Type 2 diabetes mellitus patient profiles, diseases control and complications at four public health facilities: a cross-sectional study based on the Adult Diabetes Control and Management (ADCM) Registry 2009

ABSTRACT

INTRODUCTION: Diabetes care at different healthcare facilities varied from significantly better at one setting to no difference amongst them. We examined type 2 diabetes patient profiles, disease control and complication rates at four public health facilities in Malaysia. MATERIALS AND METHODS: This study analyzed data from diabetes registry database, the Adult Diabetes Control and Management (ADCM). The four public health facilities were hospital with specialist (HS), hospital without specialist (HNS), health clinics with family physicians (CS) and health clinic without doctor (CND). Independent risk factors were identified using multivariate regression analyses. RESULTS: The means age and duration of diabetes in years were significantly older and longer in HS (ANOVA, $p< 0.0001$). There were significantly more patients on insulin (31.2%), anti-hypertensives (80.1%), statins (68.1%) and antiplatelets (51.2%) in HS. Patients at HS had significantly lower means BMI, HbA1c, LDL-C and higher mean HDL-C. A significant larger proportion of type 2 diabetes patients at HS had diabetes-related complications (2-5 times). Compared to the HS, the CS was more likely to achieve HbA1c $\leq$ 6.5% (adjusted OR 1.2) and BP target < 130/80 mmHg (adjusted OR 1.4), the HNS was 3.4 times more likely not achieving LDL-C target < 2.6 mmol/L. CONCLUSION: Public hospitals with specialists in Malaysia were treating older male Chinese type 2 diabetes patients with more complications, and prescribed more medications. Patients attending these hospitals achieved better LDL-C target but poorer in attaining BP and lower HbA1c targets as compared to public health clinics with doctors and family physicians.

Keyword: Type 2 diabetes mellitus; Health facilities; Disease management; Cardiovascular diseases; Diabetes complications