

Cardiac Rehab Services Are Still Underutilized

ARTICLES BY ROBERT FINN
San Francisco Bureau

Several medical societies have jointly issued new performance measures for cardiac rehabilitation that are expected to greatly increase the number of patients referred to rehabilitation services. The measures also promote a safe exercise environment for those patients, but stop short of holding cardiac rehabilitation centers responsible for meeting individual treatment goals.

Published simultaneously in the Oct. 2 issues of *Circulation* and the *Journal of the American College of Cardiology*, the performance measures were developed by the American College of Cardiology, the Association of Cardiovascular and Pulmonary Rehabilitation, and the American Heart Association. The measures were endorsed by nine other medical societies, including the American College of Chest

Physicians, the American College of Sports Medicine, and the American Thoracic Society.

"Research continues to show that cardiac rehabilitation services, although very effective and helpful for people with cardiac disease, are still being vastly underutilized," Dr. Randal J. Thomas said in an interview. Dr. Thomas, director of the Cardiovascular Health Clinic at the Mayo Clinic in Rochester, Minn., chaired the committee that wrote the new cardiac rehabilitation (CR) performance measures.

Despite the fact that CR after cardiac illness has been shown to reduce a patient's mortality risk by 20%-25%, and also to improve physical strength and endurance by 20%-50%, less than 30% of eligible patients participate. There are many reasons for this, but foremost among the correctable causes is that many patients are simply never referred to CR.

Dr. Thomas' committee developed two

sets of performance measures after extensive discussion, a public comment period, and revisions. One set of measures is intended to improve the referral of eligible patients to CR, and the other is aimed at improving the services offered by CR programs.

In the first set of measures, the committee specified that all hospitalized patients with eligible conditions should be referred to outpatient CR prior to discharge. In addition, outpatients with a qualifying diagnosis during the prior year should also be referred to CR if they have not yet participated.

The qualifying diagnoses are myocardial infarction, acute coronary syndrome, coronary artery bypass graft surgery, percutaneous coronary artery intervention, cardiac valve surgery, cardiac transplantation, and chronic stable angina. In addition, patients with chronic heart failure and peripheral arterial disease should be considered for CR.

In the second set of measures, the committee specified that all CR programs have a physician medical director, a well-trained emergency response team, and equipment and supplies for emergency resuscitation in the exercise area. All patients should receive individualized assessment of and education about their modifiable cardiovascular risk factors. (See box.)

The committee chose not to hold CR programs responsible for attainment of treatment goals. Dr. Thomas said that while some committee members suggested that CR programs should demonstrate that their patients are achieving LDL-cholesterol levels below 100 mg/dL or 70 mg/dL (for example), ultimately

the committee conceded that this was not entirely under the programs' control. Some CR programs do take charge of their patients' prescriptions, but more commonly it's the patients' personal physicians who choose their regimens.

Dr. Thomas acknowledged that existing CR programs could not accommodate the huge influx of new patients that would result if the performance measures were implemented universally.

"We need to work together to establish new models that will help to provide the care necessary for everybody who's not getting the care," he said. "For example, does everybody need to come into a cardiac rehabilitation center to receive rehabilitation and preventive care? The answer is no. There are a lot of publications showing the benefits of a system where patients would largely carry out their rehabilitation efforts at home or in a local health club, but still under the direction of a nurse and a physician ... who will check on them periodically."

Dr. Thomas said that the insurance industry will have an important role to play if the performance measures are to be implemented. "There is an expectation and a hope, anyway, that the insurance carriers will see the value of some of the novel approaches to rehab and start reimbursing for those models of care, which they're not doing generally now. This is uncharted territory. But I would guess that within the next 3-5 years we'll see a large degree of implementation of these measures." ■

The full text of the performance measures is at www.acc.org/qualityandscience/clinical/pdfs/CardiacRehab_PM_sept20.pdf.

Risk Assessments Before Rehabilitation

According to the new performance measures, cardiac rehabilitation programs are expected to conduct thorough risk assessments for each patient.

This individualized risk assessment should include:

- ▶ Assessment of current and past tobacco use.
- ▶ Assessment of blood pressure control.
- ▶ Assessment of optimal lipid control.
- ▶ Assessment of the patient's physical

activity habits and exercise level.

- ▶ Assessment of weight management.
- ▶ Assessment of diabetes mellitus diagnosis or impaired fasting glucose.
- ▶ Assessment of the presence or absence of depression.
- ▶ Assessment of exercise capacity.
- ▶ Instruction on the importance of adherence to preventive medications.
- ▶ Communication with the patient's other health care providers.

Anemia Tied to Worse Acute Coronary Syndrome Outcomes

VIENNA — Anemia was a significant risk factor for worse outcomes in patients with acute coronary syndrome in a post hoc analysis of almost 14,000 patients enrolled in a recent trial.

Despite this evidence of anemia's risk, it's premature to conclude that treating anemia—either with blood transfusions or with erythropoietin—is the best way to reduce the risk, Dr. Roxana Mehran said at the annual congress of the European Society of Cardiology.

"We believe that anemia is another risk factor, like age or diabetes, but there may be confounders when you find anemia in ACS [acute coronary syndrome] patients, so it's hard to tease out. It's a very difficult analysis, and we don't feel that we have figured out the anemia problem," said Dr. Mehran, director of outcomes research at the center for interventional vascular therapy at Columbia University, New York.

"Transfusions may have their own bad karma [in ACS patients]; they may have an independent association with death and other adverse outcomes." And the results of the new analysis also provide no evidence to support treatment with erythropoietin to relieve anemia in ACS patients. "Any time you suggest treatment, you need to assess its risks and benefits in a

prospective, controlled trial," she said.

The effects of anemia in ACS were studied using data collected on 13,819 patients with either unstable angina or non-ST elevation myocardial infarction enrolled in the ACUITY (Acute Catheterization and Urgent Intervention Triage Strategy) trial. The primary end point of the study showed that benefit and risk from treatment with the antithrombotic drug bivalirudin (Angiomax) alone were similar to standard treatment with a heparin (either unfractionated heparin or low-molecular-weight heparin) plus a glycoprotein IIb/IIIa inhibitor, or to treatment with bivalirudin plus a GP IIb/IIIa inhibitor (*N. Engl. J. Med.* 2006;355:2203-16). More specifically, treatment with bivalirudin alone was linked with a similar rate of ischemic events but a significantly lower rate of major bleeding episodes than in the heparin plus GP IIb/IIIa group.

The trial was sponsored by the Medicines Co., which markets Angiomax. Dr. Mehran is a speaker for and had received honoraria from the Medicines Co.

Anemia information at baseline was available for about 94% of patients, including 10,839 without anemia and 2,200 with anemia. Anemia was defined by

World Health Organization criteria: Women were diagnosed if their hemoglobin level was less than 12 g/dL, and men had anemia if their hemoglobin level was less than 13 g/dL. The patients in the study with anemia had significantly higher levels of comorbidities, including diabetes, hypertension, and a history of myocardial infarction.

The primary end point in the ACUITY trial was a composite risk and benefit measure for the first 30 days after treatment that added the total number of deaths, myocardial infarctions, unplanned revascularization procedures, and major bleeding events. For the patients with anemia, the rate was 16.2%, compared with a 10.2% rate in the nonanemic patients, a statistically significant difference, Dr. Mehran said. Anemia was linked with significantly worse outcomes for each of these outcome measures, except for the rate of unplanned revascularization. (See box.)

The worse outcomes of patients with anemia were also seen uniformly, regardless of how the ACS patients were managed: with percutaneous coronary intervention (56%), coronary bypass surgery (11%), or medical management only (33%).

This analysis has the major limitation of

trying to determine which patients had anemia at baseline and which did not, amid a high incidence of bleeding and treatment with transfusions.

Despite a reliance on the WHO criteria, "defining anemia was extremely subjective" in these patients, Dr. Mehran said. ■

