

North Carolina Among States Speeding Up Heart Attack Care

Sunday, November 04, 2007

Associated Press

ORLANDO, Fla. — In an ideal world, every heart attack would end like Willard "Ziggy" Hill's. Within 90 minutes of arriving at a small community hospital in North Carolina, he was having a blocked artery reopened at Duke University Medical Center 25 miles away.

"It was like being a car in a pit stop at NASCAR," he said. "I thought 'I am in really good hands.'"

Two years ago, he might not have been. North Carolina was a bad place to have a [heart attack](#), scoring below national norms of fast care. Now it may be one of the best.

The reason is the nation's most ambitious statewide project to redo how serious [heart](#) attacks are handled. Paramedics, doctors and 65 hospitals put aside powerful individual interests like money and control, and focused on giving faster care.

Why is this important? Drugs, devices and doctors do no good if they do not reach people quickly, before the heart suffers permanent damage.

[Heart attacks](#) happen when arteries are blocked, crimping a critical blood supply. The first choice of treatment is angioplasty, in which a tiny balloon is pushed into the vessel and inflated to flatten the clog.

However, many small hospitals lack specialized suites called catheterization labs needed for angioplasties. Instead, they sometimes give clot-dissolving drugs, which do not always work.

In the North Carolina project, 55 small hospitals agreed to send appropriate patients to 10 larger ones for angioplasty, even though it meant giving up thousands of dollars of revenue.

"If this is your Aunt Bess and she comes in to your emergency department and you [offer](#) her a level of care that's not the best, and you have to go to that funeral in that small community, that's what they think about — not cost," said Mayme Roettig, the nurse who coordinated the project.

Big hospitals also had room to improve, too, said Dr. Christopher Granger, the Duke cardiologist who led the project.

Statewide, "up to 40 percent who should get clot-busting drugs or angioplasty were not getting it, and when it was being given it was being given too slowly," he said.

He reported one-year results of the project Sunday at an American Heart Association meeting in Florida. They also were published online by the Journal of the [American Medical Association](#).

Researchers compared the care of more than 2,000 patients before and after the project and found:

—More patients got care at top-tier heart hospitals, and more quickly than similar patients did before the project began. Helicopter transfers rose, and more paramedics diagnosed heart attacks from EKGs done in ambulances.

—The number of patients receiving angioplasty rose, and the portion of eligible patients not receiving artery-opening procedures dropped.

—Every single measure of time improved. Examples: the average time it took a small hospital to evaluate and refer patients to a larger one dropped from two hours to 71 minutes; average transfer times plunged more than half an hour.

"They did a magnificent job," said Dr. Harlan Krumholz, a Yale University cardiologist who is leading a national campaign to speed up heart attack care.

"This is a great example of where people in a state got together and said 'Gee, if I were a patient, what's the kind of care that I would want, and how can we deliver that?'"

The stories from North Carolina are dramatic.

Paramedics like 26-year-old Joshua Codispoti in rural Person County made judgment calls previously left to cardiologists. Last spring, he did an EKG in an ambulance, diagnosed a heart attack in a healthy-looking man in his 30s, and called a hotline to summon a team of specialists and ready a \$2 million cath lab (Duke has eight) for angioplasty.

The team must be in the lab within 30 minutes, and the large hospitals must agree to take heart attack patients regardless of whether they have an open bed, said Duke cardiologist Dr. James Jollis.

Codispoti's patient was quickly evaluated at 50-bed Person Memorial Hospital and sent on to Duke. "I don't feel like we're giving up anything" by referring people for advanced care, said emergency room physician Dr. Kimberly Yarborough.

She hasn't given clot-dissolving drugs to a heart attack patient in nearly two years, since the project started.

Neighboring states also have benefited. Howard Campbell, 65, suffered a heart attack in May at his Lake Gaston home just across the Virginia-North Carolina state line.

"I was on my rec room floor having a heart attack at 1:30, and at 2:20 I was on a helicopter to Duke," he said.

When his wife arrived at 3:30, his procedure was already done.

"It was like we had rehearsed it — it just went so smoothly." Campbell said.

The project was funded by the hospitals, Blue Cross and Blue Shield of North Carolina, and the Doris Duke Foundation, which helped equip ambulances with EKGs. Doctors hope to expand it to the 35 state hospitals not currently participating.

Meanwhile, nearly 1,000 hospitals have joined a nationwide campaign that began a year ago to have hospitals give angioplasty treatment faster. Less than a third of patients get it within the recommended 90 minutes of arrival, and the risk of dying goes up 42 percent if care is delayed even half an hour longer.

"This has been a pretty spectacular effort," Krumholz said. "If you can get people in really quickly, you can almost abort the heart attack. It's such a different mindset than a few years ago when everybody said 'we're busy, we're doing the best we can.'"

Doctors will report first-year results early next year.