

THE EFFECTIVE PHYSICIAN

Primary Prevention of Cardiovascular Disease

BY WILLIAM E. GOLDEN, M.D., AND ROBERT H. HOPKINS, M.D.

Background

Evidence supporting primary prevention of cardiovascular disease (CVD) has become more robust and nuanced. The American College of Cardiology and the American Heart Association in conjunction with several other medical professional societies recently published updated performance measures to guide quality improvement on this important health intervention.

Conclusions

CVD is responsible for more than one-third of all deaths in the United States and has been the leading cause of mortality in the country for the last century, with the exception of the 1918 influenza outbreak.

Primary prevention refers to interventions targeting the first occurrence of CVD. Global risk scores provide reliable estimations of high (more than 20%), intermediate (10%-20%), and low (less than 10%) risk for CVD events over the next 10 years and should be instrumental in decision making regarding initiation of medication for primary prevention.

The 1999-2002 National Health and Nutrition Examination Survey reported that only 63% of non-Hispanic whites with hypertension were aware they had it, that slightly fewer than 50% were receiving treatment, and that 30% had the condition under control.

While there is strong evidence that tight glucose control in type 1 diabetes reduces CVD risk, data regarding tight glucose control in type 2 diabetes are uncertain, if not contradictory.

There is strong support for aggressive management of blood pressure and cholesterol in type 2 diabetes. The measures panel elected to make diabetes a risk factor as opposed to a CVD equivalent.

Because of a lack of evidence supporting antioxidants, folic acid, coenzyme Q, and fish oil as effective methods of primary prophylaxis, they were not included in the performance measures for primary CVD prevention.

Implementation

Assessment of risk factors should start at age 18 and be revisited, at a minimum, at 5-year intervals.

A global risk score should be calculated and recorded at least every 5 years for men after age 35 and women after age 45. Although the Framingham risk score (<http://hp2010.nhlbin.net/atp/iii/calculator.asp>) is preferred, alternatives include the offerings from the National Cholesterol Education Program, the European Systematic Coronary Risk Evaluation (SCORE) for fatal CVD risk, and the Reynolds Risk Score for women's risk for CVD events.

Although the Adult Treatment Panel III recommends screening at age 20, this report supports the older ages (35 for men and 45 for women) put forth by the U.S. Preventive Services Task Force for performance measures targeting fasting lipid screening in adults. Evidence remains uncertain as to the benefit of screening fasting lipid levels in younger patients.

For women with a risk score under 10%, target LDL cholesterol is 190 mg/dL. For men with low risk scores, LDL should be be-

low 160 mg/dL. Patients with intermediate risk scores should have target LDL cholesterol levels of 130 mg/dL. High-risk patients (risk greater than 20%) should have an LDL treatment target of 100 mg/dL. In addition, high-risk patients without active CVD should have documented recommendations to initiate daily aspirin prophylaxis.

Screening for hypertension should begin at age 18. Patients with blood pressure of 120/80 mm Hg or lower should have their blood pressure recorded every 2 years, and patients with prehypertension should have annual assessments.

The panel recommends as an accountability performance measure that all patients have a blood pressure below 140/90 mm Hg or be prescribed at least two antihypertensive medications. Higher-risk patients (those with diabetes or renal failure) should have lower treatment targets.

Patients should have a documented review of dietary habits and exercise routine every 2 years. Dietary advice should include at least one of the following items: salt intake, low-fat diet, dietician referral, weight reduction, alcohol intake, or avoidance of concentrated carbohydrates.

Target exercise goals should stress 30 minutes of moderate intensity activity 5 days a week or 20 minutes of vigorous activity 3 days a week.

All patients should be questioned about smoking habits at least every 2 years, and patients who are active smokers should receive documented interventions such as advice, referral for counseling, or pharmacologic support.

Body weight and body mass index (BMI) should be recorded at least every 2 years. For patients who weigh more than 350 pounds, it is acceptable to record BMI as over 40 kg/m². All patients should have documented counseling about achievement or maintenance of appropriate weight and BMI at least every 2 years.

Reference

Redberg R.F., et al. ACCF/AHA 2009 performance measures for primary prevention of cardiovascular disease in adults: A report of the American College of Cardiology Foundation/American Heart Association Task Force on Performance Measures. *J. Am. Coll. Cardiol.* 2009;54:1364-405.



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Program Aids CVD Communication

BY HEIDI SPLETE

WASHINGTON — Primary care physicians who have struggled to get a cardiovascular disease patient to adhere to a drug regimen may find practical advice in an online educational program aimed at improving physician/patient communication.

What doctors see as patient noncompliance may actually be the doctor's inability to effectively communicate, especially across cultural barriers, said Dr. Richard H. Carmona, chair of the advisory board for the Time to Talk CARDIO program. He was U.S. Surgeon General in 2002-2006 and is now president of the Canyon Ranch Institute in Tucson, Ariz.

On the program's Web site, physicians answer questions about communication with their most vexing patient. Based on their replies, the program identifies six communication skills that the individual physician needs to work on, along with a selection of video vignettes that demonstrate best practices for each specific skill.

The program is being tested at several sites across the United States, and a national rollout is planned for February 2010, according to a written statement.

The Web site provides a worksheet for patients and providers to set goals, which has motivated patients to become more involved in improving their heart health, said Dr. Jason Dees, a family physician in New Albany, Miss. "This is not a big, time-consuming training tool," Dr. Dees added.

To learn more about the Time to Talk CARDIO program, go to www.timetotalkcardio.com.

Time to Talk CARDIO is supported in part by Merck/Schering-Plough Pharmaceuticals, and it was developed in partnership with the American Academy of Family Physicians, Canyon Ranch Institute, and RIASWorks, a company that supports the development of medical communication tools. ■

Go to www.youtube.com/InternalMedicineNews (search for 69312).

Intervention Improved Outpatient HF Care

BY DIANA MAHONEY

BOSTON — A performance-improvement intervention for the outpatient care of heart failure patients increased the use of evidence-based treatment in the prospective IMPROVE-HF (Registry to Improve the Use of Evidence-Based Heart Failure Therapies in the Outpatient Setting) study.

The investigators reviewed the charts of 35,000 HF outpatients treated at the study's 167 sites at baseline, then 12 and 24 months after implementation of a practice-specific process-of-care initiative, Dr. Clyde W. Yancy said at the annual meeting of the Heart Failure Society of America. A baseline assessment suggested suboptimal conformity with established heart failure (HF) performance measures for all of the practices, based on class I recommendations of the national HF guidelines (*Circulation* 2005;112:e154-235). The use of evidence-based, guideline-recommended therapies varied significantly, especially for women and the elderly.

Large variations were observed in the use of anticoagulation for

atrial fibrillation, implantable cardioverter defibrillators (ICDs), cardiac resynchronization therapy (CRT), and HF education. In all, only 27% of patients with HF at baseline were receiving treatments for which they were eligible, based on the guidelines, said Dr. Yancy of Baylor University Medical Center at Dallas.

But 24 months after the start of the performance improvement program, which included prompts, pocket cards, checklists, and decision-support algorithms, significantly more patients received treatments for which they were eligible, across nearly all measures. The largest changes were observed in the use of ICDs, aldosterone receptor antagonists, and CRT, from 39%, 35%, and 50% of eligible patients, respectively, to 68%, 60%, and 56%. The use of ACE inhibitors or angiotensin receptor blockers and beta-blockers, and the provision of HF education, also improved significantly, Dr. Yancy reported.

Dr. Yancy reported having no financial disclosures relative to his presentation. The IMPROVE-HF study was supported by Medtronic Inc. ■