

## PS2.139

### **Factors associated with patients with hypertension achieving their LDL-cholesterol goal in a multi-ethnic Asian population**

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**Background and Aim:** Dyslipidemia is prevalent and a major cardiovascular risk factor. Achieving LDL-cholesterol (LDL-C) treatment goal in hypertensive patients reduces their risk of cardiovascular morbidity and mortality. This study aimed to assess the factors associated with achieving LDL-C goals amongst hypertensive patients.

**Method:** Adult multi-ethnic Asian patients with dyslipidemia were recruited in a questionnaire survey at two polyclinics in north-east Singapore. Demographic data, clinical characteristics and self-reported health beliefs were obtained from the questionnaire, while clinical lipid profiles were retrieved from the electronic health records. We assessed the factors that influence the lipid goals of dyslipidemia patients with hypertension using Chi-square or Fisher's exact test, followed by logistic regression.

**Results:** The results of 906 patients were presented, including females 60.2%, Chinese 33.0%, Malays 34.5%, and Indians 32.5%; 86.3% attained highest secondary education level and 72.8% had Type2 diabetes mellitus (T2D). Overall, 74.4% of them achieved LDL-C treatment goal, highest amongst the Chinese (83.3%) compared with Malays (70.9%) and Indians (69.0%). 93.5% of them were taking lipid-lowering medication(s), with 76.0% on statins alone. Similar to those on statins, >70% of those on diet control achieved LDL-C goal but only 56.2% of those on statins and fenofibrate achieved the same goal. Logistic regression showed that those of the female gender, Chinese ethnicity, lower education level and the absence of T2D were more likely to achieve LDL-C goal.

**Conclusions:** More than 70% of hypertensive patients in primary care achieved LDL-C goal. Those on diet control appeared to achieve similar LDL-C control compared to those on medications. Gender, ethnicity, education level and presence of T2D were also significant factors influencing LDL-C goal and ethnic-centric interventions may be useful to improve lipid control in these patients.