LDL Below 100 mg/dL Deemed Not Good Enough

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New Orleans — Fully half of U.S. patients hospitalized for coronary artery disease now have an LDL cholesterol of 100 mg/dL or less on admission, according to a new report from the American Heart Association's Get With the Guidelines program.

The new data show that LDL levels above 130 mg/dL are not the chief concern. Less than one-quarter of 136,905 patients hospitalized for CAD during January 2000–April 2006 at 541 U.S. hospitals participating in the quality improvement initiative had an LDL in excess of 130 mg/dL. Just under 18% had an LDL below 70 mg/dL.

On the other hand, fewer than 8% had an HDL greater than 60 mg/dL. And a mere 1.4% had the ideal lipid profile of an LDL below 70 mg/dL plus an HDL greater than 60 mg/dL, Dr. Gregg C. Fonarow reported at the annual meeting of the American College of Cardiology.

These registry data strengthen support for the recent National Cholesterol Education Program guideline revision creating an optional more aggressive LDL target of less than 70 mg/dL, he added.

Of patients admitted for CAD, 79% had an acute coronary syndrome (ACS). Only 21% of the total patient population were on lipid-lowering therapy prior to admission. The mean age of the patients was 65 years; 80% were white, 32% had diabetes, 63% were men, 33% were smokers, 20% had had a prior MI, and nearly 7% had a history of stroke.

Mean lipid values recorded within the first 24 hours of hospitalization for CAD were 105 mg/dL for LDL, 40 mg/dL for HDL, and 161 mg/dL for triglycerides, although lipid levels during an ACS are probably lower than baseline chronic levels, said Dr. Fonarow, professor of medicine at the University of California, Los Angeles, and director of the Ahmanson–UCLA Cardiomyopathy Center.

Mean LDL, HDL, and triglycerides at admission declined over the study period.

Discussant Dr. James H. Stein called the Get With the Guidelines report an invaluable snapshot of how patients with ACS are presenting at a wide range of U.S. hospitals. It's a picture that contains surprises.

"We often hear messages that we're not getting LDLs to target, but this shows we actually are," observed Dr. Stein, associate professor of medicine and director of the vascular health screening program at the University of Wisconsin Hospital and Clinics, Madison.

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The trouble is, getting LDL down to a target of 100 mg/dL simply isn't good enough to guarantee cardiovascular protection, because one-half of patients with an ACS had an LDL below that value, he added.

Many patients with an LDL below 100 mg/dL also had low HDL, suggesting the importance of combining LDL-lowering with HDL-raising as a preventive strategy.

"I've always found it interesting that the small studies that have combined niacin with statins or resins have the greatest relative risk reduction," Dr. Stein said.

He added that he's eagerly awaiting the results of the 20,000-patient sequel to the landmark Heart Protection Study, called HPS2-THRIVE (Treatment of HDL to Reduce the Incidence of Vascular Events). Now getting underway, this randomized trial is studying whether an investigational Merck tablet combining niacin with a novel drug that minimizes niacin's side effects will further reduce major cardiovascular events in a population already on LDL-lowering therapy.

"When I look at these [Get With the Guidelines] data I'm worried to see the decline in HDL levels over time. I suspect we're seeing the epidemic of obesity and overweight at work here," Dr. Stein said.

The lesson is that it takes more factors than an LDL of less than 100 mg/dL to prevent coronary events.

"People still have ACS at that level, so we need to do more. We can lower it further. We can raise HDL. We can work on the predictors of these abnormalities by helping people lose weight and avoid diabetes and treat dyslipidemia more aggressively," the cardiologist concluded. ■

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