Glycaemic control of type 2 diabetes mellitus patients in Kota Bharu district, Kelantan: Proportions and associated factors

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ABSTRACT

Introduction: Achieving acceptable glycaemic control is essential in reducing the complications of Diabetes Mellitus. The objective of the present study was to determine the proportion of glycaemic control and identify factors associated with uncontrolled HbA1c level among diabetic patients treated at government primary health clinics in Kota Bharu. **Materials and Methods:** This secondary data registry review study utilised data from the latest Diabetes Clinical Audit Data of 2022 that was available from the National Diabetes Registry. The registry recorded patients' socio demographic characteristics, latest laboratory investigations and treatment modalities. Simple random sampling was done to select 607 patients from a total of 2194 active patients that were recorded in the registry. HbA1c level was categorised into ≤ 6.5% as controlled status and > 6.5% as uncontrolled status. Multiple logistic regression analysis was used to determine factors associated with uncontrolled HbA1c level among diabetic patients using GLM function in RStudio version 2022.02.3. **Results:** The mean HbA1c level was 7.90% (SD = 2.07%). The proportions of HbA1c levels were 36.2% with controlled status and 63.8% with uncontrolled status. Factors associated with uncontrolled Diabetes Mellitus include age (AdjOR:0.97, 95%CI: 0.95, 0.98), duration of diabetes (AdjOR:1.10, 95%CI: 1.05, 1.16), triglycerides level (AdjOR:1.22, 95%CI: 1.01, 1.49), LDL level (AdjOR:1.19, 95%CI: 1.01, 1.42) and usage of insulin (AdjOR:2.29, 95%CI: 1.49, 3.57). **Conclusion:** The proportion of patients with uncontrolled Diabetes Mellitus in this study is lower than in other published studies. Comprehensive strategies and more effort by primary health care professionals are required in tackling other blood parameters and improving patients' compliance towards provided treatment to assist more patients in achieving better glycaemic control, hence reducing mortality and morbidity associated with Diabetes Mellitus.