

FROM THE FAMILY PRACTICE INQUIRIES NETWORK

# Should we treat elevated cholesterol in elderly patients?

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## ■ EVIDENCE-BASED ANSWER

HMG-CoA reductase inhibitors, or statins, have been shown to decrease all-cause mortality in individuals aged 65 and older with known coronary heart disease (CHD) and elevated cholesterol levels. (Grade of recommendation: A, based on randomized controlled trials.) The clinical benefit of statin use in older persons without known CHD, however, is uncertain. Decisions about testing for lipid levels and treatment should include discussions with the patient about the potential benefits and risks of treatment, taking into account the individual's overall risk of CHD. (Grade of recommendation: C, based on extrapolations from cohort studies.)

## ■ EVIDENCE SUMMARY

Two randomized controlled trials and 1 cohort study demonstrated a decrease in all-cause mortality in individuals aged 65 and older with known CHD by treating elevated cholesterol levels with either pravastatin or simvastatin.<sup>1-3</sup> The overall decrease in absolute risk of death was similar (range, 4.1%–6.2%; numbers needed to treat [NNT] = 17–25). The LIPID trial demonstrated a reduction in CHD-related death (relative risk [RR] = 0.76; 95% CI, 0.62–0.93; NNT = 37) and myocardial infarctions (RR = 0.74; 95% CI, 0.60–0.91; NNT = 36) in elderly patients taking pravastatin 40 mg once daily for 6 years compared with placebo.<sup>3</sup>

Unfortunately, no comparable evidence is available to guide practitioners in their care of older patients without known CHD. A 1993 report on results of the Framingham study showed the association between all-cause mortality and cholesterol level only in individuals younger than 50 years.<sup>4</sup> Two other cohort studies showed an association between elevated cholesterol levels and increased CHD mortality.<sup>5,6</sup> It is unclear whether all-cause or CHD mortality is the better outcome to measure.

The best available evidence addressing the benefit of lowering lipid levels in persons with elevated cholesterol but without CHD is from the West of Scotland Coronary Prevention study, which included patients aged 45 to 64 years.<sup>7</sup> This study showed a 0.5% reduction in CHD mortality (NNT = 200) and a 0.9% reduction in all-cause mortality (NNT = 111). Neither reduction reached statistical significance.

Several reports have demonstrated that statins safely and effectively lower cholesterol levels in patients aged

65 and older.<sup>1-3,8,9</sup> Moreover, statins do not decrease health-related quality of life.<sup>10</sup> Approximately 1% to 4% of those who take statins experience side effects, including abnormal liver function, arthralgias, myalgias, rash, sinusitis, and diarrhea.

## ■ RECOMMENDATIONS FROM OTHERS

The National Cholesterol Education Program published its updated guidelines in 2001, lending support for statin treatment of elevated low-density lipoprotein cholesterol levels in selected men aged 65 or older and women aged 75 or older without CHD.<sup>11</sup> The target low-density lipoprotein level varied from 100 to 160 mg/dL depending on presence of other cardiac risk factors. The recommendation emphasized lifestyle changes, noninvasive testing for subclinical atherosclerosis, and consideration of treatment for individuals with extensive subclinical disease or multiple risk factors, rather than focusing merely on chronological age.

Clinical Commentary by Nicholas Solomos, MD, at <http://www.fpin.org>.

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