



**BRIEF QUESTIONS  
AND ANSWERS  
ON CURRENT  
CLINICAL  
CONTROVERSIES**

## **Q: Should hypercholesterolemia be treated in patients older than 65?**

**BARBARA MESSINGER-RAPPORT, MD, PHD**

Section of Geriatrics, Department of General Internal Medicine, Cleveland Clinic

**A:** FOR THE PATIENT over 65 with known atherosclerosis, the answer is an emphatic Yes! For older patients without known atherosclerosis, the answer is less clear, and depends on whether or not they have multiple risk factors for cardiovascular events.

### ■ WHY THE CONTROVERSY?

Although patients older than 65 are at increased risk for cardiovascular disease, there has been a long controversy over whether they should be treated for hypercholesterolemia. Some studies<sup>1,2</sup> have found little or no correlation between cholesterol and coronary heart disease morbidity and mortality, and recommend that physicians be "cautious about initiating cholesterol-lowering treatment in men and women above 65 to 70 years of age."<sup>2</sup>

Resolving this controversy was difficult, because few studies of cholesterol-lowering therapy have included older patients. However, more recent studies are making the question easier to answer.

### ■ TREATMENT CLEARLY PREVENTS A SECOND CARDIOVASCULAR EVENT

Several recent studies provide the best data yet that treating hypercholesterolemia in older patients who have atherosclerotic disease can prevent recurrent cardiovascular events such as stroke or myocardial infarction.

Lowering cholesterol, particularly with HMG CoA reductase inhibitors (statins), has been shown to improve endothelial function,<sup>3</sup> promote regression of atherosclerosis,<sup>4</sup> and improve clinical outcomes such as cardiovascular and total mortality.<sup>5-7</sup>

Recent secondary prevention studies have enrolled patients aged 65 to 75 at entry, permitting subgroup analysis of whether these beneficial effects of statins extend to the elderly. In the 4S,<sup>5</sup> the CARE,<sup>6</sup> and the LIPID<sup>7</sup> trials, older patients obtained a benefit comparable to or greater than that of their younger counterparts. For instance, in the CARE study,<sup>6</sup> to prevent one fatal coronary event or nonfatal myocardial infarction, 67 patients under age 65 needed to be treated for 5 years with pravastatin, compared with only 15 patients between ages 65 and 75. For all patients, the benefit from statin therapy is seen early, within 1 to 2 years of starting therapy.

### ■ CAN TREATMENT PREVENT THE FIRST EVENT?

Persons older than 65 without known atherosclerotic disease but with multiple risk factors may benefit from lipid-lowering therapy, although the current data are less clear.

Unfortunately, despite the large attributable risk of cardiovascular disease, clinical trials traditionally enrolled few patients older than 65. One recent primary prevention study, AFCAPS/TexCAPS,<sup>8</sup> recruited a significant number of older patients. In this study, patients up to age 73 years were treated with lovastatin or placebo. A comparable reduction in cardiovascular events was seen in treated patients both over and under the median age, with 87 patients needed to be treated for 5 years to prevent a cardiovascular event.

### ■ RECOMMENDATIONS

Patients over age 65 with known atherosclerosis should be treated for hypercholesterolemia. Also, the encouraging data from the AFCAPS study support treating hypercholesterolemia in patients aged 65 to 74 without known athero-

**The higher  
the risk,  
the greater  
the benefit  
of treatment**





## What questions do you want answered?

We want to know what questions you want addressed in **"1-Minute Consult."**

*All questions should be on practical, clinical topics.*

You may submit questions  
by mail, phone, fax, or e-mail.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone \_\_\_\_\_

Fax \_\_\_\_\_

E-mail \_\_\_\_\_

☐ CHECK IF THIS IS A NEW ADDRESS

Q:

[illegible]

■ We cannot return materials sent and cannot guarantee that all questions will be part of the series. Questions may be edited or recast. Submission of a question constitutes permission for the *Cleveland Clinic Journal of Medicine* to publish it in various editions and forms.

sclerosis but with multiple risk factors.

There is, however, little support in the literature for lipid-lowering in patients 75 and older for either primary or secondary prevention. In fact, assessing cardiovascular risk in this age group can be difficult and confounded by multiple comorbidities.<sup>9</sup> For highly functioning patients over age 75 with an active life expectancy of at least 2 and preferably greater than 5 years, lowering lipids per the National Cholesterol Education Program (NCEP) guidelines<sup>10</sup> should be considered. The cost-effectiveness of therapy in this age group has not been established. Hopefully, future clinical trials will address which elderly patients will benefit most from therapy and what their target cholesterol levels should be.

## REFERENCES

1. **Krumhold HM, Seeman TE, Merrill SS, et al.** Lack of association between cholesterol and coronary heart disease mortality and morbidity and all-cause mortality in persons older than 70 years. *JAMA* 1994; 272:1335-1340.
2. **Kronmal RA, Cain KC, Ye Z, Omenn S.** Total serum cholesterol levels and mortality as a function of age: A report based on the Framingham data. *Arch Intern Med* 1993; 153:1065-1073.
3. **Treasure CB, Klein JL, Weintraub WS, et al.** Beneficial effects of cholesterol-lowering therapy on the coronary endothelium in patients with coronary artery disease. *N Engl J Med* 1995; 332:481-487.
4. **Jukema JW, Bruschke AV, van Boven AP, et al.** Effects of lipid lowering by pravastatin on progression and regression of coronary artery disease in symptomatic men with normal to moderately elevated serum cholesterol levels. [The Regression Growth Evaluation Study (REGRESS).] *Circulation* 1995; 91:2528-2540.
5. **Scandinavian Simvastatin Survival Study Group.** Randomised trial of cholesterol lowering in 4444 patients with coronary heart disease: the Scandinavian Simvastatin Survival Study (4S). *Lancet* 1994; 344:1383-1389.
6. **Lewis SJ, Moye LA, Sacks FM, et al.** The effect of pravastatin on cardiovascular events in older patients with Myocardial infarction and cholesterol levels in the average range. Results of the Cholesterol and Recurrent Events (CARE) trial. *Ann Intern Med* 1998; 129:681-689.
7. **LIPID Study Group.** Prevention of cardiovascular events and death with pravastatin in patients with coronary heart disease and a broad range of initial cholesterol levels. [The Long-Term Intervention with Pravastatin in Ischemic Disease (LIPID) study]. *N Engl J Med* 1998; 339:1349-1357.
8. **Downs JR, Clearfield M, Weis S, et al.** Primary prevention of acute coronary events with lovastatin in men and women with average cholesterol levels: results of AFCAPS/TexCAPS. [Air Force/Texas Coronary Atherosclerosis Prevention Study.] *JAMA* 1998; 279:1615-1622.
9. **Corti MC, Guralnik JM, Salive ME, et al.** Clarifying the direct relation between total cholesterol levels and death from coronary heart disease in older persons. *Ann Intern Med* 1997; 126:753-760.
10. **Summary of the second report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults.** *JAMA* 1993; 269:3015-3023.