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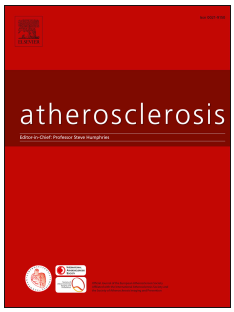


Appropriate use of cholesterol-lowering therapy

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# Appropriate use of cholesterol-lowering therapy

Keywords: Prevention; Guidelines; Cardiovascular disease; Cholesterol; Statin.

*To the Editor,*

Langsted et al. (1) estimated the extent of undertreatment and overtreatment with cholesterol-lowering therapy according to the European guidelines in a Danish population-based cohort without ischemic cardiovascular disease (CVD) and diabetes (n=92.348; age 35-100 years). Eligibility and goals for guideline-recommended therapy were assessed in everyone based on 10-year risk for fatal CVD, determined from the European SCORE chart and LDL-cholesterol level. Definite undertreatment was found in 19% and definite overtreatment in 0.2% of cases, leading to the statement that "*the data clearly show that undertreatment with cholesterol-lowering therapy is a major problem, while overtreatment at most is a minor issue*."

This conclusion indicates that a substantial proportion of the Danish population is undertreated with cholesterol-lowering therapy in primary prevention because the guidelines are not implemented as intended. However, considering that age is the strongest determinant of risk and a sizable proportion (36%) of the study population was >62.5 years of age, it seems likely that many of those classified as definitely undertreated were elderly people for whom no clear recommendation for treatment exists in the European guidelines.

Important limitations of the study include the way the guidelines were interpreted and the use of the word "definite" for optional or unclear recommendations. In particular, the authors used SCORE-based recommendations for treatment in people older than 65 years although SCORE is not applicable beyond age 65. Further, the LDL cholesterol levels at which "definite" cholesterol-lowering therapy should be initiated were based on "optional" class IIa recommendations. Admittedly, the class of recommendations for initiation of treatment is provided in a confused color-coded table with mismatch between color, cell text, and class of recommendations, but it is a key table that has been included in the European guidelines since 2011 (2-4).

The European guidelines provide no clear guidance on how to treat apparently healthy people older than 65 years. As acknowledged in Table 2 and 3 in the most recent European prevention guidelines (4), the original SCORE model is not and has never been applicable in people older than 65. Unfortunately, this important limitation of SCORE was not acknowledged in the current paper, and it was not explained how the SCORE chart was used in people older than 65. If everyone over 65 was "scored" as if they were 65, the appropriateness of just extending the SCORE-guided recommendations for treatment to everyone older than 65 is questionable. In