Abstract: **1856**

Antihypertensive treatment based on risk of cardiovascular disease or levels of risk factors? Findings from the Irish Longitudinal Study on Ageing (TILDA)

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Background: Guidelines on prevention in clinical practice advise treatment on the basis of estimated risk of cardiovascular disease (CVD). We examine the relationship between antihypertensive treatment and blood pressure classification, cumulative risk factor status and absolute cardiovascular disease risk based on Systematic COronary Risk Evaluation (SCORE).

Design and methods: This analysis uses data from the first wave (2009–2011) of TILDA for those aged 50–64 without reported CVD or diabetes (n=3077). Self-reported risk factors include smoking and physical activity. Objective measures include systolic blood pressure (SBP) (+10 mmHg to adjust for antihypertensive medication), low-density lipoprotein cholesterol (+1 mmol/L to adjust for statin therapy) and obesity (body mass index ≥30). Logistic regression was used to model antihypertensive use across blood pressure class, cumulative risk factor status and SCORE risk category.

Results: Over a third of this cohort had a SBP ≥140mmHg (36.0%, 95% CI 34.3%-37.7%), 65.9% (95% CI 64.2%-67.6%) had an LDL-Cholesterol ≥3 mmol/L, 18.1% (95% CI 16.8%-19.5%) were current smokers, 31.3% (95% CI 29.6%-32.9%) were obese and 25.9% (95% CI 24.2%-27.58%) reported low levels of physical activity. Almost a quarter had 3 or more CVD risk factors. One fifth were on antihypertensive treatment (n=617). Logistic regression analysis revealed an increasing positive trend in antihypertensive treatment by blood pressure grade, cumulative risk factor status and SCORE risk category. However, the adjusted odds ratio for treatment in the SCORE high risk (≥5%) group is lower than in the other two groups.

Conclusions: Despite guidelines which recommend the use of models to estimate total CVD risk in order to adjust antihypertensive therapy, these findings suggest that antihypertensive treatment in this cohort is more focused on single risk factors as opposed to absolute risk. This calls for a policy response to support clinical guidelines in practice.