

## Quality of care for adult Type 2 diabetes mellitus at a University Primary Care Centre in Malaysia.

### ABSTRACT

Background: Type 2 Diabetes Mellitus (T2D) with its concurrent cardiovascular risk factors such as hypertension and dyslipidaemia and its complications has now accounted for the majority of national and global morbidity and mortality. Aims & Objective: The study aimed to determine the prevalence of complications appearing in diabetic patients despite therapy, addressing to an urban academic primary care centre. Methods: This was a sub-analysis of a cross-sectional study on 212 patients with Type 2 diabetes mellitus (T2D) conducted from June to September 2006. Patients aged  $\geq 30$  years, non-smokers and under follow-up care of senior doctors were recruited. The average of the three most recent readings of fasting plasma sugar, HbA1c, systolic and diastolic blood pressure, and lipid profiles was taken as measures of respective disease control. Results: Two thirds of the patients were female. The mean age was 62.7 (SD $\pm$  10.8) years and the duration of T2D was 11.74 (SD $\pm$  6.7) years. A total of 23.6% achieved HbA1c  $\leq$  7.0%, 26.2% attained LDL-C  $\leq$  2.6 mmol/L and 24.5% achieved target blood pressure  $<$  130/ 80 mmHg. The most prevalent co-morbid condition was hypertension (77.3%). A total of 27.2% patients had diabetic complications, out of which 86.5% had one complication. Proteinuria  $<$  1gm/L and coronary artery disease were the two most common complications. There were only 16% on subcutaneous insulin and this was significantly associated with fasting plasma glucose ( $t = 5.38$ ,  $df = 204$ ,  $p < 0.0001$ ) and HbA1c ( $t = 4.31$ ,  $df = 206$ ,  $p < 0.0001$ ). Conclusions: Many T2D patients at this centre did not achieve treatment goals. Insulin and lipid-lowering drugs use should be optimized to improve control rates. More structured care processes are urgently needed in order to achieve good glycaemic control.

**Keyword:** Primary care; Type 2 diabetes mellitus; Disease managements; Diabetes complications.