

Heart attack patients winning the race to angioplasty treatment

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Almost all heart attack patients who need the emergency artery-opening procedure known as angioplasty are receiving it within 90 minutes of being admitted to the hospital, a marked improvement from five years ago when most patients waited longer for the life-saving procedure, according to a report by Yale School of Medicine researchers and their colleagues.

Published in *Circulation: Journal of [American Heart Association](#)*, the five-year study is one of the most comprehensive analyses of angioplasty timeliness. The period from hospital arrival to angioplasty is called "door-to-balloon" time (D2B). For patients with ST-segment elevation [myocardial infarction](#) (STEMI), angioplasty should be performed as quickly as possible within the recommended 90 minutes from hospital arrival.

Lead author Harlan M. Krumholz, M.D., and his colleagues analyzed nationwide hospital data, collected by the Centers for Medicare & Medicaid Services, from more than 300,00 patients undergoing emergency [angioplasty](#) Jan. 1, 2005, to Sept. 30, 2010, including those not covered by [Medicare](#).

The study showed that 91 percent of patients were treated in a D2B time of less than 90 minutes in 2010, compared with 44 percent in 2005. Seventy percent of these patients were treated in less than 75 minutes in 2010, compared with 27 percent in 2005. The median D2B time declined from 96 to 64 minutes over the course of the study.

Krumholz credited the recent progress to concerted efforts nationwide among federal agencies, healthcare organizations and clinicians to improve [heart attack](#) care and outcome by accelerating treatment.

Krumholz, Elizabeth H. Bradley and others at Yale conducted NIH-funded studies that led to papers that served as the basis of the American College of Cardiology's national campaign, the D2B Alliance, to reduce D2B times. The D2B Alliance involved more than 1,000 U.S. hospitals and sought to support the adoption of the research findings.

"Many said that this level of improvement was impossible to achieve," Krumholz said. "This is an opportunity to reflect on our achievement and to recognize that, when we identify quality issues and problems in our healthcare system, we can work as a community to generate new knowledge, apply it to practice and improve care for patients."

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