Hospitals boost response rates for timely angioplasties

As hospitals reduce their "door-to-balloon" times, heart attack mortality rates are falling.

By KEVIN B. O'REILLY — Posted July 29, 2010

American hospitals have made extensive improvements in delivering faster heart attack care in the last five years, and the death rate for heart attack patients is falling.

Those are the findings in a study in the July 20 Journal of the American College of Cardiology. Researchers found that 88% of patients with ST-segment elevation acute myocardial infarction received artery-clearing balloon angioplasties within 90 minutes of arriving at one of the 959 hospitals studied in 2009.

The "door-to-balloon" time should be 90 minutes or less, according to guidelines adopted in 2004 by the American College of Cardiology and the American Heart Assn. The ACC launched an initiative called the D2B Alliance to help hospitals better their performance by taking steps such as requiring their entire cath lab team to arrive within 20 minutes of being contacted. By 2007, 64% of patients with STEMI were getting angioplasties within the 90-minute time frame, and the figure improved to 75% by mid-2008.

The new study also reported that the risk-adjusted, in-hospital mortality for patients with STEMI dropped from 6.2% in January 2007 to 5.5% in June 2009 at a smaller group of 250 hospitals participating in a voluntary quality improvement registry. Mortality also declined for patients with non-ST-elevated heart attacks, from 4.3% to 3.9%.

The mortality drop represents "a slight trend, but it looks significant," said Matthew T. Roe, MD, lead author of the study and associate professor of medicine at Duke University Medical Center in Durham, N.C. "We're excited that we showed that, and we want to continue to demonstrate things like that."

Door-to-balloon times are "only one piece of the puzzle of how we take care of these patients," said Dr. Roe, a cardiologist. "Hospitals that are only looking at that measure have a myopic view of their care. We have to move past door-to-balloon times and have to look at other areas where we can improve."

For example, composite scores of so-called defect-free care -- in which patients receive each of the guideline-recommended medications or therapies -- improved from 50% in 2007 to 69% in 2009 for STEMI patients and rose from 58% to 66% for non-STEMI patients.

"These results are good, but we're not perfect yet," Dr. Roe said. "We've done a good job, but we can't rest on our laurels."