

More Aggressive Secondary CHD Prevention Urged

New guidelines recommend tighter management of pharmacologic therapies and key risk factors.

BY KERRI WACHTER
Senior Writer

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 a number of 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 useable manner," said Dr. Sidney C. Smith Jr., chairman of the ACC/AHA writing group.

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

"These guidelines reinforce the fact 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, said Dr. Smith.

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 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



Maintenance of blood pressure at 140/90 mm Hg or less (or 130/80 mm Hg for diabetics) is the goal for patients with CHD.

have a left ventricular ejection fractions of 40% or less, and have either diabetes or heart failure.

► **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 dis-

ease 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," said Dr. Smith. ■

Heart Symptoms Prior to MI Missed in Primary Care Settings

BY JANE NEFF ROLLINS
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LOS ANGELES — Nearly one in nine patients admitted with an acute MI was seen shortly before the MI in the primary care setting with symptoms suggestive of acute cardiac ischemia, Dr. Thomas D. Sequist reported at the annual meeting of the Society of General Internal Medicine.

"We know from our own experience in Boston that missed diagnosis of MI in this setting is a rising source of malpractice claims," said Dr. Sequist of Brigham and Women's Hospital.

The investigators identified 966 admissions for acute MI, of whom 106 (11%) had complained of symptoms typical of

potential heart disease at their last outpatient visit. During the outpatient visit prior to the MI, chest pain and dyspnea accounted for more than three-quarters of all chief complaints. Other complaints included thoracic or epigastric pain, dizziness, weakness, or nausea.

This population-based case-control study used billing claims to identify admissions for acute MI from 2000 to 2004 among patients with no prior history of coronary heart disease (CHD). The 318 control patients were matched to cases on chief complaint and date of outpatient visit, but had no diagnosis of MI within the next 30 days.

Compared with controls, cases were older and were more likely to be male and to have diabetes or dyslipidemia. Approx-

imately 50% of both cases and controls received an electrocardiogram (ECG). Not surprisingly, among those who had an ECG, the rates of normal results were much lower in cases than controls.

Despite having symptoms of possible CHD, few study participants in both groups received cardiac medications (aspirin, 11%; β -blockers, 7%). "There was a significant opportunity for more aggressive evaluation and treatment of these symptomatic patients," Dr. Sequist said.

The Framingham Risk Score (FRS) predicts risk for developing CHD using information about coronary risk factors readily available in the outpatient setting, and may be used with asymptomatic individuals. In contrast, both the Diamond

and Forrester Probability (DFP) and the Goldman Prediction Tool (GPT), which calculate risk scores that predict either CHD or MI, can only be used with individuals who have chest pain.

Cases had a nearly 20-fold greater likelihood of having a FRS greater than or equal to 10%, compared with controls (odds ratio, 19.5). Among patients whose FRS was greater than or equal to 10%, more than 30% were diagnosed with angina. Higher DFP and GPT scores were also associated with MI (odds ratio of 8.3 with a DFP score of 10% or more, and OR of 12.1 with a GPT greater than 7%). However, the FRS had the best sensitivity (85%) and specificity (75%) combination in those individuals at moderate risk. ■