



Questions

Q1 Statins in Primary Prevention in People Over 80 Years

Which *one* of the following statements regarding the impacts of cholesterol and the use of statins in primary prevention in people over age 80 is *false*?

- ☐ 1. Total cholesterol levels are not associated with an increased rate of major cardiovascular events.
- ☐ 2. Statins have not been shown to reduce mortality.
- ☐ 3. A significant increase of side effects with the use of statins in this population has not been demonstrated.
- ☐ 4. There is an increased risk of cognitive issues with statin use.

Educational Point: Cardiovascular diseases (CVDs) are the leading cause of morbidity and mortality in older patients. In much older patients, age becomes the predominant risk factor for CVD, and the role of cholesterol is controversial. Despite nonconclusive evidence of the impact of cholesterol on mortality in older subjects and the absence of recommendations in this population, the prescription of statins has significantly increased over the past decade. To address the relevance of prescription of statins in primary prevention in octogenarians (and beyond), the authors performed simultaneously 3 systematic reviews addressing the impact of hypercholesterolemia on mortality and major adverse cardiovascular events (MACEs) in subjects >80 years, the efficacy of statins to prevent cardiovascular events at this age, and the safety and tolerance of statins in this population.

Despite few discordances, most studies were in favor of (1) **a lack of association between TC and LDL and global mortality or MACE in subjects >75 years free of CVDs**; (2) **a lack of significant efficacy of statins to reduce mortality or MACE in the same setting**; and (3) **a nonsignificant increase of side effects under statins in this population versus younger subjects, without higher incidence than that in placebo in trials. Among these side effects, no increased risk of cognitive issues has been flagged in the trials.** Most frequently reported adverse events included hepatic, gastrointestinal, and musculoskeletal disorders.

In conclusion, in the absence of convincing evidence, the benefit of statins in primary prevention for much older patients is not certain. Their prescription in this setting should only be considered case by case, taking into consideration physiological status, co-morbidities, level of risk, and expected life expectancy. Specific trials are mandatory.

The correct answer is 4.

Reference: Marcellaud E, Jost J, Tchalla A, Magne J, Aboyans V. Statins in Primary Prevention in People Over 80 Years. *Am J Cardiol.* 2023 Jan 15; 187:62-73.

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