Triumph of common sense
Evidence-based cardiac guidelines work best: study

A new study appears to confirm the obvious: Using common sense in healthcare leads to better outcomes for patients. Or more specifically, using evidence-based guidelines while treating heart-failure patients results in lower 30-day mortality and readmission rates.

Results of the study, overseen by the University of Michigan and sponsored by the American College of Cardiology, highlight the fact that despite the existence of established procedures to improve heart-failure treatment, not all providers are using them.

But in order to get physicians to adopt the procedures used to improve outcomes, the traditional lone-doc approach will have to change, according to one expert.

“It's common sense that if you're measuring quality using treatments that have already been proven to reduce mortality and readmissions” that mortality and readmissions would decrease as a result of their use, said Todd Koelling, an associate professor of cardiovascular medicine at the University of Michigan at Ann Arbor. “There is a gap between what happens in practice and what we would envision as ideal care based on the (American College of Cardiology's evidence-based) guideline documents,” Koelling said. “The goal of our study was to see if a quality-improvement initiative could close that gap.”

The study, which involved 2,500 heart-failure patients, found that those treated at eight Flint, Mich.-area hospitals participating in a collaborative quality-improvement effort had lower mortality and readmission rates than those treated at six hospitals that didn't participate.

Between the first quarter of 2003 and the second quarter of 2004, 30-day readmission rates fell 22% at the eight participating hospitals, dropping to 21.7% from 26.2%, compared with a slight increase at nonparticipating hospitals. Also, 30-day mortality rates fell 7% at participating hospitals, dropping to 9.4% from 10.7% at participating hospitals, compared with an increase to 7% from 8.5% among the nonparticipants.

“The surprising thing is that the effect on the outcomes is clearly measurable,” said Koelling, who presented the findings Nov. 15 at the American Heart Association's annual Scientific Sessions meeting in Dallas. “The most significant finding was that quality-improvement instruments not only improved the measures we use to determine if patients are receiving quality care, but those improvements are associated with a reduction of death rates and reduction to readmission rates.”

Koelling noted that three of the six nonparticipating hospitals had initiated their own independent quality-improvement initiatives, but did not achieve the same level of success as those...
involved in the collaborative, which required hospital representatives to meet several times to share ideas on how to solve problems in implementing the tool kit strategies. There might be a clear advantage in hearing the stories of people with the same struggles as you have and how they’re overcoming them, Koelling said.

He also praised the hospitals that belong to the Greater Flint Health Coalition for initiating the study and for being so open in sharing information. Hospitals “usually don’t collaborate to improve each other’s quality,” Koelling said, adding that the study also demonstrated the benefits of using quality measures in general.

“You might assume that the care you’re getting is perfect, but the truth is that doctors are required to see many, many patients in a short time period,” he said. “What we’re showing is that when you put in (clinical) reminders and doctors know their quality is being measured, the quality improves.”

Participating hospitals used a tool kit of standard orders for the use of a variety of medicines; in-hospital counseling for exercise, diet and smoking cessation; and a patient-discharge contract which included diaries for recording weight and symptoms, a diet plan and a scheduled clinical appointment soon after discharge.

Michael O’Toole, an electrophysiologist and chief information officer for Midwest Heart Specialists, an independent medical practice based in Bolingbrook, Ill., agreed that there’s room for improvement. He said Koelling’s study highlighted how a change in thinking could improve outcomes and lower costs.

“It substantiates the importance of evidence-based medicine and how, when you follow the evidence, it results in better care,” O’Toole said. “It has to do with putting systems in place so that the right thing is done at the right time.”

And while this may appear to be merely following common sense, O’Toole said that a major reason evidence-based system approaches are not more common is because they require a fundamental change in the practice of medicine. He said that this involves changing from one physician relying on a “mental checklist” and being in charge of every aspect of a patient’s care, to a team approach where the physician is more of a manager who makes sure systems function correctly.

Paul Keckley, executive director of the Vanderbilt Center for Evidence-based Medicine in Nashville, said Koelling’s findings appear to be significant but added that he was withholding judgment until he sees a final report detailing the data and methodology that were used.

“Intuitively, it makes a lot of sense and the relative-risk reduction numbers are pretty impressive, but at what level did the intervention affect the outcome?” he asked. “This is very interesting data and it supports the notion that post-discharge counseling benefits patients—but how much?”

Koelling said a manuscript that will be submitted to medical journals for publication is in the works, but he acknowledged that the final report won’t be able to answer which intervention led to the most improvement in mortality and readmission rates. He said he believes it was the entire package that led to the improvements.

O’Toole, however, said it’s not too early for the study to have an impact. “The implication is clear: The money saved on readmissions could help pay for the systems that would prevent those readmissions,” O’Toole said. “It takes a shift in how we care for patients, and I think studies like this provide ammunition for paying for that shift.”