WHO USE STATINS AND WHY?

A cross-sectional analysis of statin utilisation in the context of cardiovascular risk and socio-demographic factors from The Irish Longitudinal Study on Ageing (TILDA)

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Background

Statins are widely prescribed for primary and secondary prevention of cardiovascular disease (CVD) and command a large share of drug expenditure. [1] The evidence base in various diagnostic categories varies, and therefore, so do the benefit-risk ratios. [2]

Aim

To describe (i) the prevalence of statin utilisation by people aged over 50 and (ii) the factors associated with the likelihood of using a statin.

Methods

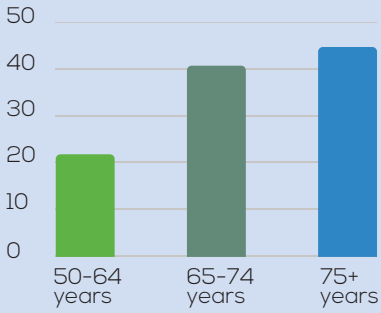
Cross-sectional analysis of factors associated with statin utilisation from TILDA (n=5,618). Prevalence of statin utilisation was calculated according to age, gender and diagnosis.
The likelihood of statin utilisation was estimated using multivariate logistic regression models.

Results

- **30% of over-50s use statins**

- **Those with hyperlipidaemia as their only reported CVD diagnosis were more likely to receive statins (OR 0.58, CI 0.40 to 0.83) than those with diabetes (OR 0.49, CI 0.32 to 0.75), potential atherosclerotic conditions (OR 0.27, CI 0.18 to 0.39) and hypertension (OR 0.28, CI 0.20 to 0.40). Reference category comprises those with myocardial infarction.**

- **Statin utilisation increases with age**



- **Polypharmacy was significantly associated with statin utilisation (OR 3.53; CI 2.84 to 4.39), as were living with a spouse or partner and frequency of GP visits.**

- **Primary or secondary prevention?**

65% of those taking statins do so for primary prevention.

57% of men who are taking statins do so for primary prevention.

73% of women who are taking statins do so for primary prevention

Discussion

Given the ongoing debate on the appropriateness of statin use in primary prevention, [3] it is notable that a large proportion of Irish users fall into this category, particularly women. [4]
The possible focus on hyperlipidaemia instead of overall CVD risk, as a reason for prescribing statins, may indicate an overemphasis on this single risk factor. [5]
Polypharmacy, controlling for indication, was strongly associated with statin use.

Conclusion

This study leads us to question if the widespread use of statins in some low-risk diagnostic categories represents the best use of scarce resources.
There may be an overemphasis on single risk factors rather than overall risk of CVD. The association between polypharmacy and statin usage warrants further investigation.

References

1 HSE. Primary Care Reimbursement Service; Statistical Analysis of Claims and Payments 2013.

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5 Wu J, Zhu S, Yao GL, Mohammed MA, Marshall T. Patient factors influencing the prescribing of lipid lowering drugs for primary prevention of cardiovascular disease in UK general practice: a national retrospective cohort study. PLoS One. 2013;8(7):67611.

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