NEW WEBSITE TEACHES DOCTORS HOW TO PREVENT DEATHS OF AT-RISK SURGICAL PATIENTS

In 1996, the American College of Cardiology and the American Heart Association declared a new protocol, or standard of care, for surgical patients with coronary artery disease, vascular disease, and risk factors for those diseases.

The protocol, called perioperative beta blockade, had been shown to reduce the chance of death in at-risk patients immediately before, during, and after surgery (perioperative means "around the time of surgery") by 50 to 90 percent, and costs a dollar per patient to implement. "Yet, today, in 2005, only 10 percent of physicians consistently prescribe it for their at-risk patients," says Arthur Wallace, MD, PhD, an attending anesthesiologist at the San Francisco VA Medical Center (SFVAMC). "The reason is simply a lack of clear information and education."

To fill that lack, Wallace has created a new website, www.betablockerprotocol.com, which offers a two-hour online course entitled "Beta Blocker and Clonidine Protocol." Wallace, who is also an associate professor of anesthesiology and perioperative care at the University of California, San Francisco (UCSF), conducted much of the original research demonstrating the efficacy of perioperative beta blockade, and lectures regularly on the topic to health care professionals around the United States. The course content is based largely on his lectures.

"There's a big demand for physicians to learn how to do this, it's clearly obvious that they should do it, but they don't quite know how to implement it," says Wallace. "And so this is a course that tells them which patients should get it, how and when it should be done, and how to implement a protocol."

The course, designed primarily for surgeons, anesthesiologists, cardiologists, nurse anesthetists, and other health care professionals, is free and can be taken for continuing medical education (CME) credit.

Perioperative beta blockade is recommended for patients with coronary artery disease, vascular disease, or at least two risk factors for coronary artery disease: age over 65, hypertension, cigarette smoking, diabetes, or cholesterol over 240. It calls for administration of one of two drugs—beta blocker or clonidine—beginning a week before cardiac or non-cardiac surgery and continuing for a week to a month after surgery. The two drugs lower the heart rate, thus lowering the heart muscle's demand for oxygen, which in turn helps prevent

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myocardial ischemia, or temporary interruption of oxygen to the heart muscle. About 40 percent of at-risk patients have an episode of myocardial ischemia during the week around the time of surgery, which in turn increases their chance of heart attack 10-fold and doubles the chance that the heart attack will be fatal.

"If you take people at risk, and you schedule them for surgery, five to 15 percent have ischemia the night before surgery, just thinking about the operation—even minor surgery," observes Wallace. "People simply find surgery scary and stressful. So you can either block the effect of stress hormones with beta blockers, or block the release of stress hormones with clonidine. Both lower your heart rate and lower your risk of perioperative mortality."

The site is designed for use by healthcare professionals outside the United States as well. "I'm getting a lot of calls from physicians overseas who want to learn the protocol," says Wallace. He plans versions in French, German, Chinese, and Russian.

Wallace invites feedback on the site from healthcare professionals. "The course is set up to help you implement the protocol. If you think something is missing, send me an email and I'll add it to the course." Wallace's email address is available through the www.betablockerprotocol.com site.

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