

Aggressive Secondary Prevention Urged in CHD

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Updated secondary prevention guidelines pull together the latest data from clinical trials to advocate more aggressive management of patients with coronary heart disease.

The American Heart Association/American College of Cardiology Guidelines for Secondary Prevention for Patients with Coronary and Other Atherosclerotic Vascular Disease: 2006 Update assembles evolving evidence from trials involving the management of key risk factors.

"Physicians may have followed the low-density lipid story but they may not be aware of the recommendations for waist circumference or have a good idea about what to do about ACE inhibitors. This puts it all together, hopefully in a usable manner," said Dr. Sidney C. Smith Jr., chairman of the ACC/AHA writing group.

The new guidelines—an update of the 2001 guidelines—recommend more stringent management of six risk factors in patients with coronary heart disease, along with changes to pharmacologic management. Many of these recommendations may seem familiar to cardiologists.

"If you closely read the literature, you probably already know these things," said Dr. James A. De Lemos, a cardiologist at the University of Texas Southwestern Medical Center in Dallas.

Despite this, the updated changes to lipid management and aspirin therapy in this patient group are worth drawing attention to, he said.

Here's a look at the new guidelines, which advise the following changes to pharmacologic management:

► **Lipid management.** The goal of less than 100 mg/dL for LDL cholesterol is unchanged, but the guideline adds that further reduction to levels less than 70 mg/dL is reasonable. If triglyceride levels are 200-499 mg/dL, non-HDL cholesterol should be less than 130 mg/dL; further reduction below 100 mg/dL is reasonable.

The lipid management guidelines reflect recommendations made in 2004 by the National Cholesterol Education Program (NCEP) Adult Treatment Panel, which advised a target LDL level of less than 100 mg/dL and offered an optional target of 70 mg/dL in patients at very high risk. More recent study results, such as those from the Treating to New Targets (TNT) and the Incremental Decrease in End Points Through Aggressive Lipid Lowering (IDEAL) stud-

ies, show that aggressive lipid-lowering therapy provides significant clinical benefit in patients who have stable coronary heart disease.

"These guidelines reinforce that all patients [with coronary heart disease] should have LDL of less than 100 mg/dL and provide a reasonable target of 70 mg/dL," said Dr. Smith, a professor of medicine and director of the center for cardiovascular science and medicine at the University of North Carolina at Chapel Hill.

► **Antiplatelet and anticoagulant therapy.** Aspirin therapy has been reduced to 75-162 mg/day, down from 75-325 mg/day in all patients, unless contraindicated. The lowering of the aspirin dose for chronic therapy was based largely on antiplatelet trials, which showed that the benefits of aspirin therapy are the same for lower dose regimens (75-80 mg) as for the adult dose (325 mg) but that the risk of bleeding was considerably less for the lower dose, Dr. Smith said.

Following acute coronary syndrome or percutaneous coronary intervention with stent placement, start and continue 75 mg/day of clopidogrel in combination with aspirin for up to 12 months. Therapy for stent recipients, for which the aspirin dosage is 325 mg/day, should last at least 1 month in patients who have received bare-metal stents, at least 3 months in those who have received sirolimus-eluting stents, and at least 6 months in those who have received paclitaxel-eluting stents.

► **Renin-angiotensin-aldosterone system blockers.** The guidance for these agents has expanded considerably. ACE inhibitors are recommended for indefinite use in all patients with a left ventricular ejection fraction (LVEF) of 40% or less and in those with hypertension, diabetes, or chronic kidney disease unless contraindicated. The use of ACE inhibitors should be considered in all patients.

Angiotensin receptor blockers (ARBs) should be used in patients who are intolerant of ACE inhibitors and have heart failure or have had an MI with a LVEF of 40% or less. The use of ARBs should be



The updated ACC/AHA guidelines recommend more stringent management of six risk factors in coronary heart disease.

considered in other patients who are intolerant of ACE inhibitors. In patients with systolic heart failure, ARB use in combination with ACE inhibitors should be considered.

Aldosterone blockade should be used for post-MI patients—without significant renal dysfunction or hyperkalemia—who are already receiving therapeutic doses of an ACE inhibitor and β -blocker and who have left ventricular ejection fractions of 40% or less, and have either diabetes or heart failure.

Clinical trials have shown the effectiveness of ACE inhibitors in treating patients with LVEF of 40% or less and in those with hypertension, diabetes, or chronic kidney disease. However, the trial results on the effectiveness of ACE inhibitors in lower-risk patients with normal LV function—who had higher usage of other therapies (statins, β -blockers) and who had a greater level of revascularization—is less clear.

"That's why the committee has said that in patients with normal left ventricular function, all patients should be considered as candidates but among those who have undergone revascularization therapy or who have a high use of other therapies known to reduce risk, it's reasonable not to place them on ACE inhibitors," Dr. Smith said.

► **β -Blockers.** β -Blockers should be started and indefinitely continued in all patients who have had MI, acute coronary syndrome, or left ventricular dysfunction with or without heart failure symptoms unless contraindicated.

Other updated recommendations include the more stringent management of the following risk factors:

► **Blood pressure control.** The aim is to

keep patients' blood pressure under 140/90 mm Hg or less than 130/80 mm Hg in patients with diabetes or chronic kidney disease through lifestyle modification. In patients who do not meet this goal, blood pressure medication should be added as tolerated. Initially treatment should be with β -blockers and/or ACE inhibitors, adding other drugs such as thiazides as needed to achieve target blood pressure.

► **Physical activity.** The goal is 30-60 minutes of moderate-intensity aerobic activity 5-7 days per week, up from 3-4 days per week, supplemented by an increase in daily lifestyle activities, such as housework and gardening, and resistance training 2 days per week.

► **Smoking.** Not only should patients completely stop smoking but they also should not be exposed to any environmental tobacco smoke.

► **Weight management.** Not only should patients aim for a BMI between 18.5 and 24.9, but also a waist circumference of less than 40 inches for men and less than 35 inches for women. If waist circumference exceeds these values, patients should initiate lifestyle changes and physicians should consider treatment strategies for metabolic syndrome. The initial goal of weight loss should be to reduce body weight by roughly 10% from baseline. Once this goal has been met, further weight loss can be attempted if indicated.

► **Flu vaccine.** All patients with cardiovascular disease should receive inactivated influenza vaccinations because these individuals are at increased risk for complications from influenza.

The guidelines make a point of noting that ethnic minorities, women, and the elderly are underrepresented in many trials and urge greater participation by these populations in clinical trials to provide additional evidence about the best therapeutic strategies for these groups.

"Having worked in this area for 15 years ... I think that it is very important that trials include older patients, that the trials include a high percentage of women ... and that they recruit ethnic minorities, because I think that even though it seems logical to assume that the therapies may work, we need the evidence to really strengthen the basis for these recommendations," Dr. Smith said.

The complete guidelines are available in the Journal of the American College of Cardiology (J. Am. Coll. Cardiol. 2006; 47:2130-2139). ■

Whole Grain Barley Products Can Claim Heart Health Benefits

Certain whole grain barley products can now officially bear the claim that they may reduce the risk of heart disease.

The U.S. Food and Drug Administration finalized a rule that allows labeling on such products to state that "soluble fiber from food such as [name of food], as part of a diet low in saturated fat and cholesterol, may

reduce the risk of heart disease. A serving of [name of food] supplies [x] grams of the soluble fiber necessary per day to have this effect."

This claim was allowed beginning in December 2005 under an interim final rule. No comments warranting changes to this interim final rule were received during a 75-day comment period,

thus allowing finalization of the rule, according to the FDA.

The rule applies to whole barley and dry-milled barley products such as flakes, grits, flour, meal, and barley meal that provide at least 0.75 g of soluble fiber per serving.

Scientific evidence has shown that such foods, when included as part of a healthy diet, can lower

LDL and total cholesterol levels, thereby reducing the risk of heart disease, the FDA said.

The barley product labeling rule is part of the FDA's pursuit of new initiatives to help consumers improve the choices they have for healthy and nutritious diets, according to a statement from Dr. Scott Gottlieb, FDA deputy commissioner.

"We firmly believe that one of the best ways to encourage healthier eating habits is to help consumers get truthful, up-to-date, science-based information about food products so that they can make choices that are based on a better understanding of the health consequences of their diets," he said.

—Sharon Worcester