

Predictors of poor glycaemic control in older patients with type 2 diabetes mellitus

ABSTRACT

Introduction: We assessed the predictors of poor glycaemic control among older patients with type 2 diabetes mellitus (T2DM) in Malaysia.

Methods: This cross-sectional study used the data of 21,336 patients aged ≥ 60 years with T2DM from the Adult Diabetes Control and Management Registry 2008-2009.

Results: Predictors of poor glycaemic control were: age groups 60-69 years (odds ratio [OR] 1.96, 95% confidence interval [CI] 1.66-2.33) and 70-79 years (OR 1.43, 95% CI 1.20-1.71); Malay (OR 1.53, 95% CI 1.41-1.66) and Indian (OR 1.32, 95% CI 1.19-1.46) ethnicities; T2DM durations of 5-10 years (OR 1.46, 95% CI 1.35-1.58) and > 10 years (OR 1.75, 95% CI 1.59-1.91); the use of oral antidiabetic agents only (OR 5.86, 95% CI 3.32-10.34), insulin only (OR 17.93, 95% CI 9.91-32.43), and oral antidiabetic agents and insulin (OR 29.42, 95% CI 16.47-52.53); and elevated blood pressure (OR 1.10, 95% CI 1.01-1.20), low-density lipoprotein cholesterol (OR 1.48, 95% CI 1.38-1.59) and triglycerides (OR 1.61, 95% CI 1.51-1.73). Hypertension (OR 0.71, 95% CI 0.64-0.80), hypertension and dyslipidaemia (OR 0.68, 95% CI 0.61-0.75), pre-obesity (OR 0.89, 95% CI 0.82-0.98) and obesity (OR 0.76, 95% CI 0.70-0.84) were less likely to be associated with poor glycaemic control.

Conclusion: Young-old and middle-old age groups (i.e. < 80 years), Malay and Indian ethnicities, longer T2DM duration, the use of pharmacological agents, and elevated blood pressure and lipid levels were associated with poor glycaemic control. The presence of comorbidities, pre-obesity and obesity were less likely to be associated with poor glycaemic control.

Keyword: Diabetes mellitus; Glycaemic control; Malaysia; Older patients; Registry