RESULTS
A total of 50 patients (42.0% were females, current age of 46.6±12.4 years, age at DM diagnosis of 24.4 ± 5.2 years, duration of diabetes of 23.1 ± 11.2 years, BMI of 28.4±5.5 kg/m^2, prevalence of hypertension of 48.0%, insulin usage in 54.0%, and A1C of 7.5 ± 1.7%) were included. Statin medications were prescribed in 86.0%, RAAS inhibitors in 42.0%, SGLT2i in 32.0%, and GLP-1 RA in 28.0% of all patients. Among the DKD patients (N = 24), the rate of RAAS blockade was 66.7% and SGLT2i was 45.8%. The glycemic targets at ≤6.5% and <7.0% were achieved in 20.8% and 25.0%, respectively. The standard ABC targets, ADA-recommended targets, and tight targets were achieved in only 20.0%, 14.0%, and 6.0%, respectively.

CONCLUSION
Our routine clinical practice among diabetologists showed that achievement of treatment targets and use of organ-protective medications remain considerably suboptimal in individuals with YOD. Efforts to evaluate and improve the quality of care of these patients should be done to ensure the provision of adequate organ-protective medications.

KEYWORDS
type 2 diabetes, ABC targets, organ-protective medications

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REAL-WORLD EVIDENCE FOR THE USE OF SGLT2 INHIBITORS IN PATIENTS WITH TYPE 2 DIABETES AT A MALAYSIAN TERTIARY CARE CENTRE

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INTRODUCTION
Randomised controlled trials show that SGLT2 inhibitors provide metabolic benefits, and cardiovascular and renal protection in patients with Type 2 Diabetes Mellitus (T2DM). Little is known in terms of real-world evidence for the use and persistence, metabolic benefits, durability in glucose control and adverse events related to SGLT2 inhibitors, particularly in South East Asia. The aim was to determine the metabolic, renal and cardiovascular outcomes and adverse events amongst T2DM patients commenced on SGLT2 inhibitors.

METHODOLOGY
We retrospectively analysed the demographics, clinical characteristics, metabolic, renal and cardiovascular outcomes, as well as adverse events, of patients commenced on SGLT2 inhibitors. Data were extracted from electronic medical records in a tertiary care hospital and followed up for 24 months.

RESULTS
A total of 504 participants were analysed (male: 53.1%, mean age: 68.2 ± 7.1 years). The participants had a baseline HbA1c of 8.5%, 46.5% were insulin users, 49% with established ASCVD and 19.8% with CKD stage 3 and above. The SGLT2 inhibitors used were empagliflozin (81.4%) and dapagliflozin (18.6%). A significant reduction was seen in all metabolic parameters from baseline to 24 months: HbA1c: 0.6 ± 1.8% (p <0.001), fasting plasma glucose (FPG): 0.7 ± 3.9 mmol/l (p <0.001), weight: 2.6 ± 6.5 kg (p <0.001), systolic blood pressure (SBP): 3.8 ± 20.6 mmHg (p = 0.001) and low-density lipoprotein (LDL): 0.25 ± 1.29 mmol/l (p <0.001). The eGFR declined by 2.8 ± 10.6 ml/min/1.73 m^2 from baseline (p <0.001) and the urine albumin-creatinine ratio (UACR) showed no significant change of 4.4 ± 73.5 mg/mmol (p = 0.996) over 24 months. There was no difference in terms of metabolic or renal outcomes amongst those with and without atherosclerotic cardiovascular disease (ASCVD) except those without ASCVD had greater weight loss compared to those without (3.1 vs 0.6 kg, p=0.04). We reported eighteen cardiovascular (CV) events of the acute coronary syndrome and nine events of hospitalisation for heart failure. Fifteen participants discontinued therapy due to adverse events and the causes were: genitourinary infections (0.8%), excessive polyuria (0.8%), and worsening eGFR of more than 40% from baseline (0.8%) were among the commonest. We observed only two events of diabetic ketoacidosis. Our findings were similar to other real-world studies done in other parts of the world.

CONCLUSION
In this real-world study, SGLT2 inhibitors effectively improved HbA1c, FPG, weight, SBP and LDL amongst multi-ethnic Malaysians with T2DM, similar to the magnitude reported in randomised clinical trials. Adverse events reported were lower than observed in randomised trials. This data compliments the current available literature on the efficacy and safety of SGLT2 inhibitors.

KEYWORDS
SGLT2-inhibitors, T2DM, HbA1c, weight, real world evidence