

## **Glycemic control among insulin-treated Type 2 diabetes in Kelantan**

### **ABSTRACT**

**Objective:** To determine the prevalence of good glycemic control and its associated factors that contribute to good glycemic control among insulin-treated Type 2 diabetes mellitus. **Design:** Cross sectional study. **Materials and Methods:** The study was conducted on 236 insulin-treated T2DM at Diabetic Clinic, Hospital Universiti Sains Malaysia using systematic random sampling. A set of case report form (CRF) was used. Data was entered and analyzed by SPSS 12.0 using descriptive and Multiple Logistic Regression analyses. **Results:** The percentage of good glycemic control (HbA1C less than 7.0%) was 21.2 percent. The factors that contribute to good glycemic control were female gender (Adjusted OR 5.06; 95%CI 1.64, 15.59), high education (Adjusted OR 16.44; 95%CI 3.68, 73.58), combination of insulin and oral anti-diabetic drugs regime (Adjusted OR 3.11; 95%CI 1.01, 9.55), basal bolus insulin (Adjusted OR 5.18; 95%CI 1.61, 16.70) and fasting plasma glucose less than 6.1mmol/l (Adjusted OR 8.30; 95%CI 3.24, 21.27). **Conclusion:** Majority of our patients did not achieve the target of HbA1C less than 7.0% as recommended by the American Diabetes Association. Physicians should be aware of the associated factors that may influence the glycemic control among insulin treated type 2 diabetic patients. Future studies are needed to explore the patient's skills and knowledge on how to adjust the insulin dose during the treatment.

**Keyword:** Insulin; Type 2 diabetes mellitus; Good glycemic control