (Vinik and Flemmer, 2001). This can lead to several complications such as heart disease, kidney disease, eye disease, neuropathy, gangrene, gastroparesis, blindness, erectile dysfunction, impotence and nerve damage (Hoad-Robson, 2012).

Ironically, this can be worsen if it is not treated immediately which the diabetic patient should seek to a doctor at the nearest clinic or hospital (Takahashi, 2007). According to Herman and Cohen (2010), HbA_{1c} test is the suitable test that is recommended by the American Diabetes Association diagnosis cases of diabetes. Furthermore, The National