

PREVENTION

High-potency statins associated with increased diabetes risk

Statin therapy is strongly indicated for secondary prevention after a major cardiovascular event or procedure, but a new meta-analysis now shows an association between high-potency statins and new-onset diabetes mellitus.

The differential effect of low-potency and high-potency statins on the risk of new-onset diabetes was the focus of an observational study encompassing 136,966 patients from Canada and two databases from the UK and the USA. The study involved various cohorts of patients aged ≥ 40 years who had experienced a major cardiovascular event and were newly prescribed a statin. Outcomes of interest were hospitalization owing to new-onset diabetes, or prescription of insulin or oral antidiabetic drugs.

By clustering various statins according to their theoretical potency to reduce the serum LDL-cholesterol level ($<45\%$ reduction as low potency, $\geq 45\%$ as high

potency), the investigators showed an increased risk of new-onset diabetes in patients receiving higher-potency statins compared with patients taking lower-potency statins (rate ratio [RR] 1.15, 95% CI 1.05–1.26). The highest increase in risk was observed in the first 4 months of statin use (RR 1.26, 95% CI 1.07–1.47).

Despite the modest risk of developing diabetes with high-potency statins, previous studies have shown no effect of statin potency on all-cause mortality in patients with stable coronary heart disease. Clinicians must, therefore, balance adverse and beneficial effects when deciding which statin regimen to prescribe for secondary prevention.

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Original article Dormuth, C. R. *et al.* Higher potency statins and the risk of new diabetes: multicentre, observational study of administrative databases. *BMJ* 348, g3244 (2014)