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Statin prescribing according to gender, age and indication: what about the benefit–risk balance?

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Background & Aim: The increasing dispensing of statins has raised concern about the appropriateness of prescribing to various population groups. We aimed to (1) investigate incident and prevalent statin prescribing according to indication, gender and age and (2) relate prescribing patterns to evidence on beneficial and adverse effects.

Method: A cohort of Danish inhabitants (n = 4 424 818) was followed in nationwide registries for dispensed statin prescriptions and hospital discharge information. We calculated incidence rates (2005–2009), prevalence trends (2000–2010) and absolute numbers of statin users according to register proxies for indication, gender and age.

Results: In 2010, the prevalence became highest for ages 75–84 and was higher in men than women (37% and 33%, respectively). Indication-specific incidences and prevalences peaked at ages around 65–70, but in myocardial infarction, the prevalence was about 80% at ages 45–80. Particularly, incidences tended to be lower in women until ages of about 60 where after gender differences were negligible. In asymptomatic individuals (hypercholesterolaemia presumably only indication) aged 50+, dispensing was highest in women. The fraction of statin dispensing for primary prevention decreased with age: higher for incident than prevalent prescribing. Independent of age, this fraction was highest among women, e.g. 60% versus 45% of men at ages 55–64. The fraction for potential atherosclerotic condition (PAC, e.g. heart failure) increased with age.

Conclusions: Prevalence of statin utilization was highest for ages 75–84. Despite inconclusive evidence for a favourable risk–benefit balance, statin prescribing was high among people aged 80+, asymptomatic women and PAC patients. The findings warrant discussion on the indications of prescribing as well as deprescribing statins.