

## Factors associated with glycaemic control among type 2 diabetes mellitus patients

### ABSTRACT

**Background:** Type 2 diabetes mellitus has become one of the most serious global health problems recently. The Malaysian National Diabetes Registry has reported that 76.2% of the population have poor glycaemic control (HbA1c  $\geq$ 6.5%). Thus, the objective of this study is to determine the association between sociodemographic and medical profiles with glycaemic control among type 2 diabetes mellitus patients in five health clinics in the Tampin district. **Materials and Methods:** A cross sectional study was conducted in five health clinics in the Tampin district, Negeri Sembilan, Malaysia. Three hundred and twenty four type 2 diabetes mellitus patients participated in this study. A face-to face interview was conducted with each respondent using validated questionnaire. Descriptive analyses, such as the chi square test, were performed using the Statistical Packages for Social Sciences version 22 software. **Results:** The response rate was 90%. The percentage of poor glycaemic control was 66.4%. They were associated with age ( $\chi^2=10.405$ ,  $p$  0.006), marital status ( $\chi^2=5.718$ ,  $p$  0.017), and education status ( $\chi^2=7.312$ ,  $p$  0.026). In addition, types of medication intake ( $\chi^2=18.058$ ,  $p<0.001$ ), family history ( $\chi^2=7.234$ ,  $p$  0.007), and co-morbidities ( $\chi^2=5.718$ ,  $p$  0.017) are also associated with the percentage. **Conclusion:** The majority of the respondents of this study had poor glycaemic control. The factors that contribute to the poor glycaemic control are among respondents who are: of older age ( $\geq$ 65 years); single/widowed/separated/divorced; of non-formal education; on insulin alone / combination of oral agent and insulin; no family history; and do not experience co-morbidities. For the future wellbeing of all type 2 diabetes mellitus patients, a good glycaemic control is important. Therefore, plans with appropriate significance on early preventive measures to diabetic treatment need to be strengthened in order to boost quality of life among type 2 diabetes mellitus patients.

**Keyword:** Glycaemic control; Type 2 diabetes mellitus; Health clinics; Tampin district; Malaysia