

Fast release of data leads to rapid changes in clinical practice for drug-eluting stents

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E-mail, search engines, smart phones and other new technologies that can disseminate new medical information quickly led to an almost immediate change in clinical practice for drug-eluting stents, according to a study reported in *Circulation: Cardiovascular Quality and Outcomes*.

With the rapid-fire release of data, studies presented at medical conferences in the age of instant information can have an almost immediate impact on patient treatment, said Matthew T. Roe, M.D., M.H.S., lead author of the study and associate professor of medicine at Duke University Medical Center and at the Duke Clinical Research Institute in Durham N.C.

"We were interested in whether practice patterns changed after the presentation of these studies," he said. "That's indeed what we showed."

Researchers examined data from two large patient registries that showed from January - September 2006 (before the data were released) about 90 percent of patients with a type of heart attack known as a non-ST-elevation [myocardial infarction](#) (NSTEMI) who underwent coronary stent implantation received drug-eluting stents, which are coated with anti-proliferative drugs to prevent narrowings from recurring within the coronary arteries.

In September 2006, a number of studies were presented at the European Society of Cardiology Scientific Sessions that found drug-coated stents were associated with a higher risk of late stent thrombosis, or blood clots

in the artery treated with the stent, compared with bare metal stents which were not coated with anti-proliferative drugs. By the end of March 2007, the use of drug-eluting stents fell to 67 percent and usage continued to drop to 58 percent by the beginning of 2008, Roe said.

"There was a rapid change of practice patterns after these presentations in September 2006," he said. "To our knowledge, this was the most rapid change in practice patterns in cardiology. We presume it was because of a rapid uptake of information."

The swiftness in which practice patterns changed signaled that speedy distribution of information through media and scientific outlets may become the "predominant stimulus for changes in practice in the future," researchers said.

Researchers examined records of 54,662 patients with NSTEMI, which included 27,329 patients who had stents implanted. The information was gathered from two large registries: CRUSADE (Can Rapid risk stratification of Unstable angina patients Suppress ADverse outcomes with Early implementation of the ACC/AHA guidelines) during 2006, which transitioned into ACTION Registry-GWTG (Get With the Guidelines) beginning in January, 2007. Hospital or patient characteristics didn't change during the study, researchers said.

The study's results show the need for experts to put results in context, Roe said.

"This study demonstrates the dynamic shifts that are occurring in the distribution of medical information," said Clyde W. Yancy, M.D. president of the American Heart Association and medical director at Baylor Heart and Vascular Institute in Dallas, Texas. "The opportunity to widely share important findings that promptly impact practice is becoming a powerful tool to drive change. The requirements for prompt

but thorough peer review and nimble responsiveness to new data are evident. Managing this new health IT space will require focus, assessment and realignment."

Source: American Heart Association ([news](#) : [web](#))

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