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### **Factors associated with multi-ethnic Asian patients with type 2 diabetes mellitus achieving their LDL-cholesterol goal in a developed urban community**

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**Background and Aim:** Achieving LDL-cholesterol treatment goal amongst patients with type 2 diabetes mellitus (T2D) can reduce their risks of cardiovascular disease. This study aimed to determine the factors associated with LDL-Cholesterol (LDL-C) treatment goals amongst patients with T2D.

**Methods:** Adult multi-ethnic Asian patients with T2D were recruited at two primary care clinics (polyclinics) in north-eastern Singapore. Data of their demographic, clinical and self-reported health beliefs were collected in a questionnaire survey and correlated with their latest lipid profiles from their electronic health records. Descriptive results were reported for each participant characteristic. Chi-square or Fisher's exact test was used for categorical variables, of which  $p < 0.05$  was considered statistically significant.

**Results:** The study recruited 734 Asian patients (60.8% females) with T2D, stratified by ethnic groups comprising Chinese (31.2%), Malays (34.9%) and Indians (33.9%). Overall, 70.4% of them achieved treatment goal ( $LDL-C \leq 2.6$  mmol/L), with highest ratio amongst the Chinese (78.6%) compared with Malays (67.2%) and Indians (66.3%). Among the population age 60 years and above, 74.4% achieved lipid control compared to 65.3% of those below 60 years old. of the 711 (96.9%) patients treated with lipid-lowering medications, 98.9% claimed they have never or seldom missed their medications, yet 69.1% expressed concerns about these medications and given a choice, 63.2% would not want to take them. Ethnicity and use of lipid-lowering medications were significant factors in achieving LDL-C treatment goal but adding fenofibrate to statin did not seem to help.

**Conclusions:** At least 70% of patients with T2D in primary care were treated to LDL-C goal. Ethnic groups and their lipid-lowering pharmacotherapy were key factors. Ethnic-centric education programmes to clarify on treatment options should be developed to improve lipid health among this high risk population.